HIGHWAY WORK PROPOSAL

Proposal Number: Ø 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	1003-10-83		Illinois State Line - Madison STH 11 - CTH O Temp Widening Southbound Lanes	IH 39
Rock	1005-10-73		Illinois State Line - Madison CTH O - Kennedy Road	IH 39
Rock	1005-10-82		Illinois State Line - Madison CTH O - Kennedy Road	IH 39

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, $ 440,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: February 9, 2016 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time Ocotober 14, 2016	
Assigned Disadvantaged Business Enterprise Goal 0 %	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

For Department Use Only

Type of Work Grading, base aggregate, HMA pavement, concrete pavement, Structures B-53-0065 and B-53-0085, culvert pipe, storm sewer, sanitary sewer, watermain, beam guard, concrete curb and gutter, permanent signing, pavement marking, traffic signals and ITS.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

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

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

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

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

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

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

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

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

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

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

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

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

Bidder

Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

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

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1003-10-83, Illinois State Line – Madison, STH 11 to CTH O, Temp Widening Southbound Lanes, IH 39; Project 1005-10-73, Illinois State Line – Madison, CTH O to Kennedy Road, IH 39; Project 1005-10-82, Illinois State Line – Madison, CTH O to Kennedy Road, IH 39, 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, 2016 Edition, as published by the department, the City of Janesville Standard Specifications for Public Works Construction, Current Edition, and these special provisions. In the event of a conflict with the City of Janesville Standard Specifications for Public Works Construction, Current Edition, the governing order of documents in standard spec 105.4 take precedence.

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.

2. Scope of Work.

The work under this contract shall consist of grading, base aggregate, HMA pavement, concrete pavement, Structures B-53-0065 and B-53-0085, culvert pipe, storm sewer, sanitary sewer, water main, concrete curb and gutter, permanent signing, pavement marking, traffic signals, ITS and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

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

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

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

The contract time for completion is based on an expedited work schedule and may require extraordinary forces and equipment. Included in this "Prosecution and Progress" special provision are interim and final completion dates. These dates indicate that work efforts

will possibly require multiple or concurrent controlling operations to occur at the same time. This information is included to assist the contractor and its subcontractors and shall not be interpreted as a demonstration of specified means and methods or work periods other than intermediate and completion dates.

The contractor is advised that there may be multiple mobilizations for such items as erosion control, traffic control, detours, signing items, temporary pavement markings and other incidental items related to the staging. The department will make no additional payment for said mobilizations.

Conform the schedule of operations to the construction staging as shown in the traffic control plans and as described herein unless modifications to the schedule are approved in writing by the engineer.

Northern Long-eared Bat (*Myotis septentrionalis*)
Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees and structures (bridges, culverts, buildings). Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act.

In order to avoid adverse impacts upon the NLEBs, no vegetation clearing and grubbing within the identified clearing and grubbing limits will be allowed from June 1 to July 31, both dates inclusive.

If the required clearing and removal is not completed by May 31, the department will suspend all clearing and associated work directly impacted by clearing. The department will issue a notice to proceed with clearing and associated work directly impacted by clearing after consulting with the United States Fish and Wildlife Service (USFWS).

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

A Schedule of Operations
Project 1003-10-83
The department anticipates that the schedule for each stage is as follows:

Stage 1 – Construct repairs of IH 39/90 southbound outside shoulder.

Stage 2 – Construct IH 39/90 southbound median pavement widening.

Stage 3 – Construct IH 39/90 southbound outside pavement widening.

Project 1005-10-73
The department anticipates that the schedule for each stage is as follows:

Stage 1 – Construct repairs of IH 39/90 southbound outside shoulder, construct IH 39/90 southbound on-ramp from STH 26, construct IH 39/90 northbound on and off – ramps from/to STH 26, construct traffic signals, remove existing IH 39/90 on-ramps loops at STH 26, construct concrete barrier temporary precast left in place.

Stage 2 – Construct IH 39/90 southbound median pavement widening, construct structure widening of B-53-65 and B-53-85, and construct partial existing abutment repairs of B-53-65 and B-53-85.

Stage 3 – Construct IH 39/90 southbound outside pavement widening.

Stage 4 – Construct partial existing abutment repairs of B-53-65 and B-53-85.

Project 1005-10-82
The department anticipates that the schedule for each stage is as follows:

Stage 1 – Relocate water main through USH 14 interchange, relocate sanitary sewer and water main through STH 26 interchange.

Do not switch traffic over to the next construction stage until all signing, pavement marking, reflectors, tubular marker posts, barricades, and traffic control drums for the stage are in place, temporary signals for the stage are in place and operational, and conflicting pavement markings and signs are removed as shown in the traffic control and temporary signal plans and as directed by the engineer. Allowable exceptions to this specification are intersection areas where traffic control cannot be placed until the switch is made.

B 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 a week for Projects 1003-10-83, 1005-10-73, and 1005-10-82. 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 week(s)' operations. Include begin and end dates of specific prime and subcontractor work operations including lane closures and traffic switches. Invite utilities, City of Janesville, City of Janesville Transit, Town of La Prairie, Town of Harmony, and Rock County Sheriff representatives to attend the progress meetings. Agenda items at the meeting will include review of the contractor's schedule and subcontractors' 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.

Based on the progress meeting, if the engineer requests a new revised schedule, submit it within seven calendar days. Failure to submit a new schedule within seven days shall result in the engineer holding pay requests until received.

USH 14 is a known alternate route for IH 39/90. Develop a contingency plan in the event that an incident occurs on IH 39/90 that requires the use of USH 14 as the alternate route. Coordinate this plan with the engineer.

C Work Restrictions

Project 1003-10-83

Do not close traffic lanes or shoulders on IH 39/90 outside the allowed time periods specified in the Lane Fee Rental Fee Assessment and Traffic articles of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Project 1005-10-73

Do not close traffic lanes or shoulders on IH 39/90, USH 14, or STH 26 outside the allowed time periods specified in the Lane Fee Rental Assessment and Traffic articles of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

Rolling stop closures will be allowed on IH 39/90 for the sign structure removals located at 768+65'TWSB' and 974+20'TWSB'. The rolling stop closures will occur in 15 minute increments and can continue until the removal of the overhead sign structures are completed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

The IH 39/90 southbound on and off-ramps at STH 11/Racine Street will be allowed to be closed for two nighttime operations respectively for removing asphaltic surface and paving operations at the gore locations in Stage 3. Do not re-open the on and off-ramps until all signs, barrels, barricades, and traffic control devices required to close the on and off-ramps are covered, moved, or removed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

The IH 39/90 southbound on and off-ramps at USH 14 will be allowed to be closed for two nighttime operations respectively for removing asphaltic surface and paving operations at the gore locations in Stage 3. Do not re-open the on and off-ramps until all signs, barrels, barricades, and traffic control devices required to close the on and off-ramps are covered, moved, or removed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

The IH 39/90 southbound on and off-ramps at STH 26 will be allowed to be closed for two nighttime operations respectively for removing asphaltic surface and paving operations at the gore locations in Stage 3. Do not re-open the on and off-ramps until all signs, barrels, barricades, and traffic control devices required to close the on and off-ramps are covered, moved, or removed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

USH 14 will be allowed to be closed for two nighttime operations for the removal of the existing parapet of structure B-53-65. Do not reopen USH 14 until all debris and equipment are removed from the traveled way of USH 14 and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open USH 14 until all signs, barrels, barricades, and traffic control devices required to close USH 14 are covered, moved, or removed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

USH 14 will be allowed to be closed for two nighttime operations for the placement of girders for the widening of Structure B-53-65. Do not reopen USH 14 until all debris and equipment are removed from the traveled way of USH 14 and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open USH 14 until all signs, barrels, barricades, and traffic control devices required to close USH 14 are covered, moved, or removed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

STH 26 will be allowed to be closed for two nighttime operations for the removal of the existing parapet of Structure B-53-85. Do not reopen STH 26 until all debris and equipment are removed from the traveled way of STH 26 and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open STH 26 until all signs, barrels, barricades, and traffic control devices required to close STH 26 are covered, moved, or removed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

STH 26 will be allowed to be closed for two nighttime operations for the placement of girders for the widening of Structure B-53-85. Do not reopen STH 26 until all debris and equipment are removed from the traveled way of STH 26 and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open STH 26 until all signs, barrels, barricades, and traffic control devices required to close STH 26 are covered, moved, or removed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

Simultaneous closures of USH 14 and STH 26 are not allowed.

Closures of on and off-ramps at the STH 26 interchange with IH 39/90 will not be allowed while any on and off-ramps are closed at the USH 14 interchange with IH 39/90.

Closures of on and off-ramps at the USH 14 interchange with IH 39/90 will not be allowed while any on and off-ramps are closed at the STH 26 interchange with IH 39/90.

Closures of on and off-ramps at the USH 14 interchange with IH 39/90 will not be allowed while any on and off-ramps are closed at the STH 11/Racine Street interchange with IH 39/90.

Closures of on and off-ramps at the STH 11/Racine Street interchange with IH 39/90 will not be allowed while any on and off-ramps are closed at the USH 14 interchange with IH 39/90.

Construction activities during Stage 1D shall be restricted to STH 26 Off-Peak hours. Access to and from the workzone during Stage 1D is restricted to STH 26 only. The crossing of STH 26 directly from the workzone during Stage 1D will not be allowed.

Project 1005-10-82

Do not close traffic lanes or shoulders on USH 14 or STH 26 outside the allowed time periods specified in the Lane Fee Rental Assessment and Traffic articles of these special provisions. Assessments per the Lane Rental Fee Assessment article will be charged for lane closures outside the allowed time periods.

USH 14 westbound will be allowed to be closed for one nighttime operation for the roadway crossing of the relocated water main. Do not reopen USH 14 westbound until all debris and equipment are removed from the traveled way of USH 14 westbound and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open USH 14 westbound until all signs, barrels, barricades, and traffic control devices required to close USH 14 westbound are covered, moved, or removed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

STH 26 southbound will be allowed to be closed for two nighttime operations for the roadway crossings of the relocated water main. Do not reopen STH 26 southbound until all debris and equipment are removed from the traveled way of STH 26 southbound and its clear zone as defined in the Traffic Article of these special provisions. Do not re-open STH 26 southbound until all signs, barrels, barricades, and traffic control devices required to close STH 26 southbound are covered, moved, or removed. See the Lane Rental Fee Assessment article of these special provisions for allowed time periods.

Simultaneous closures of USH 14 westbound and STH 26 southbound are not allowed.

D Other Electrical Work Requirements

Project 1005-10-73

Stage the construction operations to ensure that the northbound and southbound on ramps from STH 26 to IH 39/90 do not reopen to traffic prior to Stage 1D without traffic signals being operational. Perform signal adjustments and bagging as required at the northbound IH 39/90 ramp to operate the traffic signal prior to the off ramp opening to traffic.

Install diversion trigger system equipment with allowance for programming, testing and operating the system over a minimum of four weeks prior to project completion deadlines.

Stage the construction operations to ensure that CCTV-53-0024 (IH 39/90 at USH 14 Interchange) is not down for more than five consecutive days.

CCTV cameras shall be fully operational with the ability to access data remotely at the following locations prior to September 15, 2016:

IH 39/90 at USH 14 Interchange (CCTV-53-0024)

Microwave detectors shall be fully operational with the ability to access data remotely at the following locations prior to September 15, 2016:

IH 39/90 at USH 14 Interchange (SDS-53-0024)

E Interim and Final Completion of Work

No lanes on IH 39/90, USH 14, or STH 26 shall be closed prior to or after the specified times provided in the Lane Rental Fee Assessment article of these special provisions. If the contractor closes lanes of traffic prior to or fails to open lanes of traffic by the specified times, then a reduction based upon the Lane Rental Fee Assessment article of these special provisions will be assessed to the contractor.

Project 1005-10-73

If the contractor fails to complete all work necessary to reopen the IH 39/90 southbound on-ramp from STH 26 northbound as shown is Stage 1C within seven calendar days of beginning construction activities, the department will assess the contractor $1940 in interim liquidated damages for each calendar day the ramp remains closed beyond seven calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all work necessary to reopen the IH 39/90 northbound on-ramp from STH 26 southbound as shown is Stage 1C within seven calendar days of beginning construction activities, the department will assess the contractor $1940 in interim liquidated damages for each calendar day the ramp remains closed beyond seven calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all work necessary to reopen the IH 39/90 northbound off-ramp to STH 26 as shown is Stage 1E within ten (10) calendar days of beginning construction activities, the department will assess the contractor $1940 in interim liquidated damages for each calendar day the ramp remains closed beyond ten calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all work at the interchange of IH 39/90 and STH 26 as shown in Stage 1A – 1E within 60 calendar days of beginning construction activities, the department will assess the contractor $1940 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 60 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

Project 1005-10-82
If the contractor fails to complete all work at the interchange of IH 39/90 and USH 14 as shown in Stage 1 within nine calendar days of beginning construction activities, the department will assess the contractor $1940 in interim liquidated damages for each calendar day the contract work remains incomplete beyond nine calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If the contractor fails to complete all work at the interchange of IH 39/90 and STH 26 as shown in Stage 1B within nine calendar days of beginning construction activities, the department will assess the contractor $1940 in interim liquidated damages for each calendar day the contract work remains incomplete beyond nine calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

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. No Lane Rental Fee Assessments will be charged for closing lanes during the designated working hours. If a lane is closed outside of the designated working hours, the contractor will be subject to Lane Rental Fee Assessments. If a lane is obstructed at any time due to contractor operations, it is considered a closure.

If the contractor closes lanes of traffic prior to or fails to open lanes of traffic by the specified times, then a reduction based upon 15 minute increments will be assessed to the contractor. The total reductions assessed to the contractor will be cumulative based on an escalating scale of 15 minute increments and will be the summation of separate reductions for each traffic lane and each direction of traffic in violation

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

Project 1003-10-83
Project 1005-10-73

Permitted IH 39/90 Lane Closure Times	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 5:00 AM 9:00 PM – 11:59 PM
Friday	12:00 AM – 5:00 AM 10:00 PM – 11:59 PM
Saturday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM
Sunday	12:00 AM – 7:00 AM 10:00 PM – 11:59 PM

Project 1005-10-73
Project 1005-10-82

Permitted SB IH 39/90 On and Off-Ramp Closure Times	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 5:00 AM 9:00 PM – 11:59 PM
Friday	12:00 AM – 5:00 AM 10:00 PM – 11:59 PM
Saturday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM
Sunday	12:00 AM – 7:00 AM 10:00 PM – 11:59 PM

Permitted IH 39/90 Rolling Stop Closure Times	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 5:00 AM 11:00 PM – 11:59 PM

Permitted USH 14 Lane Closure Times	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 10:00 AM 8:00 PM – 11:59 PM

Permitted USH 14 Full Closure Times	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 6:00 AM 10:00 PM – 11:59 PM
Friday	12:00 AM – 6:00 AM
Sunday	10:00 PM – 11:59 PM

Permitted STH 26 Lane Closure Times	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM

Permitted STH 26 Full Closure Times	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 5:00 AM 11:00 PM – 11:59 PM
Friday	12:00 AM – 5:00 AM
Sunday	11:00 PM – 11:59 PM

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:

$2,500 per lane per 15 minutes

The total reduction from monies due to the contractor shall be the summation of the separate reductions for each work restriction violation.

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.

5. Traffic.

A 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 further 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 this Traffic article.

Unless detailed in the plans, do not begin or continue any work that closes traffic lanes outside the allowed time periods specified in 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 pre-construction conference.

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

IH 39/90, USH 14, and STH 26 will remain open to through traffic at all times for the duration of this project except where noted below and in the Prosecution and Progress and Lane Rental Fee Assessment articles of these special provisions.

B Traffic Operations During All Stages

- § Maintain two lanes of traffic in each direction at all times on IH 39/90*.
- § Maintain the existing number of lanes of traffic in each direction at all times on STH 26 and USH 14**.
- § Maintain traffic on ramps at all times**.
- § Maintain left turn bays at intersections as shown on the plans**.
- § Maintain mainline traffic on IH 39/90, USH 14 and STH 26 on a paved concrete or hot mix asphalt surface at all times.
- § Maintain a minimum lane width of 12-feet on IH 39/90 (16-foot minimum clear width when restricted to one lane), ramps, USH 14, and STH 26.

  * Lane, shoulder, and rolling stop closures allowed as specified in the Lane, Shoulder, and Rolling Stop Closure sections and Lane Rental Fee Assessment articles of these special provisions.
  **Lane, shoulder, and roadway/ramp closures allowed as specified in the Lane, Shoulder, Roadway, and Ramp Closure sections and Lane Rental Fee Assessment articles of these special provisions.

C Traffic Operations

<u>Project 1003-10-83</u>

- · Stage 1
  - IH 39/90 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure sections.

- · Stage 2
  - IH 39/90 southbound traffic will shift to utilize the repaired outside shoulder constructed in Stage 1. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure sections.

- · Stage 3
  - IH 39/90 southbound traffic will shift to utilize the widened inside shoulder constructed in Stage 2. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure sections.

<u>Project 1005-10-73</u>

- · Stage 1 and 1A – 1E
  - IH 39/90 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closure sections.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the STH 11/Racine Street interchange with IH 39/90.

- Traffic will be maintained on all existing lanes along on and off-ramps at the USH 14 interchange with IH 39/90.
- Traffic will be maintained on all existing lanes along on and off-ramps at the STH 26 interchange with IH 39/90 except as specified in the Lane, Shoulder, Roadway, and Ramp Closure sections. Traffic will be switched from the existing northbound and southbound on ramps to the new northbound and southbound on ramps at the completion of Stage 1C. Traffic will be switched from the existing northbound off ramp to the new northbound off ramp at the completion of Stage 1E.
- USH 14 traffic will be maintained on all existing lanes.
- STH 26 traffic will be maintained on all existing lanes except as specified in the Lane and Shoulder Closures sections.

· Stage 2
  - IH 39/90 southbound traffic will shift to utilize the repaired outside shoulder constructed in Stage 1. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure sections.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the STH 11/Racine Street interchange with IH 39/90.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the USH 14 interchange with IH 39/90.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the STH 26 interchange with IH 39/90.
  - USH 14 traffic will be maintained on all existing lanes except as specified in the Lane, Shoulder, and Roadway Closure sections.
  - STH 26 traffic will be maintained on all existing lanes except as specified in the Lane, Shoulder, and Roadway Closure sections.

· Stage 3
  - IH 39/90 southbound traffic will shift to utilize the widened inside shoulder constructed in Stage 2. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure sections.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the STH 11/Racine Street interchange with IH 39/90 except as specified in the Roadway Closure section.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the USH 14 interchange with IH 39/90 except as specified in the Roadway Closure section.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the STH 26 interchange with IH 39/90 except as specified in the Roadway Closure section.
  - USH 14 traffic will be maintained on all existing lanes.
  - STH 26 traffic will be maintained on all existing lanes.

- Stage 4A and 4B
  - IH 39/90 southbound traffic will shift to utilize the widened inside shoulder constructed in Stage 2. Two lanes of traffic will be maintained in the northbound and southbound direction except as specified in the Lane and Shoulder Closure sections.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the STH 11/Racine Street interchange with IH 39/90.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the USH 14 interchange with IH 39/90.
  - Traffic will be maintained on all existing lanes along on and off-ramps at the STH 26 interchange with IH 39/90.
  - USH 14 traffic will be maintained on all existing lanes.
  - STH 26 traffic will be maintained on all existing lanes.

Project 1005-10-82

- Stage 1
  - Traffic will be maintained on all existing lanes along on and off-ramps at the USH 14 interchange with IH 39/90 except as specified in the Lane and Shoulder Closure sections.
  - USH 14 traffic will be maintained on all existing lanes except as specified in the Lane, Shoulder, and Roadway Closure sections.
- Stage 1A
  - Traffic will be maintained on all existing lanes along on and off-ramps at the STH 26 interchange with IH 39/90.
  - STH 26 traffic will be maintained on all existing lanes except as specified in the Lane, Shoulder, and Roadway Closure sections.
- Stage 1B
  - Traffic will be maintained on all existing lanes along on and off-ramps at the STH 26 interchange with IH 39/90.
  - STH 26 traffic will be maintained on all existing lanes except as specified in the Lane, Shoulder, and Roadway Closure sections.
  - The STH 26 southbound loop ramp to southbound IH 39/90 will be closed for the duration of Stage 1B work.

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

Do not switch traffic over to the next construction stage until all temporary barrier, signing, pavement marking, reflectors, tubular marker posts, and traffic control drums for the stage are in place, temporary signals for the stage are in place and operational, and conflicting pavement markings and signs are removed as shown in the traffic control and temporary signal plans and as directed by the engineer. Allowable exceptions to this specification are at intersection areas where traffic control cannot be completed until after the switch is made.

Use drums and barricades to direct local vehicular and pedestrian traffic in the work zone and to protect and delineate hazards such as open excavations, abrupt drop-offs, and exposed manholes, inlets, hydrants, etc. The use of such devices shall be incidental to the operation which creates the hazard.

Place roadway signing and roadway temporary pavement marking 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.

Do not deliver or store materials and equipment within open travel lanes or open side roads during any stage of construction. Temporary lane closures and/or halting of traffic within open roadways and pedestrian paths require flaggers and will not be permitted during Peak Travel Periods.

Conduct operations in a manner that will cause the least interference to traffic and pedestrian movements. Maintain vehicle and pedestrian access at all times to buildings within the limits of construction. Access to residential parcels may be restricted for up to one calendar day in order to construct concrete pavement repair in front of residential access points. Notify property owners at least two working days prior to closing their access point. Maintaining property access is incidental to the Traffic Control Surveillance and Maintenance (Project) bid item.

Do not at any time conduct construction operations in the median area and adjacent outside area of IH 39/90 at the same time without the permission of the engineer.

Obtain approval from the engineer for the location of any ingress or egress access points for construction vehicles during peak travel periods.

D Definitions

The following definition applies to all projects:

IH 39/90 Shoulder Closures	
Day of the Week	Hours
Monday-Saturday	12:00 AM – 11:59 PM
Sunday	12:00 AM – 11:59 PM 5:59 PM – 11:59 PM

Project 1003-10-83
Project 1005-10-73
The following definition applies to these projects:

IH 39/90 Nighttime Hours	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 5:00 AM 9:00 PM – 11:59 PM
Friday	12:00 AM – 5:00 AM 10:00 PM – 11:59 PM
Saturday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM
Sunday	12:00 AM – 7:00 AM 10:00 PM – 11:59 PM

Project 1005-10-73
Project 1005-10-82
The following definitions apply to these projects:

southbound IH 39/90 On and Off-Ramp Nighttime	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 5:00 AM 9:00 PM – 11:59 PM
Friday	12:00 AM – 5:00 AM 10:00 PM – 11:59 PM
Saturday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM
Sunday	12:00 AM – 7:00 AM 10:00 PM – 11:59 PM

IH 39/90 Rolling Stop Closures	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 5:00 AM 11:00 PM – 11:59 PM

USH 14 Off-Peak	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 10:00 AM 8:00 PM – 11:59 PM

USH 14 Nighttime	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 6:00 AM 10:00 PM – 11:59 PM
Friday	12:00 AM – 6:00 AM
Sunday	10:00 PM – 11:59 PM

STH 26 Off-Peak	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 7:00 AM 9:00 PM – 11:59 PM

STH 26 Nighttime	
Day of the Week	Hours
Monday - Thursday	12:00 AM – 5:00 AM 11:00 PM – 11:59 PM
Friday	12:00 AM – 5:00 AM
Sunday	11:00 PM – 11:59 PM

USH 14 and STH 26 Shoulder Closures	
Day of the Week	Hours
Monday - Sunday	12:00 AM – 11:59 PM

E Lane and Shoulder Closures

Single lane closures on IH 39/90, USH 14, and STH 26 may be permitted during nighttime and off-peak hours as defined in the Lane Rental Fee Assessment article of these special provisions. Shoulder closures on IH 39/90, USH 14, and STH 26, may be permitted during the hours listed in the Definitions of this article of these special provisions. During the times when one lane is allowed to be closed, a minimum clear width of 16 feet, including the adjacent shoulder, shall be maintained at all times. Times listed for lane and shoulder closures include setup and breakdown of any equipment and traffic control devices.

