

HIGHWAY WORK PROPOSAL

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

Proposal Number:

Ø 8

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Milwaukee/ Waukesha	1060-33-99		Zoo IC - Integrated Corridors Various Intersections Milwaukee and Waukesha Counties	IH 94

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, \$ 75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: June 11, 2013 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code
Contract Completion Time July 31, 2014	SAMPLE NOT FOR BIDDING PURPOSES
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 Removals, upgrading signal systems, adding dynamic message signs (DMS), adding closed circuit televisions (CCTV), erosion control, traffic control and other incidental items.	Date Guaranty Returned
Notice of Award Dated	

**PLEASE ATTACH
PROPOSAL GUARANTY HERE**

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

- (1) Obtain bidding proposals as specified in **section 102** of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:
 1. Electronic bid on the internet.
 2. Electronic bid on a printout with accompanying diskette or CD ROM.
 3. Paper bid under a waiver of the electronic submittal requirements.
- (2) Bids submitted on a printout with accompanying diskette or CD ROM or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.
- (3) The department will provide bidding information through the department's web site at <http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm>. The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 P.M. local time on the Thursday before the letting. Check the department's web site after 5:00 P.M. local time on the Thursday before the letting to ensure all addenda have been accounted for before preparing the bid. When bidding using methods 1 and 2 above, check the Bid Express™ on-line bidding exchange at <http://www.bidx.com/> after 5:00 P.M. local time on the Thursday before the letting to ensure that the latest schedule of items Expedite file (*.ebs or *.00x) is used to submit the final bid.
- (4) Interested parties can subscribe to the Bid Express™ on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

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

- (5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.
- (6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at <http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm> or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, Room 601, 4802 Sheboygan Avenue, Madison, WI, during regular business hours.

B Submitting Electronic Bids

B.1 On the Internet

- (1) Do the following before submitting the bid:
 1. Have a properly executed annual bid bond on file with the department.
 2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.
- (2) In lieu of preparing, delivering, and submitting the proposal as specified in **102.6** and **102.9** of the standard specifications, submit the proposal on the internet as follows:

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

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

- (1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at <http://www.dot.wisconsin.gov/business/engrserve/bid-letting-information.htm>. Use Expedite™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.
- (2) Staple an 8 1/2 by 11 inch printout of the Expedite™ generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

- (3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.
- (4) The bidder-submitted printout of the Expedite™ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.
- (5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:
 1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
 2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.

3. The diskette or CD ROM is not submitted at the time and place the department designates.

C Waiver of Electronic Submittal

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

PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

(Signature of Attorney-in-Fact)

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

(Signature of Authorized Contractor Representative)

(Date)

FEBRUARY 1999

LIST OF SUBCONTRACTORS

Section 66.29(7), Wisconsin Statutes, provides that a bidder, as a part of his proposal, shall submit a list of the subcontractors he proposes to contract with and the class of work to be performed by each, provided that to qualify for such listing each subcontractor must first submit his bid in writing to the general contractor at least 48 hours prior to the time of bid closing. It further provides that a proposal of a bidder shall not be invalid if any subcontractor, and the class of work to be performed by such subcontractor, has been omitted from a proposal.

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
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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71.	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and STH 100, Item SPV.0105.3060; STH 100 and W. Wisconsin Avenue, Item SPV.0105.3061; STH 100 and W. Potter Road / W. Research Drive, Item SPV.0105.3062; STH 100 and W. Watertown Plank Road, Item SPV.0105.3063; STH 59 and CTH O, Item SPV.0105.3064; STH 59 & S. Sunnyslope Road, Item SPV.0105.3065; STH 59 & S. Elm Grove Road, Item SPV.0105.3066; STH 59 & S. 124th Street, Item SPV.0105.3067; STH 59 & S. 116th Street, Item SPV.0105.3068; STH 100 and STH 59, Item SPV.0105.3069; STH 59 and S. 101st Street, Item SPV.0105.3070; USH 45/IH 894 eastbound Ramps and STH 59, Item SPV.0105.3071; USH 45/IH 894 westbound Ramps and STH 59, Item SPV.0105.3072; CTH O and Hackberry Lane, Item SPV.0105.3073; IH 94 eastbound Ramps and CTH O, Item SPV.0105.3074; IH 94 westbound Ramps and CTH O, Item SPV.0105.3075; CTH O and Shopping Center Ring Road, Item SPV.0105.3076; CTH O and Shopping Center Ring Road/Driveway, Item SPV.0105.3077; USH 18 and CTH YY, Item SPV.0105.3078; USH 18 and Elm Grove Road, Item SPV.0105.3079; USH 18 and Underwood Crossing Parkway, Item SPV.0105.3080; USH 18 and UPS Driveway, Item SPV.0105.3081; USH 18 and N. 121st Street, Item SPV.0105.3082; USH 18 and N. 112th Street, Item SPV.0105.3083; USH 18 and N. 97th Street, Item SPV.0105.3084; USH 18 and N. 95th Street, Item SPV.0105.3085; USH 18 and N. 92nd Street, Item SPV.0105.3086; STH 181 and W. Dana Court, Item SPV.0105.3087; USH 18 and STH 181, Item SPV.0105.3088; STH 181 and W. Wisconsin Avenue, Item SPV.0105.3089; W. Wisconsin Avenue and N. 87th Street, Item SPV.0105.3090.	91
72.	Install Fiber Optic Communications in Cabinet STH 59 and CTH O, Item SPV.0105.3095; STH 59 and S. Sunnyslope Road, Item SPV.0105.3096; STH 59 and S. Elm Grove Road, Item SPV.0105.3097; CTH O and Hackberry Lane, Item SPV.0105.3098; IH 94 Eastbound Ramps and CTH O, Item SPV.0105.3099; IH 94 Westbound Ramps and CTH O, Item SPV.0105.3100; CTH O and Shopping Center Ring Road, Item SPV.0105.3101; CTH O and Shopping Center Ring Road/Driveway, Item SPV.0105.3102; USH 18 and CTH YY, Item SPV.0105.3103; USH 18 and Elm Grove Road, Item SPV.0105.3104, USH 18 and Underwood Crossing Parkway, Item SPV.0105.3105; USH 18 and UPS Driveway, Item SPV.0105.3106; USH 18 and N. 121st Street, Item SPV.0105.3107; USH 18 and N. 112th Street, Item SPV.0105.3108; W. Wisconsin Avenue and N. 87th Street, Item SPV.0105.3109.	94
73.	EVP Detector Head Installation STH 59 and S. 124th Street, Item SPV.0105.3115; STH 59 and S. 116th Street, Item SPV.0105.3116; USH 18 and CTH YY, Item SPV.0105.3117; USH 18 and Elm Grove Road, Item SPV.0105.3118.	97

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1060-33-99, Zoo IC – Integrated Corridors, Various Intersections, IH 894/IH 94/USH 45, located in Milwaukee and Waukesha Counties, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2013 Edition, as published by the department, and these special provisions.

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

100-005 (20120615)

2. Scope of Work.

The work under this contract shall consist of updating and integrating traffic signals, FTMS, erosion control, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

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

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

A Schedule of Operations

Traffic shifts shown in a given stage may occur at different times during that stage depending on the controlling elements for a given traffic movement. The department anticipates that the schedule for each stage shall be as follows:

Anticipated Traffic Signal and Traffic Signal Interconnect Schedule:

STH 59 (Greenfield Avenue) west of S. 101st Street:

After completion of Project 1060-33-77: July 18, 2013

STH 100 (Mayfair Road):

After completion of Project 1060-33-70 Stage 4: December 13, 2013

STH 181 (S. 84th Street/Glenview Avenue):

After completion of Project 1060-33-71/1060-33-90: August 24, 2013

USH 18 (W. Bluemound Road) east of STH 100:

After completion of Project 1060-33-93: December 31, 2013

Interim Completion of Work October 1, 2013

Supplement standard spec 108.11 as follows.

If the contractor fails to complete all of the work necessary to complete 72-Count Fiber optic cable installation including splicing and termination from HUB-67-2000 to Greenfield Avenue and I-894 EXCV5505, 36-Count Fiber optic cable installation including splicing from EXMH9201 to Wisconsin Avenue and N 87th Street, CV9401 prior to 12:01 AM October 2, 2013, the contractor shall be liable to the department for a pay reduction in the amount of \$1,235 per day, or portion thereof, for each calendar day after 12:01 AM October 2, 2013.

Interim Completion of Work November 1, 2013

Supplement standard spec 108.11 as follows.

If the contractor fails to complete all of the work necessary to complete portions of Portions of CTH O Corridor including: CTH O and Hackberry Lane, IH 94 EB Ramps and CTH O, IH 94 WB Ramps and CTH O and STH 59 Corridor including: STH 59 and CTH O, STH 59 and S. Sunnyslope Road, STH 59 and S. Elm Grove Road, STH 59 and S. 124th Street, STH 59 and S. 116th Street, STH 100 and STH 59, STH 59 and S. 101st Street, USH 45/IH 894 EB Ramps and STH 59, USH 45/IH 894 WB Ramps and STH 59 and STH 181 Corridor including: STH 181 and W. Dana Court and STH 181 and W. Wisconsin Avenue and W. Wisconsin Avenue Corridor including: W. Wisconsin Avenue and N. 87th Street and Portions of USH 18 Corridor including: USH 18 and STH 181 prior to 12:01 AM November 2, 2013, the contractor shall be liable to the department for a pay reduction in the amount of \$1,235 per day, or portion thereof, for each calendar day after 12:01 AM November 2, 2013.

Interim Completion of Work December 1, 2013

Supplement standard spec 108.11 as follows.

If the contractor fails to complete all of the work necessary to complete DMS-67-0121, DMS-67-0119, DMS-67-0123, DMS-40-0125, DMS-40-0130 and Bluetooth detection on Greenfield Avenue from I-894 to Moorland Road and CCTVs on Greenfield Avenue from I-894 to Moorland Road and Bluetooth detection at Bluemound Road and Glenview Avenue prior to 12:01 AM December 2, 2013, the contractor shall be liable to the department for a pay reduction in the amount of \$1,235 per day, or portion thereof, for each calendar day after 12:01 AM December 2, 2013.

Interim Completion of Work February 1, 2014

Supplement standard spec 108.11 as follows.

If the contractor fails to complete all of the work necessary to complete portions of STH 100 Corridor including: USH 18 and STH 100, STH 100 and W. Wisconsin Avenue, STH 100 and W. Potter Road/W. Research Drive, STH 100 & Watertown Plank Road and Portions of USH 18 Corridor including: USH 18 and N. 97th Street, USH 18 and N. 95th Street, USH 18 and N. 92nd Street prior to 12:01 AM February 2, 2014, the contractor shall be liable to the department for a pay reduction in the amount of \$1,235 per day, or portion thereof, for each calendar day after 12:01 AM February 2, 2013.

Interim Completion of Work March 1, 2014

Supplement standard spec 108.11 as follows.

If the contractor fails to complete all of the work necessary to complete DMS-40-0117, DMS-40-0126, DMS-40-0129 and Bluetooth detection on STH 100 prior to 12:01 AM March 2, 2014, the contractor shall be liable to the department for a pay reduction in the amount of \$1,235 per day, or portion thereof, for each calendar day after 12:01 AM March 2, 2014.

Interim Completion of Work July 31, 2014

Supplement standard spec 108.11 as follows.

If the contractor fails to complete all of the work necessary to complete portions of CTH O Corridor including: CTH O and Shopping Center Ring Road and CTH O and Shopping Center Ring Road / Driveway and Portions of USH 18 Corridor including: USH 18 and CTH YY, USH 18 and Elm Grove Road, USH 18 and Underwood Crossing Parkway, USH 18 and UPS Driveway, USH 18 and N. 121st Street, USH 18 and N. 112th Street prior to 12:01 AM August 1, 2014, the contractor shall be liable to the department for a pay reduction in the amount of \$1,235 per day, or portion thereof, for each calendar day after 12:01 AM August 1, 2014.

Final Completion of Work

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

All equipment completion dates include system integration with the Statewide Traffic Operations Center.

Contractor Coordination

Attend weekly scheduling meetings to discuss the near term schedule activities, address any long-term schedule issues, and discuss any relevant technical issues. Develop a rolling three-week schedule identifying the previous week worked and a two week “look ahead”. Provide sufficient detail to include actual and planned activities and all the

subcontractors for offsite and construction activities, addressing all activities including ramp and lane closure schedules to be performed and identifying issues requiring engineering action or input.

Advance Notification

Notify the engineer and WisDOT Region Work Zone Engineer at (262) 548-6730 if there are any changes in the schedule, early completions, or cancellations of scheduled work. Coordinate the locations of messages of portable changeable message sign with the engineer and WisDOT STOC. Notify WisDOT Signal Operations, (414) 750-2605 and WisDOT Electrical Field Unit, (414) 266-1170 regarding changes for alternate routes and detours.

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

Ramp Closures	3 business days
System Ramp Closures	7 calendar days
Lane Closures	3 business days
Full Freeway Closures	14 calendar days
Construction Stage Changes	14 calendar days
Detours	14 calendar days

Definitions

The following definitions apply to this contract:

Peak Hours

6:00 AM – 9:00 PM	Monday, Tuesday, Wednesday, Thursday
6:00 AM – 9:00 PM	Friday
11:00 AM – 8:00 PM	Saturday
1:00 PM – 5:00 PM	Sunday

Off-Peak Hours

9:00 PM – 6:00 AM	Monday, Tuesday, Wednesday, Thursday
9:00 PM – 11:00 AM	Friday PM to Saturday AM
8:00 PM – 1:00 PM	Saturday PM to Sunday PM
5:00 PM – 6:00 AM	Sunday PM to Monday AM

Local Street Work Restrictions

At least two lanes available to traffic during the Peak Hours unless approved by the engineer. One lane may be available to traffic during Off-Peak Hours only.

Comply with all local ordinances that apply to local street work operations, including those pertaining to working during night time hours. Furnish any ordinance variance issued by the municipality or required permits to the engineer in writing 3 days prior to performing such work.

Apply for and acquire all construction permits necessary to complete the work, including permits from local municipalities

Existing trees, street light poles, hydrants and other utility poles are to remain in place during construction unless otherwise noted in the plan. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the trees, hydrants, poles and the construction equipment.

All Work Restrictions

Comply with the noise level restrictions as defined in the article Public Convenience and Safety.

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

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

Provide Wisconsin State Patrol, Milwaukee County Highway Maintenance, Milwaukee County Sheriff's Department, Waukesha County Sheriff's Department, and the police departments for the following municipalities: City of Brookfield, Village of Elm Grove, City of Milwaukee, City of New Berlin, City of Wauwatosa, City of West Allis, with a 24-hour emergency contact number for when maintenance is required.

4. Traffic.

Perform the work under this contract in a manner that will interfere as little as possible with active traffic on local streets. Do not park or store vehicles, equipment, or materials on city or village streets adjacent to active traffic except at the time of performance of the work. Materials or equipment may be stored within the right-of-way only at locations meeting the approval of the engineer.

At all times maintain access to businesses and residents on the existing local streets within the project work area. Do not close or remove driveway approaches or parking stalls from service without a five day notice given to the occupants of the premises to remove their vehicles prior to driveway removal or closing of the driveway approach access.

Coordinate traffic requirements under this contract with other ongoing department construction projects. This contractor shall be responsible for implementing and coordinating with other contractors all traffic control as shown on the plans.

5. Traffic Meetings and Traffic Control Scheduling.

Every Wednesday by 10:00 AM, submit a detailed proposed 2-week look-ahead traffic closure schedule to the engineer. Type the detailed proposed 2-week look-ahead closure schedule into an excel spreadsheet provided by the engineer. Enter information such as closure dates, duration, work causing the closure and detours to be used. Also enter information such as ongoing long-term closures, emergency contacts and general 2-month look-ahead closure information into the excel spreadsheet.

Meet with the engineer between 11:00 - 11:30 AM on Wednesdays at the I-94 N-S project office on 27th Street/Parnell in the City of Milwaukee to discuss and answer questions on the proposed schedule. Edit, delete and add closures to the detailed proposed 2-week look-ahead schedule, as directed by the engineer, so that proposed closures meet specification requirements. Other edits, deletions or additions unrelated to meeting specification requirements may also be agreed upon with the engineer during the 11:00 AM meeting.

Every Wednesday at 2:00 PM, or as scheduled by the engineer, attend a weekly traffic meeting. The meeting will bring local agencies, project stakeholders, owner managers, owner engineers, contractors, document control and construction engineering personnel together to discuss traffic staging, closures and general impacts. Upon obtaining feedback from the meeting attendees, edit, delete and add information to the detailed 2-week look-ahead closure schedule, as needed. Submit the revised 2-week look-ahead to the engineer.

Obtain approval from the engineer for any mid-week changes to the closure schedule. Revise the 2-week look-ahead as required and obtain engineer approval.

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying Greenfield Avenue, Bluemound Road, Moorland Road, STH 100/Mayfair Road, Wisconsin Avenue, Glenview Avenue, 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 24, 2013 to 6:00 AM Tuesday, May 28, 2013 for Memorial Day;
- From noon Wednesday, July 3, 2013 to 6:00 AM Friday, July 5, 2013 for Independence Day;
- From noon Friday, August 30, 2013 to 6:00 AM Tuesday, September 3, 2013 for Labor Day;

- From noon Wednesday, November 27, 2013 to 6:00 AM Monday, December 2, 2013 for Thanksgiving;
- On weekend days during Zoo a la Carte, August 17, 2013 to August 18, 2013, until two hours after the event.

107-005 (20050502)

7. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.

107-065 (20080501)

Underground and overhead utility facilities are located within the project limits. No utility adjustments are anticipated for this construction project. Coordinate construction activities with a call to Diggers Hotline, or a direct call to the utilities that have facilities in the area as required per state statute. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

Adjust proposed sign locations as necessary to avoid conflict with existing utilities. Contact utility companies listed in the plans, prior to preparing bids, to obtain current information on the status of existing utilities, abandoned facilities and new utility construction or relocation work.

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

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

8. Other Contracts.

A Description

Coordinate your work in accordance 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 city and county personnel may be required at certain times concurrently with the work being done under this contract.

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

Contract ID 1060-33-70, Mayfair Road reconstruction from IH 94 to Watertown Plank Road. The WisDOT contact is Joshua LeVeque at (262) 548-8797; joshua.leveque@dot.wi.gov.

Contract ID 1060-33-71, Glenview Avenue reconstruction from W. Bluemound Road to W. Wisconsin Avenue. The WisDOT contact is Joshua LeVeque at (262) 548-8797; joshua.leveque@dot.wi.gov.

Contract ID 1060-33-72, Watertown Plank Road from Wisconsin Avenue to Underwood Parkway. The WisDOT contact is Jeff Bohen at (262) 750-2928; jeffery.bohen@dot.wi.gov

Contract ID 1060-33-73, Swan Boulevard from Watertown Plank Road to USH 45. The WisDOT contact is Jeff Bohen at (262) 750-2928; jeffery.bohen@dot.wi.gov

Contract ID 1060-33-75, UPRR and STH 100 Bridges over IH 94 from the Hank Aaron State Trail to IH 94 westbound Ramp Terminal. The WisDOT contact is Joshua LeVeque at (262) 548-8797; joshua.leveque@dot.wi.gov.

Contract ID 1060-33-77, Greenfield Avenue Bridge reconstruction from S. 101st Street to S. 97th Street. The WisDOT contact is Jason Lynch at (414) 750-0538; jason.lynch@dot.wi.gov.

Contract ID 1060-33-78, S. 76th Street Bridge over IH 94 from Kearney Street to O'Conner Street. The WisDOT contact is Jeff Bohen at (262) 750-2928; jeffery.bohen@dot.wi.gov

Contract ID 1060-33-93, 2013 TMP Projects Various Locations. The WisDOT contact is Chris Hager at (262) 521-4433; christopher.hager@dot.wi.gov.

9. Railroad Insurance and Coordination.

A Description

Comply with standard spec 107.17 for all work affecting Union Pacific Railroad Company 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 Union Pacific Railroad Company.

Notify evidence of the required coverage, and duration to John Venice, Manager Special Projects – Industry and Public Projects Engineering Department, 101 North Wacker Drive, Suite 1920, IL 60606 telephone (312) 777-2043, FAX (402) 233-2769, email jnvenice@up.com.

Include the following information on the insurance document:

Project: 1060-33-99

Route Name: USH 18 and STH 100, Milwaukee County

RR Crossing No. 177 258H, Milepost 90.36 on Milwaukee Subdivision

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 John Venice, Manager Special Projects – Industry and Public Projects Engineering Department, 101 North Wacker Drive, Suite 1920, 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

Approximately 20-25 through freight trains operate daily through the construction site. Through freight trains operate at up to 30 mph. In addition to through movements, there are switching movements at slower speeds.