Request approval from the engineer for all lane closures according to the requirements of the subsection titled "Wisconsin Lane Closure System Advanced Notification" of this article. Include justification for the lane closure and the anticipated duration in the request. A request does not constitute approval. Terminate single lane closures at the beginning of peak travel periods. Failure to obtain approval or reopen closed lanes at the required time shall be subject to penalties specified under the Lane Rental Fee Assessment and Prosecution and Progress articles of these special provisions.

Maintain a two mile minimum spacing between simultaneous lane closures. The two mile spacing is measured from the end of the first lane closure to beginning of taper for the next lane closure.

Shoulders may be closed if required by the work operation, but the right and left shoulder may not be closed in the same area at the same time.

Provide arrow boards for use during all single lane closures according to the MUTCD. Arrow boards for single lane closures will be paid for under the item Traffic Control Arrow Boards for each day with a single lane closure where an arrow board is in use.

F Roadway, Ramp, and Rolling Stop Closures

Maintain full access as shown in the Construction Staging section of the plans except those defined in the Prosecution and Progress article of these special provisions.

Contractor operations shall not require state patrol cars to stop IH 39 traffic for more than 15 minutes during rolling stop closures. The necessary flag persons, advanced signing and law enforcement personnel are required to be on site prior to and during this operation. Make arrangements for implementing the rolling stops and closures on IH 39 through Jeff Gustafson at the Southwest Region Madison Office at (608) 516-6400, with the Southwest Region Office of the Wisconsin State Patrol, the Rock County Sheriff's Department, and the Dane County Sheriff's Department at least 10 days prior to any stoppage.

Failure to reopen the roadway at the required times shall be subject to penalties specified under the Prosecution and Progress and Lane Rental Fee Assessment articles of these special provisions.

Place Traffic Control Signs Portable Changeable Message for all lane and roadway closures as shown on the plans at least seven days prior to the lane or roadway closure. Install all signing and devices for detour routes. Obtain approval from the department for all messages for the Traffic Control Signs Portable Changeable Message. The engineer shall contact Jeff Gustafson at the Southwest Region Madison Office, (608) 516-6400. All lane closures are subject to the approval of the Region traffic engineer.

Project 1005-10-73

The contractor shall have a superintendant or representative present during all hours that nighttime closures of the southbound on and off-ramps at the STH 11/Racine Street interchange with IH 39/90 occur. The off-peak closures are specified in this article. The superintendant or representative shall monitor the work activities to ensure that emergency vehicles are able to access the southbound on and off-ramps.

Roadway and ramp closure detours shall not be simultaneously placed such that they conflict with other detours.

G Local Access to Project

Maintain local traffic access during the construction of USH 14 and STH 26. Stage construction activities as required to maintain local traffic access.

Construct and maintain a local traffic access route on any section of roadway that will carry only local traffic conforming to the following criteria:

- Number of Lanes: One lane in each direction
- Lane Width: Minimum of 10 foot width OR one lane roadway with flagging
- Driving Surface: Acceptable driving surfaces include base aggregate dense, asphaltic surface temporary, HMA pavement, concrete pavement and milled surfaces.

H Property Access

Maintain access to properties along the project for local residents, businesses, and emergency vehicles. Access to all driveways and parking lots where alternative access is not available shall remain open at all times, except when it is absolutely necessary to close them for underground construction. Concrete curb and gutter, concrete driveway, and concrete sidewalk construction shall be staged to maintain driveway access. Keep business entrances open by partial driveway construction or by closing only one access at a time for properties with multiple driveways. Construct temporary commercial entrances including a crushed aggregate surface within 24 hours of removal. Combine temporary commercial entrances wherever practical to minimize the number of access locations.

Inform all adjacent property owners two working days prior to closing their access(es). Maintaining property access as described above is considered incidental to the Traffic Control Surveillance and Maintenance (Project) bid item.

I Advance Notification

Notify the, Town of La Prairie, Town of Harmony, Milton Fire Department, Milton Courier, Riteway Bus Service; City of Janesville Police Department, Fire Department and Director of Public Works, Rock County Sheriff's Department and Highway Commissioner, Wisconsin State Patrol through Jeff Gustafson of WisDOT Southwest Region at (608) 516-6400 or jeffrey.gustafson@dot.wi.gov, Milton Post Office, Janesville Post Office, Edgerton Reporter and Janesville Gazette 48 hours in advance of the start of work, closures of existing streets, and prior to traffic control changes. Notifications must be given by 4:00 PM on Thursday for any such work to be done on the following Monday.

Notify the City of Janesville School District along with Janesville Transit two weeks prior to construction. Also notify them one week prior to traffic switches and lane closures.

The department has the authority to disallow any requested closures or width restrictions. Advance notification as described above is considered incidental to the Traffic Control

J Clear Zone Working Restrictions

Do not leave any slopes steeper than 3:1 within the clear zone or any drop offs at the edge of the traveled way greater than 2 inches which are not protected by temporary precast barrier. The clear zone for IH 39/90 is 34 feet, USH 14 is 24 feet, and STH 26 is 24 feet.

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

Store materials or park equipment a minimum of 34-feet from the edge of the IH 39/90 traveled way, 24 feet from the edge of the USH 14 traveled way, and 24 feet from the edge of the STH 26 traveled way. Equipment may be parked in the median if it is protected by concrete barrier.

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

K Portable Changeable Message Signs – Message Prior Approval

After coordinating with department construction field staff, notify Jeff Gustafson at the Southwest Region Madison Office, (608) 516-6400, three weeks prior to deploying or changing a message on a PCMS to obtain approval of the proposed message. The department will review the proposed message and either approve the message or make necessary changes.

L Wisconsin Lane Closure System Advanced Notification

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

CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

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

Notify the engineer and WisDOT Statewide Traffic Operations Center (STOC) at (414) 227-2142 if there are any changes in the schedule, early completions, or cancellations of scheduled work.

The department has the authority to disallow any requested closures or width restrictions.

Coordinate with the engineer prior to any traffic detour to allow at least ten working days for the review of the detour route marker signing. The engineer shall contact the Southwest Region Madison Office Traffic Management Coordinator, Jeff Gustafson, (608) 516-6400.

M Portable Intelligent Transportation System

The department may be supplying and operating an intelligent transportation system during the construction of this project. The ITS system may consist of a portable video surveillance system and portable changeable message signs. These portable units may be parked inside and outside the construction limits to help assist law enforcement and the department with monitoring traffic conditions during the construction activities.

The department will coordinate the placement of these devices with the contractor. The contractor will be required to accommodate the placement of these devices within the project. The general accommodations include an area to park the devices out of the clear zone but still visible to traffic and access to and from the devices. Contact the Southwest Region Traffic Section, Graham Heitz at (608) 246-5362 for specific details regarding the intelligent transportation system.

N Protection of Structures
Bridge pier columns and sign bridge bases are to remain protected at all times throughout construction.

O Construction Access
All construction access is subject to approval of the engineer.

Access into a work zone directly from IH 39/90 will only be allowed from a closed lane during the IH 39/90 Permitted Lane Closure Times defined above and must follow the requirements of the Construction Detail titled ”Traffic Control Detail for Construction Access at Lane Closure” at locations approved by the engineer.

Exiting a work zone directly onto IH 39/90 will only be allowed from a closed lane during the IH 39/90 Permitted Lane Closure Times defined above and must follow the requirements of the Construction Detail titled ”Traffic Control Detail for Construction Access at Lane Closure” at locations approved by the engineer.

Construction traffic cannot travel counter-directional adjacent to IH 39/90 traffic except behind temporary concrete barrier.

U-Turns at existing maintenance crossovers or temporary crossovers between IH 39/90 northbound and southbound will be allowed only when lane closures are in place for inside northbound and southbound lanes.

Construction operations affecting the traveling public’s safety on IH 39/90 will not be allowed during snow and ice conditions, or any other adverse weather conditions, unless approved by the engineer.

Delivery of equipment to IH 39/90 requiring the use of a semi-tractor and trailer shall only occur during those hours identified as IH 39/90 Permitted Lane Closure Times.

P Enhanced Reference Location Signing
Maintain all existing enhanced reference location signing throughout the duration of the project as shown in the plans.

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying IH 39/90, USH 14, and STH 26 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Friday, May 27, 2016 to 6:00 AM Tuesday, May 31, 2016 for Memorial Day;
- From noon Friday, July 1, 2016 to 6:00 AM Tuesday, July 5, 2016 for Independence Day;
- From noon Friday, September 2, 2016 to 6:00 AM Tuesday, September 6, 2016 for Labor Day;
- From 12:00 AM Monday to 11:59 PM Monday, October 10, 2016 for Columbus Day.

107-005 (20050502)

7. Railroad Insurance and Coordination.

A Description
Comply with standard spec 107.17 for all work affecting Wisconsin and Southern Railroad (WSOR) and Union Pacific Railroad (UPR) and property and any existing tracks.

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

Notify evidence of the required coverage, and duration to Roger Schaalma at (608) 620-2044. Include the following information on the insurance document:

Project 1003-10-83
Route Name IH 39/90, Rock County
Crossing ID 392396L
Railroad Subdivision Fox Lake
Railroad Milepost 95.17

Project 1005-10-73
Route Name IH 39/90
Crossing ID 392370J
Railroad Subdivision Madison
Railroad Milepost 102.80

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

Project 1003-10-83
Route Name IH 39/90, Rock County
Crossing ID 177985L
Railroad Subdivision Harvard
Railroad Milepost 86.35

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

A.3 Names and addresses of Railroad Representatives for Consultation and Coordination
Contact Roger Schaalma, Superintendent of Maintenance of Way, Wisconsin and Southern Railroad Co., 1890 East Johnson Street, Madison, WI 53704; TELEPHONE (608) 620-2044; Ext. 4201; FAX (608) 243-9225; email rschaalma@watcocompanies.com for consultation on railroad requirements during construction.

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

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

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

A.5 Train Operation
Crossing ID 392396L
Approximately 0 passenger trains and 6 through freight trains operate daily through the construction site. Passenger trains operate at up to 0 mph. Through freight trains operate at up to 30 mph. One switching train movement occurs daily through the crossing.

Crossing ID 392370J
Approximately 0 passenger trains and 4 through freight trains operate daily through the construction site. Passenger trains operate at up to 0 mph. Through freight trains operate at up to 25 mph. No switching movements occur in the area of the crossing.

Crossing ID 177985L
Approximately zero passenger trains and three through freight trains operate daily through the construction site. Passenger trains operate at up to 0 mph. Through freight trains operate at up to 20 mph. Three switching train movements occur daily through the crossing.

A.6 Rail Security Awareness and Contractor Orientation
Prior to entry on railroad right-of-way, the contractor shall arrange for on-line security awareness and contractor orientation training and testing, and be registered through "e-RAILSAFE" for all contractor and subcontractor employees working on railroad right-of-way. See e-railsafe.com "Information". The security awareness and contractor orientation training is shown under the railroad's name. The department has secured right of entry to railroad property; neither the contractor nor subcontractors or their employees will be required to sign a right-of-entry form. The security awareness and contractor orientation certification is valid for two year(s) and must be renewed for projects that will carry over beyond the two year period. Contractor and subcontractor employees shall wear the identification badge issued by e-RAILSAFE when on railroad right-of-way. Costs associated with training and registration are incidental to other items in the contract.

8. Utilities.

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

There are underground and overhead utility 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 insure the integrity of underground facilities and maintain code clearance from overhead facilities at all times. Adjustments in the location of certain described items may be necessary, as directed by the engineer, when it becomes evident that a utility conflict could occur.

Project 1003-10-83

The following utility companies have facilities within the project area; however, no adjustments are anticipated:

Alliant Energy (Electric)
Alliant Energy (Gas)
AT&T Wisconsin (Fiber)
ATC (Electric)
Charter Communications (Fiber)
Windstream Telecommunication (McCleod USA Telecommunication)
Wisconsin Independent Network (WIN)

Project 1005-10-73

Alliant Energy (Electric and Gas) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Jason Hogan, 4902 N. Biltmore Lane #1000, Madison, WI 53718; (608) 458-4871 or (608) 395-7395; e-mail: jasonhogan@alliantenergy.com.

ANR Pipeline Company (Gas) has facilities within the project area; however, no adjustments are anticipated for this project.

In the utility work plan for Project 1005-10-76, ANR has proposed to relocate the 10-inch and 12-inch pipelines located at 889+00'TWSB.' This proposed work may occur during construction of this project. No conflicts are anticipated.

The following procedures are to be followed when working within 25 feet of existing pipelines or proposed pipelines once installed:

No ground disturbance shall be made within 25 feet, measured at right angles, of any pipeline(s) except in the presence of our company representative.

Notice of at least 72 hours in advance of construction must be provided.

TransCanada will arrange for a representative to be on site when work is occurring within 25-feet of any pipelines. After hours call (800) 447-8066.

The field contact is Ike Wille, 6827 Consolidated School Road, Janesville, WI 53019; (608) 373-6941 or (920) 375-0485; e-mail: eric_wille@transcanada.com.

AT&T Wisconsin (Fiber) – There is an existing cable on the south side of USH 14 from approximately Station 237+00'HEA' to 256+00'HEA' that will be abandoned and a new buried cable will be relocated on the south side of USH 14 from Station 237+00'HEA' to 256+00'HEA'. The new buried cable will cross IH 39/90 at approximately Station 921+50'TWSB'.

The contractor shall verify if any line is active by contacting AT&T Wisconsin 48 hours in advance of any excavation or shoring.

This work will be completed by March 31, 2016; coordination is required with AT&T during construction. No conflicts are anticipated.

The field contact is Carol Anason, 316 West Washington Avenue, Madison, WI 53703; (608) 252-2385 or (920) 475-2799; e-mail: ca2624@att.com.

ATC (Electric) has facilities within the project area; however, no adjustments are anticipated for this project.

In the utility work plan for Project 1005-10-77, ATC has proposed to relocate the transmission facility, including 14 poles, between USH 14 and the WSOR railroad crossing north of STH 26. This proposed work may occur during construction of this project. No conflicts are anticipated.

The field contact is Tony Marciniak, P.O. Box 47, Waukesha, WI 53187-0047; (262) 506-6814; e-mail: tmarciniak@atcllc.com.

Charter Communications (Fiber) – There is an existing buried cable and conduit along the north side of STH 26 that will be abandoned between Morse Street and Kettering Street. Two 2-inch buried ducts will be relocated starting south of the intersection of STH 26 and Morse Street heading east along the south side of Morse Street to Ryan Road then heading northwest along the southeast side Ryan Road. The buried cable will then cross IH 39/90 between approximately Station 951+50'TWSB' and 952+50'TWSB' to the northeast side of Deerfield Drive and head north along Deerfield Drive to the northwest quadrant of Kettering Street and STH 26 then head northeast along the southeast side STH 26 leaving the project limits.

This work will be completed before construction. No conflicts are anticipated.

The field contact is Randy Steurer, 1348 Plainfield Avenue, Janesville, WI 53545; (608) 373-7544 or (608) 209-3194; e-mail: randy.steurer@charter.com.

City of Janesville (Traffic Signals, Lighting, Sanitary Sewer, and Watermain) has facilities within the project area. Adjustments to traffic signals and lighting are included in this project and adjustments to the sanitary sewer and watermain are included in Project 1005-10-82. Refer to contract for more details.

The field contact is Dennis Ryan, 18 N. Jackson Street, P.O. Box 5005, Janesville, WI 53547-5005; (608) 755-3171 or (608) 289-2146; e-mail: ryand@ci.janesville.wi.us.

Northern Natural Gas Company (Gas) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Leonard Klaas, 5557 County Road D, Platteville, WI 53818; (402) 530-2806 or (608) 778-8514; e-mail: leonard.klass@nngco.com.

Windstream Telecommunication (McLeod USA Tellecommunication) (Fiber) – There is a buried cable along the north side of USH 14 that will be abandoned between approximately Station 240+00'HEA' to Station 256+00'HEA'. The buried cable will be relocated starting along the north side of USH 14 at approximately Station 240+00'HEA heading southeast to approximately Station 244+50'HEA' then head north along the southbound IH 39/90 exit ramp right-of-way. The buried cable will cross IH 39/90 between approximately Station 930+00'TWSB' and Station 931+00'TWSB' heading to the north right-of-way line of the northbound IH 39/90 entrance ramp. The buried cable will then continue south through the infield of the northbound IH 39/90 entrance ramp crossing USH 14 at approximately Station 256+00'HEA'.

This work will be completed before March 31, 2016. No conflicts are anticipated.

The field contact is Jim Kostuch, 13935 Bishops Drive, Brookfield, WI 53005; (262) 792-7938; e-mail: james.kostuch@windstream.com.

We Energies (Gas) has facilities within the project area; however, no adjustments are anticipated. The following procedures are to be followed:

We Energies will have a watch dog on site during the installation of the temporary shoring for the construction of bridge footings and columns. Contractor will give WE Energies three days' notice prior to needing the watchdog.

Any excavation within 18-inches of gas main should be hand dug to expose facilities. Use caution when working around natural gas facilities and any damage should be reported to We Energies.

The field contact is Richard Wroblewski, 500 South 116 Street, West Allis, WI 53214; (414) 944-5767 or (414) 588-5435; e-mail: richard.wroblewski@we-energies.com.

Rock Energy Cooperative (Electric) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Lynn Maier, 2815 Kennedy Road, Janesville, WI 53545-1758; (608) 752-4550 or (608) 289-4149; e-mail: lynnm@rock.coop.

Project 1005-10-82

Alliant Energy (Electric & Gas) has facilities within the USH 14 and STH 26 interchange project areas. Relocation of the water mains at both interchanges will require crossing beneath the existing gas mains.

The field contact is Jason Hogan, 4902 N. Biltmore Lane #1000, Madison, WI 53718, (608) 458-4871 (office) or (608) 395-7395 (cell); e-mail: jasonhogan@alliantenergy.com.

ATC (Electric) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Tony Marciniak, P.O. Box 47, Waukesha, WI 53187-0047; (262) 506-6814; e-mail: tmarciniak@atcllc.com.

Charter Communications (Fiber) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Randy Steurer, 1348 Plainfield Avenue, Janesville, WI 53545; (608) 373-7544 or (608) 209-3194; e-mail: randy.steurer@charter.com.

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City of Janesville (Sewer, Street Lighting, Water & Signals) – refer to special provision listed under Project 1005-10-73.

The field contact is Dennis Ryan, 18 N. Jackson Street, P.O. Box 5005, Janesville, WI 53547-5005; (608) 755-3171 or (608) 289-2146; e-mail: ryand@ci.janesville.wi.us.

We Energies (Gas) has facilities within the project area; however, no adjustments are anticipated. The following procedures are to be followed:

We Energies will have a watch dog on site during the installation of the watermain along STH 26. Contractor will give WE Energies a three day notice prior to needing the watchdog on site.

Any excavation within 18-inches of gas main should be hand dug to expose facilities. Use caution when working around natural gas facilities and any damage should be reported to We Energies.

The field contact is Richard Wroblewski, 500 South 116 Street, West Allis, WI 53214; (414) 944-5767 or (414) 588-5435; e-mail: richard.wroblewski@we-energies.com.

Windstream Telecommunication (McLeod USA Telecommunication) (Fiber) has facilities within the project area; however, no adjustments are anticipated.

The field contact is Jim Kostuch, 13935 Bishops Drive, Brookfield, WI 53005; (262) 792-7938; e-mail: james.kostuch@windstream.com.

9. Other Contracts.

Coordinate work according to standard spec 105.5.

Modifications to the traffic control plan may be required by the engineer to be safe and consistent with adjacent work by others.

It is expected that routine maintenance by the county and town personnel may be required at certain times concurrently with work being done under this contract.

The following contracts are anticipated to be under construction within the time period of the contract unless otherwise indicated.

Project 1003-10-72
This project involves the reconstruction of the interchange of STH 11 / Avalon Road with IH 39/90, including the removal of the existing overpass structure and the construction of two new bridges over IH 39/90.

Project 1005-10-71
This project involves reconstructing the northbound and southbound bridges carrying IH 39/90 traffic over the Rock River.

Project 1005-10-72
This project involves the reconstruction of northbound and southbound IH 39/90 from Knutson Road to the north Rock County Line.

Project 1005-10-84
This project involves the widening of northbound IH 39/90 at the Newville Road crossing.

10. Erosion Control.

Supplement standard spec 107.20 with the following:

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 storm water runoff flow down the slopes. Upslope tracking is incidental to the cost of grading.

Delete the last sentence of standard spec 107.20(7) and replace it with the following:

Provide the permanent erosion control measures immediately after performing grading operations, unless temporary erosion control measures are specified or authorized by the engineer.

11. Coordination with Businesses and Residents.

The contractor shall arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week prior to the start of work under this contract and hold two meetings per month thereafter. The contractor shall arrange for a suitable location for the meeting(s) that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for the meeting(s). The contractor shall schedule the meeting(s) with at least two weeks prior notice to the engineer to allow for these notifications.
108-060 (20141107)

12. 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
Work Force Opportunities	Day of preconstruction meeting

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.

103.9.2.5 Work Force Opportunities

The Work Force Opportunities workshop will provide a venue for contractors to have meaningful dialogue with TrANS providers regarding the hiring of TrANS graduates. For the prime contractor and the subcontractors, provide staff with hiring authority to participate in a job-matching session during this workshop. The workshop will take place on the same day and in the same location as the pre-construction meeting. The workshop participants will at a minimum:

- Review contractor hiring processes for general labor positions.
- Review and listen to presentation provided by TrANS providers regarding the training program including details regarding how contractors can hire TrANS graduates.
- Review TrANS graduate availability for working on project.
- Meet one-on-one for at least two minutes with each TrANS graduate in attendance at the meeting.

13. Timely Decision Making Manual.

Use the Timely Decision Making Manual (TDM) 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 TDM available at the department's Highway Construction Contract Information (HCCI) web site at:

Timely Decision Making Manual (TDM)

14. Municipality Acceptance of Sanitary Sewer and Water Main Construction.

Both the department and the City of Janesville personnel will inspect construction of sanitary sewer and water main under this contract. However, approval of testing, and acceptance of the sanitary sewer and water main construction will be by the City of Janesville.

15. Notice to Contractor – Construction Safety.

Description
This specification describes minimum occupational safety and health requirements for the prime contractor and their subcontractors performing work on this project. The fundamental objective of these requirements is to eliminate construction related injuries and incidents so that their associated impacts to workers and the public, budgets and schedules are avoided or minimized.

Definitions
Certified Crane Operator. To be certified a crane operator one must pass both written and practical tests offered by a nationally accredited testing organization, such as the National Commission for the Certification of Crane Operators (NCCCO) or the Operating Engineers Certification Program (OECP).

Competent Person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Critical Lift. A critical lift applies to, but is not limited to the following: any crane lift or hoisting operation that exceeds 75 percent of the rated capacity of the crane, requires the use of more than one crane or hoisting device, involves barge-mounted cranes, where the center of gravity could change, lifts where existing outriggers cannot be fully extended due to site constraints, lifts involving multiple lift rigging assemblies or other non-routine/difficult rigging arrangements.

Project Safety Officer (PSO). The person or persons designated by the department to coordinate implementation of a construction safety management system, including risk assessment, training, evaluating effectiveness, corrective/preventive action, and management review.

Qualified Person. One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work, or the project.

Safety Representative (SR). A person designated by the contractor to develop and implement the company's health and safety plan, assess job hazards, and identify and carry out corrective and preventive actions.

General Requirements
Notify the department immediately of any agency compliance inspections, including but not limited to the Occupational Safety and Health Administration (OSHA).

Report all project-related fatalities and OSHA-recordable injuries and illnesses that result in inpatient hospitalizations within 8 hours to the Project Safety Officer (PSO). Report all other project-related OSHA-recordable injuries and illnesses monthly to the PSO.

Safety Representative Requirements
Provide at least one Safety Representative (SR). Each SR shall perform inspections, safety observations and other safety-related duties on-site on a weekly basis, at a minimum. Provide an alternate SR in the event of illness or other unforeseen circumstances.

Each SR and alternate SR shall have training, knowledge and experience in construction safety and health, including but not limited to a current OSHA 10-hour Occupational Safety and Health Training Course in Construction Safety and Health. Provide evidence of SR certifications, qualifications and training to the PSO.

Each SR and alternate SR shall attend a 2-hour Construction Safety Awareness Training provided by the department at the beginning of the project and at least once every two years. The SR shall communicate and distribute materials provided in the 2-hour Construction Safety Awareness Training to their site workers prior to starting site construction activities.

Requirements for Construction Health and Safety Programs
In addition to implementing programs to meet the requirements of OSHA Construction Safety and Health standards, develop a written safety plan for the work to be performed. Note: General guidance is provided in Section 1-35.1.2 of the Construction and Materials Manual.

Traffic Control and Vehicle Collision Prevention/Risk Reduction
All vehicles and mobile equipment shall use high-intensity rotating, flashing, oscillating, or strobe lights according to Section 6G.02 of the Manual of Uniform Traffic Control Devices (FHWA, 2009).

Provide crash cushions or truck (or trailer)-mounted attenuators (TMAs) on shadow vehicles to protect workers, vehicles, and mobile equipment from vehicle collisions according to the Manual of Uniform Traffic Control Devices (FHWA, 2009, Section 6F.86). Coordinate with the engineer at least 72 hours before placing a TMA in service.

Personal Protective Equipment (PPE)
Minimum Requirement Personal Protective Equipment (PPE) to be worn in Construction Work Areas:

- ASTM F2413-11 safety-toed boots rated for impact and puncture resistance (PR) shall be worn.

- ANSI Z-87+ impact-resistant safety glasses with sideshields shall be worn. Requirements for faceshields, goggles, welding shades, etc. shall be determined by the SR.

- ANSI Z-89.1 Class G or E hard hats where there is potential for impact or injury to the head.

- Daytime Work: ANSI/ISEA 107-2004 Class 2 or 3 high visibility vests at all times and Type E pants for flaggers and other personnel working on the traffic side of concrete barriers (yellow/lime).

- Nighttime Work: ANSI/ISEA 107-2004 Class 2 or 3 retro-reflective safety vests (yellow/lime) and Type E pants (Type 3 ensemble) and a hard-hat-mounted LED light ("miner's lamp").

- Hearing protection shall be used, if the work site noise exceeds 90 decibels (dBA), as 8-hour average exposure measurements. [29 CFR 1926.52 and .101]

Walking and Working Surfaces
Keep all accessible work areas and passageways free from debris, obstructions and other slip, trip and fall hazards.

Excessive Driving Hours/Extended Work Shifts
Distribute a one-page handout to each truck driver accessing the work zone to increase their awareness of hazards related to extended work shifts. The department will make the handout available electronically.

Cranes and Hoists
Ensure that all crane operators have been certified by the National Commission for the Certification of Crane Operators (NCCCO) or by the Operating Engineer Certification Program (OECP) if they will be operating a 10-Ton or greater capacity crane or if they are involved in critical lifts.

Provide critical lift plans to the department at least 72 hours prior to a critical lift. The contractor is responsible for all submittals, assumptions, calculations, and conclusions. Have a professional engineer, registered in the state of Wisconsin and knowledgeable of the specific site conditions and requirements, verify the adequacy of the design. Submit one copy of each design, signed and sealed by the same professional engineer verifying the design, to the engineer.

Crane operators shall safely terminate hoisting operations in the event of wind conditions that exceed the original equipment manufacturer's specifications for safe operation.

Documentation and Records

Maintain documents and records and ensure that they are readily available upon request. At a minimum this includes:

a. Written Safety Plan for Work Activities to be Performed.
b. Names of Safety Representatives and copies of their OSHA 10-Hour Occupational Safety and Health Training Course in Construction Safety and Health training cards.
c. Names of Competent Persons and Qualified Persons (if required by OSHA for the work performed).
d. Reports of inspections of the job sites, materials, and equipment [29 CFR 1926.20(b)(2)].
e. Documentation that the SR has communicated and distributed materials from the Construction Safety Awareness Training to their site workers. At a minimum this will include a dated sign-in sheet with the names and signatures of the workers trained. The department will provide a sign-in sheet template electronically.
f. Project site OSHA 300 Log (no worker names)[29 CFR 1904.29].
g. Project site OSHA 301 Incident Report (no worker names) [29 CFR 1904.29].
h. Hazard Communication Program [29 CFR 1926.59].
    i. Hazardous Chemical Inventory
    ii. Location of Safety Data Sheets (SDSs)
    iii. Hazard Warning Symbols
    iv. Information and training requirements.
i. Exposure Monitoring results (if monitoring is required under a specific OSHA standard-no worker names).
j. Crane operator certifications (if applicable).
k. Fall Protection Plan (if applicable) [29 CFR 1926.500-.503 and 1926.104].
l. Confined Space Entry Procedures (if applicable). [29 CFR 1926.1200-.1213].
m. Lockout/Tagout Procedures (if applicable). [29 CFR 1926.417 and .702].
n. Respiratory Protection Program (if applicable) [29 CFR 1926.103 and 1910.134(c)].
o. Emergency Action Plan [29 CFR 1926.35].
    i. Emergency escape procedures and emergency escape route assignments
    ii. Procedures to be followed by employees who remain to operate critical equipment before they evacuate.
    iii. Procedures to account for all employees after emergency evacuation has been completed.
    iv. Rescue and medical duties for those employees who are to perform them;
        · First Aid and Medical Treatment Procedures [29 CFR 1926.50]
        · Equipment and Supplies
        · Names of persons certified in first aid
        · Location of the nearest medical facility.

v. The preferred means of reporting fires and other emergencies.
vi. Prime contractor's alarm system.
vii. Names or regular job titles of persons who can be contacted for further information or explanation of duties under the plan.

p. Fire Protection Program (if applicable) [29 CFR 1926.150].
q. Fire Prevention Plan and Hot Work Permit procedures (if applicable). [29CFR 1926.352]

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

John Roelke, License Number All-119523, inspected Structure B-53-0085 for asbestos on June 5, 2013. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, WisDOT SW Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, Jennifer.Grimes@dot.wi.gov.

John Roelke, License Number All-119523, inspected Structure B-53-0065 for asbestos on August 31, 2009. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jennifer Grimes, WisDOT SW Region Environmental Coordinator, 111 Interstate Blvd, Edgerton, WI 53534, (608) 884-1147, Jennifer.Grimes@dot.wi.gov.
107-127 (20120615)

17. Notice to Contractor, Revisions to Traffic Control Plans.

The traffic control and staging plans/details contained within the project plans have been developed from an FHWA approved Transportation Management Plan (TMP). According to TMP requirements, the DEPARTMENT shall revise the TMP during construction if conditions warrant. This specification shall be followed to obtain concurrence for implementation of any proposed changes to construction phasing/staging that will affect the traffic patterns depicted in the plans.

Submit traffic control revision(s) to the engineer a minimum of 21 calendar days prior to the anticipated implementation of the proposed change(s). Include the following:

Detail on existing or new project plan sheets that show:

- The revised traffic pattern, widths, grades, temporary pavement, signs, traffic control devices, pavement marking, flaggers, time of day, width restrictions, and any other details required to convey a new or revised traffic control design.
- Erosion control measures required, including the location(s) of any tracking pad(s).

Written summary of proposed traffic control change including:

- Benefits to implementing the change (i.e., cost or time savings, ease of construction, increased safety to workers, and the motoring public).
- Timeframe to construct, duration in place, and time to remove.

The request will be reviewed, and if warranted, concurred with designated I-39/90 Corridor Management Team (CMT) staff, the engineer, and WisDOT Central Office Field Construction Coordinator (if warranted). If the request is approved, it will be forwarded to FHWA for review and processing a minimum of 7 calendar days in advance of the contractor's anticipated implementation.

The engineer will correspond with the following FHWA and department staff to obtain concurrence:

Johnny Gerbitz, FHWA, Johnny.Gerbitz@dot.gov
Rich Cannon, I-39 CMT Traffic, Richard.Cannon@dot.wi.gov
Jeff Gustafson, I-39 CMT Traffic, Jeffrey.Gustafson@dot.wi.gov

18. Notice to Contractor, New or Revised Temporary Construction Access to IH 39/90.

Traffic control and staging plans/details contained within the project plans shall be followed by the contractor. The contractor's use of any construction access point(s) to IH 39/90 which is/are not shown in the plans is prohibited without the prior written approval from FHWA and the department. To obtain written approval for temporary access to IH 39/90 during construction, the contractor shall provide the following:

Details on existing or new project plan sheets that show:

- The location, dimensions, grades, and slopes for any new/revised temporary construction access point(s) to IH 39/90.
- Traffic control measures that are required to manage this access change.
- Traffic control measures that are required to secure/close any new/revised construction access points when not in use.
- Erosion control measures required to manage this change, including the location(s) of any tracking pad(s).

Written summary of proposed temporary construction access change including:

- Timeframe to construct, duration in place, and time to remove.
- Cost of proposed temporary access including grading, traffic control, erosion control, and all other items and incidentals to implement and remove the access.
- Benefits in implementing the change (i.e. cost or time savings, ease of construction, increased safety to workers and the motoring public).
- Signed Construction Permit if temporary access traverses private property.

The above information shall be provided to the engineer a minimum of 14 calendar days prior to the contractor's anticipated implementation of the new/revised temporary construction access to IH 39/90. The request will be reviewed, and if warranted, concurred with designated IH 39/90 CMT Traffic and Project staff, the engineer, and WisDOT Central Office Field Construction Coordinator (if warranted). If these parties concur with the request, it will be forwarded to FHWA for review and processing a minimum of 7 calendar days in advance of the contractor's anticipated implementation.

The engineer will correspond with the following FHWA and department staff for concurrence:

Johnny Gerbitz, FHWA, Johnny.Gerbitz@dot.gov
Rich Cannon, I-39 CMT Traffic, Richard.Cannon@dot.wi.gov
Jeff Gustafson, I-39 CMT Traffic, Jeffrey.Gustafson@dot.wi.gov

In the event of an emergency situation the above review process, including the extent of information required to be submitted and approval timeframes, can be modified if agreed upon by all parties.

19. Notice to Contractor - Airport Operating Restrictions - General.

A temporary permit is not required from the Federal Aviation Administration (FAA) for the permanent or temporary installations that are included in the plans as long as the contractor uses equipment that will not exceed 200 feet above ground level. The contractor shall submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA a minimum of 45 days before beginning construction operations that propose to use equipment that will exceed 200 feet above ground level.

If required, the FAA will return FAA Form 7460-2, Notice of Actual Construction or Alteration, with a determination. The contractor shall complete and send FAA Form 7460-2, Part 1 to the FAA at least 48 hours prior to starting the actual construction or alteration of a structure. Additionally, the contractor shall submit Part 2 no later than five days after the structure has reached its greatest height.

Contact Justin Hetland, Airspace Safety Program Manager, Bureau of Aeronautics at (608) 267-5018 (Justin.Hetland@dot.wi.gov) with any questions. Refer to the following FAA website for instructions to complete the form and the required information.

http://oeaaa.faa.gov/oeaaa/external/portal.jsp

20. Clearing and Grubbing, Items 201.0105 and 201.0205.

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 according to standard spec 201.3 (14).
- May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer according to standard spec 201.3 (15).
- May be trucked to a licensed landfill within the quarantined zone with the engineer's approval according to standard spec 201.3 (15).

21. Debris Containment B-53-0065, Item 203.0225.S.001; B-53-0085, Item 203.0225.S.002.

A Description
This special provision describes providing a containment system to prevent debris from structure removal, reconstruction, or other construction operations from falling onto facilities located under the structure. Using this containment system does not relieve the contractor of requirements under standard spec 107.17 and standard spec 107.19 or requirements under a US Army Corps of Engineers Section 404 Permit.

B (Vacant)

C Construction
Prior to starting work, submit a debris containment plan to the engineer for review. Incorporate engineer-requested modifications. Do not start work over USH 14 or STH 26 until the engineer approves the debris containment plan.

Maintain adequate protection throughout construction for people and property within the potential fall zone. Ensure that a containment system capable of protecting underlying facilities from falling construction debris is in place before beginning deck repair, parapet removal, or other operations that may generate debris.

At least 15 working days before conducting potential debris generating operations, contact the following owners or lessees: Emmanuel Yartey, (608) 884-7131.

D Measurement
The department will measure Debris Containment B-53-0065 and B-53-0085 as a single lump sum unit of work for each structure, 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
203.0225.S.001	Debris Containment B-53-0065	LS
203.0225.S.002	Debris Containment B-53-0085	LS

Payment is full compensation for furnishing, installing, maintaining, and removing a debris containment system.
203-010 (20080902)

22. Removing Concrete Flume, Item 204.9180.S.001.

A Description
This special provision describes Removing Concrete Flume according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Removing Concrete Flume by the square yard, acceptably removed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9180.S.001	Removing Concrete Flume	SY

204-025 (20150630)

23. Roadway Excavation.

Supplement standard spec 205.5.2(1) to include the following:

Provide the department with an earth flow diagram within 30 calendar days of receiving the contract Notice to Proceed.

Identify on the earth flow diagram, all excavation material within the project; material shrinkage and swell factors; acceptable on-site material available for use as embankment within the project; anticipated off-site material that will be required for use as embankment within the project (if applicable); and anticipated material to be disposed of off-site (if applicable). It is the sole responsibility of the contractor to prepare their individual investigation and testing program to establish material shrinkage and swell factors.

24. Borrow.

Replace standard spec 208.1(1) with the following:

This section describes constructing embankments and other portions of the work consistent with the earthwork summary and defines the contract requirements for embankment material if required by the plans or if the contractor elects to utilize off-site material to complete the roadway embankments.

Delete standard spec 208.2.2(2).

Supplement standard spec 208.3 to include the following:

The contractor shall be responsible for complying with all permit requirements in obtaining embankment materials.

Replace standard spec 208.4 with the following:

The department will not measure embankment material from its source.

Replace standard spec 208.5 with the following:

The department will not pay directly for work specified under this section. This work is incidental to the Roadway Embankment bid item.

25. Select Borrow.

Conform to the requirements of standard spec 208 and as hereinafter provided.

Material
Furnish and use material that consists of granular material meeting the following requirements: Maximum particle size of 12 inches when measured from any face. The

material passing the No. 4 sieve shall have a maximum of 20% by weight passing the No. 200 sieve.
208-005 (20031103)

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 2 consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:

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

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

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

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

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

B.8 Department Testing

B.8.1 General

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

B.8.2 Verification Testing

B.8.2.1 General

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

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

1. One non-random test on the first day of placement.
2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

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

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

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

B.8.3 Independent Assurance

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

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

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

B.9 Dispute Resolution

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

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

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

C (Vacant)

D (Vacant)

E Payment

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

(2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.
301-010 (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, from a department-approved quarry, 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 1/4-Inch, Item 305.0120.

Revise standard spec 301.2.4.3 as follows:

Furnish aggregate classified as crushed stone for 1-1/4 inch base when used in the top 3 inches of the unpaved portion of the shoulder.

Revise standard spec 305.2.2.1 as follows:

Use 1 1/4-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) 500 revolutions (max % loss)	13 40	13 40	13 40	13 40	13 40	13 40	13 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
Gyratory Compaction Gyrations for N_{ini} Gyrations for N_{des} Gyrations for N_{max}	6 40 60	7 60 75	7 75 115	8 100 160	8 100 160	9 125 205	8 65 160
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	_____

Mixture type	E - 0.3	E - 1	E - 3	E - 10	E - 30	E - 30x	SMA
% G_{mm} N_{max}	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	<= 98.0	_____
Dust to Binder Ratio[2] (% passing	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 with antistripping additive	0.70 0.75	0.70 0.75	0.70 0.75	0.70 0.75	0.70 0.75	0.70 0.75	0.70 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. QMP HMA Pavement Nuclear Density.

A Description

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

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

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

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

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

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

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

http://www.atwoodsystems.com/mrs

B Materials

B.1 Personnel

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

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

B.2 Testing

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

B.3 Equipment

B.3.1 General

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

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

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

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

B.3.2 Correlation of Nuclear Gauges

B.3.2.1 Correlation of QC and QV Nuclear Gauges

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

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

(3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft3. Measure and record the density on the 5 additional test sites for each gauge.

(4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft3 and repeat correlation process from B.3.2.1 (2).

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

B.3.2.2 Correlation Monitoring

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

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

(3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft3 of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft3 of its reference value established in B.3.2.2(2).

(4) Maintain the reference site test data for each gauge at an agreed location.

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

(1) A lot consists of the tonnage placed each day for each layer and target density specified in standard spec 460.3.3.1. A lot may include partial sublots.

(2) Divide the roadway into sublots. A sublot is 1500 lane feet for each layer and target density.

(3) A sublot may include HMA placed on more than one day of paving. Test sublots at the pre-determined random locations regardless of when the HMA is placed. No additional testing is required for partial sublots at the beginning or end of a day's paving.

(4) If a resulting partial quantity at the end of the project is less than 750 lane feet, include that partial quantity with the last full 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/ft3 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/ft3 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/ft3, use the original QC tests for acceptance.

(6) If the QV and QC sublot averages differ by more than 1.0 lb/ft3 after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

(1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge correlation according to B.3.2.1.

(2) The testers may use correlation monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.

(3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV 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)

31. 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 501.2.5.4.1 with the following:

501.2.5.4.1 General

(1) Provide coarse aggregates from a department-approved source as specified under standard spec 106.3.4.2.

(2) 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.

(3) 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 percent wear shall not exceed 40, the weighted soundness loss shall not exceed 9 percent, and the weighted freeze-thaw average loss shall not exceed 12 percent.

32. Aggregate Quality Testing for Concrete Pavement and HPC Structure Mixes.

A Description

(1) This provision describes additional requirements for testing the quality of coarse aggregates being used in concrete mixes for pavements and HPC structures.

(2) Conform to the standard specifications and high-performance concrete provisions contained within the contract, as modified in this provision.

B Materials

B.1 Personnel

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

B.2 Laboratory

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

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

B.3 Equipment

(1) Furnish the necessary equipment and supplies for performing quality control testing. 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.

B.4 Records

(1) Document all observations, inspection records, and test results. Submit testing records to the engineer.

B.5 Contractor Testing

(1) Perform all quality control tests necessary to control the production processes applicable to this special provision. Use the test methods identified below, or other methods the engineer approves, to perform the following tests:

LA Wear (100 and 500 revolutions) AASHTO T 96
Sodium Sulfate Soundness (R-4, 5 cycles) AASHTO T 104
Freeze-Thaw Soundness AASHTO T 103
Chert[1]

[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 the 3/8-inch sieve by the weight of the total sample.

(2) The department may periodically observe contractor sampling and testing, and direct additional contractor sampling and testing for department evaluation. Ensure that all test results are available for the engineer's review at any time during normal working hours.

(3) In addition to the requirements of standard spec 106.3.4.2.2, perform tests for LA wear, sodium sulfate soundness, freeze-thaw soundness and chert at least once per calendar year when producing coarse aggregates for use in concrete pavement or HPC structure concrete mixes.

(4) Randomly test the percentage of chert at least once per 10,000 tons during production of coarse aggregates to be used in concrete pavement and HPC structure mixes or at least once per 10,000 cubic yards during placement of concrete pavement.

B.6 Department Testing

(1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will sample randomly at locations independent of the contractor's QC work. In all cases, the department will conduct the verification tests with separate personnel and equipment from the contractor's QC tests. The department will perform verification testing of chert at a frequency of 10 percent of the random quality control tests or a minimum of once per project, or at greater frequency if determined to be necessary by the engineer.

C (Vacant)

D (Vacant)

E Payment

(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.

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

A Description

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

B Materials

B.1 Mixture Composition

Furnish a mixture composed of fine and coarse aggregates, mineral filler if used, asphalt cement, and polymer modifier additive. Ensure that the final job mix design conforms to polymer modifier manufacturer requirements and is approved by the engineer.

Use fine and course aggregate conforming to standard spec 460.2.2. Do not use blast furnace slag, expanded shale, porous limestone, lightweight aggregates, or other porous aggregate. Ensure that mineral filler, if used, conforms to standard spec 450.

Use asphalt cement conforming to standard spec 455 and virgin thermoplastic polymer modifier additive. Furnish additive packaged in 22.5-pound meltable polyethylene bags, in 2,025-pound super sacks containing 45 units per sack, or as bulk material in tankers.

B.2 Deck Preparation Materials

Furnish tack coat and edge sealer conforming to the polymer modifier manufacturer's requirements. Furnish rubberized asphalt joint sealer conforming to ASTM D3405, or if the polymer modifier manufacturer recommends, use a 20-inch wide strip of geotextile paving fabric applied according to their recommendations.

C Construction

C.1 General

Ensure that an on-site polymer modifier manufacturer representative oversees mixture production, placement, and compaction of polymer-modified HMA.

C.2 Proportioning and Mix Design

Seven days before the pre-construction meeting, submit the name and location of the intended sources for bituminous pavement products. Furnish HMA mixture from an engineer-approved automated plant conforming to ASTM D995 and SS405 and equipped with interlocks and printouts.

Coordinate with the polymer modifier manufacturer to formulate a job mix formula (JMF). Submit a JMF to the engineer that shows the gradation and conforms to the generic requirements under this special provision. As a part of the submittal include the following:

- Mineral aggregate sources and types.
- Grade and source of bituminous material.
- Type and source of all asphalt modifiers.
- Samples of aggregates to be used.

Submit a complete HMA mix design to the engineer according to department test method 1559 described in CMM 8.65.5. Submit a new JMF for engineer review if changing the production plant, aggregate, asphalt, or asphalt modifier.

C.3 Verification of the JMF

Unless the asphalt content (AC) of specimens used to develop the JMF is the same as the proposed design AC, prepare additional specimens at the proposed AC to ensure that gyratory test results accurately represent the design.