10. Erosion Control.

Supplement standard spec 107.20 with the following:

Provide the Erosion Control Implementation Plan (ECIP) 14 days prior to the pre-construction conference. Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-topsoiling to minimize the period of exposure to possible erosion.

Topsoil graded areas, as designated by the engineer, immediately after grading has been completed within those areas. Seed and mulch, or sod, and fertilize all topsoiled areas within 5 calendar days after placement of topsoil.

Furnish and apply water to sodded areas. After staking and cleanup, moisten the sod thoroughly by sprinkling with water. Keep all sodded areas thoroughly moist by watering or sprinkling if rainfall is not sufficient to achieve sod rooting to the earth bed. Water for 30 days after placement, or as the engineer directs. Apply water in a manner to preclude washing or erosion.

Do not pump water from the construction site to a storm water conveyance without the water first passing through a sediment trap.

Construct temporary sediment traps at locations that do not interfere with construction operations.

Replace standard spec 107.20(3) with the following:

Prepare and submit an Erosion Control Implementation Plan (ECIP) for the project, including borrow sites and material disposal sites, in accordance to Chapter TRANS 401 requirements. The ECIP shall supplement information shown on the plans and shall not reproduce it. The erosion control implementation plan shall identify how the contractor intends to implement the project's erosion control plan. The erosion control plan shall include details for the methods of debris containment devices required, particularly during the removal of the old bridges and construction of the new structures.

11. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

Check for and comply with local ordinances governing the hours of operation of construction equipment. Do not operate motorized construction equipment from 9:00 PM until the following 7:00 AM, unless prior written approval is obtained from the engineer.
107-001 (20060512)

12. Available Documents.

The department will make all its information available to bidding contractors. The list of documents that are available for contractors' information includes but is not limited to:

Design Study Report

Preliminary Plans

Environmental Impact Statement

As-Built Drawings

These documents are available from Christopher Hager at 141 NW Barstow Street, Waukesha, WI 53187, telephone (262) 521-4433.

Reproduction costs will be applied to any copies requested.

13. Work Force Opportunities.

After contract award, attend the Work Force Opportunities workshop. The workshop will take place on the same day and be in the same location as the pre-construction meeting.

The Work Force Opportunities workshop will provide a venue for contractors to have meaningful dialogue with Transportation Alliance for New Solutions (TrANS) providers regarding the hiring of TrANS graduates. Reference ASP-1 for additional information regarding TrANS. The prime contractor and the 3 largest subcontractors according to let value of work shall provide staff with hiring authority to participate in a job-matching session during this workshop. Workshop participants will, at a minimum:

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

14. Public Information Meetings.

Participate in department-sponsored public information meetings as the engineer requests. Ensure that representatives of subcontractors also participate in those meetings if the engineer requests.

15. Contractor Notification.

Replace standard spec 104.2.2.2(2) with the following:

If the contractor discovers the differing condition, provide a written notice, as specified in standard spec 104.3.3, of the specific differing condition before further disturbing the site and before further performing the affected work.

104.3.2 (Vacant)

104.3.3 Contractor Initial Written Notice

Replace standard spec 104.3.2 and standard spec 104.3.3 with the following:

If required by standard spec 104.2, or if the contractor believes that the department's action, the department's lack of action, or some other situation results in or necessitates a contract revision, promptly provide a written notice to the engineer. At a minimum, provide the following:

1. A written description of the nature of the issue.
2. The time and date of discovering the problem or issue.
3. If appropriate, the location of the issue.

Provide the additional information specified in 104.3.5 as early as possible to assist the engineer in the timely resolution of an identified issue. The engineer will not require, in subsequent submissions, duplication of information already provided.

16. Contractor Document Submittals.

A Description

This special provision describes minimum requirements for submitting project documents to the department. This special provision does not apply to shop drawing submittals.

B Contractor Submittals

Provide two paper originals and one electronic copy of all documents requiring department review, acceptance, or approval. Attach a completed engineer-provided transmittal sheet to each paper original and email submittal. The department will reject submittals with incomplete transmittal sheets and require re-submittal.

The department will return one reviewed, accepted, or approved paper original to the contractor. Additional return originals can be requested. Submit an additional original for each additional return original requested.

Submit electronic copies in Adobe Acrobat (.pdf) format via email to an account the engineer determines. If possible, translate original documents from their native format (e.g. Word, Excel, AutoCAD, etc.) using an Adobe Acrobat translation routine. Scan other documents to Adobe Acrobat format with a minimum resolution of 600 dpi.

All costs for contractor document submittals are incidental to the contract.

17. Claims Process for Unresolved Changes.

Replace standard spec 105.13.5, 105.13.6, and 105.13.7 with the following:

105.13.5 Review by the Department

The department will conduct an initial review phase and a decision phase to resolve the claim. At any point in these two phases, the department may waive its review and request a dispute review board (DRB).

In the initial review phase the contractor and the department will have up to 30 calendar days from the contractor's submission of the claim to submit all additional information required and for the department to review the claim and conduct all meetings. The department may request, in writing, that the contractor submit additional information related to the claim. Submit that additional information or notify the department, in writing, to base its decision on the information previously submitted. Either party may request a meeting to present its views. Before the meeting the department will distribute written ground rules for the meeting to both parties.

The contractor and the department can mutually agree to extend the 30-day review period. Upon completion of the review phase the department will notify the contractor, in writing, that it has begun the decision phase.

In the decision phase the department will have up to 30 calendar days to issue a written decision. The department will consider both parties' written and oral submissions and may consider other relevant information in the project records. The department and contractor can mutually agree to extend the 30-day decision period. The department will provide the following in its decision:

1. A concise description of the claim.
2. A clear contractual basis for its decision that includes a reference to standard spec 104.2 on revisions to the contract and as appropriate, specific reference to language regarding the bid items in question.
3. Other facts the department relies on to support its decision.
4. A concise statement of the circumstances surrounding the claim and reasons for its decision. If the department rejects the claim in whole or in part the department will explain why the claimed work is not a change to the contract work.
5. The amount of money or other relief, if any, the department will grant the contractor.

In the appeal phase there will be up to 21 calendar days from the date of the department's decision to request a dispute review board hearing. If a written request is as specified in standard spec 105.13.6.1.2 within the 21 calendar days, the department's decision is final. If the department does not render a decision within the period allowed by standard spec 105.13.5, a dispute review board hearing may be requested.

105.13.6 Dispute Resolution

105.13.6.1 Dispute Review Board (DRB)

The purpose of a DRB is to resolve claims in a manner that complies with the contract, is impartial, and expedites the standard claims process. The DRB will do so by issuing recommendations that may be binding or non-binding depending on the claim amount.

105.13.6.1.1 Selection of Members and Agreement for Services

The department and the contractor will cooperatively establish the DRB promptly after contract execution. Each DRB will consist of one member appointed by the department and approved by the contractor, one member appointed by the contractor and approved by the department, and a third member appointed by the first two members and approved by both. The third member will act as DRB chairperson.

If a DRB member is unable to perform the duties of the office, the department may declare the office vacant. The new DRB member will be selected in the same manner as the original member. If the vacancy occurs after the hearings begin the remaining DRB members may continue with the hearing and determination of that claim, unless the department and contractor agree otherwise.

After approval of the DRB members, the department, contractor, and the DRB members will enter into a three-party agreement that sets forth the terms and conditions that apply to services provided by the DRB including procedures for standard operation of the DRB, use of the DRB in an advisory role, periodic site visits, and any other pertinent terms. The department, contractor, and all three DRB members will execute the DRB agreement within 14 calendar days after the selection of the chairperson. Payment for the DRB shall be in accordance to standard spec 105.13.7.

105.13.6.1.2 Pre-Hearing Submissions

If the contractor intends to appeal the department's decision, prepare a written statement of position setting forth in detail the nature of, and factual and legal basis for the claim and all remedies sought from the DRB. The statement shall also include and identify all claims on behalf of subcontractors. Submit the statement of position with the request for a DRB hearing within the 21 calendar day appeal phase as specified in standard spec 105.13.5.

Within 14 calendar days (or a period mutually agreed by the department and contractor) of receipt of the contractor's written statement of position, the department will provide the DRB and the contractor its response to the contractor's written statement. The response will set forth the position of the department and any counterclaims the department has relating to the claim, including a detailed statement setting forth each factual and legal defense to the claim and all documentation that establishes each defense.

105.13.6.1.3 Preparation of Claim File

The department will prepare a claim file within 14 calendar days of either the contractor or the department requesting a DRB hearing. The department will include all previous documents and evidence submitted during the department review and decision phases. The department may add additional documents but not additional analysis or conclusions. The claim file may contain, but is not limited to the following:

1. Contractor's notices and statements.
2. Engineer's written statements.
3. Engineer's decisions.
4. Supplemental information from the contractor during the department claim review.
5. Project photos.
6. Meeting minutes, correspondence, and other documents related to the claim.
7. Complete set of plans and specifications.
8. Applicable shop drawings and submittals.

9. The department's decision.

10. Contractor request for a DRB hearing.

After the department has assembled the claim file it will provide a copy to the contractor. Provide additional documentation as specified above, to the claim file within seven calendar days. Return complete copy of the claim file, including any additional documentation added to the department.

105.13.6.1.4 DRB Claim Review

The department will provide a copy of the completed claim file to each board member for review. If the DRB requests additional information, the appropriate party will provide the information to the DRB. The DRB may also visit the site to become familiar with the project and claim.

105.13.6.1.5 Scheduling and Conduct of Hearing

The DRB will set a date and location for a hearing no earlier than 30 calendar days but no later than 60 calendar days after the receipt of a written request for a DRB hearing.

The department and the contractor will have representatives at all hearings. Present your position first, followed by the department. Each party will be allowed one rebuttal. The DRB members, department, and the contractor may ask questions, request clarification, or ask for additional data. Unless extended by agreement between the department and the contractor, the DRB will limit a hearing to two 8-hour days. Each party will have eight hours to present both its position and rebuttal.

Normally, the DRB will not prepare a formal transcript of the presentations. When requested by either party, the DRB may allow recordation and transcription by a court reporter with the cost allocated as agreed by both parties. This transcript will not constitute the official record of the DRB review. The record prepared by the DRB is the official record of the hearings.

105.13.6.1.6 Claims by the Subcontractor

If the contractor's claim includes one or more subcontractor claims, ensure that an authorized representative with actual knowledge of the facts underlying the subcontractor claim assists in presenting the subcontractor's claim and answering questions raised by the DRB members or the department's representatives.

105.13.6.1.7 Findings and Recommendations

After all DRB hearings are concluded the DRB will formulate findings and recommendations. The DRB will conduct private and confidential deliberations and attempt to reach a unanimous decision. The DRB will base its findings and recommendations on the terms of the contract documents, established principles of law, statutes and regulations, the facts and circumstances of the claim, and the information provided by the parties.

Within 30 calendar days of the hearings the DRB will issue its final findings and recommendations. Claims resulting in a decision involving \$250,000 or less will be binding on the parties to the extent permitted by Wisconsin law. For claims resulting in a decision involving more than \$250,000, if accepted by the parties, the department will process the DRB decision for approval and will promptly process any required contract changes.

If the DRB is unable to reach unanimity in its findings and recommendations, both parties will be advised by the DRB report. At their discretion, a dissenting member may prepare a minority report to be included in the DRB.

105.13.6.1.8 Further Action on Decisions Exceeding \$250,000

Each party will have 45 calendar days from receipt of a final decision of the DRB exceeding \$250,000 to accept or reject, in writing, the decision. If either party fails to accept or reject, in writing, that final decision of the DRB within 45 calendar days of receipt of such decision, the DRB will notify the parties that non-response is considered to be acceptance of that decision and further administrative or judicial review will be barred. Provide notice of acceptance or rejection of the final decision to the DRB in a manner and form prescribed by the DRB. The DRB will reject any notice on a final decision not filed by either party in a timely manner. This 45-day appeal period may be extended if agreed to in writing prior to the 45-day expiration period.

105.13.6.1.9 Advisory Dispute Review Board

As an alternative to the standard DRB process, the department may elect to use the DRB in an advisory role to expedite the resolution of a dispute or claim. The DRB may review and hear disputes or claim issues during a regularly scheduled site visit. The DRB will offer its advice either during or promptly after the site visit.

105.13.7 Payment for DRB

Pay all labor and expenses for the DRB member appointed by the contractor.

The department will be responsible for paying all labor and expenses for the DRB member appointed by the department.

The department and contractor shall share equally in the labor and expenses for the DRB chairperson. The chairperson will submit all costs for his/her labor and expenses to the contractor for payment. Invoice the department for 50 percent of those costs.

18. Information to Bidders, Use of Recovered Material.

The department encourages the use of waste materials and recovered industrial byproducts as material substitutions (standard spec 106.2.1), provided they meet standard specification gradation requirements, conform to NR 538 requirements, and/or follow standard engineering practice for their intended use.

19. Payment Tracking.

A Reporting Payments During Construction

Comply with reporting requirements specified in the department's civil rights and labor compliance management system manual.

Report payments to all first tier relationships including subcontractors, suppliers, and trucking 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 subcontractors, suppliers, and trucking firms. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.

Require all first tier relationships including subcontractors, suppliers, and trucking firms in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1) and (2).

Include the provisions in A(1) and (3) in all agreements . Agreements will be binding on all first tier relationships including subcontractors, suppliers, and trucking firms on the project.

B (Vacant)

C (Vacant)

D (Vacant)

E Payment

Costs for conforming to this special provision are incidental to the contract.

20. Labor Compliance Reporting – Payroll Requirements.

Submit weekly certified payrolls verifying prevailing wage rates for all work performed under the contract as directed in the civil rights and labor compliance management system manual. Submit weekly certified payrolls within seven calendar days of the week covered by the weekly certified payroll.

21. 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.
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22. Dust Control Implementation Plan.

A Description

Develop, update, and implement a detailed Dust Control Implementation Plan (DCIP) for all land-disturbing construction activities and associated impacts both within the project site boundaries and outside the project site boundaries. Incorporate contract bid items that this article specifies into the DCIP.

B (Vacant)

C Construction

C.1 General

Take responsibility for dust control on the project as specified in standard spec 107.18. Minimize dust emissions resulting from land disturbing activities. Do not generate excessive air borne particulate matter (PM) or nuisance dust conditions. Take direct responsibility for controlling dust at all times throughout the duration of the contract, 24 hours per day, 7 days per week, including non-working hours, weekends, and holidays.

Submit a DCIP to the engineer for review at least 14 calendar days before the preconstruction conference. Coordinate with the department, if requested, to resolve DCIP related issues before the preconstruction conference. The department will either approve the DCIP or request revisions. Do not initiate any land-disturbing activities without the department's approval of the DCIP.

C.2 Dust Control Implementation Plan Contents

Develop a DCIP tailored to the specific needs of the project. Consider potential impacts to businesses and residences adjacent to the job site. Describe in detail all land disturbing, dust generating activities. Identify strategies to prevent, mitigate, and collect excess dust. Establish clear lines of communication with the engineer to ensure that all dust control issues can be dealt with promptly.

The DCIP shall include, but not be limited to, all of the following:

1. A single contact person with overall responsibility for the DCIP development as well as surveillance and remediation of job related dust. Include the following:
 - Name, firm, address, and working-hours phone number.
 - Non-working-hours phone number.
 - Email address.
2. Individual contact persons and their respective areas of responsibility. Include the following:
 - Name, firm, address, and working-hours phone number.
 - Non-working-hours phone number.
 - Email address.
3. A site map locating project features, the job site boundaries, all ingress and egress points, air intakes and other dust-sensitive areas, and all public and private paved surfaces within and immediately adjacent to the job site. Show where specific land disturbing, dust generating activities will occur and, to the extent possible, where employing various dust control or prevention strategies.

4. A matrix showing, for each anticipated land disturbing, dust generating activity, the following:
 - Preventive measures that shall be employed.
 - The applicable contact person.
 - The contractor's timetable and/or surveillance measures used to determine when remediation is required.
 - The specific dust control and remediation measures that shall be employed. List the specific contract bid items that shall be used for payment. Also indicate costs that are incidental to the contract.
 - Both maintenance and cleanup schedules and procedures.
 - How excess and waste materials shall be disposed of.
5. A description of how off-site impacts shall be monitored and dealt with.

C.3 Updating the Dust Control Implementation Plan

Update the DCIP throughout the term of the contract as the engineer directs. Obtain the engineer's approval for all DCIP alterations. Also obtain the engineer's approval for DCIP routine adjustments for weather, job conditions, or emergencies that will have an impact on payment under the bid items listed in the approved DCIP.

C.4 Dust Control Deficiencies

Correct engineer identified dust control deficiencies within the time the engineer specifies. The engineer will allow from 30 minutes to 24 hours from the time the engineer notifies the contractor in writing of the deficiency. Deficiencies include, but are not limited to, actions or lack of actions resulting in excessive dust, failing to comply with the contractor's dust control implementation plan or associated special provisions, and failing to properly maintain equipment.

D Measurement

The department will measure the various bid items associated with dust control as specified in the applicable measurement subsections of either the standard specifications or other contract special provisions. The department will not measure work performed under a DCIP alteration unless the engineer specifically approves that alteration.

Measurement under the DCIP shall include, but is not limited to, the contract bid items listed below:

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The department will measure work completed under other existing contract bid items if approved as a part of the DCIP. The department will consider new bid items to the contract if proposed under the DCIP. The department will not measure work required under the DCIP that is not included in contract bid items.

E Payment

All costs associated with the development and updating of the DCIP are incidental to the contract. The department will pay separately for the work required to implement the actions approved in the DCIP under the contract bid items approved as a part of the

DCIP. All other costs associated with work approved under the DCIP are incidental to the contract.

23. Project Site Air Quality.

Because fine particulate matter levels for Milwaukee, Racine and Kenosha Counties are typically close to PM_{2.5} limits and the project is in a non-attainment area for the federal 8-hour ozone standard, contributions from construction activities can have a major impact well beyond the project limits. Take practical measures to mitigate the impact of operating construction equipment on the air quality in and around the project site.

Voluntarily establishing the staging zones for trucks waiting to load and unload is encouraged by the department. Locate staging zones where idling of diesel powered equipment will have minimal impact on abutting properties and the general public. The department will make signs available to help identify these zones. Have truckers queue up in these zones whenever it is practical. The department further encourages drivers to shut down diesel trucks as soon as it appears likely that they will be queued up for more than ten minutes. Notify employees and sub-contractors about fueling and engine idling.

Potable Concrete Crusher Plants

Portable concrete crusher plants may need a NR 440 Concrete Crusher Plant Air Permit for air emissions. Please contact Mike Griffin, Wisconsin Department of Natural Resources, Air Compliance Engineer, (414) 263-8554, to request additional information and permit application materials. Complete permit applications may take three months to process.

24. OCIP Information.

The Owner Controlled Insurance Program (OCIP)

The Zoo Interchange project will be constructed under the umbrella of an Owner Controlled Insurance Program (OCIP). Contractor/Consultant participation in this Corridor Project is mandatory and requires enrollment into the OCIP. The OCIP requires submitted bids to exclude the cost of the OCIP provided coverage. Additional information regarding OCIP can be found at <http://roadwaystandards.dot.wi.gov/hcci/index.shtm>.

If you have any questions regarding the OCIP, including questions on if your company needs to be enrolled into the OCIP, please contact Chris Luttrell at (608) 267-7722.

25. Owner Controlled Insurance Program.

Section 107.26, "Standard Insurance Requirements" of the standard specifications is deleted in its entirety and the following section 107.26 is substituted thereof:

107.26 Standard Insurance Requirements

107.26(1)(a) Owner Controlled Insurance Program

1. Overview. The State of Wisconsin, Department of Transportation (“the WisDOT”) has arranged with Aon Risk Solutions, (the “OCIP administrator”) for this Project to be insured under its Owner Controlled Insurance Program (“OCIP”). The OCIP is more fully described in the Zoo Interchange manual for the Owner Controlled Insurance Program (the “Insurance Manual”) and the Safety and Health Plan Manual that are incorporated in this Special Provision and the Contract by this reference. Parties performing labor or services at the Project Site (as defined by the OCIP Policies) are eligible to enroll in the OCIP unless the party is an excluded party (as defined below). The OCIP will provide to enrolled parties(as defined below) workers’ compensation and employer’s liability insurance, commercial general liability insurance, Builders Risk and Excess Liability insurance as summarily described below in connection with the performance of the Work (“OCIP coverage’s”).

2. Enrolled Parties and Their Insurance Obligations. OCIP coverage applies only to Enrolled Parties. Enrolled Parties include the WisDOT and its employees, non-excluded Contractors and Subcontractors of all tiers who enroll in the OCIP, all employees of Enrolled Contractor’s and Subcontractor’s who perform Work at the Project Site, and such other persons or entities that the WisDOT, in its sole discretion, may designate (each such party who is insured under the OCIP is collectively referred to as an “Enrolled Party”).