Generic Formulation of the PolymerModified HMA Mixture

Sieve Size, metric (imperial)	Nominal size of aggregate/Percent passing 9.5mm	Gradation Control on JMF
12.5 mm (1/2")	100	± 7 %
9.5 mm (3/8")	90 – 100	± 7 %
4.75 mm (#4)	55 – 85	± 7 %
2.36 mm (#8)	32 – 67	± 4 %
1.18 mm (#16)	Report	± 4 %
600 microns (#30)	Report	± 4 %
300 microns (#50)	7 – 23	± 4 %
150 microns (#100)	Report	± 4 %
75 microns (#200)	2 – 10	± 2 %

AC (% Total Mix) 5.0% minimum
Thermoplastic Polymer 2.25% by weight of total mix

Generic Minimum/Maximum Desired Physical Properties of the Design Mixture

Volumetric mix design parameters		
Volumetric parameter	Control requirement	Nominal size of aggregate/percent passing
		9.5mm
Gyratory volumetric requirements		
VMA	Minimum	16.5%
VFA	Minimum	90.0%
$\%G_{mm}$	@ N_{ini} (6 gyrations)	>87.0%
$\%G_{mm}$	@ N_{des} (50 gyrations)	99.0%
$\%G_{mm}$	@ N_{max} (75 gyrations)	>99.0%

Target Void Percentage: 1%

Weigh and heat aggregates for batching in an oven to 401 - 419 F. Add polymer modifier at a rate of 45 pounds per ton of mix or 2.25 percent of total batch weight. Dry mix the heated aggregate and the polymer modifier for 10 seconds at 374 - 383 F; introduce AC-binder at 302 - 320 F; and mix together for 90 seconds. Mix until aggregates are completely and uniformly coated. Verify that the temperature of the finished mix is 347 - 374 F. After mixing is completed, condition the material according to AASHTO R30 before compacting. Compact at 338 - 356 F. Evaluate the gyratory specimen at N_{ini}= 6, N_{des}=50, and N_{max}=75 gyrations regardless of class designation or aggregate structure.

After reviewing the JMF, the engineer will authorize initial placement. Once production begins, provide the engineer daily certification that in-place materials conform to the JMF and contract specifications.

Polymer modifier manufacturer personnel shall certify material production, take samples, and are authorized to reject material not meeting contract specifications. The polymer modifier manufacturer shall retain samples available upon engineer request for department examination and testing throughout the contract duration. The engineer may take additional independent samples and examine certifications to verify material quality.

Provide the engineer with access to the plant and equipment as necessary to review and verify certifications of material quality. The engineer may reject affected mixture placed if the contractor fails to perform quality control or submits an incorrect certification. The engineer may halt production and require the contractor to dispose of material due to temperature, oxidation, contamination, segregation, or incomplete coating of aggregate. The engineer may base rejection on visual inspection.

C.4 Deck Preparation

After deck patching and before placing polymer-modified HMA, prepare the deck surface. Cure the repaired deck a minimum of 7 days before placing the polymer-modified HMA overlay. Ensure that a polymer modifier manufacturer representative is present to oversee edge sealer and tack coat application.

Prepare the entire deck surface area by shot blasting. Include the vertical face of curbs or parapets to the specified finish overlay surface elevation. Collect and dispose of used steel shot and dust. Remove pavement-marking lines within the cleaning area to prevent bleeding through the tack coat. After shot blasting operations, clean the deck by sweeping, air blasting, pressure washing, or other engineer-approved method.

Clean the existing surfaces to remove any milled material or debris which would reduce or prevent bonding. Ensure that the surface is clean, dry, and free from loose debris or other contaminants. Saw cut and seal construction joints. Apply edge sealer and tack coat. Place an impermeable hot-mix waterproofing asphalt course on the cleaned and tack coated bridge deck, to the lines, grades, width, and depth the plans show.

Seal all edges of the planned day's placement of the asphalt waterproofing course with 4-6 inches of edge sealer applied at the manufacturer specified rate. Ensure that vertical edges of headers, drains, scuppers, expansion joints, or other areas where compaction may be difficult to achieve are adequately sealed. For vertical edges, apply sealer from the specified finish overlay surface elevation and out horizontally 4-6 inches. Maximize drying time by sealing as early as possible on the day of, or even the day before, overlay placement.

C.5 Placement

Before placing tack coat, ensure that the deck moisture is 6 percent or less. Apply tack coat at a rate of 0.07 to 0.15 gallons per square yard without puddles for concrete decks and at 0.04 to 0.1 gallons per square yard for steel decks. Cover and protect all deck drains and joints before paving.

Place the polymer-modified material in a uniform 2-inch thick layer.

Seal butt joints made during paving that have cooled below 150 F before placing the adjoining asphalt lift. Saw cut construction joints 1/2 inch wide and fill to within 1/8 inch of the surface with joint sealer. Do not overfill sawed joints since excess sealer will cause surface ripples requiring contractor correction.

Apply edge sealer to all terminations of the paved asphalt, including curb lines and deck joints, as soon as possible after the pavement has cooled.

C.6 Compaction

Because of higher compaction temperatures, use extra water applied evenly across the mat to keep material from sticking to the steel rolls.

Compact within a temperature range of 212 - 374 F conforming to standard spec 450.3.2.6. Use a minimum of two static rollers, one for break down and one for finish rolling. Have a third roller available on the job as a backup. Ensure that roller unit compression is 250 pounds or more per inch of driving roll width. Use three-wheel and tandem steel-wheel rollers with a manufacturer's rating of eight tons or more or use three-axle tandem steel-wheel rollers with a manufacturer's rating of 12 tons or more. Do not use pneumatic tired rollers. The contractor may use other compaction means in areas that cannot be accessed by the specified roller. The contractor may use an asphalt vibrator wacker with a water system.

Breakdown roll closely behind the spreading operation and finish roll to remove mat imperfections. Use a straight rolling pattern aligned with the paving direction. Do not turn except as necessary to move from pass to pass. Use the pattern and frequency the polymer modifier manufacturer's representative specifies. Do not change paving or rolling procedures without approval from the polymer modifier manufacturer's representative.

The department will waive the contract QMP HMA pavement nuclear density requirements for polymer-modified HMA overlay work.

D Measurement
The department will measure HMA Overlay Polymer-Modified by the ton, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
509.3500.S	HMA Overlay Polymer-Modified	TON

Payment is full compensation for providing overlays including mixture design and surface preparation; and for the polymer modifier manufacturer's on-site mix production and placement oversight.

The department will pay separately for repairs under the Curb Repair, Concrete Surface Repair, and Full-Depth Deck Repair bid items as specified in standard spec 509.
509-035 (20141107)

34. Surface Drain Pipe Corrugated Metal Slotted, 18-Inch, Item 521.2005.S.001.

A Description
This special provision describes furnishing and installing slotted corrugated metal pipe surface drain as shown on the plans, in accordance to standard spec 521, and as hereinafter provided.

B Materials
Furnish backfill material that is grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT 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.

C Construction
Prior to backfilling, plug the upper end of the slotted drain as shown on the plans or as approved by the engineer.

Prior to backfill operations adjacent to the slotted area of the slotted corrugated metal pipe surface drain pipe, install timber blocks in the slots in accordance to the details as shown on the plans. Remove any material entering the pipe at no expense to the department.

Keep the timber blocks in place until final cleanup operations are completed; at which time, remove the timber blocks.

Exercise care to avoid damage to the slotted corrugated metal pipe surface drain pipe. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drain pipe at no expense to the department.

D Measurement
The department will measure Surface Drain Pipe Corrugated Metal Slotted (Size), completed in accordance to the contract and accepted, in place by the linear foot.

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

ITEM NUMBER	DESCRIPTION	UNIT
521.2005.S	Surface Drain Pipe Corrugated Metal Slotted 18-Inch	LF

Payment is full compensation for furnishing all materials; hauling and placing the pipe, including bands; making connections to existing inlets; furnishing concrete, end plug or cap; and for cleaning out and restoring site of work.
521-005 (20150630)

35. Blue Specific Service Signs.

Add the following to standard spec 638.3.4:

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

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

36. 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, according 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.

37. Truck or Trailer-Mounted Attenuator, Item 643.1055.S.

A Description

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

B Materials

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

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

C Construction

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.1055.S	Truck or Trailer-Mounted Attenuator	DAY

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

643-015 (20140630)

38. Traffic Control.

Supplement standard spec 643.3.1 with the following:

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

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

Do not permit equipment or vehicles to directly cross the live traffic lanes of the highway. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic. Equip all contractor's vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light). Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders.

All construction vehicles and equipment operating on or near roadways open or closed to traffic, shall be equipped with at least one flashing amber light. The flashing amber light shall be activated when vehicles or equipment are operated on the roadway, parked in close proximity to the roadway, and when entering or exiting live lanes of traffic. The flashing amber light shall be mounted approximately midway between the transverse extremities of the vehicles or machinery and at the highest practical point that provides visibility from all directions. The light shall be of the flashing strobe or revolving type meeting the following minimum requirements:

Flashing Strobe Type Light	Revolving Type Light
360-degree lens	360-degree lens
60 to 90 flashes per minute	45 to 90 flashes per minute
5-inch minimum height	4-5/8 inch minimum height
3-3/4 inch minimum diameter	3-3/4 inch minimum diameter

The light shall be equipped with bulbs of 50 candlepower minimum. Mounting shall be either magnetic or permanent. No compensation for furnishing and installing the flashing amber light to contractor owned construction equipment or vehicles will be provided for in the contract.

The contractor shall not disturb, remove or obliterate any traffic control signs, advisory signs, shoulder delineators, sand barrel array or beam guard in place along the traveled roadways not shown on the plans without the approval of the engineer.

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

Cover existing signs which conflict with traffic control as directed by the engineer. The turning of traffic control devices when not in use to obscure the message will not be allowed under this contract.

Replace standard spec 643.3.1(6) with the following:

Provide 24-hour a day availability of equipment, forces and materials to promptly restore barricades, lights, or other traffic control devices that are damaged or disturbed. Restore any barricade, light, or other traffic control so that the device is not out of service for more than two hours.

Supplement standard spec 643.3.6(3) with the following:

Place one flashing arrow board in advance of each lane closure taper and place one flashing arrow board within each lane closure taper at locations directed by the engineer.

39. Nighttime Work Lighting-Stationary.

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

B (Vacant)

C Construction
C.1 General
This provision shall apply when providing, maintaining, moving, and removing portable light towers and equipment-mounted lighting fixtures for nighttime stationary work operations, for the duration of nighttime work on the contract.

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

1. Layout, including location of portable lighting – lateral placement, height, and spacing. Clearly show on the layout the location of all lights necessary for every aspect of work to be done at night.

2. Specifications, brochures, and technical data of all lighting equipment to be used.

3. The details on how the luminaires will be attached.

4. Electrical power source information.

5. Details on the louvers, shields, or methods to be employed to reduce glare.

6. Lighting calculations. Provide illumination with average to minimum uniformity ratio of 5:1 or less throughout the work area.

7. Detail information on any other auxiliary equipment.

C.2 Portable Lighting

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

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

C.3 Light Level and Uniformity

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

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

C.4 Glare Control

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

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

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.

2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

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

C.5 Continuous Operation
Provide and have available sufficient fuel, spare lamps, generators, and qualified personnel to ensure that the lights will operate continuously during nighttime operation. In the event of any failure of the lighting system, discontinue the operation until the adequate level of illumination is restored. Move and remove lighting as necessary.

D (Vacant)

E Payment
Costs for furnishing a lighting plan, and for providing, maintaining, moving, and removing portable lighting, tower mounted lighting, and equipment-mounted lighting required under this special provision are incidental to the contract.
643-010 (20100709)

40. General Requirements of Electrical Work.

Amend standard spec 651.2, Materials, by adding the following paragraphs:

(7) The approved products list is located at:
http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/prods/qpl.aspx

Replace standard spec 651.3.2 (1) with the following:

Perform all electrical work using a journey worker electrician. Before performing electrical work, provide the documentation specified in standard spec 651.3.2(3) to the engineer proving that the electrician's performing the work have attained status as journey worker.

41. Electrical Work By Others.

Under project 1005-10-73, the Wisconsin Department of Transportation Southwest Region Electrical Unit will perform the following work for WisDOT maintained traffic signal systems:

- Complete and authorize electrical service installation applications.
- Furnish and install traffic signal cabinets, terminate all cables, testing, maintenance and operation.
- Furnish equipment/materials for installation including Cat-5E cable, microwave detectors, emergency preemption equipment, adaptive signal cameras and diversion trigger system equipment.
- Provide all permanent traffic signal timing.

42. Street Lighting, Traffic Signal and Diversion Trigger Systems – General.

Contacts and Facility Location Information

For the purposes of this contract the primary point of contact for WisDOT Southwest Region traffic signals will be Graham Heitz / graham.heitz@dot.wi.gov / (608) 246-5362 / 2101 Wright Street, Madison, WI.

Provide for equipment pick-up and salvaged equipment delivery in the following location:
Southwest Region Electrical Shop - 2101 Wright Street, Madison, WI

For the purposes of this contract the primary point of contact for City of Janesville traffic signals and street lighting will be Dennis Ryan / ryand@ci.janesville.wi.us / (608) 755-3171 / 18 N Jackson St, Janesville, WI 53548

Provide for salvaged equipment delivery to the following location:
City of Janesville Services Center – 2200 North USH 51, Janesville, WI

City of Janesville Maintained Street Lighting

This contract includes electrical work being completed along STH 26 at the IH 39/90 southbound ramps. Work included under this contract consists of removing an existing city street light and replacing lighting conductors after the removal of a street light. Coordinate with the city in advance of construction to determine existing service locations, conductor sizes and existing circuiting.

Diversion Trigger System

This contract includes electrical and ITS work being completed along IH 39/90 and at the STH 26 and USH 14 ramp intersections. Work included under this contract consists of installing remote wireless microwave detectors along IH 39/90, and communications and control equipment housed in traffic signal cabinets at the interchanges. System integration for this work will be paid separately from the traffic signal systems integrator item.

Project Schedule

Compile all material submittals within 2-weeks of contract award and provide to the engineer for review and approval. Approvals must be completed as early as possible to provide adequate lead time from material suppliers.

43. Electrical Service Meter Breaker Pedestal STH 26 and IH 39 NB Ramps, Item 656.0200.002.

Replace standard spec 656.2.3, Meter Breaker Pedestal Service, paragraph (1) with the following:

Furnish an approved service having a meter breaker pedestal, 22,000-AIC circuit breakers unless the local utility requires otherwise, grounding electrodes and connections, conduit and fittings, and all necessary conductors and equipment required by the WSEC and the utility for a service connection. Furnish a pedestal with two 100 A 2-pole breakers for any meter with which is intended to provide electrical service for a WisDOT traffic signal as well as an ITS camera system. When the meter breaker pedestal is energized, install an approved meter seal at all access points on the meter trough. Meter shall be time of use type.

Replace standard spec 656.3.2, Service Lateral, paragraph (1) with the following:

(1) The local utility shall furnish and install a 100 A, 120/240 volt AC, single phase, 3-wire underground electrical service lateral. Arrange and assume responsibility for the timely installation of the service lateral by the utility. The lateral shall be terminated at a meter pedestal as the plans show.

Ensure that electrical service is installed and energized according to ITS system and traffic signal activation deadlines.

Provide for an underground conduit connection to traffic signal cabinets. Do not pierce or otherwise compromise the integrity of the cabinet enclosure.

44. Intelligent Transportation Systems – General Requirements.

A Description

A.1 General

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

Unusual aspects of this project include:

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

A.2 Surge Protection

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

B Materials

B.1 General

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

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

B.2 Outdoor Equipment

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

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

B.3 Custom Equipment

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

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

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

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

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

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

B.4 Environmental Conditions

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

1. **Vibration and Shock:** 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.
2. **Duty Cycle:** Continuous
3. **Electromagnetic Radiation:** The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
4. **Electrical Power:**
    a. **Operating power:** The equipment shall operate on 120-volts, 60-Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies +3 Hz.
    b. **High frequency interference:** The equipment operation shall be unaffected by power supply voltage spikes of up to 150 volts in amplitude and 10 microseconds duration.
    c. **Line voltage transients:** The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-2 when connected to the surge protectors in the cabinets.

5. **Temperature and Humidity:**
    a. **Field equipment:** Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-2. Liquid crystal displays shall be undamaged by temperatures as high as 165 degrees F, and shall produce a usable display at temperatures up to 120 degrees F.
    b. **Equipment in Controlled Environments** shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity's between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.5 Patch Cables and Wiring

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

B.6 Surge Protection

Low-voltage signal pairs, 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:

1. The protectors shall suppress a peak surge current of up to 10k amps.
2. The protectors shall have a response time less than one nanosecond.
3. 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.
4. The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.
5. The protector shall also contain a resettable fuse (PTC) to protect against excessive current.
6. There shall be no more than two pairs per protector.
7. It shall be possible to replace the protector without using tools.

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

C Construction

C.1 Thread Protection

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

C.2 Cable Installation

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

C.3 Wiring

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

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

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

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

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

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

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

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

C.4 System Operations

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

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

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

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

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

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

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

Department-Furnished Items
(445) Fiber Optic Cable, 6 Count
(1) Wood Pole Camera Bracket

Contact Dean Beekman, State Traffic Operations Center (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 from the department's Statewide Traffic Operations Center (STOC), 433 W. St. Paul Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact the department's STOC at (414) 227-2166 to coordinate pick-up of equipment.

Large department-furnished equipment 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 electric shop 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:

1. Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
2. 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.

46. Intelligent Transportation Systems – Conduit.

Add the following to standard spec 671.2:

671.2.4 Locate Wire
Furnish and install a No. 14 AWG stranded copper wire for future locate purposes through each conduit run. Connect the locate wire by using a wire nut at each pull box, manhole, or other access point. Alternatively, use a single wire through the access points. All material furnished under this item shall meet the requirements of standard spec 655.
671-005 (20150630)

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

A Description
This special provision describes installing aluminum enclosures on poles for intelligent transportation systems equipment.

B Materials

The pole mounted cabinet will be salvaged from the project and include attached plaques sequence identification.

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

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

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

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

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

C Construction

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

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

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

D Measurement

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

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

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

Payment is full compensation for installing the pole mounted cabinet, including the attached plaques sequence identification; for making all connections and conduit/wire entrances; and for furnishing all testing.

48. Install Ethernet Switch, Item 675.0400.S.

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

B Materials
The Ethernet switch will be salvaged from the project. Provide all necessary cables between the Ethernet switch and terminal server or other device.

C Construction
Install the Ethernet switch in the salvaged pole mounted cabinet. Connect it to devices as shown on the plans, or as directed by the engineer.

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

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

ITEM NUMBER	DESCRIPTION	UNIT
675.0400.S	Install Ethernet Switch	Each

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

49. Install Video Encoder, Item 677.0300.S.

A Description
This special provision describes installing a salvaged video encoder in a pole mounted 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.

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; and for furnishing all programming.

50. Removing 50-Foot Camera Pole, Item 677.9051.S.

A Description
This special provision describes removing an existing camera pole.

B (Vacant)

C Construction
Disconnect all cables, wiring and equipment that are mounted on or in the poles, and remove the pole from the concrete footing. Properly dispose of the pole, conduit, cabling, and wiring that will not be salvaged and reinstalled by the project.

D Measurement
The department will measure Removing 50-Foot Camera Pole by the unit, acceptably removed.

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

ITEM NUMBER	DESCRIPTION	UNIT
677.9051.S	Removing 50-Foot Camera Pole	Each

Payment is full compensation for removing and disposing of the existing camera pole; disconnecting any necessary wiring; removing the equipment mounted on the poles; disposing of cabling and wiring; and transportation.

51. Roadway Embankment, Item SPV.0035.001.

Conform to standard spec 207 unless modified by this special provision.

A Description
Replace standard spec 207.1(1) with the following:

This section describes placing, in embankments and in miscellaneous backfills, material obtained under the bid items in the roadway and drainage excavation, or excavation for structure sections; and material obtained under Borrow as specified in standard spec 208 and modified under these special provisions.

B Materials
Conform to standard spec 207.2.

C Construction
Conform to standard spec 207.3.

D Measurement
Replace standard spec 207.4(1) with the following:

The department will measure Roadway Embankment by the cubic yard acceptably completed in its final location using the method of average end areas, with no correction for curvature or settlement, except as follows:

1. The engineer and contractor mutually agree to an alternative volume calculation method;

2. The method of average end areas is not feasible.

If it is not possible to compute volumes of the various classes of roadway and drainage embankment by the method of average end areas due to erratic location of isolated deposits, the department may compute the volumes by alternative methods involving three-dimensional measurements.

The department will not measure embankment material beyond the limits of the required slopes as shown on the plans.

E Payment
Replace standard spec 207.5(1) with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.001	Roadway Embankment	CY

Payment is full compensation for forming, compacting, shaping, sloping, trimming, finishing, and maintaining the embankments.

The department will pay for erosion control, fertilizing, and seeding of borrow sites and associated areas separately as specified for borrow sites and material disposal sites in standard spec 628.5.1.

52. Baseline CPM Progress Schedule, Item SPV.0060.001; CPM Progress Schedule Updates and Accepted Revisions, Item SPV.0060.002.

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 experience 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:

1. 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.

2. 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).

3. Provide activities as necessary to depict third-party work related to the contract.

4. Provide summary activities for the balance of the project beyond the first 90 calendar days of the project. Summary activities may have durations greater than 28 calendar days (20 business days).

5. 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. Submit the P6 native data file (XER) and an electronic file (PDF) to the following DOT email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

6. 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.

7. 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:

1. 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:

> 1.1 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.

1.2 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).

1.3 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.

1.4 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.

1.5 With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. Predecessors and successors shall not be linked to the same activity with different relationship types.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 or overlap unless the engineer accepts requested exceptions. Include and discuss request for exceptions in the schedule narrative provided with each schedule submittal.

1.6 Schedule activities shall include the following:

a. 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.

b. Codes for Contract ID / WisDOT Project ID, Responsibility, Stage, and Area. The department may provide additional codes for use within department reporting.

c. Activities shall carry a single Responsibility assignment.

1.7 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. Do not apply date constraints on any work tasks 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.

1.8 Develop an anticipated cash-flow curve for the project, based on the Baseline CPM schedule by assigning cost values to selective work tasks within the CPM schedule that total the value of the contract.

1.9 Provide budgeted quantities consistent with the bid quantities on selective construction tasks within the CPM schedule. The engineer will provide a summarized list of 30 generalized quantity items that will be identified and applied by the contractor using the P6 software application.

2. 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.

3. 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:

3.1 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.

3.2 Use of constraints.

3.3 Use of calendars.

3.4 Estimated number of adverse weather days on a monthly-basis.

3.5 Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.

4. 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. Submit the P6 native data file (XER) and an electronic file (PDF) to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

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 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:

1. 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.

2. 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.

3. 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.

4. 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. Submit the P6 native data file (XER) and an electronic file (PDF) to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

5. 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:

1. Activities underway and as-built dates for the past week.

2. Actual as-built dates for completed activities through final acceptance of the project.

3. Planned work for the upcoming three-week period.

4. 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.

5. 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:

1. Provide data on the following items by the units specified:
   - 1.1 Underground Facilities – LF per week
   - 1.2 Retaining Walls – SF per week
     - MSE Walls
     - Other Wall Types
   - 1.3 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
   - 1.4 Roadway Excavation – CY per week
   - 1.5 Roadway Embankment – CY per week

1.6 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

1.7 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.

2. 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.

3. 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:

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

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

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

4. 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:

1. 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.

2. 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.

3. 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.0060.001	Baseline CPM Progress Schedule	Each
SPV.0060.002	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. Salvage Terminal High-Tension Cable TL-3, Safence, Item SPV.0060.003; Salvage High-Tension Cable TL-3, Socketed, Safence, Item SPV.0090.002.

A Description
This special provision describes salvaging terminals for high-tension cable guard TL-3, Safence, and salvaging high-tension cable guard TL-3, socketed, Safence according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Remove the cable guard and terminals in a manner that prevents damage to all salvageable materials. Salvageable materials are those materials above grade and not embedded in concrete. Replace materials damaged during salvaging at the cost of the contractor. Separate salvaged components, package, and label. All salvageable materials to become property of Rock County. At least 3 days prior to delivery, contact Neil Pierce at (608) 295-2614 to coordinate delivery of materials to the Rock County Highway Department, located at 3715 Newville Road, Janesville, WI 53545.

All components, including footings that are not salvageable are to be removed entirely to a depth of at least 2 feet below subgrade. Dispose of all materials not designated for salvage as specified for disposing of materials under standard spec 203.3.4. Removal and disposal of these components is incidental to the work.

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

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

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.003	Salvage Terminal High-Tension Cable TL-3, Safence	Each
SPV.0090.002	Salvage-Tension Cable TL-3, Socketed, Safence	LF

Payment is full compensation for removing, disassembling, handling, storing, transporting and delivering the materials, replacing contractor-damaged materials and for disposing of unwanted or damaged materials.

54. Cover Plates Permanent, Item SPV.0060.004.

A Description
This special provision describes furnishing and installing a steel plate to cover and support embankment loading at endwalls and similar structures during grading 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 Permanent, acceptably completed in place, as each individual unit.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.004	Cover Plates Permanent	Each

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

The steel plates shall become the property of the department when no longer needed in the contract work.

55. Welding Storm Sewer Covers, Item SPV.0060.100.

A Description
This special provision describes welding storm sewer manhole or inlet covers at locations shown on the plan and hereinafter described.

B (Vacant)

C Construction
Prior to welding, clean out all soil debris, other accumulated matter, and materials deposited or lodged on the storm sewer cover.

Conform to AWA 1.1 “Structural Welding Code-Steel”.

All welding shall be done by skilled, experienced, qualified, and state certified operators.

Provide welding in such a manner that welding can be grounded off for future access.

D Measurement
The department will measure Welding Storm Sewer Covers 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.0060.100	Welding Storm Sewer Covers	Each

Payment is full compensation for cleaning covers, debris removal and disposal, welding, including all welding materials.

56. Crash Cushions Temporary Left In Place, Item SPV.0060.200.

A Description
This special provision describes providing temporary crash cushions to be left in place according to standard spec 614. Crash Cushions Temporary Left In Place become the property of the department upon substantial completion.

B Materials
Furnish temporary crash cushions that are according to the pertinent requirements of standard spec 614.

C Construction
Install temporary crash cushions according to the pertinent requirements of standard spec 614.

Supplement standard spec 614.3.4 with the following:

Locate the manufacturer's foundation pad adjacent to the existing paved shoulder. Provide a transition foundation pad section using a 15:1 taper rate after the required manufacturer's crash cushion pad following the manufacturer's recommended dimensions. Construct this transition piece using identical materials and depths used for the foundation pad. Place aggregate base course behind the transition pad section to blend to existing slopes.

D Measurement
The department will measure Crash Cushions Temporary Left In Place as each individual crash cushion temporary installation, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.200	Crash Cushions Temporary Left In Place	Each

Payment is full compensation for furnishing, installing, and maintaining the crash cushions.

57. Fixed Message Sign Portable Support, Item SPV.0060.201.

A Description
This special provision describes the construction of portable sign supports for fixed message signs as shown on the plans.

B Materials
Use lumber and hardware conforming to standard spec 507.

C Construction
Construct the fixed message sign portable support according to the detail on the plans. Grade pad surrounding location of portable support such that the support can be located on a level surface.

D Measurement
The department will measure Fixed Message Sign Portable Support as each location, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.201	Fixed Message Sign Portable Support	Each

Payment is full compensation for furnishing and installing fixed message sign portable supports; for preparing a level location for sign support; for removing the portable supports at the completion of the work.

58. Traffic Control Barricades Type III with Sign Permanent, Item SPV.0060.202.

A Description
This special provision describes work performed according to standard spec 643, except as herein after modified. The barricades, base supports, signs, and tires shall become the department's property at the completion of the project.

B Materials
Furnish new signs as shown in the plan and conforming to standard spec 643.

Deliver barricades to the location provided below including the base supports, and signs. The barricades shall be 8 feet long and a minimum of 5 feet tall. The horizontal pieces on the barricades shall be constructed with corrugated plastic. The upright pieces and base supports on the barricades shall be constructed using hot rolled high carbon steel. The base support dimensions shall be 5 feet long and be constructed with a square tube receiver that is of adequate size to fit the upright pieces. The upright pieces and base supports are to be painted.

The tires shall be sidewalls cut from existing tires. The sidewalls shall weigh a minimum of 20 pounds per each sidewall. Tires shall have a minimum inside diameter of 12 inches and a maximum outside diameter of 36 inches.

C Construction

Attach each sign prior to delivery to the project as shown in the plan and according to standard spec 643. Provide half of the barricades with the rail stripes and signs set up for barricades placed on the left side of the roadway and provide the remaining half of the barricades with the rail stripes and signs set up for the barricades placed on the right side of the roadway.

Deliver all items pre-assembled to the Rock County Storage Shed located at 3715 Newville Road, Janesville, WI 53545. Notify Neil Pierce at (608) 295-2614 at least one week prior to delivery of the material. Deliver base supports and tires at the same time the pre-assembled barricades are delivered.

D Measurement

The department will measure Traffic Control Barricades Type III with Sign, Permanent in units for each barricade, acceptably delivered. Each barricade consists of the barricade with uprights, two base supports, one sign, and four tire sidewalls.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.202	Traffic Control Barricades Type III with Sign Permanent	Each

Payment is full compensation for furnishing and delivering to the specified location; the barricades, base supports, signs, and tires.

59. One Sided Vertical Panels, Item SPV.0060.203.

A Description

This special provision describes the furnishing and installing one sided vertical panels, their supporting posts, and surface-mounted bases in accordance to the MUTCD and pertinent requirements of standard spec 643. The one sided vertical panels are to remain in place and become the property of the department at the completion of the contract.

B Materials

Provide one sided vertical panels and flexible supporting posts made of non-metallic material that have a reactive spring so as to be resistant to direct wheel impacts with speeds up to 45 mph, and have the capability of immediately restoring itself to a vertical position when struck by a standard vehicle.

The surface-mounted bases are to have a maximum size of 8 inches square and not be a hazard to vehicles.

Provide new and unused one sided hazard marker vertical panels, supporting posts, and bases.

Provide one sided vertical panels with alternating orange and white reflective stripes in accordance to MUTCD. The panels shall face one direction of traffic as indicated on the plans and shall have an overall height above the pavement of 36 inches. The dimensions of the reflective sheeting facing traffic shall be 12 inches by 24 inches. Reflective sheeting shall meet the requirements standard spec 637.2.2.2 and shall be suitable for use on reboundable traffic control devices. The alternating orange and white stripes shall slope downward in the direction traffic is to flow.

Attach one sided vertical panels and supporting posts to the bases in accordance with the manufacturer's recommendations. Fasten the bases to the pavement in accordance to manufacturer’s recommendations.

C (Vacant)

D Measurement
The department will measure One Sided Vertical Panels as each individual unit acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.203	One Sided Vertical Panels	Each

Payment is full compensation for furnishing and installing the one sided vertical panels, their supporting posts, bases and mounting hardware; and for maintaining the one sided vertical panels, posts, and bases during the life of the contract.

60. One Sided Vertical Panels Replacements, Item SPV.0060.204.

A Description
This special provision describes the furnishing of replacement vertical panels, attached to their supporting posts, to the engineer for maintenance after completion of the contract. The work shall be in accordance with the MUTCD and pertinent requirements of standard spec 643.

B Materials
Provide one sided vertical panels and flexible supporting posts made of non-metallic material that have a reactive spring so as to be resistant to direct wheel impacts with speeds up to 45 mph, and have the capability of immediately restoring itself to a vertical position when struck by a standard vehicle.

Provide new and unused one sided vertical panels, their supporting posts and reactive spring assemblies.

Provide one sided vertical panels with alternating orange and white reflective stripes in accordance to MUTCD. The panels shall face one direction of traffic as indicated on the plans and shall have an overall height above the pavement of 36 inches. The dimensions of the reflective sheeting facing traffic shall be 12 inches by 24 inches. Reflective sheeting shall meet the requirements of standard spec 637.2.2.2 and shall be suitable for use on reboundable traffic control devices. The alternating orange and white stripes shall slope downward in the direction traffic is to flow.

Furnish bolts for attaching the one sided vertical panels and supporting posts to their surface-mounted bases in accordance with the manufacturer's recommendations.

C (Vacant)

D Measurement
The department will measure One Sided Vertical Panels Replacements as each individual unit acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.204	One Sided Vertical Panels Replacements	Each

Payment is full compensation for furnishing the replacement one sided vertical panels attached to their supporting posts and reactive spring assemblies; and for furnishing the bolts to attach the one sided vertical panels, posts and spring assemblies to their bases.

61. Remove Street Light, Item SPV.0060.350.

A Description
This special provision describes removing and salvaging a base mounted light pole, transformer bases, arm(s) and luminaire(s).

B (Vacant)

C Construction
Contact the appropriate personnel (as noted in *Street Lighting and Traffic Signal Systems – General Provisions* article) at least seven days prior to removing any street lights on City of Janesville lighting systems. Coordinate with city staff to identify the following information:

- Identify all items to be salvaged or disposed.
- Identify existing feed-point locations and circuit breaks.

When removing existing street lights, carefully remove and stockpile all equipment at a location approved by the engineer. Place all equipment on blocks so as not to be in direct contact with the ground. Protect luminaires from moisture. Make equipment available for pick up and salvage. Properly dispose of any equipment that is not salvaged.

Replace any equipment damaged in the removal process with equipment that is of greater or equal quality than the damaged piece. Removal of existing luminaires and internal wiring shall be considered incidental to this item when the plans and quantities indicate replacement.

Deliver salvaged materials to the City of Janesville Services Center.

D Measurement
The department will measure Remove 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.0060.350	Remove Street Light	Each

Payment is full compensation for removals, salvage, delivery, stockpile and/or disposal as required above.

62. Fiber Tracer Marker Post, Item SPV.0060.401.

A Description
This special provision describes furnishing and installing a fiber tracer marker post.

B Materials
Furnish fiber tracer marker post constructed from high-impact polycarbonate, with stainless steel hardware, five standard terminals, terminal enclosure for cathodic protection, an anchor bar, white and orange in color, fade resistant, ultraviolet stable, a minimum of 62 inches long, 3.5 inch outside diameter, vandalism resistant, and labeled with WARNING FIBER OPTIC CABLE BELOW on the top of the marker molded into the marker and not separately surface applied.

Furnish conduit rigid non-metallic 1-inch for connection into the communications vault.

C Construction
Provide installation at locations shown on the plans and as directed by the engineer. Install so that marker cannot be pulled out or removed manually.

Install conduit rigid non-metallic 1-inch into the communications vault. Connect locate wire to fiber tracer maker post terminal. Follow all manufacturer's recommended installation procedures.

D Measurement
The department will measure Fiber Tracer Marker Post as each individual fiber tracer marker post, 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	Fiber Tracer Marker Post	Each

Payment is full compensation furnishing and installing the fiber tracer marker posts.

63. Poles Wood 65-FT, Item SPV.0060.402.

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 according to the requirements and recommendations of AWPA Standard C1 and the applicable AWPA Commodity Standards. Do not use Creosote for treatment.

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

Install all hardware according to the plans. Furnish and install ground rods, wiring, and other components per National Electric Code. Furnish and install all riser conduit and mounting hardware according to the plans.

D Measurement
The department will measure Poles Wood 65-FT as each individual 65-foot wood 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.0060.402	Poles Wood 65-FT	Each

Payment is full compensation furnishing and installing the wood pole, furnishing and installing all necessary hardware, and making all necessary connections.

64. Install Wireless Mesh Radio Assembly, Item SPV.0060.403.

A Description
This special provision describes installing a wireless mesh radio assembly salvaged from the project.

B Materials
The wireless mesh radio assembly will be salvaged from the project.

Provide all necessary cables and connectors between the wireless mesh radio assembly and other devices.

C Construction
Install the wireless mesh radio assembly as shown in the plan. Configure and integrate the wireless mesh radio assembly to function as intended.

D Measurement
The department will measure Install Wireless Mesh Radio Assembly as each individual wireless mesh radio 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.0060.403	Install Wireless Mesh Radio Assembly	Each

Payment is full compensation for installing a wireless mesh radio assembly; furnishing all necessary incidental hardware; and making all necessary connections.

65. Install Termination Panel, Item SPV.0060.404.

A Description
This special provision describes installing a salvaged fiber optic termination panel.

B Materials
The fiber optic termination panel will be salvaged from the project. Provide mounting hardware as necessary.

C Construction
Install the salvaged fiber optic termination panel as indicated on the plans. Make connections between the termination panel and other communication devices.

D Measurement
The department will measure Install Termination Panel as each individual termination panel, 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	Install Termination Panel	Each

Payment is full compensation for installation of the fiber optic termination panel; furnishing and installing all necessary hardware.

66. Remove Communication Vault, Item SPV.0060.405.

A Description
This special provision describes removing an existing communication vault.

B Materials
Provide all tools and equipment necessary to remove the existing communication vault.

C Construction
Carefully remove the existing communication vault. Backfill with material similar to the material surrounding the removal.

Dispose of removed materials off of department right-of-way.

D Measurement
The department will measure Remove Communication Vault as each individual communication vault, 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.0060.405	Remove Communication Vault	Each

Payment is full compensation for removal and disposal of the communication vault.

67. Remove Poles Type 5, Item SPV.0060.406.

A Description
This special provision describes removing an existing type 5 pole and transformer base.

B Materials
Provide all tools and equipment necessary to remove the existing Type 5 pole and transformer base.

C Construction
Disconnect all cables and wiring that are mounted on or in the pole, and remove the pole from the transformer base. Remove the transformer base from the concrete base.

Dispose of removed materials off of department right-of-way.

D Measurement
The department will measure Remove Poles Type 5 as each individual type 5 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.0060.406	Remove Poles Type 5	Each

Payment is full compensation for removal and disposal of the type 5 pole and transformer base.

68. Furnish and Install Helical Pole Base, Item SPV.0060.450.

A Description
This special provision describes furnishing and installing a helical-type pole base suitable for traffic signal mounting as shown in the plans.

B Materials
Furnish a power-installed Helical Pole Base structurally rated for mounting the traffic signal poles, arms, signal heads, microwave detector assemblies and signs as shown on the plans. Anchor bolt circle and bolt diameter; as well as nuts and washers compatible with the transformer base shall be furnished as part of this item. Furnish pole bases rated for the soils conditions at each proposed installation site.

C Construction
Install the Helical Pole Base according to the manufacturer's specifications. Staking for horizontal position and elevation shall be considered incidental to this item.

Multiple installations/reinstallations of this item at traffic signal locations will be considered incidental to the Temporary Traffic Signals Leave in Place bid items.

D Measurement
The department will measure Furnish and Install Helical Pole Base as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.450	Furnish and Install Helical Pole Base	Each

Payment is full compensation for furnishing and installing helical pole base and anchor bolts.

69. Install 5.8 GHz Ethernet Bridge, Item SPV.0060.451.

A Description
This special provision describes installing or reinstalling a department-furnished, 5.8 GHz Ethernet radio and associated external antenna.

B Materials
Materials will include department-furnished materials and contractor furnished materials. Department-furnished materials include the following:

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

Contractor-furnished materials include the following:

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

All contractor-furnished equipment listed above shall be considered incidental to this bid item.

C Construction
Bond the surge suppressor to the cabinet grounding system.

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

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

D Measurement
The department will measure Install 5.8 GHz Ethernet Bridge as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.451	Install 5.8 GHz Ethernet Bridge	Each

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

70. Remove and Abandon Existing Electrical Service, Item SPV.0060.452.

A Description
This special provision describes removing an in-place electrical service meter breaker pedestal and wires, additional enclosures and attachments, and restoring the site to match the surroundings.

B Materials
Provide all materials necessary to remove the in-place meter breaker pedestal and to restore the surroundings.

C Construction
Prior to removing the meter breaker pedestal, contact the Southwest Region Traffic Section, Graham Heitz at (608) 246-5362 to arrange for disconnection of the service lateral and salvaging/removal of the meter housing by the electrical utility.

After disconnection of the service lateral and salvaging/removal of the meter housing by the electrical utility, carefully remove the meter breaker pedestal including any base or foundation. Properly dispose of meter breaker pedestal components off right-of-way.

Backfill the removal site with material similar to surrounding material and match the surrounding grade.

D Measurement
The department will measure Remove and Abandon Existing Electrical Service by the unit, acceptably removed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.452	Remove and Abandon Existing Electrical Service	Each

Payment is full compensation for removal, backfill, and disposal as required above to complete the contract work.

71. Contact Closure Ethernet Converter, Item SPV.0060.453; Node Event Warning System Controller, Item SPV.0060.454.

A Description

This work shall be according to the requirements of the standard specifications, the plans, standard detail drawings, and as hereinafter provided.

B Materials

B.1 Contact Closure Ethernet Converter

Furnish contact closure to ethernet transmitter as follows:

- Comnet Communications Networks
- Model Number - CNFE8TOE

Furnish contact closure to ethernet receiver as follows:

- Comnet Communications Networks
- Model Number - CNFE8ROE

B.2 Node Event Warning System Controller

Furnish system controller as follows:

- Electronic Integrated Systems Inc.
- Product Description – RTMS/NEWS

All materials including, but not limited to: contact closure converter, system controller, mounting hardware, cables and incidental connections shall be furnished by the contractor.

C Construction

Install contact closure converter and system controller at locations as shown on the plans and according to manufacturer specifications.

Assistance and support with integration with microwave detectors, radio communication equipment, traffic signal equipment and interconnect communications systems shall be considered incidental to the Diversion Trigger System Integrator bid item.

D Measurement

The department will measure Contact Closure Ethernet Converter and Node Event Warning System Controller by each 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.0060.453	Contact Closure Ethernet Converter	Each
SPV.0060.454	Node Event Warning System Controller	Each

Payment is full compensation for furnishing and installing the contact closure converter and system controller; and to test each unit to provide a fully operational diversion trigger system.

72. Install State Furnished 900 MHZ Radio, Item SPV.0060.455.

A Description

This special provision describes installing a department-furnished 900 MHz serial communications spread spectrum radio in a new or existing cabinet, as specified in standard spec 651, 670, 674, and 675, as shown on the plans, and as provided hereinafter. The department will also furnish set-up software for the radio and a lightning protector for the antenna connection.

B Materials

Spread-spectrum radios, antennas, and surge protectors shall be furnished by the department.

Furnish lightning arrestor, cables and connectors to complete the installation.

C Construction

Bond the surge protector to the cabinet grounding system.

Use the manufacturer's set-up software to configure the radio for its intended use.

Following installation of the radio, antenna, and cable, aim the antenna at the matching antenna, as shown on the plans. Use the signal strength indicator on the radio to find the optimum position of the antenna. Also perform a frequency analysis to determine the optimal hop pattern of the radios, and test the continuity of every link by polling the radios using the software provided by the manufacturer. The position of the antenna and the hop pattern shall be adjusted until the polls show at least 200 consecutive polling intervals have been successfully transmitted and received. Demonstrate to the engineer that the hop pattern selected corresponds to the optimal noise free frequencies identified in the frequency analysis. Deliver 3 copies of the final test results to the engineer for signal strength, frequency analysis, and test polling.

Following the installation of the spread spectrum radio assembly, antennas, and cables, perform the following tests:

- V.S.W.R test from the connection at the radio, with a fully configured antenna system (antenna, cable, and all connections). The V.S.W.R. shall not exceed 1.5:1 at 900 MHz.
- Bit error rate test. Test at 5600 bps from the radio to the matching radio shown on the block diagram in the plans. Test for 4 hours at a 2048 bit pattern. Provide a hard copy output of results of each test to the engineer. The maximum error rate will be 1 erroneous bit every 1 million bits.

Additional assistance and support with installing the radios shall be considered incidental to the Diversion Trigger System Integrator bid item.

D Measurement
The department will measure Install State Furnished 900 MHZ Radio as each individual install spread spectrum radio, 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.0060.455	Install State Furnished 900 MHZ Radio	Each

Payment is full compensation for installing, setting up, configuring, and testing the spread spectrum radio and antenna, surge protector, cables, and connections; and for testing.

73. Install State Furnished Yagi Antenna, Item SPV.0060.456.

A Description
This special provision describes installing a department-furnished Yagi spread spectrum radio antenna, and furnish and installing coaxial antenna cable, and metallic conduit on a new or existing cabinet or poles, as specified in standard spec 651, 652, 655, and 670, as shown on the plans, and as provided hereinafter.

B Materials
The department will furnish Yagi Spread spectrum radio antenna for installation. The antenna will have a pigtail for connection to the antenna cable.

Furnish all mounting hardware according to the plans.

Furnish 1/2-inch foam dielectric 50-Ohm coaxial cable meeting the following minimum requirements:

- 50 Ohms impedance (plus / minus 1 Ohm)
- Intended for a range of frequencies including 900 MHz
- Velocity of 88%
- Peak power rating of 40 kW
- DC resistance of 0.45 Ohms / 1000 feet for the inner conductor
- DC resistance of 0.58 Ohms / 1000 feet for the outer conductor
- DC breakdown of 4000 volts
- Jacket Spark of 8000 volts RMS
- Capacitance of 23.1 pF / foot
- Inductance of 0.058 μH / foot
- Copper outer conductor

- Copper-Clad Aluminum inner conductor
- Diameter over jacket 0.63 inches (nominal)
- Diameter over Copper Outer Conductor of 0.55 inches (nominal)
- Diameter of inner conductor of 0.189 inches (nominal)
- Minimum bending radius of 5-inches
- Attenuation of2dB / 1000 feet (nominal) at 900 MHz
- Average power of 1.10 (nominal) at 900 MHz

C Construction

For new or existing cabinets, mount the metallic conduit to the new or existing cabinet with u-bolts.

For poles, mount the antenna as shown in the plans. Mount metallic conduit to new or existing poles, as needed, with stainless steel banding straps as shown on the plans.

Install the antenna cable in the metallic conduit to the antenna.

Connect the antenna drop cable to the antenna. Fully seal the connection using methods and materials recommended by the radio manufacturer. Install the antenna so that it does not block the view of any microwave detectors on the same pole.

Aim the antenna at the matching antenna, as shown in the plans. Use the signal strength indicator on the radio to find the optimum position.

Additional assistance and support with installing the Yagi antenna shall be considered incidental to the Diversion Trigger System Integrator bid item.

D Measurement

The department will measure Install State Furnished Yagi Antenna as each individual yagi antenna, 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.0060.456	Install State Furnished Yagi Antenna	Each

Payment is full compensation for testing and installing the antenna and connections; and for furnishing all metallic conduit, mounting hardware, equipment, transportation, and incidentals necessary to complete the work.

74. Install State Furnished 10-Watt Solar Power Assembly, Item SPV.0060.457.

A Description

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

B Materials

The department will furnish all equipment, including mounting hardware and cables for the complete installation.

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 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 assemblies 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 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 of each location as required on the plans.

Additional assistance and support with installing the solar power assembly shall be considered incidental to the Diversion Trigger System Integrator bid item.

D Measurement

The department will measure Install State Furnished 10-Watt 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.0060.457	Install State Furnished 10-Watt Solar Power Assembly	Each

Payment is full compensation for installing all solar power panels, batteries and cabinets on a pole, for mounting department furnished hardware, for making all connections, for all programming and configuration; for all testing; and for incidentals necessary to complete the contract work.

75. 16-Inch Butterfly Valve, Item SPV.0060.650.

A Description
This special provision describes all work required to furnish and install a butterfly valve according to Section 6.4 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials
Furnish 16-Inch butterfly valves according to Section 6.4.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition. No tap valves are proposed under this item.