Enrolled Parties shall obtain and maintain, and shall require each of its Subcontractors to obtain and maintain, the insurance coverage specified in 107.26(1)(a) 8 below.

3. Excluded Parties and Their Insurance Obligations. OCIP coverage’s do not apply to the following “Excluded Parties”:

- a. Hazardous materials remediation, removal and/or transport companies;
- b. Vendors *, suppliers, fabricators, material dealers, truckers**, haulers, drivers and others who merely transport, pickup, deliver, or carry materials, personnel, parts or equipment or any other items or persons to or from the Project;

* WisDOT is requiring all vendors who perform maintenance on an enrolled contractor’s equipment to be enrolled in the OCIP. Please see “WisDOT OCIP Enrollment Guidance Relating to Service Vendors” to determine whether they will be enrolled per project id number or on a Miscellaneous blanket basis.

** Truckers that come on site must remain in the cab of the vehicle.

Refer to the “Enrollment Matrix” which clearly outlines the requirements contingent upon the category that the entity falls under, such as: Contractor; Subcontractor; Consultant; Visitor; etc.

c. Sanitary disposal facility providers, if the only function is to drop off the units and pick them up later, they are material suppliers and are excluded. If the company also services/cleans the units on site, that is no longer being a material supplier. (Refer to “Enrollment Matrix”, Vendors Providing Maintenance On Site).

d. Contractors and Subcontractors of any tier that do not perform any actual labor on the Project site;

e. Any party or entity not specifically identified in this special provision or excluded by the WisDOT as permitted by law, even if otherwise eligible.

f. If you are not employed by an Enrolled Party, but performing services of an Excluded Party, you are not covered by the OCIP.

Excluded Parties and parties not enrolled in the OCIP shall obtain and maintain, and shall require each of its excluded Subcontractors to obtain and maintain, the insurance coverage specified in Section 107.26(1)(a) 8 below and in the Insurance Manual. Excluded Parties shall comply with all of the safety requirements pursuant to 107.26(1)(a) 16.

4. OCIP Insurance Policies Establish OCIP coverage’s. The OCIP coverage’s and exclusions summarized in this special provision and the other contract documents are set forth in full in their respective insurance policy forms. The summary descriptions of the OCIP coverage’s in this special provision or the Insurance Manual are not intended to be complete or to alter or amend any provision of the actual OCIP coverage’s. In the event any provision of this special provision, the Insurance Manual, or the contract documents, conflicts with the OCIP insurance policies, the provisions of the actual OCIP insurance policies shall govern.

5. Summary of OCIP Coverage’s. OCIP coverage’s will apply only to those operations of each Enrolled Party performed at the Project Site (as defined in the OCIP insurance Policies) in connection with the Work and only to Enrolled Parties that are eligible for the OCIP.

The OCIP coverage’s are primary insurance for all Enrolled Parties for occurrences during the policy period at the Project Site (as defined in the OCIP Policies). The OCIP will provide at least the following insurance to Enrolled Parties:

Summary of OCIP Coverages

This is a brief description of OCIP Insurance Coverage. Enrolled Parties should refer to the actual policies for details concerning coverage, exclusions and limitations.

- a. Workers' Compensation Insurance -Statutory Limit including Jones Act and USL&H coverage, as applicable.
- b. Employer's Liability Insurance \$1,000,000 Bodily Injury by Accident, each accident \$1,000,000 Bodily Injury by Disease, each employee \$1,000,000 Bodily Injury by Disease, policy limits
- c. Commercial General Liability (ISO Occurrence Form – Limits Shared By All Insureds) \$2,000,000 Each Occurrence Limit (Annual Limit) \$2,000,000 Personal/Advertising Injury Aggregate \$4,000,000 General Aggregate Limit for all Enrolled Parties (Annual Limit)

\$4,000,000 Products and Completed Operations Aggregate for all Enrolled Parties (Single Limit Applies to Entire Products and Completed Operations Extension)

10 yr. Products and Completed Operations Extension
- d. The OCIP Commercial General Liability policy will not provide coverage for any claim that could be covered under a property policy or Builder's Risk policy.
- e. Excess Liability insurance (over Employer's Liability and General Liability – Limits Shared by All Insureds)

\$100,000,000 Each Occurrence Limit

\$100,000,000 Aggregate (Annual Limit)

\$100,000,000 Products and Completed Operations Aggregate Limit (Single Limit Applies to Entire Products and Completed Operations Extension).

- f. Builder's Risk Insurance Coverage:

This is a brief description of Builder's Risk Insurance Coverage. Contractor should refer to the actual policies for details concerning coverage, exclusions and limitations.

The Builder's Risk insurance covers insures property, including materials, supplies, machinery, fixtures and equipment which will become a permanent part of the Work (excluding road work at grade level) in the course of construction.

The Builder's Risk coverage insures WisDOT and Enrolled Parties.

Builders Risk:

	<u>Limit</u>
Each Occurrence Limit	\$100,000,000

Builder's Risk Obligation:

- Contractor or Subcontractor shall pay to the WisDOT's designee within five (5) days
- written notice a maximum of up to twenty-five thousand dollars (\$25,000.00) for each loss payable under the Builder's Risk Policy attributable to Contractor's Work, acts or omissions, or the Work, acts or omissions of any of Contractor's Subcontractors, or any other entity or party for whom Contractor may be responsible ("builder's risk obligation").

6. The WisDOT's Insurance Obligations.

- a. The WisDOT will pay the costs of premiums for the OCIP coverage's and WisDOT will receive or pay, as the case may be, all adjustments to such costs, whether by way of dividends, retroactive adjustments, return premiums, other moneys due, audits or otherwise.
- b. The WisDOT assumes no obligation to provide insurance other than that specified in this special provision and the OCIP insurance policies.
- c. Except as provided by applicable law, the WisDOT's furnishing of OCIP coverage's will in no way relieve or limit, or be construed to relieve or limit, Contractor or any of its Subcontractors of any responsibility, liability, or obligation imposed by the contract documents, the OCIP insurance policies, or by law, including without limitation any indemnification obligations which Contractor or any of its Subcontractors has to the WisDOT there under. The WisDOT reserves the right at its option, to furnish other insurance coverage of various types and limits provided that such coverage is not less than that specified in the contract documents.

7. Contractor's OCIP Obligations. Contractor shall:

- a. Assign to WisDOT the right to receive all such adjustments, and shall require that each of its Subcontractors of every tier assigns to WisDOT the right to receive all such adjustments.
- b. Incorporate the terms of this special provision in all subcontract agreements.
- c. Enroll and maintain enrollment in the OCIP, and shall ensure that each non-Excluded subcontractor, enrolls and maintains enrollment in the OCIP. Enrollment shall take place within five (5) days of a receipt of a Notice to Proceed, and prior to commencement of work. Comply with all of the administrative, safety, insurance, and other requirements outlined in this special provision, the Insurance Manual, the OCIP

insurance policies, the Safety and Health Plan Manual, or elsewhere in the contract documents.

- d. Provide each of its Subcontractors with a copy of the Insurance Manual and ensure Subcontractor compliance with the provisions of the OCIP insurance policies, the Insurance Manual, this special provision, and the contract documents. The failure of (a) the WisDOT to include the Insurance Manual in the bid documents or (b) Contractor to provide each of its eligible Subcontractors with a copy of same shall not relieve Contractor or any of its Subcontractors from any of the obligations contained therein.
- e. Acknowledge, and require all of its Subcontractors to acknowledge in writing, that the WisDOT and the OCIP administrator are not agents, partners or guarantors of the insurance companies providing coverage under the OCIP (each such insurer, an “OCIP insurer”) and that the WisDOT is not responsible for any claims or disputes between or among Contractor, its Subcontractors, and any OCIP insurer(s). Any type of insurance coverage or limits of liability in addition to the OCIP coverage’s that Contractor or any Subcontractor requires for its or their own protection, or that is required by applicable laws or regulations, shall be Contractor’s or its Subcontractor’s sole responsibility and expense and shall not be billed to the WisDOT.
- f. Cooperate fully with the OCIP administrator and the OCIP insurers, as applicable, in its or their administration of the OCIP.
- g. Provide, within five (5) business days of the WisDOT’s or the OCIP administrator’s request, all documents or information as requested of Contractor or its Subcontractors. Such information may include but not be limited to, payroll records, certified copies of insurance coverage’s, declaration pages of coverage’s, certificates of insurance, underwriting data, prior loss history information, insurance audits, safety records or history, OSHA citations, or such other data or information as the WisDOT, the OCIP administrator, or OCIP insurers may request in the administration of the OCIP, or as required by the Insurance Manual.
- h. Pay to the WisDOT’s designee within five (5) days of written notification, a sum of up to **\$10,000** of each claim, including court costs, attorneys fees and costs of defense for property damage to the extent losses are insured under the OCIP Commercial General Liability policy for those losses that are attributable to Contractor’s Work, acts or omissions, or the Work, acts or omissions of any of its Subcontractors, or any other entity or party for whom Contractor may be responsible (“contractor General Liability obligation”). The contractor General Liability obligation will not be insured by the OCIP Coverage’s.

8. Additional Insurance Required From Enrolled Parties and Excluded Parties.

Contractor shall obtain and maintain, and shall require each of its Subcontractors of every tier to obtain and maintain, the insurance coverage specified in this Section in a form and from insurance companies reasonably acceptable to the WisDOT. The insurance limits may be provided through a combination of primary and excess policies, including the umbrella form of policy. The insurance required by this Section shall conform to the

WisDOT's requirements outlined in the Insurance Manual and be written by companies authorized to do business in the state of Wisconsin with an **AM Best rating of A-or better**. Contractor shall provide certificates of insurance coverage to the WisDOT as required below and by the Insurance Manual.

As to Enrolled Parties, the Workers' Compensation, Employer's Liability, and Commercial General Liability insurance required by this section shall only be for operations away from the Project Site (as defined by OCIP Policies). The cost of providing the required insurance coverage and limits is incidental to the contract. The department will make no additional or special payment for providing insurance.

TYPE OF INSURANCE MINIMUM LIMITS REQUIRED

1. Commercial General Liability insurance shall be endorsed to include Blanket Contractual Liability coverage.

- a. \$2,000,000 Combined Single Limits per occurrence with an annual aggregate limit of not less than \$4,000,000.
- b. The OCIP Coverage's shall exclude blasting or explosion operations. If blasting or explosion operations are used in connection with the Work, Commercial General Liability insurance shall not contain an exclusion for blasting or explosion and shall be provided in limits established by the WisDOT at the time such blasting or explosion methods are elected. Such coverage shall apply to operations whether the operations occur on the Project site or away from the Project site.
- c. Wisconsin Department of Transportation, their respective officers, agents and employees, and any additional entities as the WisDOT may request as additional insureds must be named as an Additional Insured which shall include: i) liability arising out of the Work performed by the named insured; ii) liability arising out of the supervision of the Work performed by or operations of the named insured; and iii) liability of the acts or omissions of the Additional Insureds relating to Work performed by the named insured for the Project, except for sole negligence of the Additional Insureds iv) will state that coverage is afforded on a primary and non-contributory basis.
- d. Ongoing Construction Operation(s) in effect at all times while work is being performed by Contractor;
- e. Subcontractors and Independent Contractors (if any);
- f. Products and Completed Operations, including coverage applicable to additional insureds (as required by this agreement) with Completed Operations coverage to remain in force, whether by endorsement or renewal of coverage, including the Contractor, any party required to be indemnified by this Contract and any other party required by this Contract to be named as an additional insured, for at least two (2) years from the date of final completion of the Project and WisDOT's acceptance of the work; and
- g. Explosion, collapse, and underground hazards.

- h. Contractual Liability (insured contract) coverage sufficient to meet the requirements of this Contract (including defense costs and attorney's fees assumed under contract);
 - i. Personal and Advertising Injury Liability coverage (with the standard contractual and employee exclusions deleted);
 - j. Notice and Knowledge of Occurrence conditions limited to the knowledge of relevant corporate officers or risk managers with an Unintentional Errors and Omissions provision (providing that the insurer may not deny coverage unless it can show that it has been prejudiced by a failure of the insured to comply with a condition of the policy); and
 - k. CG 22 79 07 98 (or equivalent) is the only acceptable Professional Liability Exclusion.
 - l. Operations performed within 50' of railroad
 - m. Contractors must provide their own insurance for owned, leased, rented and borrowed equipment, whether such equipment is located at a Project Site or "in transit". Contractors are solely responsible for any loss or damage to their personal property including, without limitation, property or materials created or provided under the Contract until installed at the Project Site, Contractor tools and equipment, scaffolding and temporary structures.
2. Workers' Compensation and Employer's Liability insurance.
- a. Workers' Compensation Limits: Statutory Limits
 - b. Employer's Liability limits:
\$1,000,000 Bodily Injury by Accident, each accident \$1,000,000 Bodily Injury by Disease, each employee \$1,000,000 Bodily Injury by Disease, policy limits
- Terms and conditions shall include:
- USL&H – where applicable.
 - Jones Act – where applicable.
 - All states endorsement -where applicable.
3. Commercial Automobile Liability insurance as specified by Insurance Services Office (ISO), form CA 00 01, symbol 1 (any auto) with the following limits and endorsements:
- a. No Trucking or Hauling: \$1,000,000 Each Accident
 - b. Trucking or Hauling (Non Hazardous Materials): \$2,000,000 Each Accident
 - c. Trucking or Hauling Hazardous Materials: \$5,000,000 Each Accident with an MCS 90 Endorsement and ISO Endorsement CA 99 48.
4. For any work over water, whether deemed navigable or otherwise, Contractors Pollution Liability insurance with \$2,000,000 per occurrence and \$2,000,000 aggregate policy limits.

5. Aviation and/or Watercraft Liability insurance, as appropriate, including hull and protection and indemnity for watercraft, or other insurance, in form and with limits of liability and from an insuring entity reasonably satisfactory to the WisDOT.

Contractor's failure to procure or maintain the insurance required by this Section and to assure all its Subcontractors of every tier maintain the required insurance during the entire term of the contract shall constitute a material breach of this contract under which the WisDOT may immediately suspend or terminate this contract or, at its discretion, procure or renew such insurance to protect the WisDOT's interests and pay any and all premiums in connection therewith, and withhold or recover all monies so paid from the Contractor.

Contractor shall provide the WisDOT with certificates of insurance as evidence that required coverage's for insurance detailed in this section are in force. The bidder shall provide certificates of insurance in their pre-qualification statement as specified in 102.1.

Contractor shall notify the WisDOT at least 60 calendar days before a cancellation or material change in coverage and only obtain coverage from insurance companies licensed to do business in the state that have an AM Best rating of A- or better. The cost of providing the required insurance coverage and limits is incidental to the contract. The WisDOT will make no additional or special payment for providing insurance.

The above insurance requirements shall apply with equal force whether the Contractor or a Subcontractor, or anyone directly or indirectly employed by either, performs the work under the Project.

9. Additional Insureds:

All insurance required by this agreement (excluding only workers compensation insurance) shall name WisDOT, all parties required to be indemnified by this Contract and all other parties as reasonably requested by the WisDOT, as additional insureds. All policies (including primary, excess and/or umbrella) must provide that coverage shall be primary and non-contributory to any insurance maintained by the Contractor or the additional insured, all of which shall be stated on the Certificate of Insurance provided by the Contractor. The Additional Insured Endorsement shall be on Form CG 20 10 11/85, or CG 20 33 10/01 plus CG 20 37 10/01, or equivalent, and shall include ongoing and completed operations coverage, which shall not contain any restrictions.

IN THE EVENT THAT THE LAW OF THE STATE IN WHICH THE PROJECT IS LOCATED (OR APPLICABLE LAW) LIMITS THE ADDITIONAL INSURED COVERAGE THAT WISDOT MAY REQUIRE FROM THE CONTRACTOR, THEN THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ADDITIONAL INSURED COVERAGE TO THE FULLEST EXTENT OF COVERAGE AND LIMITS ALLOWED BY APPLICABLE LAW AND THIS CONTRACT SHALL BE READ TO CONFORM TO SUCH LAW.

10. Contractor Representations and Warranties to the WisDOT. Contractor represents and warrants to the WisDOT or behalf of itself and its Subcontractors:

a. That all information it submits to the WisDOT or the OCIP administrator shall be accurate and complete.

b. That Contractor, on behalf of itself and its Subcontractors, has had the opportunity to read and analyze copies of the OCIP binders and specimen policies that are on file in the WisDOT's office. Any reference or summary in the contract, this special provision, the Insurance Manual, or elsewhere in any other contract document as to amount, nature, type or extent of OCIP coverage's and/or potential applicability to any potential claim or loss is for reference only. Contractor and its Subcontractors have not relied upon said reference but solely upon their own independent review and analysis of the OCIP coverage's in formulating any understanding and/or belief as to amount, nature, type or extent of any OCIP coverage's and/or its potential applicability to any potential claim or loss.

c. That the costs of OCIP coverage's were not included in Contractor's bid or proposal for the Work, the contract price, and will not be included in any change order, change modification, or any request for payment for the Work or extra work. The "costs of OCIP coverage's" is defined as the dollar amount of premiums, costs and fees the Contractor and its Subcontractors would have paid its insurance carrier to insure the operations and exposures which are being insured under the OCIP.

d. That Contractor acknowledges that the WisDOT will not pay or compensate Contractor or any Subcontractor, in any manner, for costs of OCIP coverage's or for "insurance costs" except as specifically required to be maintained by Contractor by the terms of this special provision.

11. Severability of Interests (Cross Liability):

All insurance required by this agreement (excluding only workers compensation insurance) shall include a provision or be endorsed to provide that, inasmuch as the policy is written to cover more than one insured, all terms, conditions, insuring agreements and endorsements, with the exception of limits of liability, shall operate in the same manner as if there were a separate policy covering each insured. No cross liability exclusions are permitted and there may not be any restrictions in any policies that limit coverage for a claim brought by an additional insured against a named insured. Also, there shall not be any provision in any insurance policy which excludes or conditions coverage on the existence of a contract or other agreement requiring insurance.

12. Breach of Insurance Requirements:

The Contractor's failure to obtain and maintain insurance coverages as required by this agreement shall constitute a material breach of the Contract. In such event WisDOT may at its option: (i) terminate the Contractor for default; or (ii) purchase such coverage and backcharge the premium and associated costs to the Contractor; or (iii) at their respective option, WisDOT and/or an additional insured can require the Contractor and/or its Subcontractors to pay for attorney's fees, expenses, damages and liability as a result of

any claim or lawsuit to the extent coverage would have been provided to them under the Contractor's insurance but for the Contractor's breach WisDOT has the right to backcharge the Contractor for such sums. Furthermore, to the extent of their respective interest, the Insurers of those entities that were to be included as additional insureds are deemed to be third-party beneficiaries of the insurance procurement obligation.

13. Subcontractor:

Before permitting any Subcontractor to perform work under a subcontract, the Contractor shall require by written contract that the Subcontractor maintain insurance in like form and amounts to that required herein. The Contractor shall be responsible to ensure that each Subcontractor maintains insurance in like form and amounts and shall Provide evidence of same if requested. Contractor shall provide copies of its Subcontractor's certificates of insurance coverage to WisDOT or the OCIP Administrator upon request.

14. Notice of Cancellation:

All insurance coverages required by this agreement shall contain a provision that the coverage afforded thereunder cannot be cancelled, non-renewed, allowed to lapse, or have any restricted modifications added unless at least thirty (30) days prior written notice has been given to WisDOT. The Contractor is responsible to provide replacement coverage conforming with the requirements of this agreement in the event of any cancellation, non-renewal or modification of any insurance coverages required by this agreement.

15. Limits of Insurance:

The Contractor's insurance coverage and any additional insured coverage provided to WisDOT and any additional insured shall be for the full amount of any loss up to the policy(s) limits of liability and shall not be limited to the minimum insurance requirements of this Contract. The Contractor is responsible for notifying its insurance carriers in the event of a loss or potential loss involving coverage for the additional insureds. However, this does not prohibit any additional insureds from reporting a claim directly to the Contractor's insurance carriers.

16. Deductibles/Denial of Claims:

The Contractor shall be responsible, at no additional cost to WisDOT, for the payment of any deductibles or self-insured retention in connection with the insurance coverages required by this agreement, both for itself and all additional insureds. Any self-insured retention or deductible must be declared in writing at the time the Contractor submits its bid and must be specifically approved by WisDOT prior to execution of the Contract. The Contractor shall be responsible for any loss arising out of coverage denial by its insurance carrier. The Contractor may not procure policies that limit who may pay the SIR or deductible; rather, any SIR shall be payable by either the Contractor or the Subcontractor and the Contractor may not have a policy that prevents WisDOT from accessing or triggering coverage unless the SIR is paid by the Contractor. Contractor shall also ensure that similar conditions are incorporated into all subcontracts. In the event that WisDOT is required to pay any deductible and/or SIR to access any insurance policy, Subcontractor shall promptly reimburse the Contractor for such payment.

17. No Waiver of Insurance Requirements:

IT IS EXPRESSLY AGREED BETWEEN WISDOT AND THE CONTRACTOR THAT THE FAILURE OF WISDOT TO REQUIRE OR VERIFY COMPLETE AND TIMELY PERFORMANCE OF THE CONTRACTOR'S OBLIGATIONS UNDER THIS CONTRACT SHALL NOT BE A WAIVER BY WISDOT OF ANY RIGHT OF WISDOT TO REQUIRE THE CONTRACTOR TO COMPLY WITH THESE INSURANCE REQUIREMENTS AND/OR TO SEEK DAMAGES BECAUSE OF THE CONTRACTOR'S FAILURE TO COMPLY WITH THE INSURANCE REQUIREMENTS IN THIS CONTRACT.

18. Audits. Contractor agrees that the WisDOT, the OCIP administrator, and/or any OCIP insurer may audit Contractor's or any of its Subcontractor's Project payroll records, books and records, insurance coverage's, insurance cost information, or any other information that Contractor provides to the WisDOT, the OCIP administrator, or the OCIP insurers to confirm their accuracy and to assure that costs of OCIP coverage's are not included in any payment for the work.

19. The WisDOT's Election to Modify or Discontinue OCIP. The WisDOT may, for any reason, modify the OCIP coverage's, discontinue the OCIP, or request that Contractor or any of its Subcontractors withdraw from the OCIP upon thirty (30) days written notice. Upon such notice Contractor and/or one or more of its Subcontractors, as specified by the WisDOT in such notice, shall obtain and thereafter maintain at the WisDOT's expense, Contractor Maintained Coverages (or a portion thereof as specified by the WisDOT) of the OCIP coverage's. The form, content, limits of liability, cost, and the insurer issuing such replacement insurance shall be subject to the WisDOT's approval.

20. Withhold of Payments. The WisDOT may withhold from any payment owing to Contractor the costs of OCIP coverage's if included in a request for payment. In the event the WisDOT audit of Contractor's records and information as permitted in the Contract, this special provision, or other contract documents reveals a discrepancy in the insurance, payroll, safety, or any other information required by the contract documents to be provided by Contractor to the WisDOT, or to the OCIP administrator, or reveals the inclusion of costs of OCIP coverage's in any payment for the work, the WisDOT will have the right to full deduction from the Contract Price of all such costs of OCIP coverage's and all audit costs. Audit costs will include but not be limited to the fees of the OCIP administrator, and the fees of attorneys and accountants conducting the audit and review. If the Contractor or its Subcontractors fail to timely comply with the provisions of this special provision or the requirements of the Insurance Manual, the WisDOT may withhold any payments due Contractor and its Subcontractors until such time as they have performed the requirements of this special provision. Such withholding by the WisDOT will not be deemed to be a default hereunder.

21. Waiver of Claim and Waiver of Subrogation:

Where permitted by law, Contractor hereby waives all rights of recovery under subrogation because of deductible clauses, inadequacy of limits of any insurance policy, limitations or exclusions of coverage, or any other reason against the WisDOT, the State of Wisconsin and any of its Agencies or Officer's, Agents or employees including without limitation, the OCIP administrator, its or their officers, agents, shareholders or employees of each, if any, and any other Contractor or Subcontractor performing work or rendering services on behalf of the WisDOT in connection with the planning, development and construction of the Project, and Contractor shall require that all Contractor maintained insurance coverage related to the work include clauses providing that each insurer shall waive all of its rights of recovery by subrogation for claims described above.

22. Waiver of Subrogation. Where permitted by law, Contractor shall also require that all Contractor maintained insurance coverage related to the work include clauses providing that each insurer shall waive all of its rights of recovery by subrogation against the WisDOT, the State of Wisconsin and any of its Agencies or Officer's, Agents or employees including without limitation, the OCIP administrator, its or their officers, agents, shareholders or employees of each, if any. Contractor shall require similar written express waivers and insurance clauses from each of its Subcontractors. A waiver of subrogation shall be effective as to any individual or entity even if such individual or entity (a) would otherwise have a duty of indemnification, contractual or otherwise, (b) did not pay the insurance premium directly or indirectly, and (c) whether or not such individual or entity has an insurable interest in the property damaged.

23. Conflicts. In the event of a conflict, the provisions of this special provision shall govern, then the provisions of the contract and its other related contract documents, then the provisions of the Insurance Manual.

24. Safety. Contractor shall be solely responsible for safety on the Project and safety relating to the Work. Contractor shall establish a safety program that, at a minimum, complies with all local, state and federal safety standards, and any safety standards established by the WisDOT for the Project, including the Project Safety and Health Plan Manual.

26. Notice to Contractor – Traffic Signal Equipment Lead Time.

Lead time for traffic signal equipment specified for this project has been ranging from 12-weeks to 18-weeks. Order equipment as soon as possible to assure the equipment is procured in a timely fashion and, therefore, installed, inspected, and ready for turn-on at the required date.

27. CPM Progress Schedule.

Submit a CPM Progress Schedule and updates in accordance to standard spec 108.4.4, and as hereinafter provided.

To ensure compatibility with the Master Program Schedule, use the latest version of Primavera Project Planner (P6), by Primavera Systems, Inc., Bala Cynwyd, PA to prepare the Initial CPM Progress Schedule, Monthly CPM Progress Updates and other CPM Progress Revisions requested by the engineer.

Within five business days after award, the department will provide its current standard Work Breakdown Structure and activity codes to use to develop the Initial CPM Progress Schedule.

Designate a Project Scheduler who will be responsible for scheduling the Work and submit for approval a professional resume describing a minimum of three years of scheduling experience on interstate-highway reconstruction work of similar size and complexity, including recent experience with P6.

With each Monthly CPM Progress Schedule Update also include:

1. Activities underway and as-built dates for the past month.
2. On a monthly basis, agree on the as-built dates with the department depicted in the Monthly CPM Progress Schedule Update or document any disagreements. Use the as-built dates from the Monthly CPM Progress Schedule Update for the month when updating the CPM schedule.
3. Provide actual as-built dates for completed activities through final acceptance of the project.

28. Subletting the Contract.

Replace standard spec 108.1.1 (3) with the following:

If proposing to have a party other than a subcontractor perform work, notify the engineer and submit details of this arrangement in writing. The engineer will determine if that arrangement constitutes subcontracting. Submit copies of all other agreements between any parties regarding the performance of work under the contract with the Request to Sublet.

29. Force Account.

Supplement standard spec 109.4.5.1 (3)1 with the following:

Include accumulation of wages to date for each employee performing force account work and identify allowable Federal Unemployment Tax (FUTA) and State Unemployment Tax (SUTA) multipliers.

30. Signs Type I and II.

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

Modify standard spec 637.2.4 with the following:

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

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

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

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

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

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

Append standard spec 637.3.2.1(3) with the following:

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

Append standard spec 637.3.3.2(2) with the following:

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

Append standard spec 637.3.3.3(3) with the following:

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

31. Overhead Sign Support (Structure), Item 641.8100.

Modify standard spec 641.5 Payment with the following:

(3) after “for excavating,” add “backfilling, and disposing of surplus materials.”

32. Field Facilities.

Replace standard spec 642 with the following:

The department has procured its own Field Facilities located at 2424 S. 102nd Street; West Allis, WI 53227.

33. Traffic Signals, General.

All work shall be in accordance to the plans and the State of Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction, 2013 Edition, and these special provisions.

Contact the WisDOT electrical field unit, (414) 266-1170, five business days prior to performing work on in-service WisDOT traffic signals.

Any work that requires a traffic signal to go into a flashing red state shall not be performed during weekday morning or weekday afternoon peak hours. Contact the engineer for approval five business days prior to performing any work requiring the traffic signal to go into a flashing red state.

All traffic signal cabinet switches for WisDOT operated traffic signals shall be performed during weekend nighttime hours (10:00 PM – 6:00 AM). Coordinate all traffic signal cabinet switches for WisDOT operated traffic signals with the WisDOT electrical field unit at (414) 266-1170 a minimum of five business days prior to construction for approval.

Adaptive Traffic Signal Turn-on

The WisDOT signal operations unit, (414) 750-2605, and the WisDOT electrical field unit, (414) 266-1170, shall determine and coordinate the adaptive traffic signal turn on day and time.

State Owned Traffic Signals

Work under this item shall consist of furnishing and/or installing all materials indicated in the plans for the department owned traffic signals at the following intersections:

STH 100 Corridor

- USH 18 and STH 100
- STH 100 and W. Wisconsin Avenue
- STH 100 and W. Potter Road/W. Research Drive
- STH 100 and Watertown Plank Road

STH 59 Corridor

- STH 59 and S. 124th Street
- STH 59 and S. 116th Street
- STH 100 and STH 59
- STH 59 and S. 101st Street
- USH 45/IH 894 eastbound Ramps and STH 59
- USH 45/IH 894 westbound Ramps and STH 59

CTH O Corridor

- IH 94 eastbound Ramps and CTH O
- IH 94 westbound Ramps and CTH O

USH 18 Corridor

- USH 18 and CTH YY
- USH 18 and Elm Grove Road
- USH 18 and Underwood Crossing Parkway
- USH 18 and UPS Driveway
- USH 18 and N. 97th Street
- USH 18 and N. 95th Street
- USH 18 and N. 92nd Street
- USH 18 and STH 181

STH 181 Corridor

- STH 181 and W. Dana Court

City of Wauwatosa/State Owned Traffic Signals

Work under this item shall consist of furnishing and/or installing all materials indicated in the plans for the City of Wauwatosa/departments owned traffic signals at the following intersections:

USH 18 Corridor

- USH 18 and N. 121st Street
- USH 18 and N. 112th Street

The existing traffic signals at the intersections identified above are owned and operated by the City of Wauwatosa. Obtain the necessary electrical permits from the City of Wauwatosa Building Department prior to beginning the work. Pay any fines, penalties, damage done to property, etc., billed by the City of Wauwatosa. The proposed traffic

signals will be owned and operated by the department. Maintain operation of the traffic signals until the work at the intersections is complete. The state will assume ownership of the permanent traffic signal upon acceptance of the work.

City of Wauwatosa Owned Traffic Signals

Work under this item shall consist of furnishing and/or installing all materials indicated in the plans for the City of Wauwatosa owned traffic signals at the following intersections:

STH 181 Corridor

- STH 181 and W. Wisconsin Avenue
Wisconsin Avenue Corridor
- W. Wisconsin Avenue and N. 87th Street

Obtain the necessary electrical permits from the City of Wauwatosa Building Department prior to beginning the work. Pay any fines, penalties, damage done to property, etc., billed by the City of Wauwatosa. Maintain operation of the traffic signals until the work at the intersections is complete.

City of New Berlin Owned Traffic Signals

Work under this item shall consist of furnishing and/or installing all materials indicated in the plans for the City of New Berlin owned traffic signals at the following intersections:

STH 59 Corridor

- STH 59 and S. Sunnyslope Road
- STH 59 and S. Elm Grove Road

Obtain the necessary electrical permits from the City of New Berlin prior to beginning the work. Pay any fines, penalties, damage done to property, etc., billed by the City of New Berlin. Maintain operation of the traffic signals until the work at the intersections is complete.

Waukesha County Owned Traffic Signals

Work under this item shall consist of furnishing and installing all materials indicated in the plans for the Waukesha County owned traffic signals at the following intersections:

CTH O Corridor

- STH 59 and CTH O
- CTH O and Hackberry Lane
- CTH O and Shopping Center Ring Road
- CTH O and Shopping Center Ring Road / Driveway

Obtain any necessary electrical permits from the applicable municipality prior to beginning the work. Pay any fines, penalties, damage done to property, etc. billed by the municipality or Waukesha County. Maintain the existing traffic signals until the work at the intersections is complete.

34. General Requirements for Electrical Work.

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.

Append standard spec 651.3.3 (3) with the following:

Notify the department's Electrical Field Unit at (414) 266-1170 and each municipality to coordinate the inspection. The department's Region Electrical personnel will perform the inspection for the state owned and maintained traffic signals and the municipalities will perform the inspection for the municipal owned traffic signals.

35. Traffic Signal Faces.

Append standard spec 658.3.2 with the following:

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

36. 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
Bluetooth Detector
Barrel Camera
30-Foot Camera Pole
50-Foot Camera Pole
Arterial DMS
DMS Controller
Ethernet Video Encoder
Ethernet Switch
ITS Field Cabinet

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

Large department-furnished equipment, such as camera poles will be delivered by the supplier to a contractor-controlled site within Waukesha or Milwaukee 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. Mounting LED warning signs to the sign structure.
3. Mounting detail for dynamic message signs.
4. Any contractor-designed structure or foundation.

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

670-005 (20100709)

37. 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.3 Environmental Conditions

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

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.4 Patch Cables and Wiring

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

B.5 Surge Protection

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

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)

38. Intelligent Transportation Systems – Conduit.

Supplement standard spec 671.2 with the following:

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 (20100630)

39. Intelligent Transportation System – Communication Vault.

Modify standard spec 673 with the following:

673.2 Materials

- (3) Furnish a vault lid with a minimum design load of 15,000 pounds and that has permanent stamp that reads WISDOT COMMUNICATIONS or as the plans show. The vault lid will have 2 slots measuring ½ inch by 4 inches to use as a pull out. The vault lid will also be detectable through the inclusion of detectable metal incorporated into the lid.

40. 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 subplot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B Materials

B.1 Quality Control Plan

- (1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.
- (2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:

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

B.2 Personnel

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

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

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

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

B.3 Laboratory

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

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

<http://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 2 business days after the department obtains the sample.

B.8.2 Verification Testing

B.8.2.1 General

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
 1. One non-random test on the first day of placement.
 2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.
- (3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates, the department will collect samples from the stockpile at load-out. The department will split each sample, test half for QV, and retain half.
- (4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

B.8.3 Independent Assurance

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

B.9 Dispute Resolution

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.
- (2) Production test results, and results from other process control testing, may be considered when resolving a dispute.
- (3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C (Vacant)

D (Vacant)

E Payment

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

301-010 (20100709)

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

A Description

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

B Materials

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

C Construction

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

D Measurement

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

E Payment

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

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

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.
652-070 (20100709)

42. Install ITS Field Cabinet, Item 673.0200.S.

A Description

This special provision describes installing a state-furnished type 170, size 334 field cabinet.

B Materials

The department will furnish the type 170, size 334 field cabinet. Provide all necessary miscellaneous mounting hardware and internal power cables. With the field cabinet, the department will furnish cabinet bolts to anchor the cabinet to the concrete base.

C Construction

Install the field cabinet on a new or existing concrete base paid separately. Make all power connections to the cabinet, isolating the neutral bus from the cabinet and equipment ground.

Effectively ground all cable grounding shields and any spare or unused conductors in the field cabinet to the equipment grounding terminal strip.

D Measurement

The department will measure Install ITS Field Cabinet by the unit, installed 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
673.0200.S	Install ITS Field Cabinet	Each

Payment is full compensation for installing the state-furnished field cabinet; making all connections; and grounding as necessary.
673-005 (20100630)

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

A Description

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

B Materials

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

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

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

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

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

C Construction

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

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

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

D Measurement

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

E Payment

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

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

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

44. Install Ethernet Switch, Item 675.0400.S.

A Description

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

B Materials

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

C Construction

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
675.0400.S	Install Ethernet Switch	Each

Payment is full compensation for installing an Ethernet switch; furnishing all necessary incidental hardware; and making all necessary connections.
675-040 (20100630)

45. Install Video Encoder, Item 677.0300.S.

A Description

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

B Materials

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

C Construction

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
677.0300.S	Install Video Encoder	Each

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

46. Installing 900 MHz Radio, Item SPV.0060.2001.**A Description**

This special provision describes installing a department-furnished 900 MHz serial or contact closure communications spread spectrum radio. The department will also furnish set-up software for the radio and a lightning protector for the antenna connection.

B Materials

Spread-spectrum radios and surge protectors as furnished by the department, and coaxial cable and connectors, and metallic conduit as supplied by the contractor.

Furnish ½-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 of 2dB / 1000 feet (nominal) at 900 MHz
- Average power of 1.10 (nominal) at 900 MHz

Furnish cable connectors to fit between the coaxial cable and the department-furnished spread spectrum radio.

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 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 shall be 1 erroneous bit every 1 million bits.

D Measurement

The department will measure Installing 900 MHz Radio 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.0060.2001	Installing 900 MHz Radio	Each

Payment is full compensation for installing, setting up, configuring, and testing the spread spectrum radio, surge protector, cables, and connections; for testing; and for furnishing all transportation.

47. Install Dynamic Message Sign, Item SPV.0060.2002.

A Description

This special provision describes installing a department-furnished arterial dynamic message sign on a sign structure (paid for separately), integrating the sign and making it functional in the existing system.

B Materials

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

Department-furnished materials include the following:

- One Arterial Dynamic Message Sign (DMS). The DMS will have dimensions and weight consistent with the maximum requirements of the Overhead Sign Supports (paid for separately) the DMS are being mounted on.
- One DMS Controller.
- Control cable from DMS Controller to DMS.

Contractor furnished materials include the following:

- AWG #6 copper wire or equivalent bonding straps to bond the sign to the structural steel.
- Power cable from power source to DMS.

C Construction

Install the department-furnished sign controller in the cabinet as shown on the plans using one of the power outlets included in the cabinet.

Connect the power and control cables in accordance to the manufacturer's recommendations.

Bond the bottom of the sign structure to one or more ground rods. Use exothermic welding at each end of the ground wire (unless the steel structure has a suitable grounding lug). Use an AWG # 6 solid, bare copper wire to bond the sign structure to the ground rod(s). Use a device that measures resistance to ground using the three-point fall-of-potential method to ensure that the resistance from the sign's ground bar to ground does not exceed 4 ohms. Add more ground rods if necessary to achieve this requirement.

D Measurement

The department will measure Install Dynamic Message Sign as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2002	Install Dynamic Message Sign	Each

Payment is full compensation for installation of the sign and controller; fabrication and installation of all mounting hardware; furnishing and installation of control and power cables; and for testing the sign and controller.

48. Dual ITS Concrete Base, Item SPV.0060.2003.

A Description

This special provision describes constructing a concrete foundation and base adapter / dual cabinet riser suitable for installing two cabinets and restoring the disturbed area.

B Materials

Materials shall meet all requirements for bases as described in standard spec 654.

The base adapter shall be constructed of continuously welded aluminum 0.125 inches thick. It shall have cut outs in the top that match the openings in the bottom of the cabinets. It shall bolt to the foundation using the same bolts and bolt pattern as if the cabinets were to be placed directly on the foundation. The cabinets shall bolt to the base adapter using ¾-inch stainless steel bolts with washers conforming to ASTM A193. There shall be four bolts in each cabinet holding it to the base adapter and four bolts per cabinet holding the base adapter to the foundation.

C Construction

Perform construction activities in accordance to the requirements of standard spec 654.

D Measurement

The department will measure Dual ITS Concrete Base as each base individual base, 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.0060.2003	Dual ITS Concrete Base	Each

Payment is full compensation for providing all materials, including conduit, bushings, caps or plugs, or both, anchor rods, nuts, washers, grounding electrodes, exothermic welds, copper equipment grounding wires, and concrete; and for excavating, backfilling, and disposing of surplus materials.

49. Install Cellular Modem, Item SPV.0060.2004.

A Description

This special provision describes installing a wireless cellular modem and antenna and providing all necessary associated wiring.

B Materials

The department will furnish the wireless cellular modem and antenna. Provide all necessary cables between the wireless modem and device to be connected to it.

C Construction

Drill a hole in the new or existing cabinet to install the wireless modem antenna cable through. Mount the antenna on top of the cabinet and seal the hole with purpose-made waterproof sealing device such as a grommet or gasket.

Install the wireless modem in a new or existing field cabinet. Connect it to the antenna and to devices as shown on the plans, or as directed by the engineer.

D Measurement

The department will measure Install Cellular Modem by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2004	Install Cellular Modem	Each

Payment is full compensation for installing a wireless modem; furnishing all necessary incidental hardware; and for making all necessary connections and testing.

50. Ground Rod, Item SPV.0060.2005.**A Description**

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

B Materials

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

C Construction

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

D Measurement

The department will measure Ground Rod as each individual rod, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2005	Ground Rod	Each

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

51. Install Antenna, Item SPV.0060.2006.

A Description

This special provision describes installing a department-furnished Yagi or omni-directional spread spectrum radio antenna and above ground metallic conduit. The antenna has a pigtail for connection to the antenna cable. Provide stainless steel bands for mounting to a steel pole or sign structure. Provide 2" metallic conduit to house antenna cable.

B Materials

Antenna as provided by the department. Metallic Conduit, 2-Inch as required in standard spec 652.

C Construction

Connect the antenna drop cable to the antenna. The connection shall be fully sealed using methods and materials recommended by the radio manufacturer. Install the antenna so that it does not block the view of any microwave detector 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.

D Measurement

The department will measure Install Antenna 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.0060.2006	Install 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.

52. Install Bluetooth Reader, Item SPV.0060.2007.

A Description

This special provision describes installing a department-furnished Bluetooth chip detector to track the chips to generate traffic data. Provide mounting hardware, stainless steel

bands, a Category 5 or better network cable between the reader and the associated Ethernet switch, and other incidentals necessary to complete the work.

B Materials

Bluetooth chip detector, range extension antenna, and mounting bracket as provided by the department.

Stainless steel bands to attach mounting bracket to pole.

Furnish Category 5 or better network cable, with RJ-45 connectors, of sufficient length to reach from the reader to the associated Ethernet switch as shown on the plans.

C Construction

Prior to beginning any work related to installing the Bluetooth chip detector, coordinate IP addresses and other network integration efforts with department staff at the Statewide Traffic Operations Center.

Install the Bluetooth chip reader per the manufacturer's recommendations for mounting heights to maximize effective range of the reader, and for all other mounting considerations.

Use existing or shared access holes in poles or sign structures to install the associate network cable in the pole or sign structure. Where necessary, drill a new hole for the cable and seal the hole using an appropriately sized grommet.

Install the network cable between the reader and the Ethernet switch and following the manufacturer's set-up instructions and the network settings information from the department to integrate the readers into the network and to make them functional.

D Measurement

The department will measure Install Bluetooth Reader 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.0060.2007	Install Bluetooth Reader	Each

Payment is full compensation for testing and installing the Bluetooth chip detector, cable and connections; for network and integration setup and coordination; and for furnishing all mounting hardware, equipment, transportation, and incidentals necessary to complete the work.

53. Bollards, Item SPV.0060.2008.

A Description

This special provision describes furnishing and installing bollards as shown on the plans and as hereinafter provided.

B Materials

Furnish galvanized steel pipe, standard weight, meeting ASTM A36. The pipe shall be 6-inch outside diameter by minimum 8-foot length.

Furnish grade A, A-FA, A-S, A-T, A-IS, or A-IP concrete conforming to standard spec 501.2.

C Construction

Construct bollards as shown in the plan detail and as specified in section 501. Install the bollards plumb. Fill the pipe flush to the top with concrete. Provide the surface finish specified in standard spec 502.3.7.2.

Grind down to an approximate rolled edge any sharp points or edges at the top of the pipe. Repair all scratches, nicks, and bare spots on the pipe with galvanizing paint.

D Measurement

The department will measure Bollards 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.0060.2008	Bollards	Each

Payment is full compensation for providing all materials; for excavating, backfilling, and disposal of surplus materials.

54. Communication Vault Over Existing Fiber, Item SPV.0060.2009.

This special provision describes furnishing a communication vault and installing it in an existing conduit and cable system without removing or disturbing the existing cable.

B Materials

Furnish a communication vault meeting the requirements of standard spec 673 and any modifications to that standard specification required in these special provisions. A splittable or two-piece vault is allowable for this installation.

Furnish conduit, connections, and fittings meeting the requirements of standard spec 652.

C Construction

Carefully excavate the area around the proposed vault location to locate and expose the existing conduit. Up to a 10-foot long excavation will be included as part of this pay item.

Cut the walls of the communication vault in slots to allow for placing over the existing conduits. Alternately, cut a hole into the seam area of the splittable or two-piece vault to accommodate the existing conduits.

Place the new communications vault over the existing conduit system so that the top matches existing grade.

When the vault installation around the conduits is complete, cut the existing conduits using care to not cut the existing fiber optic cable in the conduit.

Place bell-ends on all the newly open conduits in the vault.

Damage to the existing fiber optic cable will be repaired at the contractor's expense with no compensation from the department.

D Measurement

The department will measure Bill by the unit, installed according to 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.0060.2009	Communication Vault over Existing Fiber	Each

Payment is full compensation for furnishing and installing a communications vault over existing conduit and fiber, for excavation, including up to a 10-foot long excavation area, and for restoration.

55. Equipment Rack Uninterruptable Power Supply, Item SPV.0060.2010.

A Description

This special provision describes furnishing, installing, connecting, and making operational a rack mounted uninterruptable power supply (UPS) for ITS communications gear.

B Materials

Furnish a UPS meeting or exceeding the following minimum requirements:

Power inputs and outputs:

- Minimum Configurable Power Capacity = 500W / 750 VA
- Output Voltage = 120 V
- Output Voltage Distortion = Less than 5% at full load
- Output frequency = 57 – 63 Hz for 60 Hz nominal
- Topology = Line Interactive
- Waveform Type = Sine wave
- Output Connections = (6) NEMA 5-15R
- Input voltage = 120 V
- Input frequency = 50/60 Hz +/- 3 Hz (auto sensing)
- Input Connections = NEMA 5-15P
- Cord length = Minimum of 8-Feet
- Input voltage range for main operations = 82 – 144 V
- Input voltage adjustable range for mains operation = 75-154 V
- Battery = Leakproof, maintenance-free sealed Lead-Acid battery with suspended electrolyte
- Typical recharge time = 3 hours
- At 500 W load, runtime shall be a minimum of 4-minutes

Communications and Management

- Interface Port(s) = USB and 10BASE-T Web/SNMP Management
- Multi-function LCD status and control console control panel
- Audible alarm indicating when running on battery power

Surge Protection and Filtering

- 530 Joules surge energy rating
- Full time multi-pole noise filtering: 0.3% IEEE surge let-through: zero clamping response time: meets UL 1449

Physical

- Maximum Height = 3.50 inches
- Maximum Width = 17.00 inches
- Maximum Depth = 16.00 inches
- 2U rack height
- Not to exceed 40.00 lbs

Environmental

- Operating temperature between 32 and 104° F
- Operating relative humidity of 0 – 95%
- Audible noise at 3-feet from surface of unit not to exceed 45.00 dBA

- Regulatory Conformance
- CSA, FCC Part 15 Class A, UL 1449, UL 1778

- Manufacturer's Warranty
- 3 years repair or replace (excluding battery) and 2 years for battery

C Construction

Install (1) UPS in each of the equipment racks (paid for separately) in the ITS Communications Hut Building as shown in the plans or as directed by the engineer. Follow all manufacturer's instructions for installation.

Connect the network port on the UPS to an Ethernet switch installed in its respective rack (paid for separately) and integrate into the communications network.

D Measurement

The department will measure Equipment Rack Uninterruptable Power Supply 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.0060.2010	Equipment Rack Uninterruptable Power Supply	Each

Payment is full compensation for furnishing, delivering, installing, connecting, and making operational a UPS for ITS communications equipment.

56. Relocate Traffic Signal Equipment, Item SPV.0060.3002.

A Description

This special provision describes relocating existing traffic signal equipment to a new traffic signal standard.

B Materials

Use existing pedestrian push button, pedestrian push button sign, and pedestrian traffic signal head.

Furnish all other push button and pedestrian traffic signal head materials in accordance to standard spec 658.2. Furnish all other push button sign materials in accordance to standard spec 637.2.

C Construction

Relocate the existing equipment to the new traffic signal standard. Attach the pedestrian push button and pedestrian traffic signal head to the new traffic signal standard in accordance to standard spec 658.3. Attach the pedestrian push button sign to the new traffic signal standard in accordance to standard spec 637.3.

D Measurement

The department will measure Relocate Traffic Signal Equipment 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.0060.3002	Relocate Traffic Signal Equipment	Each

Payment is full compensation for relocating all materials including pedestrian push button, pedestrian traffic signal head, and pedestrian push button sign; for disposing of surplus material; and for furnishing and installing all materials necessary to complete the contract work.

57. EVP Detector Type I, Item SPV.0060.3003.**A Description**

This work shall consist of furnishing and installing EVP Detector Type I as shown on the plans and as hereinafter provided.

B Materials

The infrared EVP Detector Type I shall be lightweight, weatherproof device capable of sensing and transforming pulsed infrared energy into electrical signals for use by the signal discrimination equipment. The infrared EVP Detector Type I shall be designed for mounting at or near an intersection on mast arms, pedestals or pipes. Each infrared EVP Detector Type I shall be supplied with mounting hardware to accommodate installation on mast arms, poles, or traffic signal standards as shown in the plans. The EVP Detector Type I shall accept infrared signals from one direction and shall provide a single electrical output signal. The EVP Detector Type I shall have a built-in terminal block to simplify wiring connections. The infrared EVP Detector Type I shall receive power from the discriminator and shall have internal voltage regulation to operate from 18 to 37 volts DC. The infrared EVP Detector Type I shall respond to clear lens code secured emitter with 0.84 (+/- 10%) Joules of energy output per flash at a distance of 2,500 feet under clear atmospheric conditions. If the emitter is configured with a visible light filter, the EVP Detector Type I shall respond at a distance of 1,800 feet under clear atmospheric conditions. The noted distances shall be comparable day and night. The infrared detector shall produce an electrical signal to the discriminator via a detector cable up to 1,000 feet in length.

The EVP Detector Type I shall be a GTT Opticom Model #711, or approved equal.

C Construction

Furnish and install EVP Detector Type I for traffic signals. Set the initial aim angle at a distance of 1,800 feet from the stop bar or as specified by the engineer. Final adjustment shall be under the direction of the engineer.

D Measurement

The department will measure EVP Detector Type I as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.3003	EVP Detector, Type I	Each

Payment is full compensation for furnishing and installing the EVP Detector Type I on signal poles or mast arms as shown on the plans, including extensions to poles if required; and for aiming the detector.

58. EVP Discriminator Type IV, Item SPV.0060.3004.

A Description

This work shall consist of furnishing and installing an EVP Discriminator Type IV in the control cabinet as shown on the plans and as hereinafter provided.

B Materials

The EVP Discriminator Type IV shall be a plug-in, four channel, multiple priority device intended to be installed directly, into a rack located within the controller cabinet. The EVP Discriminator Type IV card edge connector shall include primary infrared detector inputs and power outputs. Two additional detector inputs per channel shall be provided on a front panel connector. An auxiliary function harness (#757) shall be included. The EVP Discriminator Type IV shall be powered from 115 volt (95 volts AC to 135 volts AC), 60 Hz mains and shall contain an internal, regulated power supply that supports up to four infrared detectors. The EVP Discriminator Type IV shall include several control timers that shall limit or modify the duration of a priority control condition and programmable security via jumper selection. The control timers shall be as follows:

- **MAX CALL TIME:** Shall set the maximum time a channel is allowed to be active. It can be set to 120, 240, or 65,535 seconds. Its factory default must be the maximum time.
- **CALL HOLD TIME:** Shall set the time a call is held on a channel after the priority signal is no longer being received. It can be set to either 6 or 12 seconds via jumper selects. Its factory default must be six seconds.
- **SECURITY ENCODED DATA:** Shall require that an infrared signal contain an embedded vehicle ID code to be recognized as a valid request. The default jumper selection shall disable this requirement.

The EVP Discriminator Type IV default range values shall be re-settable by the operator using switches located on its front. The EVP Discriminator Type IV shall be capable of three levels of discrimination of security encoded infrared signals, as follows:

- Verification of the presence of the base infrared of either 14.03509 Hz +/- 0.01773 Hz for Command priority, or 9.63855 Hz +/- 0.00836 Hz for Advantage priority.
- Determination of when the vehicle is within the prescribed range.
- The EVP Discriminator Type IV card edge connector shall include primary infrared detector inputs and power outputs. The EVP Discriminator Type IV shall include one optoisolated NPN output per channel that provides the following electrical signal to the appropriate pin on the card edge connector:
- Hz +/- 0.1 Hz 50% on/duty square wave in response to an Advantage priority call.
- A steady ON in response to a Command priority call.

The EVP Discriminator Type IV shall accommodate two methods for setting intensity thresholds (emitter range) for high and low priority signals:

- Using an encoded emitter with range-setting capability.
- Using an encoded emitter while manipulating the front panel switches.

The EVP Discriminator Type IV shall have a solid state POWER ON LED indicator that flashes to indicate unit diagnostic mode and illuminates steadily to indicate proper operation. The EVP Discriminator Type IV shall have internal diagnostics to test for proper operation. If a fault is detected, the discriminator shall use the front panel LED indicators to display fault information. The EVP Discriminator Type IV shall have a Command (high) and Advantage (low) solid state LED indicator for each channel to display active calls. The EVP Discriminator Type IV shall have a test switch for each channel to test proper operation of Command or Advantage priority. The EVP Discriminator Type IV shall properly identify a Command priority call with the presence of 10 Advantage priority code secured emitter signals being received simultaneously on the same channel. The EVP Discriminator Type IV shall have write-on pads to allow identification of the phase and channel. The EVP Discriminator Type IV shall have the capability of functionally testing connected detector circuits and indicating via front panel LEDs non-functional detector circuits. An auxiliary interface panel shall be available to facilitate interconnections between the discriminator and traffic cabinet wiring.

Additional wiring harnesses may be required for auxiliary detector heads as shown on the plans.

The EVP Discriminator Type IV shall be a GTT Opticom Model #454, or approved equal.

C Construction

Furnish and install EVP Discriminator Type IV for traffic signals.

D Measurement

The department will measure EVP Discriminator Type IV as each individual unit, acceptably completed.

E Payment

EVP Discriminator Type IV will be paid for measured quantities at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.3004	EVP Discriminator Type IV	Each

Payment is full compensation for furnishing and installing the EVP Discriminator Type IV in the control cabinets and any additional wiring harnesses required for auxiliary heads.

59. EVP Confirmation Light Assembly Type I, Item SPV.0060.3005.**A Description**

This work shall consist of furnishing and installing Confirmation Light Assemblies, Type I as shown on the plans and as hereinafter provided.

B Materials

Confirmation Light Assembly, Type I, shall consist of weatherproof, aluminum lamp holder with a single LED lamp as shown on the plans. In addition, mounting materials shall be provided as shown on the plans.

The Confirmation Light Assembly Type I shall be a GTT Opticom Model #575, or approved equal.

C Construction

Furnish and install Confirmation Light Assembly Type I for traffic signals.

D Measurement.

The department will measure EVP Confirmation Light Assembly Type I as each individual unit, acceptably completed.

E Payment.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.3005	EVP Confirmation Light Assembly Type I	Each

Payment is full compensation for furnishing and installing the Confirmation Light Assembly Type I.

60. EVP Card Rack, Item SPV.0060.3006.**A Description**

This work shall consist of furnishing and installing EVP Card Rack in the traffic signal controller cabinet.

B Materials

The EVP Card Rack shall provide mounting and connections for the Discriminator. The EVP Card Rack shall be factory wired to one connector, located behind the card slot and a terminal block, located next to the discriminator slot, on the front of the EVP Card Rack. The EVP Card Rack connector on the front of the EVP Card Rack shall be provided for all connections to the traffic signal controller. The EVP Card Rack shall provide labeled terminal blocks for connecting the primary infrared detectors to a discriminator.

The EVP Card Rack shall be a GTT Opticom Model #760, or approved equal.

C Construction

Furnish and install EVP Card Rack for traffic signals. The EVP Card Rack shall be mounted inside the traffic signal controller cabinet, on the top shelf in the cabinet or as directed by the engineer.

D Measurement

The department will measure EVP Card Rack as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.3006	EVP Card Rack	Each

Payment is full compensation for furnishing and installing the EVP Card Rack in the control cabinet.

61. Remove, Salvage, and Install Traffic Signal Controller, Item SPV.0060.3007.**A Description**

This special provision describes removing the existing municipal traffic signal controller from the traffic signal cabinet, delivering the existing controller to the municipality, and installing a department furnished traffic signal controller in the existing traffic signal cabinet.

B Materials

Use the department furnished traffic signal controller.

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

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

C Construction

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

The City of New Berlin and Waukesha County assume that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Replace any equipment not identified as damaged or not working, prior to removal at no cost to the City of New Berlin or Waukesha County.

The traffic signal is to remain operational throughout the duration of the work except for the time required for the controller replacement.

City of New Berlin/City of Brookfield Traffic Signals

Notify the City of New Berlin Engineering, (262) 786-8610, and City of Brookfield Public Works Department, (262) 787-3919, at least five working days prior to the removal of the traffic signal controller. Complete the removal work as soon as possible following shut down of the equipment.

Remove the traffic signal controller from the cabinet. Deliver the controller to the City of New Berlin at 3805 S. Casper Drive, New Berlin, WI. Contact the City of New Berlin Engineering, (262) 786-8610, at least five working days prior to delivery to make arrangements.

Program the department furnished traffic signal controller with the existing traffic signal controller parameters. Install the department furnished traffic signal controller in the traffic signal cabinet per manufacturer's specifications.

Request a signal inspection of the signal installation to the engineer at least five working days prior to the time of the requested inspection. The City of New Berlin personnel will perform the inspection.

Waukesha County Traffic Signals

Notify Fred Patzer, (262) 424-9129, from Waukesha County at least five working days prior to the removal of the traffic signal controller. Complete the removal work as soon as possible following shut down of the equipment.

Remove the traffic signal controller from the cabinet. Deliver the controller to the Waukesha County Highway Operations shop at 1641 Woodburn Road, Waukesha WI. Contact Fred Patzer, (262) 424-9129, at least five working days prior to delivery to make arrangements.

Program the department furnished traffic signal controller with the existing traffic signal controller parameters. Install the department furnished traffic signal controller in the traffic signal cabinet per manufacturer's specifications.

Request a signal inspection of the signal installation to the engineer at least five working days prior to the time of the requested inspection. The Waukesha County personnel will perform the inspection.

D Measurement

The department will measure Remove, Salvage, and Install Traffic Signal Controller 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.0060.3007	Remove, Salvage, and Install Traffic Signal Controller	Each

Payment is full compensation for removing the existing municipal traffic signal controller from the traffic signal cabinet and delivering the existing controller to the municipality; for picking up and installing the department furnished traffic signal controller; for programming the department furnished traffic signal controller with the existing traffic signal controller settings; for furnishing and installing all other items necessary (such as, wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, etc.) to make the proposed system complete from the source of supply to the most remote unit; and for clean-up and waste disposal.

62. Install Camera Power Cable, Item SPV.0090.3001; Install CAT-5E Cable, Item SPV.0090.3002.

A Description

This special provision describes the transporting and installing of department furnished Camera Power Cable, CAT 5-E Cable, and Ethernet repeaters.

B Materials

Pick up the department furnished Camera Power Cable, CAT-5E cable, and Ethernet repeaters at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical field unit, (414) 266-1170, to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

C Construction

Install the Camera Power Cable (without splices) from the video detection cameras to the cabinet. Provide an extra 6-foot loop of cable in each pull box. Terminate the ends of the cable and connect the cable to the video detection cameras per the adaptable traffic signal video detection camera manufacturer's specifications.

Install the CAT 5-E Cable from the video detection cameras to the cabinet. Provide an extra 6-foot loop of cable in each pull box. Terminate the ends of the cable and connect the cable to the video detection cameras per the adaptable traffic signal video detection camera manufacturer's specifications. CAT 5-E Cable runs longer than 300-feet require an Ethernet repeater. Provide an extra 12-foot loop of cable at locations provided by the engineer and install the state furnished Ethernet repeaters per the manufacturer's specifications. All open field ends shall be taped and covered with a sealant in accordance to standard spec 655.3.1.

Mark the cabinet end of the Camera Power Cable and CAT-5E Cable appropriately to indicate the equipment label (i.e. VID1, VID2, etc.) in the traffic signal control cabinet. Neatly coil a minimum of 15-feet of extra cable in the traffic signal cabinet for connection to the traffic signal cabinet equipment by others.

Notify department's Electrical field unit, (414) 266-1170, upon installation completion at each intersection.

D Measurement

The department will measure Install Camera Power Cable and 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.0090.3001	Install Camera Power Cable	LF
SPV.0090.3002	Install CAT-5E Cable	LF

Payment is full compensation for transporting and installing the Video Camera Power Cable, Cat5-E Cable, and Ethernet Repeater; for making all connections; for furnishing and installing all connectors, including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners; and for testing.

63. Type UF Cable 2 Conductor No. 14, Item SPV.0090.3003.

A Description

This work shall consist of furnishing and installing cable for confirmation lights and making all connections as shown on the plans and as hereinafter provided.

B Materials

Furnish materials according to standard spec 655:

Supplement standard spec 655.3.4 with the following:

When lighting is installed in conjunction with traffic signals, conductors from the traffic signal control cabinet to the confirmation light(s) shall be Type UF, two conductor without ground, solid copper conductor cable, size No. 14.

C Construction

Furnish and install Type UF Cable, 2 Conductor, No. 14 for traffic signals.

D Measurement

The department will measure Type UF Cable, 2 Conductor, No. 14, 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 items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.3003	Type UF Cable 2 Conductor No. 14	LF

Payment is full compensation for furnishing and installing cable; for making all connections; for furnishing and installing all connectors, including wire nuts, splice kits, tape, insulating varnish or sealant and ground lug fasteners, and for testing.

64. Pavement Cleanup Project 1060-33-99, Item SPV.0105.0001.

A Description

This special provision describes cleanup of dust and debris from pavements within and adjacent to the job site.

B Materials

B.1 Pavement Cleanup

Furnish a vacuum-type street sweeper equipped with a power broom, water spray system, and a vacuum collection system.

Vacuum equipment shall have a self-contained particulate collector capable of preventing discharge from the collection bin into the atmosphere.

Use a vacuum-type sweeper as the primary sweeper, except as specified herein or approved by the engineer.

C Construction

C.1 Pavement Cleanup

Keep all pavements, curb lanes and gutters both closed and open to public traffic within the job-site boundaries free of dust and debris generated from any activity under the contract. Keep all pavements, curb lanes and gutters adjacent to the project free of dust and debris that are affected by land disturbing, dust generating activities, as defined in the contractor's dust control implementation plan.

Provide surveillance to identify if material is being tracked from the jobsite. Clean up spillage and material tracked from the project within an hour of occurrence or as directed by the engineer. Perform cleanup operations in a safe manner.

Provide routine sweeping of all pavements, curb lanes and gutters on local street active haul routes a minimum of once a day as defined in the Dust Control Implementation Plan (DCIP) or as directed by the engineer.

In addition to routine sweeping, conduct sweepings as the engineer directs or approves, to deal with dust problems that might arise during off-work hours or emergencies. Provide the engineer with a contact person available at all times to respond to requests for emergency sweeping. Respond to emergency sweeping requests within four hours.

If the vacuum-type sweeper breaks down, a mechanical broom sweeper may be substituted for no more than 24 hours total elapsed time. Repair the vacuum-type sweeper within that 24 hours or substitute a vacuum-type sweeper.

Skid steers with mechanical power brooms may only be utilized on sidewalks and driveways whose pavements will not support the weight of a street sweeper, unless otherwise approved by the engineer.

D Measurement

The department will measure Pavement Cleanup Project 1060-33-99 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.0105.0001	Pavement Cleanup Project 1060-33-99	LS

Payment schedule for this item will be in accordance to the percentage of contract value earned.

Payment is full compensation for surveillance, mobilization, sweeping, disposing of materials and any other labor, tools or equipment necessary to complete the work.

65. Survey Project 1060-33-99, Item SPV.0105.0002.

A Description

Perform work according to standard spec 105.6 and standard spec 650.

This special provision describes modifying standard spec 105.6 and standard spec 650 to define the requirements for construction staking for this contract.

Replace standard spec 105.6.2 with the following:

The department will not perform any construction staking for this contract. Perform all survey required to lay out 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 base, curb and gutter, sidewalk, electrical installations, ITS, FTMS, traffic control items, etc.

The department may choose to perform quality assurance surveys during the project. These quality assurance surveys do not relieve the responsibility for performing all survey work required to lay out and construct the work under this contract.

Delete standard spec 650.1.

B (Vacant)

C Construction

Conform to standard spec 650.3 and as modified in this special provision.

Replace standard spec 650.3.3.1 with the following:

Under the Survey Project bid item, global positioning system (GPS) machine guidance for conventional subgrade staking on all or part of the work may be substituted. The engineer may require reverting to conventional subgrade staking methods for all or part of the work at any point during construction if, in the engineer's opinion, the GPS machine guidance is producing unacceptable results.

Replace standard spec 650.3.3.3.4.1 with the following:

The department will provide the contractor staking packet as described in the Construction and Materials Manual (CMM) 7.10. At any time after the contract is awarded, the available survey and design information may be requested. The department will provide that information within 5 business days of receiving the contractor's request. The department incurs no additional liability beyond that specified in standard spec 105.6 or standard spec 650 by having provided this additional information.

Add the following to standard spec 650.3.3.3.6.2:

Record all subgrade elevation checks and submit a hard copy to the engineer at the completion of the project.

D Measurement

Replace standard spec 650.4 with the following:

The department will measure Survey Project 1060-33-99 as a separate single lump sum unit of work for survey, acceptably completed.

E Payment

Replace standard spec 650.5 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.0105.0002	Survey Project 1060-33-99	LS

Payment is full compensation for performing all survey work required to lay out and construct all work under this contract. No additional payments will be made for restaking due to construction disturbance and knock-outs.

- 66. Remove Video Detection Equipment USH 18 and STH 100, Item SPV.0105.3001; STH 100 and W. Wisconsin Avenue, Item SPV.0105.3002; STH 100 and W. Potter Road / W. Research Drive, Item SPV.0105.3003; STH 100 and W. Watertown Plank Road, Item SPV.0105.3004; STH 59 and S. 124th Street, Item SPV.0105.3005; STH 59 and S. 116th Street, Item SPV.0105.3006; STH 100 and STH 59, Item SPV.0105.3007; STH 59 and S. 101st Street, Item SPV.0105.3008; USH 45/IH 894 Eastbound Ramps and STH 59, Item SPV.0105.3009; USH 45/IH 894 Westbound Ramps and STH 59, Item SPV.0105.3010; IH 94 Eastbound Ramps and CTH O, Item SPV.0105.3012; IH 94 Westbound Ramps and CTH O, Item SPV.0105.3013; USH 18 and Underwood Crossing Parkway, Item SPV.0105.3016; USH 18 and N. 97th Street, Item SPV.0105.3019; USH 18 and N. 95th Street, Item SPV.0105.3020; USH 18 and N. 92nd Street, Item SPV.0105.3021; STH 181 and W. Dana Court, Item SPV.0105.3022; USH 18 and STH 181, Item SPV.0105.3023.**

A Description

This special provision describes removing existing traffic signal video detection equipment at the state owned intersections in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

The department assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Any equipment not identified as damaged or not working, prior to removal, will be replaced by the contractor at no cost to the department.

Department Owned Traffic Signals

The department will provide at least a five working day notification when the adaptable traffic signal equipment is ready for activation and the video detection equipment can be removed. Arrange for removing the video detection equipment with the department the same day as the adaptable traffic signal turn-on.

The traffic signal is to remain operational throughout the duration of the work.

Remove all video detection cameras per plan from their poles. Remove the video detection camera wiring/cabling from each signal standard, arm or pole. Remove the video detection processor and other video detection equipment from the traffic signal cabinet. Dispose of the video detection camera wiring/cabling off the state right-of-way. Deliver the materials to the West Allis Electrical Service Facility at 935 South 60th Street, West Allis, WI. Contact the department's Electrical Field Unit, (414) 266-1170, at least five working days prior to delivery to make arrangements.

D Measurement

The department will measure Remove Video Detection Equipment (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.0105.3001	Remove Video Detection Equipment USH 18 and STH 100	LS
SPV.0105.3002	Video Detection Equipment STH 100 and W. Wisconsin Avenue	LS
SPV.0105.3003	Remove Video Detection Equipment STH 100 and W. Potter Road / W. Research Drive	LS
SPV.0105.3004	Remove Video Detection Equipment STH 100 and W. Watertown Plank Road	LS
SPV.0105.3005	Remove Video Detection Equipment STH 59 and S. 124 th Street	LS
SPV.0105.3006	Remove Video Detection Equipment STH 59 and S. 116 th Street	LS
SPV.0105.3007	Remove Video Detection Equipment STH 100 and STH 59	LS

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3008	Remove Video Detection Equipment STH 59 and S. 101 st Street	LS
SPV.0105.3009	Remove Video Detection Equipment USH 45/IH 894 Eastbound Ramps and STH 59	LS
SPV.0105.3010	Remove Video Detection Equipment USH 45/IH 894 Westbound Ramps and STH 59	LS
SPV.0105.3012	Remove Video Detection Equipment IH 94 Eastbound Ramps and CTH O	LS
SPV.0105.3013	Remove Video Detection Equipment IH 94 Westbound Ramps and CTH O	LS
SPV.0105.3016	Remove Video Detection Equipment USH 18 and Underwood Crossing Parkway	LS
SPV.0105.3019	Remove Video Detection Equipment USH 18 and N. 97 th Street	LS
SPV.0105.3020	Remove Video Detection Equipment USH 18 and N. 95 th Street	LS
SPV.0105.3021	Remove Video Detection Equipment USH 18 and N. 92 nd Street	LS
SPV.0105.3022	Remove Video Detection Equipment STH 181 and W. Dana Court	LS
SPV.0105.3023	Remove Video Detection Equipment USH 18 and STH 181	LS

Payment is full compensation for removing video detection equipment; for scrapping of some materials; for disposing of scrap material; and for delivering the requested materials to the West Allis Electrical Service Facility.

67. Remove Video Detection Equipment CTH O and Hackberry Lane, Item SPV.0105.3011; CTH O and Shopping Center Ring Road/Driveway, Item SPV.0105.3015.

A Description

This special provision describes removing existing traffic signal video detection equipment in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

Waukesha County assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Replace any equipment not identified as damaged or not working, prior to removal at no cost to the department or Waukesha County.

Waukesha County Owned Traffic Signals

The department will provide at least a five working day notification when the adaptable traffic signal equipment is ready for activation and the video detection equipment can be removed. Arrange for removing the video detection equipment with the department and appropriate municipality the same day as the adaptable traffic signal turn-on.

Notify Fred Patzer, (262) 424-9129, from Waukesha County at least five working days prior to the removal of the video detection equipment. Complete the removal work as soon as possible.

The traffic signal is to remain operational throughout the duration of the work.

Remove all video detection cameras per plan from their poles. Remove the video detection camera wiring/cabling from each signal standard, arm or pole. Remove the video detection processor and other video detection equipment from the traffic signal cabinet. Dispose of the video detection camera wiring/cabling off the right-of-way. Deliver the materials to the Waukesha County Highway Operations shop at 1641 Woodburn Road, Waukesha WI. Contact Fred Patzer, (262) 424-9129, at least five working days prior to delivery to make arrangements.

D Measurement

The department will measure Remove Video Detection Equipment [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.0105.3011	Remove Video Detection Equipment CTH O and LS Hackberry Lane	
SPV.0105.3015	Remove Video Detection Equipment CTH O and LS Shopping Center Ring Road/Driveway	

Payment is full compensation for removing video detection equipment; for scrapping of some materials; for disposing of scrap material; and for delivering the requested materials to the Waukesha County Highway Operations shop.

68. Remove Video Detection Equipment STH 181 and W. Wisconsin Avenue, Item SPV.0105.3024.

A Description

This special provision describes removing existing traffic signal video detection equipment in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

The City of Wauwatosa assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Replace any equipment not identified as damaged or not working, prior to removal at no cost to the department or the City of Wauwatosa.

City of Wauwatosa Owned Traffic Signals

The department will provide at least a five working day notification when the adaptable traffic signal equipment is ready for activation and the video detection equipment can be removed. Arrange for removing the video detection equipment with the department and appropriate municipality the same day as the adaptable traffic signal turn-on.

The traffic signal is to remain operational throughout the duration of the work.

Remove all video detection cameras per plan from their poles. Remove the video detection camera wiring/cabling from each signal standard, arm or pole. Remove the video detection processor and other video detection equipment from the traffic signal cabinet. Dispose of the video detection camera wiring/cabling off the right-of-way. Deliver the materials to the City of Wauwatosa Electrical Yard at 11100 W. Walnut Road, Wauwatosa, WI. Contact the City of Wauwatosa Public Works Department, (414) 471-8422, at least five working days prior to delivery to make arrangements.

D Measurement

The department will measure Remove Video Detection Equipment [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.0105.3024	Remove Video Detection Equipment STH 181 and W. Wisconsin Avenue	LS

Payment is full compensation for removing video detection equipment; for scrapping of some materials; for disposing of scrap material; and for delivering the requested materials to the City of Wauwatosa Electrical Yard.

69. Remove Traffic Signals USH 18 and N. 121st Street, Item SPV.0105.3025; USH 18 and N. 112th Street, Item SPV.0105.3026; W. Wisconsin Avenue and N. 87th Street, Item SPV.0105.3027.

A Description

This special provision describes removing existing traffic signals in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

The City of Wauwatosa assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Replace any equipment not identified as damaged or not working, prior to removal at no cost to the department or City of Wauwatosa.

City of Wauwatosa (future State) Owned Traffic Signals

Notify the City of Wauwatosa Public Works Department at (414) 471-8422 at least five working days prior to the removal of the traffic signal. Complete the removal work as soon as possible.

The traffic signal is to remain operational throughout the duration of the work, except for the time required for the cabinet replacement.

Remove all standards and poles per plan from their concrete footings and disassemble out of traffic. Remove the transformer bases from each pole. Remove the signal heads, mast arms, luminaires, wiring / cabling and traffic signal mounting devices from each signal standard, arm or pole. Ensure that access handhole doors and all associated hardware remain intact. Remove the traffic signal cabinet from the concrete footing. Deliver the remaining materials to the City of Wauwatosa Electrical Yard at 11100 W. Walnut Road, Wauwatosa, WI. Contact the City of Wauwatosa Public Works Department at (414) 471-8422 at least five working days prior to delivery to make arrangements.

D Measurement

The department will measure Remove Traffic Signals (Location) as a single lump sum unit of work for each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3025	Remove Traffic Signals USH 18 and N. 121 st Street	LS
SPV.0105.3026	Remove Traffic Signals USH 18 and N. 112 th 1 Street	LS
SPV.0105.3027	Remove Traffic Signals W. Wisconsin Avenue and N. 87 th Street	LS

Payment is full compensation for removing and disassembling traffic signals; for scrapping of some materials; for disposing of scrap material; and for delivering the requested materials to the City of Wauwatosa Electrical Yard.

70. Install State Furnished Traffic Signal Cabinet USH 18 and N. 121st Street, Item SPV.0105.3055; USH 18 and N. 112th Street, Item SPV.0105.3056.

A Description

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

B Materials

Use materials furnished by the department including: the traffic signal controller and the traffic signal cabinet. The department will provide notification at the preconstruction meeting of the Traffic Signal Cabinet vendor and provide the vendor's contact information.

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

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

Append standard spec 651.3.3 (6) with the following:

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

C Construction

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

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

Coordinate directly with the department's Traffic Signal Cabinet vendor to schedule the cabinet acceptance testing. Notify the department's Electrical Field Unit, (414) 266-1170, and participate in the acceptance testing. The department has the final determination of the cabinet acceptance testing date and time. The acceptance testing procedures will be provided by the department. The department shall not be responsible for project delays and costs due to the delays of delivery by the vendor or by the failure of the Traffic Signal Cabinet to pass acceptance testing.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3055	Install State Furnished Traffic Signal Cabinet USH 18 and N. 121 st Street	LS
SPV.0105.3056	Install State Furnished Traffic Signal Cabinet USH 18 and N. 112 th Street	LS

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

- 71. Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and STH 100, Item SPV.0105.3060; STH 100 and W. Wisconsin Avenue, Item SPV.0105.3061; STH 100 and W. Potter Road / W. Research Drive, Item SPV.0105.3062; STH 100 and W. Watertown Plank Road, Item SPV.0105.3063; STH 59 and CTH O, Item SPV.0105.3064; STH 59 & S. Sunnyslope Road, Item SPV.0105.3065; STH 59 & S. Elm Grove Road, Item SPV.0105.3066; STH 59 & S. 124th Street, Item SPV.0105.3067; STH 59 & S. 116th Street, Item SPV.0105.3068; STH 100 and STH 59, Item SPV.0105.3069; STH 59 and S. 101st Street, Item SPV.0105.3070; USH 45/IH 894 eastbound Ramps and STH 59, Item SPV.0105.3071; USH 45/IH 894 westbound Ramps and STH 59, Item SPV.0105.3072; CTH O and Hackberry Lane, Item SPV.0105.3073; IH 94 eastbound**

Ramps and CTH O, Item SPV.0105.3074; IH 94 westbound Ramps and CTH O, Item SPV.0105.3075; CTH O and Shopping Center Ring Road, Item SPV.0105.3076; CTH O and Shopping Center Ring Road/Driveway, Item SPV.0105.3077; USH 18 and CTH YY, Item SPV.0105.3078; USH 18 and Elm Grove Road, Item SPV.0105.3079; USH 18 and Underwood Crossing Parkway, Item SPV.0105.3080; USH 18 and UPS Driveway, Item SPV.0105.3081; USH 18 and N. 121st Street, Item SPV.0105.3082; USH 18 and N. 112th Street, Item SPV.0105.3083; USH 18 and N. 97th Street, Item SPV.0105.3084; USH 18 and N. 95th Street, Item SPV.0105.3085; USH 18 and N. 92nd Street, Item SPV.0105.3086; STH 181 and W. Dana Court, Item SPV.0105.3087; USH 18 and STH 181, Item SPV.0105.3088; STH 181 and W. Wisconsin Avenue, Item SPV.0105.3089; W. Wisconsin Avenue and N. 87th Street, Item SPV.0105.3090.

A Description

This special provision describes the transporting and installing of department furnished Adaptable Traffic Signal Cameras and mounting hardware.

B Materials

Pick up the department furnished Adaptable Traffic Signal Cameras and mounting hardware at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical field unit, (414) 266-1170, to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

C Construction

Notify the City of New Berlin Engineering, (262) 786-8610, and City of Brookfield Public Works Department, (262) 787-3919, at least five working days prior to the installation of the cameras.

Install the pole/arm mounting bracket, extension arm (if required) and cameras as shown on the plans (the final determination of location will be made by the department's electrical personnel to ensure best line of sight) per manufacturer recommendations.

Assist the department and Vendor with aiming and programming the cameras during the adaptable traffic signal turn-on. The department will schedule the adaptable traffic signal turn-on and provide notification a minimum of five working days prior to turn-on.

D Measurement

The department will measure Transporting and Installing State Furnished Adaptable 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.0105.3060	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and STH 100	LS
SPV.0105.3061	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 100 and W. Wisconsin Avenue	LS
SPV.0105.3062	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 100 and W. Potter Road / W. Research Drive	LS
SPV.0105.3063	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 100 and W. Watertown Plank Road	LS
SPV.0105.3064	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 59 and CTH O	LS
SPV.0105.3065	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 59 and S. Sunnyslope Road	LS
SPV.0105.3066	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 59 and S. Elm Grove Road	LS
SPV.0105.3067	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 59 and S. 124 th Street	LS
SPV.0105.3068	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 59 and S. 116 th Street	LS
SPV.0105.3069	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 100 and STH 59	LS
SPV.0105.3070	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 59 and S. 101 st Street	LS
SPV.0105.3071	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 45/IH 894 eastbound Ramps and STH 59	LS
SPV.0105.3072	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 45/IH 894 westbound Ramps and STH 59	LS
SPV.0105.3073	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras CTH O and Hackberry Lane	LS
SPV.0105.3074	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras IH 94 eastbound Ramps and CTH O	LS
SPV.0105.3075	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras IH 94 westbound Ramps and CTH O	LS
SPV.0105.3076	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras CTH O and Shopping Center Ring Road	LS

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3077	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras CTH O and Shopping Center Ring Road/Driveway	LS
SPV.0105.3078	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and CTH YY	LS
SPV.0105.3079	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and Elm Grove Road	LS
SPV.0105.3080	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and Underwood Crossing Parkway	LS
SPV.0105.3081	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and UPS Driveway	LS
SPV.0105.3082	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and N. 121 st Street	LS
SPV.0105.3083	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and N. 112 th Street	LS
SPV.0105.3084	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and N. 97 th Street	LS
SPV.0105.3085	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and N. 95 th Street	LS
SPV.0105.3086	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and N. 92 nd Street	LS
SPV.0105.3087	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 181 and W. Dana Court	LS
SPV.0105.3088	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras USH 18 and STH 181	LS
SPV.0105.3089	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras STH 181 and W. Wisconsin Avenue	LS
SPV.0105.3090	Transporting and Installing State Furnished Adaptable Traffic Signal Cameras W. Wisconsin Avenue and N. 87 th Street	

Payment is full compensation for transporting and installing the State Furnished Adaptable Traffic Signal System cameras and mounting hardware; for assisting the vendor and department with aiming and programming the cameras.

- 72. Install Fiber Optic Communications in Cabinet STH 59 and CTH O, Item SPV.0105.3095; STH 59 and S. Sunnyslope Road, Item SPV.0105.3096; STH 59 and S. Elm Grove Road, Item SPV.0105.3097; CTH O and Hackberry Lane, Item SPV.0105.3098; IH 94 Eastbound Ramps and CTH O, Item SPV.0105.3099; IH 94 Westbound Ramps and CTH O, Item SPV.0105.3100; CTH O and Shopping Center Ring Road, Item SPV.0105.3101; CTH O and Shopping Center Ring**

Road/Driveway, Item SPV.0105.3102; USH 18 and CTH YY, Item SPV.0105.3103; USH 18 and Elm Grove Road, Item SPV.0105.3104, USH 18 and Underwood Crossing Parkway, Item SPV.0105.3105; USH 18 and UPS Driveway, Item SPV.0105.3106; USH 18 and N. 121st Street, Item SPV.0105.3107; USH 18 and N. 112th Street, Item SPV.0105.3108; W. Wisconsin Avenue and N. 87th Street, Item SPV.0105.3109.

A Description

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

B Materials

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

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

C Construction

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

Install the patch panel and Ethernet switch on the side of the traffic signal cabinet opposite the electrical service at a location as approved by the engineer. With approval by the engineer, the Ethernet switch may be placed on a shelf near the patch panel. Install the pre-terminated fiber optic cable in conduit from the patch panel to the communication vault as specified in standard spec 678.3.1. Fiber optic cable ends shall be covered securely to protect open ends during installation in raceways. Leave the remainder of the fiber optic cable coiled in the communication vault.

Install the fiber jumpers and CAT-5e cable and provide a communications link from the communication vault to the controller for WisDOT owned traffic signals. Do not connect

the Ethernet switch to the municipal owned traffic signal controllers, but provide the cables for a possible future connection. Install the CAT5-e cable from the Interface Panel to the Ethernet switch.

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3095	Install Fiber Optic Communications in Cabinet STH 59 and CTH O	LS
SPV.0105.3096	Install Fiber Optic Communications in Cabinet STH 59 and S. Sunnyslope Road	LS
SPV.0105.3097	Install Fiber Optic Communications in Cabinet STH 59 and S. Elm Grove Road	LS
SPV.0105.3098	Install Fiber Optic Communications in Cabinet CTH O and Hackberry Lane	LS
SPV.0105.3099	Install Fiber Optic Communications in Cabinet IH 94 Eastbound Ramps and CTH O	LS
SPV.0105.3100	Install Fiber Optic Communications in Cabinet IH 94 Westbound Ramps and CTH O	LS
SPV.0105.3101	Install Fiber Optic Communications in Cabinet CTH O and Shopping Center Ring Road	LS
SPV.0105.3102	Install Fiber Optic Communications in Cabinet CTH O and Shopping Center Ring Road/Driveway	LS
SPV.0105.3103	Install Fiber Optic Communications in Cabinet USH 18 and CTH YY	LS
SPV.0105.3104	Install Fiber Optic Communications in Cabinet USH 18 and Elm Grove Road	LS
SPV.0105.3105	Install Fiber Optic Communications in Cabinet USH 18 and Underwood Crossing Parkway	LS
SPV.0105.3106	Install Fiber Optic Communications in Cabinet USH 18 and UPS Driveway	LS
SPV.0105.3107	Install Fiber Optic Communications in Cabinet USH 18 and N. 121 st Street	LS
SPV.0105.3108	Install Fiber Optic Communications in Cabinet USH 18 and N. 112 th Street	LS
SPV.0105.3109	Install Fiber Optic Communications in Cabinet W. Wisconsin Avenue and N. 87 th Street	LS

Payment is full compensation for transporting and installing pre-terminated patch panels, Ethernet switches, and fiber optic cable in conduit; and for furnishing and installing attachment hardware, fiber jumpers, CAT-5e cable, and locate wire.

73. EVP Detector Head Installation STH 59 and S. 124th Street, Item SPV.0105.3115; STH 59 and S. 116th Street, Item SPV.0105.3116; USH 18 and CTH YY, Item SPV.0105.3117; USH 18 and Elm Grove Road, Item SPV.0105.3118.

A Description

This special provision describes the transporting and installing of department furnished emergency vehicle preemption (EVP) detector heads and EVP detector head mounting brackets.

B Materials

Use materials furnished by the department including: Emergency vehicle preemption (EVP) detector heads and EVP detector head mounting brackets.

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

C Construction

Install the EVP detector heads and EVP detector head mounting brackets as shown on the plans. The department will determine the exact location to ensure that the installation does not create a sight obstruction. The department will terminate the EVP cable ends and install the discriminators and card rack in the cabinet.

Notify the department's Electrical shop, (414) 266-1170, upon completion of the installation of the emergency vehicle preemption (EVP) detector heads and EVP detector head mounting brackets.

D Measurement

The department will measure EVP Detector Head Installation (Location) as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3115	EVP Detector Head Installation STH 59 and S. 124 th Street	LS
SPV.0105.3116	EVP Detector Head Installation STH 59 and S. 116 th Street	LS
SPV.0105.3117	EVP Detector Head Installation USH 18 and CTH YY	LS
SPV.0105.3118	EVP Detector Head Installation USH 18 and Elm Grove Road	LS

Payment is full compensation for transporting and installing of department furnished emergency vehicle preemption (EVP) detector heads and EVP detector head mounting brackets.

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 the reasons for withholding payment.

The prime contractor may also withhold retainage from payments due subcontractors. Reduce the total amount retained from all first-tier subcontractors to no more than the department retains within 10 calendar days of the department releasing retainage.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment and release of retainage rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

ADDITIONAL SPECIAL PROVISION 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the 2013 edition of the standard specifications:

106.3.4.3.1 General

Replace paragraph two with the following effective with the November 2012 letting:

- (2) Required sampling and testing methodologies and documentation are specified in CMM chapter 8.
 - (3) If disputed, approval of materials and components, as well as acceptance of the work incorporating those materials or components, is subject to review under the QMP dispute resolution process.
-

107.17.3 Railroad Insurance Requirements

Replace the entire text with the following effective with the August 2012 letting:

- (1) If required by the special provisions, provide or arrange for a subcontractor to provide railroad protective liability insurance in addition to the types and limits of insurance required in 107.26. Keep railroad protective liability insurance coverage in force until completing all work, under or incidental to the contract, on the railroad right of way or premises of the railroad and until the department has accepted the work as specified in 105.11.2.4.
- (2) Provide railroad protective liability insurance coverage written as specified in 23 CFR part 646 subpart A. Provide a separate policy for each railroad owning tracks on the project. Ensure that the railroad protective liability insurance policies provide the following minimum limits of coverage:
 - 1. Coverage A, bodily injury liability and property damage liability; \$2 million per occurrence.
 - 2. Coverage B, physical damage to property liability; \$2 million per occurrence.
 - 3. An annual aggregate amount of \$6 million that shall apply separately to each policy renewal or extension.
- (3) Obtain coverage from insurance companies licensed to do business in Wisconsin that have an A.M. Best rating of A- or better. The cost of providing the required insurance coverage and limits is incidental to the contract. The department will make no additional or special payment for providing insurance.
- (4) Submit the following to each railroad owning tracks on the project as evidence of that railroad's respective coverage:
 - 1. A certificate of insurance for the types and limits of insurance specified in 107.26.
 - 2. The railroad protective liability insurance policy or other acceptable documentation to the railroad company.
- (5) Submit the following to the region as evidence of the required coverage:
 - 1. A copy of the letter to the railroad company transmitting the submittal documents specified in 107.17.3(4).
 - 2. A certificate of insurance for the required railroad protective liability coverages.
- (6) Do not begin work on the right of way or premises of the railroad company until the region receives the submittals specified in 107.17.3(5) and notification from the railroad company that the contractor has provided sufficient insurance information to begin work.
- (7) Notify the railroad and the region immediately upon cancellation or initiating cancellation, whichever is earlier, or any material change in coverage. Cease operations within 50 feet of the railroad right of way immediately if insurance is cancelled or reduced. Do not resume operations until the required coverage is in force.

460.2.8.3.1.4 Department Verification Testing Requirements

Replace paragraph four with the following effective with the December 2012 letting:

- (4) The department will randomly test each design mixture at the following minimum frequency:
- FOR TONNAGES TOTALING:
- Less than 501 tons no tests required
- From 501 to 5,000 tons..... one test
- More than 5,000 tons..... add one test for each additional 5,000-ton increment

501.2.1 Portland Cement

Replace paragraph one with the following effective with the March 2013 letting:

- (1) Use cement conforming to ASTM specifications as follows:
- Type I portland cement; ASTM C150.
 - Type II portland cement; ASTM C150.
 - Type III portland cement; ASTM C150, for high early strength.
 - Type IP portland-pozzolan cement; ASTM C595, except maximum loss on ignition is 2.0 percent.
 - Type IS portland blast-furnace slag cement; ASTM C595.
 - Type IL portland-limestone cement; ASTM C595, except maximum nominal limestone content is 10 percent with no individual test result exceeding 12.0 percent.

501.2.5.5 Sampling and Testing

Replace the entire text with the following effective with the January 2013 letting:

- (1) Sample and test aggregates for concrete according to the following:
- | | |
|--|---------------------------|
| Sampling aggregates | AASHTO T2 |
| Lightweight pieces in aggregate | AASHTO T113 |
| Material finer than No. 200 sieve | AASHTO T11 |
| Unit weight of aggregate | AASHTO T19 |
| Organic impurities in sands | AASHTO T21 |
| Sieve analysis of aggregates | AASHTO T27 |
| Effect of organic impurities in fine aggregate | AASHTO T71 |
| Los Angeles abrasion of coarse aggregate | AASHTO T96 |
| Freeze-thaw soundness of coarse aggregate..... | AASHTO T103 |
| Sodium sulfate soundness of aggregates..... | AASHTO T104 |
| Specific gravity and absorption of fine aggregate | AASHTO T84 |
| Specific gravity and absorption of coarse aggregate | AASHTO T85 |
| Flat & elongated pieces based on a 3:1 ratio..... | ASTM D4791 ^[1] |
| Sampling fresh concrete | AASHTO R60 |
| Making and curing concrete compressive strength test specimens | AASHTO T23 |
| Compressive strength of molded concrete cylinders | AASHTO T22 |

^[1] As modified in CMM 8-60.

501.2.6 Fly Ash

Replace paragraph three with the following effective with the March 2013 letting:

- (3) Test fly ash using a recognized laboratory, as defined in 501.2.2(1), starting at least 30 days before its proposed use, and continuing at ASTM-required frequencies as the work progresses. The manufacturer shall test the chemical and physical properties listed in tables 1 and 2 of ASTM C618 at the frequencies and by the test methods prescribed in ASTM C311.

501.3.1.1.1 Air-Entrained Concrete

Replace paragraph one with the following effective with the March 2013 letting:

- (1) Prepare air-entrained concrete with type I, IL, II, IS, or IP portland cement and sufficient air-entraining admixture to produce concrete with the air content specified in 501.3.2.4.

503.2.2 Concrete

Replace paragraph five with the following effective with the March 2013 letting:

- (5) Furnish prestressed concrete members cast from air-entrained concrete, except I-type girders may use non-air-entrained concrete. Use type I, IL, IS, , IP, II, or III portland cement. The contractor may replace up to 30 percent of type I, IL, II, or III portland cement with an equal weight of fly ash, slag, or a combination of fly ash and slag, except for prestressed box girders and slabs, the contractor shall replace 20-30 percent of the cement with fly ash, slag, or a combination of fly ash and slag. Ensure that fly ash conforms to 501.2.6 and slag conforms to 501.2.7. Use only one source and replacement rate for work under a single bid item. Use a department-approved air-entraining admixture conforming to 501.2.2 for air-entrained concrete. Use only size No. 1 coarse aggregate conforming to 501.2.5.4.

506.3.22 Shop Inspection

Replace paragraph one with the following effective with the July 2010 letting:

- (1) The engineer or an independent inspection agency under department contract may inspect all structural steel and miscellaneous metals furnished. The department will provide the contractor with monthly consultant inspection invoices and identify any quality deficiencies at the fabrication facility.

506.5 Payment

Add paragraph nine as follows effective with the June 2010 letting:

- (9) The department will limit costs for inspections conducted under 506.3.2 to \$0.05 per pound of material and deduct costs in excess of that amount from payment due the contractor. The department will determine costs for in-house inspections based on hourly rates for department staff plus overhead and use invoiced costs for contracted-out inspections. The department will administer deductions for the contractor's share of the total inspection cost under the Excess Costs For Fabrication Shop Inspection administrative item.

507.2.2.1 General

Replace paragraph four with the following effective with the December 2012 letting:

- (4) Ensure that there are no unsound knots or knot holes. Also ensure that there are no tight knots of a diameter exceeding one-quarter of the greater dimension at the point where they occur. Measure a knot by taking its diameter at right angles to the length of the timber. Ensure that the sum of sizes of all knots in any one-foot length does not exceed 2 times the size of the largest allowed single knot. The engineer will treat cluster knots as if they were a single knot. A cluster knot is 2 or more knots grouped together, with the fibers of the wood deflected around the entire unit.

512.3.1 Driving and Cutting Off

Replace the entire text with the following effective with the December 2012 letting:

512.3.1.1 General

- (1) Coordinate driving operations to prevent damage or displacement of concrete in substructure units or damage to adjacent facilities due to vibrations.
- (2) Drive sheeting with a variation of 1/4 inch or less per foot from the vertical or from the batter the plans show. Ensure that the sheetpiles are within 6 inches of the plan position after driving. Do not damage sheetpiles attempting to correct for misalignment.

- (3) Remove and replace, or otherwise correct, sheetpiles the engineer deems unacceptable under 105.3. Submit details of planned corrections to the engineer for review and approval before initiating any corrective actions.
- (4) Drive sheetpiles to or beyond the required tip elevation the plans show.

512.3.1.2 Driving System

- (1) Furnish a sheetpile driving system capable of driving the sheetpiles to the required minimum tip elevation the plans show.
- (2) The engineer may order the contractor to remove a pile driving system component from service if it causes insufficient energy transfer or damages the sheetpiles. Do not return a component to service until the engineer determines that it has been satisfactorily repaired or adjusted.
- (3) Drive sheetpiles with diesel, air, steam, gravity, hydraulic, or vibratory hammers.

512.3.1.3 Cut-Offs

- (1) Cut off sheetpiles at the elevations the plans show or as the engineer directs. Pile cut-offs become the property of the contractor. Dispose of cut-offs not incorporated into the work.

518.2.1 General

Replace paragraph one with the following effective with the March 2013 letting:

- (1) Furnish portland cement and water as specified in 501.2. Unless the engineer allows an alternate, use either type I, IL, IS, , or IP portland cement.

526.3.3 Temporary Structures

Replace paragraphs two through four with the following effective with the January 2013 letting:

- (2) Inspect temporary structures conforming to the National Bridge Inspection Standards (NBIS) and the department's structure inspection manual before opening to traffic. Perform additional inspections, as the department's structure inspection manual requires, based on structure type and time in service. Submit inspection reports on department form DT2007 to the engineer and electronic copies to the department's bureau of structures maintenance section. Ensure that a department-certified active team leader, listed online in the department's highway structures information system (HSIS), performs the inspections.
- (3) Maintain temporary structures and approaches in place until no longer needed. Unless the engineer directs otherwise, completely remove and dispose of as specified in 203.3.4. Contractor-furnished materials remain the contractor's property upon removal.

614.2.5 Wood Posts and Offset Blocks

Retitle and replace the entire text with the following effective with the July 2012 letting:

614.2.5 Posts and Offset Blocks

614.2.5.1 Wood Posts and Offset Blocks

- (1) Furnish sawed posts and offset blocks of one of the following species:

Douglas fir	Southern pine	Ponderosa pine	Jack pine	White pine
Red pine	Western hemlock	Western larch	Hem-fir	Oak
- (2) Ensure that posts are the size the plans show and conform to the nominal and minimum dimensions tabulated in 507.2.2.3. The contractor does not have to surface the posts. Provide posts of the net length the plans show after setting and cut off.
- (3) Use stress graded posts rated at 1200 psi f_b or higher. Determine the stress grade rating for douglas fir, western larch, and southern pine as specified in 507.2.2.4.
- (4) For hem-fir, hemlock, red pine, white pine, jack pine, ponderosa pine, and oak conform to the following:

TABLE 614-1 PROPERTIES FOR WOOD POSTS AND BLOCKS

SPECIES			WESTERN HEMLOCK, HEM-FIR, RED PINE, WHITE PINE, JACK PINE, PONDEROSA PINE		OAK	
MAXIMUM SLOPE OF GRAIN			1 in 15		1 in 12	
NOMINAL WIDTH OF FACE			6"	8"	6"	8"
SHAKES, CHECKS, AND SPLITS	GREEN		1"	1 3/8"	2 3/8"	3 1/8"
	SEASONED		1 1/2"	2"	2 5/8"	3 1/2"
MAXIMUM WANE			1"	1 3/8"	1 1/8"	1 5/8"
MAXIMUM ALLOWABLE KNOTS	NARROW FACE	MIDDLE 1/3 OF LENGTH	1 3/8"	1 5/8"	2 1/8"	2 3/8"
		END ^[1]	2 3/4"	3 1/4"	4 1/4"	4 3/4"
		SUM IN MIDDLE 1/2 OF LENGTH ^[2]	11"	13"	17"	19
	WIDE FACE	EDGE KNOT N MIDDLE 1/3 OF LENGTH	1 3/8"	1 5/8"		
		EDGE KNOT AT END ^[1]	2 3/4" 7	3 1/4"		
		CENTERLINE	1 3/8"	1 7/8"	2 1/4"	2 7/8"
		SUM IN MIDDLE 1/2 OF LENGTH	5 1/2"	7 1/2"	9"	11 1/2"

^[1] But do not exceed the maximum allowable knot on the centerline of the wide face of the same piece.

^[2] But do not exceed 4 times the maximum allowable knot on the centerline of the wide face of the same piece.

- (5) Pressure treat posts and offset blocks as specified in 507.2.2.6. Use one of the oil-soluble preservatives or chromated copper arsenate conforming to 507.2.3. Use the same material for offset blocks and posts and treat material used in each continuous installation with the same type of preservative.

614.2.5.2 Steel Posts

- (1) Furnish steel posts conforming to AASHTO M270 Grade 36 and galvanized according to AASTHO M111.

614.2.5.3 Plastic Offset Blocks

- (1) Furnish plastic offset blocks from the department's approved products list.

614.3.1 General

Replace the entire text with the following effective with the July 2012 letting:

- (1) Paint the ends of cut-off galvanized posts, rail, bolts, cut or drilled surfaces of galvanized components, and areas of damaged zinc coating with 2 coats of zinc dust/zinc oxide paint. Clean the damaged and adjacent areas thoroughly before applying paint.
- (2) Apply 2 coats of wood preservative to cut surfaces of wood components. Use the same preservative originally used to treat that component or use a 2-percent solution of copper naphthenate conforming to AWWA Standard P8 or P36.

614.3.2.1 Installing Posts

Replace paragraph four with the following effective with the July 2012 letting:

- (4) Cut post tops to the finished elevation the plans show.

628.2.13 Rock Bags

Replace paragraph one with the following effective with the November 2012 letting:

- (1) Furnish rock bags made of a porous, ultraviolet resistant, high-density polyethylene or geotextile fabric that will retain 70% of its original strength after 500 hours of exposure according to ASTM D4355 and a minimum in-place filled size of 18-inches long by 12-inches wide by 6-inches high. Ensure that the fabric conforms to the following:

TEST REQUIREMENT	METHOD	VALUE
Minimum Tensile	ASTM D4632	
Machine direction		70 lb minimum
Cross direction		40 lb minimum
Elongation	ASTM D4632	
Machine direction		20% minimum
Cross direction		10 % min
Puncture	ASTM 4833	65 lbs minimum
Minimum Apparent Opening		0.0234 inches (No. 30 sieve)
Maximum Apparent Opening		0.0787 inches (No. 10 sieve)

639.2.1 General

Replace paragraph two with the following effective with the March 2013 letting:

- (2) For grout use fine aggregate conforming to 501.2.5.3 and type I, IL, IS, or IP portland cement.

649.3.1 General

Replace paragraphs three and four with the following effective with the March 2013 letting:

- (3) For pavements open to all traffic, apply centerline and no-passing barrier line markings as follows:
- On intermediate pavement layers, including milled surfaces, on the same day the pavement is placed or milled.
 - On the upper layer of pavement, on the same day the pavement is placed unless the contractor applies permanent marking on the same day the pavement is placed.

If weather conditions preclude same-day application, apply as soon as weather allows. Do not resume next-day construction operations until these markings are completed unless the engineer allows otherwise.

- (4) If required to apply no passing zone temporary pavement marking, reference the beginning and end of all existing no-passing barrier lines. Apply temporary no-passing barrier lines at those existing locations. If the contract contains the Locating No-Passing Zones bid item, relocate the no-passing zones as specified in section 648 for permanent marking.

701.4.2 Verification Testing

Replace paragraph two with the following effective with the December 2012 letting:

- (2) The department will sample randomly at locations independent of the contractor's QC tests and use separate equipment and laboratories. The department will conduct a minimum of one verification test for each 5 contractor QC tests unless specific QMP provisions specify otherwise.

715.2.3.1 Pavements

Replace paragraph two with the following effective with the March 2013 letting:

- (2) Provide a minimum cement content of 565 pounds per cubic yard, except if using type I, IL, or III portland cement in a mix where the geologic composition of the coarse aggregate is primarily igneous or metamorphic materials, provide a minimum cement content of 660 pounds per cubic yard.

715.3.1.3 Department Verification Testing

Replace paragraph one with the following effective with the December 2012 letting:

- (1) The department will perform verification testing as specified in 701.4.2 except as follows:
 - Air content, slump, and temperature: a minimum of 1 verification test per lot.
 - Compressive strength: a minimum of 1 verification test per lot.

Errata

Make the following corrections to the 2013 edition of the standard specifications:

102.12 Public Opening of Proposals

Correct 102.12(1) errata by changing htm to shtm in the web link.

- (1) The department will publicly open proposals at the time and place indicated in the notice to contractors. The department will post the total bid for each proposal on the Bid Express web site beginning at 9:30 AM except as specified in 102.8. If a proposal has no total bid shown, the department will not post the bid. After verification for accuracy under 103.1, the department will post bid totals on the department's HCCI web site.

<http://roadwaystandards.dot.wi.gov/hcci/bid-letting/index.shtm>

107.22 Contractor's Responsibility for Utility Facilities, Property, and Services

Correct errata by eliminating references to the department. Costs are determined by statute.

- (3) If the contractor damages or interrupts service, the contractor shall notify the utility promptly. Coordinate and cooperate with the utility in the repair of the facility. Determine who is responsible for repair costs according to Wisconsin statutes 66.0831 and 182.0175(2).
-

204.3.2.2 Removing Items

Correct errata by changing the reference from 490.3.2 to 490.3.

- (5) Under the Removing Asphaltic Surface Milling bid item, remove and dispose of existing asphaltic pavement or surfacing by milling at the location and to the depth the plans show. Mill the asphaltic pavement or surfacing as specified for milling salvaged asphaltic pavement in 490.3.
-

501.2.9 Concrete Curing Materials.

Correct errata by changing AASHTO M171 to ASTM C171.

- (4) Furnish polyethylene-coated burlap conforming to ASTM C171 for white burlap-polyethylene sheets.
-

506.2.6.5.2 Pad Construction

Correct errata by changing ASTM A570 to ASTM A1011.

- (4) For the internal steel plates use rolled mild steel conforming to ASTM A36, or ASTM A1011 grade
-

512.3.3 Painting

Correct errata by changing 511.3.5 to 550.3.11.3.

- (1) Paint permanent steel sheet piling as specified for painting steel piling in 550.3.11.3.

513.2.2.8 Toggle BoltsCorrect errata by changing ASTM A570 to ASTM A1011.

- (1) Use toggle bolts made of steel, conforming to the plans. Make the assembly from the material specified below:

Toggle bolt and pin Cold finished steel heat-treated Brinell 311-363 ASTM A354.
 Toggle washer Hot rolled steel ASTM A1011. Manufacturer's standard washer.
 Spacer nut Grade 1213, ASTM A108. Cold finished steel heat-treated ASTM A325.

660.2.1 GeneralCorrect errata by changing section 511 to 550.

- (1) Furnish materials conforming to the following:

Concrete section 501
 Concrete bridges section 502
 Luminaires section 659
 Steel piling section 550
 Steel reinforcement section 505

660.3.2.3 Pile Type FoundationsCorrect errata by changing section 511 to 550.

- (1) Drive piles as specified in for steel piling in section 550.

701.3 Contractor TestingCorrect errata by updating AASHTO T141 to AASHTO R60 and changing AASHTO T309 to ASTM C1064.

- (1) Perform contract required QC tests for samples randomly located according to CMM 8-30. Also perform other tests as necessary to control production and construction processes, and additional testing enumerated in the contractor's quality control plan or that the engineer directs. Use test methods as follows:

TABLE 701-2 TESTING STANDARDS

TEST	TEST STANDARD
Washed P 200 analysis	AASHTO T11 ^[1]
Sieve analysis of fine and coarse aggregate	AASHTO T27 ^[1]
Aggregate moisture	AASHTO T255 ^[1]
Sampling freshly mixed concrete	AASHTO R60
Air content of fresh concrete	AASHTO T152 ^[2]
Concrete slump	AASHTO T119 ^[2]
Concrete temperature	ASTM C1064
Concrete compressive strength	AASHTO T22
Making and curing concrete cylinders	AASHTO T23
Standard moist curing for concrete cylinders	AASHTO M201

^[1] As modified in CMM 8-60.

^[2] As modified in CMM 8-70.

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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm>

(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://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/crc-basic-info.pdf>

Effective with September 2004 Letting

**WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES**

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

- I. Wage Rates, Hours of labor and payment of Wages
- II. Payroll Requirements
- III. Postings at the Site of the Work
- IV. Affidavits
- V. Wage Rate Redistribution
- VI. Additional Classifications

I. WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contracts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

- a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.
- b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)
- c. A copy of the contractor's Equal Employment Opportunity Policy.
- d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

IV. WAGE RATE REDISTRIBUTION

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

V. ADDITIONAL CLASSIFICATIONS

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.
2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.
3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.
4. The unlisted classification must be commonly employed in the area where the project is located.
5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.
6. The request should be made prior to the actual performance of the work by the unlisted classification.
7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.
8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).

**ANNUAL PREVAILING WAGE RATE DETERMINATION
FOR ALL STATE HIGHWAY PROJECTS
MILWAUKEE 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, 2013

CLASSIFICATION: Contractors are required to call the Department of Workforce Development if there are any questions regarding the proper trade or classification to be used for any worker on a public works project.

OVERTIME: Time and one-half must be paid for all hours worked over 10 hours per day and 40 hours per calendar week and for all hours worked on Saturday, Sunday and the following six (6) holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; the day before if January 1, July 4 or December 25 falls on a Saturday; the day following if January 1, July 4 or December 25 falls on a Sunday.

FUTURE INCREASE: If indicated for a specific trade or occupation, the full amount of such increase MUST be added to the "TOTAL" indicated for such trade or occupation on the date(s) such increase(s) becomes effective.

PREMIUM PAY: If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.

SUBJOURNEY: Wage rates may be available for some of the classifications indicated below. Any employer that desires to use any subjourney classification on a project MUST request the applicable wage rate from the Department of Workforce Development PRIOR to the date such classification is used on such project. Form ERD-10880 is available for this purpose and can be obtained by writing to the Department of Workforce Development, Equal Rights Division, P.O. Box 8928, Madison, WI 53708.

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Bricklayer, Blocklayer or Stonemason	35.58	19.20	54.78
Carpenter	32.93	19.81	52.74
Future Increase(s): Add \$.75/hr on 6/3/2013. Add \$1.25/hr on 6/2/2014.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Cement Finisher	30.69	17.53	48.22
Future Increase(s): Add \$1.87 on 6/1/13; Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/1/16.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	31.54	21.14	52.68
Fence Erector	28.00	4.50	32.50
Ironworker	31.31	21.99	53.30
Line Constructor (Electrical)	31.29	15.34	46.63
Painter	29.22	16.69	45.91
Pavement Marking Operator	29.22	16.69	45.91
Piledriver	29.56	23.86	53.42
Roofer or Waterproofer	29.40	15.05	44.45
Teledata Technician or Installer	24.65	15.67	40.32
Tuckpointer, Caulker or Cleaner	34.35	11.13	45.48
Underwater Diver (Except on Great Lakes)	37.45	19.45	56.90
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.64	17.06	46.70
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.64	45.24
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day,			

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.90	33.65

TRUCK DRIVERS

Single Axle or Two Axle	33.22	18.90	52.12
Three or More Axle	23.31	17.13	40.44
Future Increase(s): Add \$1.85/hr on 6/1/2013.			
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, Dumptror, Off Road Material Hauler	27.77	19.90	47.67
Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .			
Pavement Marking Vehicle	23.84	14.90	38.74
Shadow or Pilot Vehicle	33.22	18.90	52.12
Truck Mechanic	22.50	16.19	38.69

LABORERS

General Laborer	25.39	18.40	43.79
Future Increase(s): Add \$1.70/hr on 6/1/2013; Add \$1.60/hr on 6/1/2014.			
Premium Pay: Add \$.15/hr for air tool operator, joint sawer and filler (pavement), vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.35/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.50/hr for line and grade specialist; Add \$.65/hr for blaster and powderman; Add \$2.01/hr for topman; Add \$2.46/hr for bottomman; Add \$3.23/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	18.00	0.00	18.00
Landscaper	25.39	18.40	43.79
Future Increase(s): Add \$1.70/hr on 6/1/13; Add \$1.60/hr on 6/1/14.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	21.88	18.40	40.28
Future Increase(s): Add \$1.70/hr on 6/1/2013; Add \$1.60/hr on 6/1/2014.			
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.			

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.24	15.03	32.27
Railroad Track Laborer	14.50	3.53	18.03

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).	35.22	19.90	55.12
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Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.

Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium.

See DOT's website for details about the applicability of this night work premium at:

<http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm>.

Backhoe (Track Type) Having a Mfr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.	34.72	19.90	54.62
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Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.

Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium.

See DOT's website for details about the applicability of this night work premium at:

<http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm>.

Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type);	34.22	19.90	54.12
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TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	\$	\$	\$
Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .	33.96	19.90	53.86
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 \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm .	33.67	19.90	53.57
Fiber Optic Cable Equipment.	20.00	7.88	27.88
Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	37.45	19.45	56.90
Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	37.45	19.45	56.90
Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	27.75	19.15	46.90
Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.	27.75	19.15	46.90

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
1060-33-99FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS

SECTION 0001 ROADWAY ITEMS

0010	108.4400 CPM PROGRESS SCHEDULE	EACH	1.000	.	.
0020	204.0150 REMOVING CURB & GUTTER	LF	175.000	.	.
0030	204.0155 REMOVING CONCRETE SIDEWALK	SY	27.000	.	.
0040	204.0195 REMOVING CONCRETE BASES	EACH	3.000	.	.
0050	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	TON	6.000	.	.
0060	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A	LF	175.000	.	.
0070	602.0410 CONCRETE SIDEWALK 5-INCH	SF	245.000	.	.
0080	614.2300 MGS GUARDRAIL 3	LF	320.000	.	.
0090	614.2610 MGS GUARDRAIL TERMINAL EAT	EACH	2.000	.	.
0100	614.2620 MGS GUARDRAIL TERMINAL TYPE 2	EACH	2.000	.	.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
1060-33-99FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0110	625.0500 SALVAGED TOPSOIL	100.000 SY	.		.	
0120	627.0200 MULCHING	100.000 SY	.		.	
0130	628.1504 SILT FENCE	2,250.000 LF	.		.	
0140	628.1520 SILT FENCE MAINTENANCE	2,250.000 LF	.		.	
0150	628.1905 MOBILIZATIONS EROSION CONTROL	4.000 EACH	.		.	
0160	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	4.000 EACH	.		.	
0170	628.7005 INLET PROTECTION TYPE A	3.000 EACH	.		.	
0180	628.7015 INLET PROTECTION TYPE C	9.000 EACH	.		.	
0190	629.0210 FERTILIZER TYPE B	1.000 CWT	.		.	
0200	630.0120 SEEDING MIXTURE NO. 20	5.000 LB	.		.	
0210	630.0200 SEEDING TEMPORARY	5.000 LB	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
1060-33-99FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0220	631.0300 SOD WATER	2.000 MGAL	.		.	
0230	631.1000 SOD LAWN	50.000 SY	.		.	
0240	637.0202 SIGNS REFLECTIVE TYPE II	30.000 SF	.		.	
0250	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0001. S-67-416	LUMP	LUMP		.	
0260	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0002. S-67-414	LUMP	LUMP		.	
0270	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0003. S-67-415	LUMP	LUMP		.	
0280	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0004. S-67-411	LUMP	LUMP		.	
0290	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0005. S-67-412	LUMP	LUMP		.	
0300	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0011. S-40-451	LUMP	LUMP		.	
0310	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0012. S-40-450	LUMP	LUMP		.	
0320	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0013. S-40-448	LUMP	LUMP		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
1060-33-99FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0330	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0014. S-40-453	LUMP	LUMP		.	
0340	641.8100 OVERHEAD SIGN SUPPORT (STRUCTURE) 0015. S-40-452	LUMP	LUMP		.	
0350	643.0100 TRAFFIC CONTROL (PROJECT) 0001. 1060-33-99	1.000 EACH	.		.	
0360	643.0300 TRAFFIC CONTROL DRUMS	465.000 DAY	.		.	
0370	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	140.000 DAY	.		.	
0380	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	280.000 DAY	.		.	
0390	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	140.000 DAY	.		.	
0400	643.0800 TRAFFIC CONTROL ARROW BOARDS	20.000 DAY	.		.	
0410	643.0900 TRAFFIC CONTROL SIGNS	180.000 DAY	.		.	
0420	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II	5.000 EACH	.		.	
0430	652.0125 CONDUIT RIGID METALLIC 2-INCH	575.000 LF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
1060-33-99FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0440	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	2,486.000 LF	.		.	
0450	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	105.000 LF	.		.	
0460	652.0605 CONDUIT SPECIAL 2-INCH	857.000 LF	.		.	
0470	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM	29.000 EACH	.		.	
0480	653.0135 PULL BOXES STEEL 24X36-INCH	19.000 EACH	.		.	
0490	653.0140 PULL BOXES STEEL 24X42-INCH	3.000 EACH	.		.	
0500	654.0101 CONCRETE BASES TYPE 1	3.000 EACH	.		.	
0510	654.0102 CONCRETE BASES TYPE 2	5.000 EACH	.		.	
0520	654.0220 CONCRETE CONTROL CABINET BASES TYPE 10	3.000 EACH	.		.	
0530	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG	298.000 LF	.		.	
0540	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG	648.000 LF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
1060-33-99FEDERAL ID(S):
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0550	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG	1,139.000 LF	.		.	
0560	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG	622.000 LF	.		.	
0570	655.0505 ELECTRICAL WIRE TRAFFIC SIGNALS 14 AWG	3,675.000 LF	.		.	
0580	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	1,379.000 LF	.		.	
0590	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG	1,000.000 LF	.		.	
0600	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG	3,360.000 LF	.		.	
0610	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE	4,480.000 LF	.		.	
0620	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 0001. CB-CCTV-67-0157	LUMP	LUMP		.	
0630	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 0002. CB-CCTV-67-0158	LUMP	LUMP		.	
0640	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 0003. CB-CCTV-67-0190	LUMP	LUMP		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
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N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0650	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 0020. CCTV-40-0155	LUMP	LUMP		.	
0660	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 0021. CCTV-40-0156	LUMP	LUMP		.	
0670	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0001. CCTV-67-0152	LUMP	LUMP		.	
0680	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0002. HUB-67-0010	LUMP	LUMP		.	
0690	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0003. DMS-67-0119	LUMP	LUMP		.	
0700	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0004. DMS-67-0121	LUMP	LUMP		.	
0710	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0005. DMS-67-0122	LUMP	LUMP		.	
0720	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0006. CCTV-67-0153	LUMP	LUMP		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
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N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0730	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0007. CCTV-67-0154	LUMP	LUMP			.
0740	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0008. DMS-67-0123	LUMP	LUMP			.
0750	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0009. DMS-67-0124	LUMP	LUMP			.
0760	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0020. DMS-40-0125	LUMP	LUMP			.
0770	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0021. DMS-40-0126	LUMP	LUMP			.
0780	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0022. DMS-40-0129	LUMP	LUMP			.
0790	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0023. DMS-40-0130	LUMP	LUMP			.
0800	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0024. DMS-40-0117	LUMP	LUMP			.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
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N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0810	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0001. CB-CCTV-67-0152	LUMP	LUMP			.
0820	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0002. HUB-67-0010	LUMP	LUMP			.
0830	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0003. DMS-67-0119	LUMP	LUMP			.
0840	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0004. DMS-67-0121	LUMP	LUMP			.
0850	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0005. DMS-67-0122	LUMP	LUMP			.
0860	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0006. CB-CCTV-67-0153	LUMP	LUMP			.
0870	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0007. CB-CCTV-67-0154	LUMP	LUMP			.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
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N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0880	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0008. DMS-67-0123	LUMP	LUMP			.
0890	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0009. DMS-67-0124	LUMP	LUMP			.
0900	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0010. CB-CCTV-67-0157	LUMP	LUMP			.
0910	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0011. CB-CCTV-67-0158	LUMP	LUMP			.
0920	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0012. CB-CCTV-67-0190	LUMP	LUMP			.
0930	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0020. DMS-40-0125	LUMP	LUMP			.
0940	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0021. DMS-40-0126	LUMP	LUMP			.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
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N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0950	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0022. DMS-40-0129	LUMP	LUMP			.
0960	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0023. DMS-40-0130	LUMP	LUMP			.
0970	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0024. DMS-40-0117	LUMP	LUMP			.
0980	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0025. CB-CCTV-40-0155	LUMP	LUMP			.
0990	656.0500 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (LOCATION) 0026. DMS-40-0156	LUMP	LUMP			.
1000	657.0100 PEDESTAL BASES	4.000 EACH		.		.
1010	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	10.000 EACH		.		.
1020	657.0305 POLES TYPE 2	5.000 EACH		.		.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
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N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1030	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3. 5-FT	3.000 EACH	.		.	
1040	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	1.000 EACH	.		.	
1050	657.0585 TROMBONE ARMS 15-FT	1.000 EACH	.		.	
1060	657.0590 TROMBONE ARMS 20-FT	2.000 EACH	.		.	
1070	657.0595 TROMBONE ARMS 25-FT	1.000 EACH	.		.	
1080	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	34.000 EACH	.		.	
1090	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL	2.000 EACH	.		.	
1100	658.0120 TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL	1.000 EACH	.		.	
1110	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH	34.000 EACH	.		.	
1120	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12-INCH	2.000 EACH	.		.	
1130	658.0225 BACKPLATES SIGNAL FACE 5 SECTION 12-INCH	1.000 EACH	.		.	

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REVISED:

CONTRACT:
20130611008PROJECT(S):
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N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1140	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH	8.000 EACH	.		.	
1150	658.0500 PEDESTRIAN PUSH BUTTONS	8.000 EACH	.		.	
1160	658.0600 LED MODULES 12-INCH RED BALL	29.000 EACH	.		.	
1170	658.0605 LED MODULES 12-INCH YELLOW BALL	29.000 EACH	.		.	
1180	658.0610 LED MODULES 12-INCH GREEN BALL	29.000 EACH	.		.	
1190	658.0615 LED MODULES 12-INCH RED ARROW	8.000 EACH	.		.	
1200	658.0620 LED MODULES 12-INCH YELLOW ARROW	17.000 EACH	.		.	
1210	658.0625 LED MODULES 12-INCH GREEN ARROW	3.000 EACH	.		.	
1220	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH	8.000 EACH	.		.	
1230	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 3001. CTH O & SHOPPING CENTER RING ROAD	LUMP	LUMP		.	

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REVISED:

CONTRACT:
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N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1240	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 3002. USH 18 & N 121ST STREET	LUMP	LUMP		.	
1250	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 3003. USH 18 & N 112TH STREET	LUMP	LUMP		.	
1260	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 3004. W WISCONSIN AVENUE & N 87TH STREET	LUMP	LUMP		.	
1270	659.0802 PLAQUES SEQUENCE IDENTIFICATION	28.000 EACH	.		.	
1280	670.0100 FIELD SYSTEM INTEGRATOR 0001. FTMS	LUMP	LUMP		.	
1290	670.0100 FIELD SYSTEM INTEGRATOR 3001. STH 100	LUMP	LUMP		.	
1300	670.0100 FIELD SYSTEM INTEGRATOR 3002. STH 59	LUMP	LUMP		.	
1310	670.0100 FIELD SYSTEM INTEGRATOR 3003. CTH O	LUMP	LUMP		.	
1320	670.0100 FIELD SYSTEM INTEGRATOR 3004. USH 18	LUMP	LUMP		.	
1330	670.0100 FIELD SYSTEM INTEGRATOR 3005. USH 18 / STH 181	LUMP	LUMP		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
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N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1340	670.0200 ITS DOCUMENTATION 0002. FTMS	LUMP	LUMP			.
1350	670.0200 ITS DOCUMENTATION 3001. STH 100	LUMP	LUMP			.