C Construction
Install 16-Inch butterfly valves according to Section 6.4.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement
The department will measure 16-Inch Butterfly Valve 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.0060.650	16-Inch Butterfly Valve	Each

Payment is full compensation for excavating, backfilling, making connections, bedding the valves, dewatering, compacting trenches, installing and removing all necessary sheeting and bracing.

76. 6-Inch Tapping Valve and Box, Item SPV.0060.651.

A Description
This special provision describes all work required to furnish and install a 6-Inch Tapping Valve and Box according to Section 6.3 and 6.4 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials
Furnish 6-Inch Tapping Valve and Box according to Section 6.3.1 and 6.4.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition. Tapping sleeve shall be manufactured by Smith-Blair, Inc. and shall be catalog number 662-174006MJ-000.

C Construction
Install 6-Inch Tapping Valve and Box according to Section 6.3.2 and 6.4.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement
The department will measure 6-Inch Tapping Valve and Box 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.0060.651	6-Inch Tapping Valve and Box	Each

Payment is full compensation for excavating, backfilling, making connections, bedding the valves, dewatering, compacting trenches, installing and removing all necessary sheeting and bracing, all valve box adjustments, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

77. 6-Foot Diameter Water Valve Vault, Item SPV.0060.652.

A Description
This special provision describes all work required to furnish and install a 6-Foot Diameter Water Valve Vault according to Section 6.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials
Furnish 6-Foot Diameter Water Valve Vault according to Section 6.2.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction
Install 6-Foot Diameter Water Valve Vault according to Section 6.2.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.
Specifications.

D Measurement
The department will measure 6-Foot Diameter Water Valve Vault 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.0060.652	6-Foot Diameter Water Valve Vault	Each

Payment is full compensation for excavating, backfilling, making connections, bedding the structure, dewatering, compacting trenches, installing and removing all necessary sheeting and bracing, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

78. Water Valve Vault Casting, Item SPV.0060.653.

A Description
This special provision describes all work required to furnish and install Water Valve Vault Casting according to Section 6.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials
Furnish Water Valve Vault Casting according to Section 6.2.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Frame shall be model Neenah R-1710-NR with a Neenah N1090-1092 (WATER UTILITY) cover. Please note covers are a special product produced for City of Janesville.

Adjusting rings shall be either precast concrete or expanded polypropylene plastic (EPP).

C Construction
Install Water Valve Vault Casting according to Section 6.2.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement
The department will measure Water Valve Vault Casting 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.0060.653	Water Valve Vault Casting	Each

Payment is full compensation for providing new frame and cover, adjusting rings, and all other required materials; for installing and adjusting each cover; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

79. Hydrant, Item SPV.0060.654.

A Description
This special provision describes all work required to furnish and install a new water Hydrant according to Section 6.7 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials
Furnish Hydrant according to Section 6.7.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition. Hydrants shall be manufactured by the Waterous Company and shall be Model No. WB67-250 - Classic. Hydrants shall be yellow-coated; open left; and consist of two (2) – 2 ½" National Standard Thread (NST) hose connections, one (1) – 4 ½" NST pumper connection, and #3A operating nuts. Bury depth shall be seven (7) feet.

C Construction
Install Hydrant according to Section 6.7.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement
The department will measure Hydrant 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.0060.654	Hydrant	Each

Payment is full compensation for excavation, installation of new hydrant, placement of bedding and backfill, and for furnishing all other labor, tools, equipment, and incidentals necessary to complete the contract work.

80. Remove and Salvage Hydrant, Item SPV.0060.655.

A Description
This special provision describes removing and salvaging an existing fire hydrant as identified on the drawings.

B Materials
Furnish all materials necessary to complete the work according to Section 6.7 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction
Remove hydrant according to Section 6.7.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Ensure hydrant valve is closed, and remove hydrant so as to not damage for salvage. Add thrust blocking and pipe restraint to valve and existing lead as required to ensure valve will not blow off.

Coordinate with Craig Thiesenhusen, (608) 755-3115, to arrange for delivery of removed materials at least one working day prior to completion of work.

D Measurement
The department will measure Removal and Salvage Hydrant 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.0060.655	Remove and Salvage Hydrant	Each

Payment is full compensation for excavating, backfilling, restoring the site, and disposing of surplus materials; for disassembly, removal, storage, and delivery of the hydrant to the Janesville Water Utility; for securing and blocking existing valve, and for furnishing all tools, materials, labor and incidentals associated with the completion of the work.

81. Temporary Water Main Blowoff, Item SPV.0060.656.

A Description
This special provision describes all work required to furnish and install a temporary water main blowoff according to Section 6.8 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials
Furnish Temporary Water Main Blowoff according to Section 6.8.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

No castings are required for the Temporary Water Main Blowoff.

C Construction
Install Temporary Water Main Blowoff according to Section 6.8.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement
The department will measure Temporary Water Main Blowoff 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.0060.656	Temporary Water Main Blowoff	Each

Payment is full compensation for excavating, backfilling, restoring the site, and disposing of surplus materials; for pipe, fittings, valves; and for furnishing all tools, materials, labor and incidentals associated with the completion of the work.

82. Water Main Cut-In Connection, Item SPV.0060.657.

A Description
This special provision describes all work required to provide a Water Main Cut-In Connection according to Section 6.5 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials
Furnish Water Main Cut-In Connection according to Section 6.5.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction
Complete Water Main Cut-In Connection according to Section 6.5.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement
The department will measure Water Main Cut-In Connection 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.0060.657	Water Main Cut-In Connection	Each

Payment is full compensation for furnishing all required tools, materials, labor and incidentals associated with the completion of the work.

83. 4-Foot Diameter Sanitary Manhole, Item SPV.0060.658.

A Description
This special provision describes all work required to provide a 4-Foot Diameter Sanitary Manhole according to Section 5.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials
Furnish 4-Foot Diameter Sanitary Manhole according to Section 5.2.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Two structures (A1 and A4) may require “doghouse” type manholes to maintain flows through the existing main during construction, depending on contractor’s method for maintaining wastewater flow at all times.

C Construction
Install 4-Foot Diameter Sanitary Manhole according to Section 5.2.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Place concrete benches and flow lines as directed by the City of Janesville.

D Measurement
The department will measure 4-Foot Diameter Sanitary Manhole 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.0060.658	4-Foot Diameter Sanitary Manhole	Each

Payment is full compensation for excavating, backfilling, and disposing of surplus materials; for concrete manhole, bedding, and backfill material; and for furnishing all tools, materials, labor and incidentals associated with the completion of the work.

84. Sanitary Manhole Casting, Item SPV.0060.659.

A Description
This special provision describes all work required to furnish and install Sanitary Manhole Casting according to Section 5.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials
Furnish Sanitary Manhole Casting according to Section 5.2.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Frame shall be model Neenah R-1710-NR with a Neenah N1090-1091 (WASTEWATER UTILITY) cover. Please note covers are a special product produced for City of Janesville.

Adjusting rings shall be either precast concrete or expanded polypropylene plastic (EPP).

Chimney seals shall be Cretex Specialty Products Internal Chimney Seal or engineer approved equal.

C Construction
Install Sanitary Manhole Casting according to Section 5.2.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement
The department will measure Sanitary Manhole Castings 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.0060.659	Sanitary Manhole Casting	Each

Payment is full compensation for providing new frame and cover, adjusting rings, chimney seal, and all other required materials; for installing and adjusting each cover; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

85. Connect to Existing Sanitary Sewer, Item SPV.0060.660.

A Description

This special provision describes all work required to Connect to Existing Sanitary Sewer according to Section 5.4 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish all materials required to Connect to Existing Sanitary Sewer according to Section 5.4.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction

Connect to Existing Sanitary Sewer according to Section 5.4.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Maintain the normal flow of wastewater at all times during installation of the new sanitary sewer manholes, and when connecting new pipes to structures. All bypass pumping, temporary piping, and/or temporary connections, which are required to maintain the normal flow of wastewater throughout construction, is incidental to this item.

D Measurement

The department will measure Connection to Existing Sanitary Sewer 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.0060.660	Connect to Existing Sanitary Sewer	Each

Payment is full compensation for bypass pumping and furnishing all tools, materials, labor and incidentals associated with the completion of the work.

86. Remove Sanitary Sewer Structure, Item SPV.0060.661.

A Description
This special provision describes removing sanitary sewer access structures as shown on the plans. The work includes salvaging and disposing of the resulting materials and backfilling the trenches with select fill.

B Materials
Refer to standard spec 204.

Provide select fill according to Section 4.8 of the City of Janesville Standard Specifications-Latest Edition.

Existing abandoned materials shall remain the property of the contractor, except castings which will be delivered to the City of Janesville. Coordinate with Craig Thiesenhusen, (608) 755-3115, to arrange for delivery of casting at least one working day prior to completion of work.

C Construction
Refer to standard spec 204.

D Measurement
The department will measure Remove Sanitary Sewer Structure 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.0060.661	Remove Sanitary Sewer Structure	Each

Payment is full compensation for furnishing all required excavating, backfilling, and disposing of surplus materials; for backfill material and restoring site; and for furnishing all tools, materials, labor and incidentals associated with the completion of the work.

87. Utility Line Opening, Item SPV.0060.662.

A Description
This special provision describes excavating to uncover utilities for the purpose of determining elevation and potential conflicts as shown in the plans or as directed by the engineer.

B (Vacant)

C Construction

Perform the excavation using hydro-vac excavation and in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

Perform the utility line openings as soon as possible and at least 10 days in advance of proposed utility construction to allow any conflicts to be resolved with minimal disruption. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening is called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Utility line openings include a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Approve and coordinate all utility line openings with the engineer. Notify the utility engineers or their agents of this work a minimum of three days prior to the work so they may be present when the work is completed.

D Measurement

The department will measure Utility Line Opening 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.0060.662	Utility Line Opening	Each

Payment is full compensation for the excavation required to expose the utility line; backfilling with existing material removed from the excavation; compacting the backfill material; restoring the site; and for cleanup.

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings shall not be considered part of our paid for under Utility Line Openings, but shall be considered separate and measured and paid for separately as removal items. Temporary pavement, concrete curb, gutter, and sidewalk items shall also be considered separate from Utility Line Openings and will be measured and paid for separately.

88. Removing HMA Pavement Safety Wedge Longitudinal Joint Milling, Item SPV.0090.001.

A Description

This special provision describes removing the longitudinal safety wedge prior to the HMA paving of the upper layer of the adjacent lane in order to create a vertical longitudinal joint.

B (Vacant)

C Construction
Remove the longitudinal safety wedge constructed according to the standard spec 450.3.2.8 prior to paving the adjacent lane. Provide a uniform milled surface that is reasonably plane, free of excessively large scarification marks, and has the grade and transverse slope the plans show or the engineer directs. Do not damage the remaining pavement.

Use a self-propelled milling machine with depth, grade, and slope controls. Shroud the drum to prevent discharging loosened material onto adjacent work areas or live traffic lanes. Provide an engineer-approved dust control system.

Maintain one lane of the roadway for traffic at all times during off-peak working hours. Do not windrow or store material on the roadway. Clear the roadway of all materials and equipment during peak hours and non-working hours.

D Measurement
The department will measure Removing HMA Pavement Safety Wedge Longitudinal Joint Milling by the linear foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Removing HMA Pavement Safety Wedge Longitudinal Joint Milling	LF

Payment is full compensation for removing HMA pavement; and for hauling and disposal of materials.

89. Concrete Barrier Temporary Precast Left in Place Anchoring, Item SPV.0090.200.

A Description
This special provision describes anchoring temporary precast reinforced concrete barrier left in place. Perform this work according to the pertinent provisions of standard spec 603, these special provisions, and as hereinafter provided.

B (Vacant)

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

Furnish, deliver, and install anchors at the locations shown in the plans, as required by the project conditions, or as directed by the engineer. Install anchors during the initial installation of the temporary concrete barrier.

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

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.200	Concrete Barrier Temporary Precast Left in Place Anchoring	LF

Payment is full compensation for furnishing, delivering, and installing anchoring devices.

90. Concrete Barrier Temporary Precast Anchoring, Item SPV.0090.201.

A Description
This special provision describes anchoring temporary precast reinforced concrete barrier. Perform this work according to the pertinent provisions of standard spec 603, these special provisions, and as hereinafter provided.

B (Vacant)

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

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

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

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

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.201	Concrete Barrier Temporary Precast Anchoring	LF

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

91. Concrete Barrier Temporary Precast Left In Place, Item SPV.0090.202.

A Description
This special provision describes leaving in place temporary precast reinforced concrete barrier conforming to the shape, dimensions, and details the plans show and according to the pertinent provisions of standard spec 603, these special provisions, and as hereinafter provided.

Concrete Barrier Temporary Precast Contractor Left In Place becomes property of the department after final acceptance by the engineer.

Concrete barrier shall be new at initial delivery. Ownership identification shall include the department (DOT).

B (Vacant)

C (Vacant)

D Measurement
The department will measure Concrete Barrier Temporary Precast Left In Place by the linear foot, acceptably completed, measured along the base of the barrier after final installation in its left-in-place location.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.202	Concrete Barrier Temporary Precast Left In Place	LF

Payment is full compensation for leaving Concrete Barrier Temporary Precast on the project site.

Furnishing concrete barrier temporary, initial delivery, installation, reinstallation, trucking between worksites, transitions between temporary and permanent barriers, and anchoring will be paid for separately under the bid items provided for in the contract.

92. Furnish and Install Equivalent Lighting Conductors, Item SPV.0090.350.

A Description

This special provision describes furnishing and installing electrical conductors to match existing street lighting circuits.

B Materials

Furnish electrical conductors equivalent to conductors in existing lighting circuits and incidentals according to the pertinent requirements of standard spec 655.2. Furnish various sizes/types of electrical conductors to match all existing systems within the project limits. All sizes and types of electrical conductors shall be paid under this bid item.

C Construction

Perform a pre-construction site assessment with the City of Janesville and the engineer for all areas where this item is used. The site assessment shall include written documentation of existing service points, circuiting patterns, number of conductors and the conductor size/type.

This item includes the removal and abandonment of any existing conductors which preclude the ability to run new conductors in existing conduit.

Install electrical conductors according to the pertinent requirements of standard spec 655.3.

D Measurement

The department will measure Furnish and Install Equivalent Lighting Conductors in length by the linear foot of tape, measured along the centerline of the conduit multiplied by the number of conductors used.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.350	Furnish and Install Equivalent Lighting Conductors	LF

Payment is full compensation for all labor, tools, equipment, and incidentals necessary to complete the work.

93. Install Cat-5e Cable, Item SPV.0090.450.

A Description

This special provision describes the transporting and installing of department furnished Cat-5e Cable.

B Materials

Pick up the department furnished Cat-5e cable at the department's electrical shop. Notify the department's electrical field unit at to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

Furnish all other necessary materials (ethernet repeaters, connectors including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners) ensuring all materials are in compliance with the WisDOT Qualified Electrical Products List.

C Construction

Install all cables per the cable routing plan. Neatly coil a minimum of 15-feet of extra cable in the traffic signal cabinet. Provide an extra 6-foot loop of cable in each pull box and an extra 10-feet at the top of the wood pole.

Install the Cat-5e Cable from the video detection cameras and microwave detectors to the cabinet. All cable runs less than or equal to 330-feet shall be installed continuously (without splices) from the traffic signal cabinet to the units plus additional length for coils left in pull boxes or bases. Cable runs longer than 330-feet require an ethernet repeater; install the cable continuously (without splices) from the traffic signal cabinet to the pull box, or enclosure at top of wood pole. Install the repeater and install the cable continuously (without splices) from the repeater to the units.

All open field ends shall be taped and covered with a sealant according to standard spec 655.3.1. Terminate the ends of the cable and connect the cable to the video detection cameras and microwave detectors per the manufacturer's specifications. Install the contractor furnished ethernet repeaters per the manufacturer's specifications.

Install all required equipment and make all final connections in the traffic signal cabinet. Mark the cabinet end of the Camera Power Cable and Cat-5e Cable appropriately to indicate the equipment label (i.e. V1, MD-SB2, etc.) in the traffic signal control cabinet.

D Measurement

The department will measure Install Cat-5e Cable by the linear foot of cable, 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.0090.450	Install Cat-5e Cable	LF

Payment is full compensation for transporting and installing the Cat-5e Cable, for making all connections; for furnishing and installing all ethernet repeaters and connectors, including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners; and for testing.

94. 16-Inch Ductile Iron Water Main, Item SPV.0090.650; 6-Inch Ductile Iron Water Main, Item SPV.0090.651.

A Description

This special provision describes all work required to furnish and install Ductile Iron Water Main according to Section 6.5 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish all materials for Ductile Iron Water Main according to Section 6.5.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction

C.1 General Construction Methods

Install Ductile Iron Water Main according to Section 6.5.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Janesville Water Utility, or designated engineering personnel shall oversee the operation of all existing valves, unless noted to be removed and replaced under this Contract, which will require closure as part of the associated installation work, prior to the start of work by the contractor. Notify affected residents of all service interruptions with proper 24 hour notice according to Section 6.1.4 of the City of Janesville Standard Specifications for Public Works Construction. Service interruptions to any businesses shall be coordinated with them a minimum 48 hours in advance.

Supply and install the pipe and necessary fittings (including properly blocked or restrained joints); and bed, cover and backfill, pressure test, and disinfect the new water pipe according to requirements of Section 6.5.2 of the City of Janesville Standard Specifications for Public Works Construction, unless modified below.

Uncover existing water main to which the new main is to be connected so as to allow for adjustment of line or grade to minimize use of fittings and avoid the need for extra fittings. At no time during construction shall a protective trench "shoe or box" be allowed to extend below the spring line of the water main pipe.

C.2 Testing

Fill all new water mains, pressure test, and secure an approved bacteria test, according to Section 6.10 of the city specifications, prior to allowing the new pipe to be connected to the existing water system unless there are valves located at the tie-in location, whereby the valves can be closed tight during the test period. The engineer shall approve a testing plan from the contractor prior to start of the work. Prior to connection to existing mains, the interior of the new "end" valves and/or associated new connection couplings/fittings shall be thoroughly sprayed with a 25 mg/l chlorine solution to provide disinfection. Flush all new water mains prior to taking a sample for the bacteria test. All flushed water shall be tested as specified in Section 6.10.3 of the city specifications.

Connections to existing pipes can be made after new main is completely tested (both pressure and bacteria tests) and accepted by the engineer.

Testing of all connections to existing water system shall be by visual observance of leakage, by the engineer; at existing system pressure after main is placed back into service and prior to backfilling. Any leakage observed shall be repaired, as approved by the engineer, to completely stop any leakage.

Assure continuity between sleeved connections to existing/new mains (in same configuration as standard pipe joints), and the engineer must approve continuity on all sleeved connections. Continuity of the new main shall be tested by the contractor, with the engineer present, prior to placing main into service.

D Measurement

The department will measure Ductile Iron Water Main by the linear foot, acceptably completed. This measurement equals the distance along the centerline of the pipe (including fittings and valves), from center to center of end structures or from center of end structure to the terminus of new pipe where no structure exists.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.650	16-Inch Ductile Iron Water Main	LF
SPV.0090.651	6-Inch Ductile Iron Water Main	LF

Payment is full compensation for furnishing all work described herein, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work, and for which a separate bid item is not provided.

Payment includes trench excavation; supply and installation of new pipe; placement of bedding and cover materials; blocking; sheeting/shoring; making connections; anchoring pipe; placement and compaction of backfill; testing and disinfection of pipe/fittings; and other miscellaneous items necessary for a complete installation, and for which a separate bid item is not provided.

95. 10-Inch PVC Sanitary Sewer, Item SPV.0090.652.

A Description

This special provision describes all work required to furnish and install 10-Inch PVC Sanitary Sewer according to Section 5.4 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

B Materials

Furnish all materials for 10-Inch PVC Sanitary Sewer according to Section 5.4.1 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction
Install 10-Inch PVC Sanitary Sewer according to Section 5.4.2 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

D Measurement
The department will measure 10-Inch PVC Sanitary Sewer by the linear foot, acceptably completed. This measurement equals the distance along the centerline of the pipe, from centers of manholes.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.652	10-Inch PVC Sanitary Sewer	LF

Payment is full compensation for furnishing all work described herein, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work, and for which a separate bid item is not provided.

Payment includes trench excavation; supply and installation of new pipe; placement of bedding and cover materials; blocking; sheeting/shoring; making connections; placement and compaction of backfill; testing and disinfection of pipe/fittings; and other miscellaneous items necessary for a complete installation, and for which a separate bid item is not provided.

96. Televise Sanitary Sewer, Item SPV.0090.653.

A Description
This special provision describes all work required to Televise Sanitary Sewer according to Section 5.8.3 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Televising shall be performed prior to any line segment be put into service.

B Materials
Furnish all materials to Televise Sanitary Sewer according to Section 5.8.3 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

C Construction
Complete Televise Sanitary Sewer according to Section 5.8.3 of the City of Janesville Standard Specifications for Public Works Construction, Latest Edition.

Newly installed sanitary sewer shall be televised on two separate events. The first televising event shall occur upon completion of the sanitary sewer installation, and prior to commencement of bridge work to verify the main is installed properly. The second event shall occur upon completion of all bridge median work, and will verify the newly installed sewer hasn't been damaged during pile driving or shoring work.

D Measurement
The department will measure Televise Sanitary Sewer by the linear foot, acceptably completed. Measurements shall be made from the center of manhole to center of manhole for each section televised and confirmed by the engineer.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.653	Televise Sanitary Sewer	LF

Payment for televising sanitary sewer is full compensation for furnishing all work described herein, and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work, and for which a separate bid item is not provided.

97. Survey Project 1003-10-83, Item SPV.0105.001; 1005-10-73, Item SPV.0105.002; 1005-10-82, Item SPV.0105.003.

A Description
Perform work conforming to standard spec 105.6 and 650.

Standard spec 105.6 and standard spec 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-mile intervals for horizontal control and at 1/2-mile 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 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 according 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 (Project Number) as each 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.0105.001	Survey Project 1003-10-83	LS
SPV.0105.002	Survey Project 1005-10-73	LS
SPV.0105.003	Survey Project 1005-10-82	LS

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.

98. Concrete Pavement Joint Layout, Item SPV.0105.004.

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 according 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 according 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.0105.004	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.

99. Salvage ITS Equipment, Item SPV.0105.401.

A Description
This special provision describes salvaging existing ITS equipment as indicated on the plans.

B Materials
Provide all tools and equipment necessary to salvage the existing ITS equipment.

C Construction
Prior to salvaging, the Field System Integrator must determine if the ITS equipment is fully functional. If any part of the ITS equipment is found to not meet original manufacturer's specifications, contact Kyle Hemp of the WisDOT SW Region at (608) 246-5367.

Carefully salvage the existing ITS equipment at the location indicated on the plans. Salvage all mounting hardware and cables/wires associated with the ITS equipment.

Reinstallation of the ITS equipment, as indicated on the plans or as directed by the engineer, including any new materials required (cables or mounting hardware for example) will be paid for under other bid items.

Reinstall and make operational the ITS equipment within five days of salvaging.

Storage of salvaged materials prior to reinstallation is the responsibility of the contractor and is incidental to this item.

Any salvaged materials which are damaged during salvaging, transport, or the reinstallation process will be repaired or replaced at the expense of the contractor.

D Measurement
The department will measure Salvage ITS Equipment, completed according 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.0105.401	Salvage ITS Equipment	LS

Payment is full compensation for salvaging the ITS equipment.

100. Transporting and Installing State Furnished Adaptive Traffic Signal Cameras (STH 26 and IH 39 SB Ramps), Item SPV.0105.450; (STH 26 and IH 39 NB Ramps), Item SPV.0105.451.

A Description
This special provision describes the transporting and installing of department furnished Adaptive Traffic Signal Cameras and mounting hardware.

B Materials
Pick up the department furnished Adaptable Traffic Signal Cameras, camera processor and mounting hardware at the department's electrical shop. Notify the department's electrical field unit to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

Furnish all remaining fasteners and wiring connections as incidental to this item.

C Construction
Install cameras and mounting hardware at locations as shown on the plans. Test and verify that each zone shown on the plans can be detected by each camera, as indicated in the plans. Adjust camera position/orientation as needed to provide detection at all zones shown on the plans. Multiple installations/adjustments may be required and shall be considered incidental to this bid item.

Assistance and support with programming the cameras shall be considered incidental to the Traffic Signals Systems Integrator bid item.

Installation and integration of the camera processor shall be considered incidental to the respective Install State Furnished Traffic Signal Cabinet bid item(s).

D Measurement
The department will measure Transporting and Installing State Furnished Adaptive Traffic Signal Cameras [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	Transporting and Installing State Furnished Adaptive Traffic Signal Cameras (STH 26 and IH 39 SB Ramps)	LS
SPV.0105.451	Transporting and Installing State Furnished Adaptive Traffic Signal Cameras (STH 26 and IH 39 NB Ramps)	LS

Payment is full compensation for transporting and installing the State Furnished Adaptable Traffic Signal System cameras and mounting hardware; and to aim and test each unit to provide a fully operational video detection system.

101. Install State Furnished Microwave Vehicle Detection (STH 26 and IH 39 SB Ramps), Item SPV.0105.452; (STH 26 and IH 39 NB Ramps), Item SPV.0105.453.

A Description

This special provision describes the transporting and installing of department furnished microwave vehicle detectors and mounting hardware.

B Materials

All materials including, but not limited to: microwave sensor(s), detector card(s) and mounting hardware shall be furnished by the department.

C Construction

Install microwave detectors and mounting hardware at locations as shown on the plans. Test and verify that each zone shown on the plans can be detected by each microwave detector, as indicated in the plans. Adjust detector position/orientation as needed to provide detection at all zones shown on the plans. Multiple installations/adjustments may be required and shall be considered incidental to this bid item.

Assistance and support with programming the microwave detectors shall be considered incidental to the Traffic Signals Systems Integrator bid item.

Installation and integration of the detector interface cards shall be considered incidental to the respective Install State Furnished Traffic Signal Cabinet bid item(s).

D Measurement

The department will measure Install State Furnished Microwave Vehicle Detection (Location) completed according to the contract 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.0105.452	Install State Furnished Microwave Vehicle Detection (STH 26 and IH 39 SB Ramps)	LS
SPV.0105.453	Install State Furnished Microwave Vehicle Detection (STH 26 and IH 39 NB Ramps)	LS

Payment is full compensation for transporting and installing the state furnished microwave vehicle detectors and mounting hardware; and to aim and test each unit to provide a fully operational microwave detection system.

102. Install State Furnished Emergency Vehicle Preemption Equipment (STH 26 and IH 39 SB Ramps), Item SPV.0105.454; (STH 26 and IH 39 NB Ramps), Item SPV.0105.455.

A Description

This special provision describes installing a state furnished Emergency Vehicle Preemption (EVP) System at the location shown on the plans and as provided hereafter.

B Materials

Provide polycarbonate traffic signal face mounting brackets, reducing bushings, lock rings, pinnacles (cap), pole grommets (or chase nipple), and any incidental items necessary for installation not furnished by the department.

Card rack and discriminator equipment will be installed and supplied by the department.

C Construction

Mount detectors and confirmation lights on the luminaire arms as shown on the plans.

Mount the EVP receiver and confirmation light as shown on the plans. Install the cable from the traffic signal control cabinet to the EVP receiver. Include a six foot loop of cable in the pull box nearest the mounting pole. Allow three days for scheduling of test for final acceptance. The department will supply, install, and terminate the card rack and discriminator equipment in the cabinet.

D Measurement

The department will measure Install State Furnished Emergency Vehicle Preemption Equipment (Location) as a single lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.454	Install State Furnished Emergency Vehicle Preemption Equipment (STH 26 and IH 39 SB Ramps)	LS
SPV.0105.455	Install State Furnished Emergency Vehicle Preemption Equipment (STH 26 and IH 39 NB Ramps)	LS

Payment is full compensation for installing all EVP detector equipment and cable; furnishing and installing the mounting hardware and any miscellaneous items necessary to complete the entire system at the specified intersection; coordination with the department for delivery and installation of department furnished components necessary to compete the contract work.

103. Temporary Traffic Signals for Intersections Leave in Place (STH 26 and IH 39 SB Ramps), Item SPV.0105.456; (STH 26 and IH 39 NB Ramps), Item SPV.0105.457.

A Description

This work shall be according to the requirements of standard spec 661, the plans, standard detail drawings, and as hereinafter provided.

This special provision describes furnishing and installing a long term duration temporary traffic signal installation at the locations as shown on the plans. After installation of approval or work, maintenance and operational responsibilities of the temporary traffic signals is to be transferred to the Wisconsin Department of Transportation. Future operation and removal of the installation will be completed under a separate future construction contract (1005-10-77).

B Materials

B.1 General

According to the plans and standard spec 661.2 and as hereinafter provided:

Furnish all new and current model equipment and materials suitable for a multi-year temporary traffic signal installation capable of operations over winter.

Contractor furnished materials become the property of the department upon completion of the contract to be used for future contracts (1005-10-77).

B.2 Temporary Signal Cabinet Base

Furnish a temporary signal cabinet base platform, stringers and post material from green-treated lumber rated for direct contact with the ground. Furnish galvanized fasteners.

B.3 Street Lighting
Furnish street lighting equipment including arms, luminaires, cable mounting hardware, wiring and incidentals necessary to provide lighting as shown on the temporary traffic signal plans. Aerial cables shall be rated to maintain acceptable voltage drop and span tension.

B.4 Aerial Power Distribution
Furnish wood poles, conduit, and aerial cable rated for power distribution and to maintain acceptable voltage drop and span tension. Furnish poles of sufficient length to allow for grading operations to occur as construction progresses, while providing working clearances to surrounding surfaces at all times.

C Construction
C.1 General
According to the plans and standard spec 661.3 and as hereinafter provided:

Coordinate the route planning with all items of work associated with the project. The contractor is to maintain all span wire during all roadway and signal construction activities. Contractor is to provide adequate delineation of temporary signal wood poles within the roadway clear zone.

C.2 Temporary Signal Cabinet Base
Construct and install the base according to the plans at a location shown in the plans.

C.3 Street Lighting
Install arms and luminaires as shown on the plans.

C.4 Aerial Power Distribution
Stake out the planned overhead power distribution route in the field and notify the engineer for approval prior to starting work.

Install wood poles, aerial cable, and conduit as shown on the plans.

C.5 Integration/Operation
Adjustments, operations and maintenance to signal heads, poles, arms and other components of the fully operational traffic signal shall be considered incidental to this bid item for the duration of the contract.

Bagging and turning signal heads when not in operation shall be considered incidental to this bid item.

C.6 Operational Transfer
Upon post construction approval, the contractor will transfer the operational responsibilities to the Wisconsin Department of Transportation. Contractor furnished materials will become the property of the department to be used on future project 1005-10-77. The department will assume all maintenance and operational responsibilities of the temporary traffic signal equipment upon completion and transfer.

D Measurement
The department will measure Temporary Traffic Signals For Intersections Leave In Place (Location) as a single lump sum unit 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.0105.456	Temporary Traffic Signals For Intersections Leave In Place (STH 26 and IH 39 SB Ramps)	LS
SPV.0105.457	Temporary Traffic Signals For Intersections Leave In Place (STH 26 and IH 39 NB Ramps)	LS

Payment is full compensation for furnishing and installing aerial power distribution cables and for overhead route planning, approval and staking.

104. Traffic Signal & Diversion Trigger Systems Integrator, Item SPV.0105.458.

A Description
This special provision describes personnel qualifications, contract roles, construction methods, testing and documentation requirements used to perform traffic signal and ITS work.

B Materials
Materials shall be in accordance to standard spec 651.2 and as hereinafter provided:

Facilitate all contractor and department-furnished item approvals and orders for scheduling of installation activities.

C Construction
Construction shall be in accordance to standard spec 670.3 with the exception of the term "ITS" being replaced by "Traffic Signal and ITS", and as hereinafter provided:

Delete the requirement for the Integrator to be selected from the department's approved field system integrator list. The Traffic Signal & Diversion Trigger Systems Integrator may be on the list but shall also demonstrate qualifications necessary to provide management, assistance and expertise in the areas listed under section 670.3.2.1. The

Integrators shall also have experience with assembling components of traffic signal and ITS systems to include the following:

Traffic Signal & Diversion Trigger Systems Integrator

- Standard equipment as furnished by the department for traffic signals
- Video detection equipment as furnished by the department
- Microwave detection equipment as furnished by the department
- Wireless and ethernet communications equipment
- Emergency vehicle preemption equipment
- Contact closure converters (as component of existing diversion trigger system)

Provide an ongoing role as Integrator beginning with the compilation, review and approval of material submittals; through installation, testing, trouble-shooting and final acceptance of the working traffic signal system and diversion trigger system; and all components including as built documentation. The Integrator role includes participation in weekly progress meetings as required by construction activities.

Provide a management role during the traffic signal cabinet assembly and testing process, prior to field installation. Cabinet assembly is anticipated to include various levels of support provided by the Integrator, department electrical staff, the engineer and the contractor. Ensure all equipment is delivered and properly installed within the specified timeframes enforced under this contract.

D Measurement

The department will measure Traffic Signal & Diversion Trigger Systems Integrator as a single lump sum unit for all services, acceptably completed under the contract.

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	Traffic Signal & Diversion Trigger Systems Integrator	LS

Payment is full compensation for providing specified expertise, assistance, assembly and documentation. The department will pay separately for other traffic signal and ITS work under the various bid items in the contract.

105. Abandon Water Main In Place, Item SPV.0105.650.

A Description

This special provision includes all work performed to abandon existing water main according to limits as noted in the plans and hereinafter described. All services determined to be inactive, shall be abandoned as specified in the sections below.

B Materials
The slurry flowable fill materials must comply with a lean grout fill and each cubic yard shall consist of the following:

300 Lbs. of Fly Ash
2800 Lbs. of Fine Aggregate
45 Gals. Of Water
100 Lbs. of Portland Cement

No additional water will be allowed unless approved by the engineer. The above weights are damp weights. Thorough mixing time at each site shall be one minute prior to slurry placement.

C Construction
The contractor shall coordinate work with the engineer and Water Utility to plug inactive connections on existing mains that will remain live. Testing of this connection shall be by visual observance of leakage, by the engineer; at existing system pressure after main is placed back into service and prior to backfilling. Any leakage observed shall be repaired, as approved by the engineer, to completely stop any leakage.

The contractor shall fill existing line to be abandoned (as indicated on plans) with specified flowable slurry fill at a sufficient pressure to fill the line. The engineer shall determine when the line is adequately filled. After placement of slurry, the downstream pipe end shall be plugged with non-shrink grout.

D Measurement
The department will measure Abandon Water Main in Place 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.0105.650	Abandon Water Main In Place	LS

Payment for abandoning existing water main is full compensation for exposing and opening existing pipe, supplying and placing the flowable fill into the pipe, plugging existing pipe at ends, and clean up.

106. Abandon Sanitary Sewer In Place, Item SPV.0105.651.

A Description
This special provision includes all work performed to abandon existing sanitary sewer according to limits as noted in the plans and hereinafter described.

B Materials
The slurry flowable fill materials must comply with a lean grout fill and each cubic yard shall consist of the following:

300 Lbs. of Fly Ash
2800 Lbs. of Fine Aggregate
45 Gals. Of Water
100 Lbs. of Portland Cement

No additional water will be allowed unless approved by the engineer. The above weights are damp weights. Thorough mixing time at each site shall be one minute prior to slurry placement.

C Construction
The contractor shall fill existing line to be abandoned (as indicated on plans) with specified flowable slurry fill at a sufficient pressure to fill the line. The engineer shall determine when the line is adequately filled. It may be necessary to excavate other openings in the sewer lines in order to adequately fill the line. After placement of slurry, the downstream pipe end in existing manholes shall be plugged with non-shrink grout as specified in Section 5.2.2 of the City Specifications.

D Measurement
The department will measure Abandon Sanitary Sewer In Place 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.0105.651	Abandon Sanitary Sewer In Place	LS

Payment for abandoning existing sanitary sewer is full compensation for exposing and opening existing pipe, supplying and placing the flowable fill into the pipe, plugging existing pipe at pipe ends, and clean up.

107. Fixed Message Signs Left in Place, Item SPV.0165.250.

A Description
This special provision describes furnishing and installing fixed message signs to be left in place as shown on the plans and described hereinafter.

Fixed Message Signs Left in Place become property of the department after final acceptance by the engineer.

B Materials
Furnish new signs as shown in the plan and conforming to standard spec 643.

C Construction
Perform this work according to standard spec 643.3 and as hereinafter provided.

D Measurement
The department will measure Fixed Message Signs Left in Place by the square foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.250	Fixed Message Signs Left in Place	SF

Payment is full compensation for furnishing and installing the Fixed Message Signs Left in Place, and for leaving signs on project site.

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
SPV.0035.001	Roadway Embankment	CY	0.23

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 $1.90 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:

550.5.2 Piling

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

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

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

643.2.1 General

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

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

Errata

Make the following corrections to the standard specifications:

641.2.9 Overhead Sign Supports

Correct errata adding back accidentally deleted paragraphs one through three.

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

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

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

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

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

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

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Tess Mulrooney at 608-267-4489 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at:

http://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

Effective August 2015 letting

BUY AMERICA PROVISION

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

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

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

http://wisconsindot.gov/rdwy/worksheets/ws4567.doc

Effective with September 2004 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

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

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contacts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this in not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.

b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)

c. A copy of the contractor's Equal Employment Opportunity Policy.

d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

IV. WAGE RATE REDISTRIBUTION

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

V. ADDITIONAL CLASSIFICATIONS

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.

2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.

3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.

4. The unlisted classification must be commonly employed in the area where the project is located.

5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.

6. The request should be made prior to the actual performance of the work by the unlisted classification.

7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.

8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).

ANNUAL PREVAILING WAGE RATE DETERMINATION
FOR ALL STATE HIGHWAY PROJECTS
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, 2015

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

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

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

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

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

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Bricklayer, Blocklayer or Stonemason	32.14	17.99	50.13
Carpenter	32.72	16.00	48.72
Future Increase(s): Add $1.42/hr on 6/1/2015; Add $1.42/hr on 6/1/2016.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Cement Finisher	35.18	16.78	51.96
Future Increase(s): Add $1.87 on 6/1/15; Add $1.75 on 6/1/16.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	33.93	22.77	56.70
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	23.73	4.79	28.52
Ironworker	36.29	31.83	68.12
Future Increase(s): Add $2.10/hr on 6/1/15; Add $2.30/hr on 6/1/16			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sundaty, New Year's Day,Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Line Constructor (Electrical)	39.50	19.15	58.65
Painter	26.65	13.10	39.75
Pavement Marking Operator	29.22	24.68	53.90
Piledriver	33.24	16.00	49.24
Future Increase(s): Add $1.44/hr on 6/1/2015; Add $1.44/hr on 6/1/2016.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Roofer or Waterproofer	39.20	14.67	53.87
Teledata Technician or Installer	22.25	12.33	34.58
Tuckpointer, Caulker or Cleaner	23.60	7.10	30.70
Underwater Diver (Except on Great Lakes)	35.40	15.90	51.30
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	35.55	15.57	51.12
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	31.60	15.43	47.03
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.65	13.44	41.09
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.68	12.83	38.51
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	12.97	34.72
TRUCK DRIVERS			
Single Axle or Two Axle	25.18	18.31	43.49
Future Increase(s): Add $1.15/hr on 6/1/2015. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Three or More Axle	25.28	18.31	43.59
Future Increase(s): Add $1.15/hr on 6/1/2015. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Articulated, Euclid, Dumptor, Off Road Material Hauler	30.27	21.15	51.42
Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Pavement Marking Vehicle	23.16	17.13	40.29
Shadow or Pilot Vehicle	24.37	17.77	42.14
Truck Mechanic	24.52	17.77	42.29
LABORERS			
General Laborer	30.13	15.14	45.27
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: Add $.10/hr for topman, 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	22.05	17.61	39.66
Landscaper	30.13	15.14	45.27
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination			

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	26.76	15.14	41.90
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.33	13.65	31.98
Railroad Track Laborer	14.50	3.93	18.43
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type).	37.72	21.15	58.87
Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.	37.22	21.15	58.37
Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, VIbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane WIth a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub	36.72	21.15	57.87

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or WIthout Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.	36.46	21.15	57.61
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.	36.17	21.15	57.32
Fiber Optic Cable Equipment.	28.89	17.95	46.84

SCHEDULE OF ITEMS REVISED:

CONTRACT:	PROJECT(S):	FEDERAL ID(S):
20160209001	1003-10-83	N/A
	1005-10-73	N/A
	1005-10-82	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	98.000 STA		.		.
0020	201.0205 Grubbing	98.000 STA		.		.
0030	203.0100 Removing Small Pipe Culverts	35.000 EACH		.		.
0040	203.0200 Removing Old Structure (station) 001. 768+67 'TWSB' IH 39/90 SB	LUMP	LUMP			.
0050	203.0200 Removing Old Structure (station) 002. 908+05 'TWSB' IH 39/90 NB	LUMP	LUMP			.
0060	203.0200 Removing Old Structure (station) 003. 974+18 'TWSB' IH 39/90 SB	LUMP	LUMP			.
0070	203.0200 Removing Old Structure (station) 004. 937+14 'TWSB' IH 39/90 SB	LUMP	LUMP			.
0080	203.0200 Removing Old Structure (station) 005. 948+33 'TWSB' IH 39/90 SB	LUMP	LUMP			.

SCHEDULE OF ITEMS REVISED:

CONTRACT:	PROJECT(S):	FEDERAL ID(S):
20160209001	1003-10-83	N/A
	1005-10-73	N/A
	1005-10-82	N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0090	203.0200 Removing Old Structure (station) 006. 923+24.13 'TWSB'	LUMP	LUMP			.
0100	203.0200 Removing Old Structure (station) 007. 963+49.32 'TWSB'	LUMP	LUMP			.
0110	203.0225.S Debris Containment (structure) 001. B-53-65	LUMP	LUMP			.
0120	203.0225.S Debris Containment (structure) 002. B-53-85	LUMP	LUMP			.
0130	204.0100 Removing Pavement	69,175.000 SY		.		.
0140	204.0110 Removing Asphaltic Surface	14,110.000 SY		.		.
0150	204.0120 Removing Asphaltic Surface Milling	1,250.000 SY		.		.
0160	204.0155 Removing Concrete Sidewalk	350.000 SY		.		.
0170	204.0157 Removing Concrete Barrier	150.000 LF		.		.
0180	204.0165 Removing Guardrail	8,520.000 LF		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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	204.0170 Removing Fence	5,356.000 LF		.		.
0200	204.0180 Removing Delineators and Markers	218.000 EACH		.		.
0210	204.0195 Removing Concrete Bases	4.000 EACH		.		.
0220	204.0220 Removing Inlets	24.000 EACH		.		.
0230	204.0245 Removing Storm Sewer (size) 001. 12-Inch	35.000 LF		.		.
0240	204.0245 Removing Storm Sewer (size) 002. 15-Inch	50.000 LF		.		.
0250	204.0245 Removing Storm Sewer (size) 003. 18-Inch	208.000 LF		.		.
0260	204.0245 Removing Storm Sewer (size) 004. 24-Inch	15.000 LF		.		.
0270	204.0245 Removing Storm Sewer (size) 005. 30-Inch	102.000 LF		.		.
0280	204.0245 Removing Storm Sewer (size) 006. 36-Inch	45.000 LF		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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	204.0245 Removing Storm Sewer (size) 007. 48-Inch	15.000 LF		.		.
0300	204.9180.S Removing (item description) 001. Concrete Flume	101.000 SY		.		.
0310	205.0100 Excavation Common	136,037.000 CY		.		.
0320	206.1000 Excavation for Structures Bridges (structure) 001. B-53-65	LUMP	LUMP			.
0330	206.1000 Excavation for Structures Bridges (structure) 002. B-53-85	LUMP	LUMP			.
0340	208.1100 Select Borrow	78,007.000 CY		.		.
0350	210.0100 Backfill Structure **P**	417.000 CY		.		.
0360	211.0400 Prepare Foundation for Asphaltic Shoulders	285.000 STA		.		.
0370	213.0100 Finishing Roadway (project) 001. 1003-10-83	1.000 EACH		.		.
0380	213.0100 Finishing Roadway (project) 002. 1005-10-73	1.000 EACH		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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	213.0100 Finishing Roadway (project) 003. 1005-10-82	1.000 EACH		.		.
0400	305.0110 Base Aggregate Dense 3/4-Inch	3,575.000 TON		.		.
0410	305.0120 Base Aggregate Dense 1 1/4-Inch	230,890.000 TON		.		.
0420	312.0110 Select Crushed Material	7,400.000 TON		.		.
0430	415.0090 Concrete Pavement 9-Inch **P**	5,880.000 SY		.		.
0440	415.0410 Concrete Pavement Approach Slab	210.000 SY		.		.
0450	416.0610 Drilled Tie Bars	1,682.000 EACH		.		.
0460	416.0620 Drilled Dowel Bars	90.000 EACH		.		.
0470	416.1010 Concrete Surface Drains	10.000 CY		.		.
0480	416.1715 Concrete Pavement Repair SHES	280.000 SY		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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	416.1725 Concrete Pavement Replacement SHES	2,988.000 SY		.		.
0500	455.0105 Asphaltic Material PG58-28	2,775.000 TON		.		.
0510	455.0120 Asphaltic Material PG64-28	1,646.000 TON		.		.
0520	455.0605 Tack Coat	15,855.000 GAL		.		.
0530	460.1110 HMA Pavement Type E-10	6,190.000 TON		.		.
0540	460.1130 HMA Pavement Type E-30	73,655.000 TON		.		.
0550	460.2000 Incentive Density HMA Pavement	51,160.000 DOL	1.00000		51160.00	
0560	465.0105 Asphaltic Surface	30.000 TON		.		.
0570	465.0125 Asphaltic Surface Temporary	245.000 TON		.		.
0580	465.0315 Asphaltic Flumes	65.000 SY		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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	502.0100 Concrete Masonry Bridges **P**	874.000 CY		.		.
0600	502.2000 Compression Joint Sealer Preformed Elastomeric (width) 001. 2-Inch	56.000 LF		.		.
0610	503.0137 Prestressed Girder Type I 36W-Inch **P**	1,383.000 LF		.		.
0620	505.0400 Bar Steel Reinforcement HS Structures **P**	23,310.000 LB		.		.
0630	505.0600 Bar Steel Reinforcement HS Coated Structures **P**	146,000.000 LB		.		.
0640	506.2605 Bearing Pads Elastomeric Non-Laminated **P**	36.000 EACH		.		.
0650	506.2610 Bearing Pads Elastomeric Laminated **P**	12.000 EACH		.		.
0660	506.4000 Steel Diaphragms (structure) 001. B-53-65 **P**	12.000 EACH		.		.
0670	506.4000 Steel Diaphragms (structure) 002. B-53-85 **P**	8.000 EACH		.		.
0680	509.3500.S HMA Overlay Polymer-Modified	141.000 TON		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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	511.1200 Temporary Shoring (structure) 001. B-53-65	2,575.000 SF		.		.
0700	511.1200 Temporary Shoring (structure) 002. B-53-85	2,632.000 SF		.		.
0710	516.0500 Rubberized Membrane Waterproofing **P**	34.000 SY		.		.
0720	520.8000 Concrete Collars for Pipe	40.000 EACH		.		.
0730	520.8700 Cleaning Culvert Pipes	35.000 EACH		.		.
0740	521.0118 Culvert Pipe Corrugated Steel 18-Inch	84.000 LF		.		.
0750	521.0130 Culvert Pipe Corrugated Steel 30-Inch	25.000 LF		.		.
0760	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	3.000 EACH		.		.
0770	521.1030 Apron Endwalls for Culvert Pipe Steel 30-Inch	2.000 EACH		.		.
0780	521.2005.S Surface Drain Pipe Corrugated Metal Slotted (inch) 001. 18-Inch	470.000 LF		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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	522.0118 Culvert Pipe Reinforced Concrete Class III 18-Inch	62.000 LF		.		.
0800	522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch	136.000 LF		.		.
0810	522.0318 Culvert Pipe Reinforced Concrete Class IV 18-Inch	209.000 LF		.		.
0820	522.0324 Culvert Pipe Reinforced Concrete Class IV 24-Inch	68.000 LF		.		.
0830	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	2.000 EACH		.		.
0840	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	21.000 EACH		.		.
0850	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	14.000 EACH		.		.
0860	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	1.000 EACH		.		.
0870	523.0519 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	1.000 EACH		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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
0880	550.0010 Pre-Boring Unconsolidated Materials	228.000 LF		.		.
0890	550.2128 Piling CIP Concrete 12 3/4 X 0.50-Inch	865.000 LF		.		.
0900	601.0409 Concrete Curb & Gutter 30-Inch Type A **P**	120.000 LF		.		.
0910	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A **P**	295.000 LF		.		.
0920	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D **P**	3,100.000 LF		.		.
0930	602.0410 Concrete Sidewalk 5-Inch **P**	1,160.000 SF		.		.
0940	603.8000 Concrete Barrier Temporary Precast Delivered	41,200.000 LF		.		.
0950	603.8125 Concrete Barrier Temporary Precast Installed	41,200.000 LF		.		.
0960	604.0500 Slope Paving Crushed Aggregate **P**	462.000 SY		.		.
0970	606.0200 Riprap Medium	108.000 CY		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
0980	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	91.000 LF		.		.
0990	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	5.000 LF		.		.
1000	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	2,118.000 LF		.		.
1010	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	1,158.000 LF		.		.
1020	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	47.000 LF		.		.
1030	608.0348 Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	24.000 LF		.		.
1040	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	264.000 LF		.		.
1050	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	704.000 LF		.		.
1060	610.0419 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	125.000 LF		.		.
1070	611.0535 Manhole Covers Type J-Special	1.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
1080	611.0610 Inlet Covers Type BW	5.000 EACH		.		.
1090	611.0612 Inlet Covers Type C	2.000 EACH		.		.
1100	611.0627 Inlet Covers Type HM	2.000 EACH		.		.
1110	611.0642 Inlet Covers Type MS	36.000 EACH		.		.
1120	611.2004 Manholes 4-FT Diameter	1.000 EACH		.		.
1130	611.2006 Manholes 6-FT Diameter	2.000 EACH		.		.
1140	611.3004 Inlets 4-FT Diameter	2.000 EACH		.		.
1150	611.3225 Inlets 2x2.5-FT	3.000 EACH		.		.
1160	611.3230 Inlets 2x3-FT	2.000 EACH		.		.
1170	611.3901 Inlets Median 1 Grate	20.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
1180	611.3902 Inlets Median 2 Grate	8.000 EACH		.		.
1190	611.8115 Adjusting Inlet Covers	7.000 EACH		.		.
1200	612.0406 Pipe Underdrain Wrapped 6-Inch **P**	223.000 LF		.		.
1210	614.0150 Anchor Assemblies for Steel Plate Beam Guard	4.000 EACH		.		.
1220	614.0230 Steel Thrie Beam	350.000 LF		.		.
1230	614.0905 Crash Cushions Temporary	10.000 EACH		.		.
1240	614.0950 Replacing Guardrail Posts and Blocks	90.000 EACH		.		.
1250	614.0951 Replacing Guardrail Rail and Hardware	265.000 LF		.		.
1260	614.2300 MGS Guardrail 3	4,980.000 LF		.		.
1270	614.2330 MGS Guardrail 3 K	225.000 LF		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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
1280	614.2500 MGS Thrie Beam Transition	332.800 LF		.		.
1290	614.2610 MGS Guardrail Terminal EAT	8.000 EACH		.		.
1300	614.2620 MGS Guardrail Terminal Type 2	3.000 EACH		.		.
1310	616.0100 Fence Woven Wire (height) 001. 4-Foot **P**	5,356.000 LF		.		.
1320	618.0100 Maintenance And Repair of Haul Roads (project) 001. 1003-10-83	1.000 EACH		.		.
1330	618.0100 Maintenance And Repair of Haul Roads (project) 002. 1005-10-73	1.000 EACH		.		.
1340	618.0100 Maintenance And Repair of Haul Roads (project) 003. 1005-10-82	1.000 EACH		.		.
1350	619.1000 Mobilization	1.000 EACH		.		.
1360	620.0300 Concrete Median Sloped Nose **P**	85.000 SF		.		.
1370	624.0100 Water	6,631.000 MGAL		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
1380	625.0500 Salvaged Topsoil **P**	104,750.000 SY		.		.
1390	627.0200 Mulching	89,250.000 SY		.		.
1400	628.1504 Silt Fence	21,375.000 LF		.		.
1410	628.1520 Silt Fence Maintenance	22,125.000 LF		.		.
1420	628.1905 Mobilizations Erosion Control	23.000 EACH		.		.
1430	628.1910 Mobilizations Emergency Erosion Control	16.000 EACH		.		.
1440	628.2002 Erosion Mat Class I Type A	14,775.000 SY		.		.
1450	628.2004 Erosion Mat Class I Type B	91,820.000 SY		.		.
1460	628.6510 Soil Stabilizer Type B	24.000 ACRE		.		.
1470	628.7005 Inlet Protection Type A	54.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
1480	628.7010 Inlet Protection Type B	60.000 EACH		.		.
1490	628.7015 Inlet Protection Type C	5.000 EACH		.		.
1500	628.7504 Temporary Ditch Checks	2,710.000 LF		.		.
1510	628.7555 Culvert Pipe Checks	106.000 EACH		.		.
1520	628.7560 Tracking Pads	17.000 EACH		.		.
1530	628.7570 Rock Bags	24.000 EACH		.		.
1540	629.0205 Fertilizer Type A	147.000 CWT		.		.
1550	630.0120 Seeding Mixture No. 20	1,850.000 LB		.		.
1560	630.0130 Seeding Mixture No. 30	2,310.000 LB		.		.
1570	630.0200 Seeding Temporary	5,165.000 LB		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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
1580	630.0300 Seeding Borrow Pit	400.000 LB		.		.
1590	633.0100 Delineator Posts Steel	177.000 EACH		.		.
1600	633.0500 Delineator Reflectors	207.000 EACH		.		.
1610	633.5200 Markers Culvert End	47.000 EACH		.		.
1620	634.0614 Posts Wood 4x6-Inch X 14-FT	1.000 EACH		.		.
1630	634.0616 Posts Wood 4x6-Inch X 16-FT	5.000 EACH		.		.
1640	634.0618 Posts Wood 4x6-Inch X 18-FT	23.000 EACH		.		.
1650	634.0620 Posts Wood 4x6-Inch X 20-FT	26.000 EACH		.		.
1660	634.0622 Posts Wood 4x6-Inch X 22-FT	37.000 EACH		.		.
1670	634.0808 Posts Tubular Steel 2x2-Inch X 8-FT	3.000 EACH		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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
1680	634.0811 Posts Tubular Steel 2x2-Inch X 11-FT	3.000 EACH		.		.
1690	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	1.000 EACH		.		.
1700	635.0200 Sign Supports Structural Steel HS	2,869.000 LB		.		.
1710	636.0100 Sign Supports Concrete Masonry **P**	4.800 CY		.		.
1720	636.0500 Sign Supports Steel Reinforcement	294.000 LB		.		.
1730	637.2210 Signs Type II Reflective H	594.380 SF		.		.
1740	637.2215 Signs Type II Reflective H Folding	217.600 SF		.		.
1750	637.2230 Signs Type II Reflective F	17.000 SF		.		.
1760	638.2101 Moving Signs Type I	3.000 EACH		.		.
1770	638.2102 Moving Signs Type II	122.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
1780	638.2601 Removing Signs Type I	15.000 EACH		.		.
1790	638.2602 Removing Signs Type II	106.000 EACH		.		.
1800	638.3000 Removing Small Sign Supports	122.000 EACH		.		.
1810	638.3100 Removing Structural Steel Sign Supports	11.000 EACH		.		.
1820	638.4000 Moving Small Sign Supports	80.000 EACH		.		.
1830	642.5201 Field Office Type C	1.000 EACH		.		.
1840	643.0200 Traffic Control Surveillance and Maintenance (project) 001. 1003-10-83	194.000 DAY		.		.
1850	643.0200 Traffic Control Surveillance and Maintenance (project) 002. 1005-10-73	194.000 DAY		.		.
1860	643.0200 Traffic Control Surveillance and Maintenance (project) 003. 1005-10-82	30.000 DAY		.		.
1870	643.0300 Traffic Control Drums	116,396.000 DAY		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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
1880	643.0420 Traffic Control Barricades Type III	4,843.000 DAY		.		.
1890	643.0453 Traffic Control Barricades Permanent Type III	4.000 EACH		.		.
1900	643.0705 Traffic Control Warning Lights Type A	9,073.000 DAY		.		.
1910	643.0715 Traffic Control Warning Lights Type C	29,290.000 DAY		.		.
1920	643.0800 Traffic Control Arrow Boards	886.000 DAY		.		.
1930	643.0900 Traffic Control Signs	21,182.000 DAY		.		.
1940	643.0910 Traffic Control Covering Signs Type I	5.000 EACH		.		.
1950	643.0920 Traffic Control Covering Signs Type II	250.000 EACH		.		.
1960	643.1050 Traffic Control Signs PCMS	2,850.000 DAY		.		.
1970	643.1055.S Truck or Trailer Mounted Attenuator	90.000 DAY		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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
1980	643.2000 Traffic Control Detour (project) 001. 1005-10-82	1.000 EACH		.		.
1990	643.2000 Traffic Control Detour (project) 002. 1005-10-73	1.000 EACH		.		.
2000	643.3000 Traffic Control Detour Signs	1,500.000 DAY		.		.
2010	645.0120 Geotextile Fabric Type HR	241.000 SY		.		.
2020	646.0106 Pavement Marking Epoxy 4-Inch	100,390.000 LF		.		.
2030	646.0126 Pavement Marking Epoxy 8-Inch	6,514.000 LF		.		.
2040	646.0600 Removing Pavement Markings	436,442.000 LF		.		.
2050	647.0166 Pavement Marking Arrows Epoxy Type 2	19.000 EACH		.		.
2060	647.0356 Pavement Marking Words Epoxy	12.000 EACH		.		.
2070	647.0456 Pavement Marking Curb Epoxy	285.000 LF		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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
2080	647.0566 Pavement Marking Stop Line Epoxy 18-Inch	190.000 LF		.		.
2090	647.0606 Pavement Marking Island Nose Epoxy	4.000 EACH		.		.
2100	647.0746 Pavement Marking Diagonal Epoxy 24-Inch	1,050.000 LF		.		.
2110	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	3,118.000 LF		.		.
2120	649.0402 Temporary Pavement Marking Paint 4-Inch	291,380.000 LF		.		.
2130	649.0801 Temporary Pavement Marking Removable Tape 8-Inch	200.000 LF		.		.
2140	649.0802 Temporary Pavement Marking Paint 8-Inch	75,700.000 LF		.		.
2150	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch **P**	280.000 LF		.		.
2160	652.0605 Conduit Special 2-Inch **P**	335.000 LF		.		.
2170	653.0140 Pull Boxes Steel 24x42-Inch	4.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
2180	653.0905 Removing Pull Boxes	10.000 EACH		.		.
2190	656.0200 Electrical Service Meter Breaker Pedestal (location) 001. STH 26 And IH 39 SB Ramps	LUMP	LUMP			.
2200	656.0200 Electrical Service Meter Breaker Pedestal (location) 002. STH 26 And IH 39 NB Ramps	LUMP	LUMP			.
2210	657.0210 Transformer Bases Breakaway 15-17 Inch Bolt Circle	2.000 EACH		.		.
2220	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	6.000 EACH		.		.
2230	657.0305 Poles Type 2	6.000 EACH		.		.
2240	657.0337 Poles Type 17-Aluminum	2.000 EACH		.		.
2250	657.0585 Trombone Arms 15-FT	2.000 EACH		.		.
2260	657.0590 Trombone Arms 20-FT	1.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
2270	657.0595 Trombone Arms 25-FT	3.000 EACH		.		.
2280	658.0110 Traffic Signal Face 3-12 Inch Vertical	18.000 EACH		.		.
2290	658.0155 Traffic Signal Face 3-12 Inch Horizontal	6.000 EACH		.		.
2300	658.0215 Backplates Signal Face 3 Section 12-Inch	24.000 EACH		.		.
2310	658.0600 Led Modules 12-Inch Red Ball	18.000 EACH		.		.
2320	658.0605 Led Modules 12-Inch Yellow Ball	18.000 EACH		.		.
2330	658.0610 Led Modules 12-Inch Green Ball	16.000 EACH		.		.
2340	658.0615 Led Modules 12-Inch Red Arrow	6.000 EACH		.		.
2350	658.0620 Led Modules 12-Inch Yellow Arrow	6.000 EACH		.		.
2360	658.0625 Led Modules 12-Inch Green Arrow	8.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
2370	658.5069 Signal Mounting Hardware (location) 450. STH 26 And IH 39 SB Ramps	LUMP	LUMP			.
2380	658.5069 Signal Mounting Hardware (location) 451. STH 26 And IH 39 NB Ramps	LUMP	LUMP			.
2390	659.0802 Plaques Sequence Identification	2.000 EACH	.			.
2400	670.0100 Field System Integrator	LUMP	LUMP			.
2410	670.0200 ITS Documentation	LUMP	LUMP			.
2420	673.0105 Communication Vault Type 1	2.000 EACH	.			.
2430	673.0225.S Install Pole Mounted Cabinet	1.000 EACH	.			.
2440	674.0300 Remove Cable	1,100.000 LF	.			.
2450	674.0400 Reinstall Cable	370.000 LF	.			.
2460	675.0300 Install Mounted Controller Microwave Detector Assembly	4.000 EACH	.			.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
2470	675.0400.S Install Ethernet Switch	2.000 EACH		.		.
2480	677.0200 Install Camera Assembly	1.000 EACH		.		.
2490	677.0300.S Install Video Encoder	1.000 EACH		.		.
2500	677.9051.S Removing 50-FT Camera Pole	1.000 EACH		.		.
2510	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	445.000 LF		.		.
2520	678.0200 Fiber Optic Splice Enclosure	1.000 EACH		.		.
2530	678.0300 Fiber Optic Splice	6.000 EACH		.		.
2540	678.0400 Fiber Optic Termination	6.000 EACH		.		.
2550	678.0500 Communication System Testing	LUMP	LUMP			.
2560	690.0150 Sawing Asphalt	350.000 LF		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
2570	690.0250 Sawing Concrete	87,283.000 LF		.		.
2580	715.0415 Incentive Strength Concrete Pavement	500.000 DOL	1.00000		500.00	
2590	715.0502 Incentive Strength Concrete Structures	5,244.000 DOL	1.00000		5244.00	
2600	SPV.0035 Special 001. Roadway Embankment	81,993.000 CY		.		.
2610	SPV.0060 Special 001. Baseline CPM Progress Schedule	1.000 EACH		.		.
2620	SPV.0060 Special 002. CPM Progress Schedule Updates And Accepted Revisions	9.000 EACH		.		.
2630	SPV.0060 Special 003. Salvage Terminal High-Tension Cable TL-3, Safence	12.000 EACH		.		.
2640	SPV.0060 Special 004. Cover Plates Permanent	2.000 EACH		.		.
2650	SPV.0060 Special 100. Welding Storm Sewer Covers	8.000 EACH		.		.
2660	SPV.0060 Special 200. Crash Cushions Temporary Left In Place	15.000 EACH		.		.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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
	SPV.0060 Special 201.					
2670	Fixed Message Sign Portable Support	8.000 EACH		.		.
	SPV.0060 Special 202.					
2680	Traffic Control Barricades Type III With Sign Permanent	24.000 EACH		.		.
	SPV.0060 Special 203.					
2690	One Sided Vertical Panels	30.000 EACH		.		.
	SPV.0060 Special 204.					
2700	One Sided Vertical Panels Replacements	15.000 EACH		.		.
	SPV.0060 Special 350.					
2710	Remove Street Light	1.000 EACH		.		.
	SPV.0060 Special 401.					
2720	Fiber Tracer Marker Post	1.000 EACH		.		.
	SPV.0060 Special 402.					
2730	Poles Wood 65-Ft	1.000 EACH		.		.
	SPV.0060 Special 403.					
2740	Install Wireless Mesh Radio Assembly	1.000 EACH		.		.
	SPV.0060 Special 404.					
2750	Install Termination Panel	1.000 EACH		.		.
	SPV.0060 Special 405.					
2760	Remove Communication Vault	1.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
2770	SPV.0060 Special 406. Remove Poles Type 5	2.000 EACH		.		.
2780	SPV.0060 Special 450. Furnish And Install Helical Pole Base	8.000 EACH		.		.
2790	SPV.0060 Special 451. Install 5.8GHz Ethernet Bridge	2.000 EACH		.		.
2800	SPV.0060 Special 452. Remove And Abandon Existing Electrical Service	1.000 EACH		.		.
2810	SPV.0060 Special 453. Contact Closure Ethernet Converter	4.000 EACH		.		.
2820	SPV.0060 Special 454. Node Event Warning System Controller	2.000 EACH		.		.
2830	SPV.0060 Special 455. Install State Furnished 900 MHZ Radio	4.000 EACH		.		.
2840	SPV.0060 Special 456. Install State Furnished Yagi Antenna	4.000 EACH		.		.
2850	SPV.0060 Special 457. Install State Furnished 10-Watt Solar Power Assembly	2.000 EACH		.		.
2860	SPV.0060 Special 650. 16-Inch Butterfly Valve	2.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
2870	SPV.0060 Special 651. 6-Inch Tapping Valve & Box	1.000 EACH		.		.
2880	SPV.0060 Special 652. 6-Ft Diameter Water Valve Vault	2.000 EACH		.		.
2890	SPV.0060 Special 653. Water Valve Vault Casting	2.000 EACH		.		.
2900	SPV.0060 Special 654. Hydrant	1.000 EACH		.		.
2910	SPV.0060 Special 655. Remove & Salvage Hydrant	1.000 EACH		.		.
2920	SPV.0060 Special 656. Temporary Water Main Blowoff	2.000 EACH		.		.
2930	SPV.0060 Special 657. Water Main Cut-In Connection	4.000 EACH		.		.
2940	SPV.0060 Special 658. 4-Foot Diameter Sanitary Manhole	4.000 EACH		.		.
2950	SPV.0060 Special 659. Sanitary Manhole Casting	4.000 EACH		.		.
2960	SPV.0060 Special 660. Connect To Existing Sanitary Sewer	2.000 EACH		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
2970	SPV.0060 Special 661. Remove Sanitary Sewer Structure	1.000 EACH		.		.
2980	SPV.0060 Special 662. Utility Line Opening	8.000 EACH		.		.
2990	SPV.0090 Special 001. Removing HMA Pavement Safety Wedge Longitudinal Joint Milling	60,400.000 LF		.		.
3000	SPV.0090 Special 002. Salvage High-Tension Cable TL-3, Socketed, Safence	6,980.000 LF		.		.
3010	SPV.0090 Special 200. Concrete Barrier Temporary Precast Left In Place Anchoring	1,200.000 LF		.		.
3020	SPV.0090 Special 201. Concrete Barrier Temporary Precast Anchoring	200.000 LF		.		.
3030	SPV.0090 Special 202. Concrete Barrier Temporary Precast Left In Place	32,200.000 LF		.		.
3040	SPV.0090 Special 350. Furnish And Install Equivalent Lighting Conductors	1,650.000 LF		.		.
3050	SPV.0090 Special 450. Install CAT-5E Cable	2,450.000 LF		.		.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
3060	SPV.0090 Special 650. 16-Inch Ductile Iron Water Main	922.000 LF		.		.
3070	SPV.0090 Special 651. 6-Inch Ductile Iron Water Main	10.000 LF		.		.
3080	SPV.0090 Special 652. 10-Inch PVC Sanitary Sewer Pipe	281.000 LF		.		.
3090	SPV.0090 Special 653. Televise Sanitary Sewer	562.000 LF		.		.
3100	SPV.0105 Special 001. Survey Project 1003-10-83	LUMP	LUMP			.
3110	SPV.0105 Special 002. Survey Project 1005-10-73	LUMP	LUMP			.
3120	SPV.0105 Special 003. Survey Project 1005-10-82	LUMP	LUMP			.
3130	SPV.0105 Special 004. Concrete Pavement Joint Layout	LUMP	LUMP			.
3140	SPV.0105 Special 401. Salvage ITS Equipment	LUMP	LUMP			.
3150	SPV.0105 Special 450. Trans And Inst St Furn Adpt Traffic Sig Cameras (STH 26 And IH 39 SB Ramps)	LUMP	LUMP			.

CONTRACT: 20160209001

PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82

FEDERAL ID(S): N/A, 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
3160	SPV.0105 Special 451. Trans And Inst St Furn Adpt Traffic Sig Cameras (STH 26 And IH 39 NB Ramps)	LUMP	LUMP			.
3170	SPV.0105 Special 452. Install St Furn Microwave Vehicle Detection (STH 26 And IH 39 SB Ramps)	LUMP	LUMP			.
3180	SPV.0105 Special 453. Install St Furn Microwave Vehicle Detection (STH 26 And IH 39 NB Ramps)	LUMP	LUMP			.
3190	SPV.0105 Special 454. Inst St Furn Emer Vehicle Preempt Equipment (STH 26 And IH 39 SB Ramps)	LUMP	LUMP			.
3200	SPV.0105 Special 455. Inst St Furn Emer Vehicle Preempt Equipment (STH 26 And IH 39 NB Ramps)	LUMP	LUMP			.
3210	SPV.0105 Special 456. Temp Traf Sig For Inter Leave In Place (STH 26 And IH 39 SB Ramps)	LUMP	LUMP			.
3220	SPV.0105 Special 457. Temp Traf Sig For Inter Leave In Place (STH 26 And IH 39 NB Ramps)	LUMP	LUMP			.

CONTRACT: 20160209001
PROJECT(S): 1003-10-83, 1005-10-73, 1005-10-82
FEDERAL ID(S): N/A, 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
3230	SPV.0105 Special 458. Traffic Signal And Diversion Trigger System Integrator	LUMP	LUMP			.
3240	SPV.0105 Special 650. Abandon Water Main In Place	LUMP	LUMP			.
3250	SPV.0105 Special 651. Abandon Sanitary Sewer In Place	LUMP	LUMP			.
3260	SPV.0165 Special 250. Fixed Message Signs Left In Place	545.750 SF		.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE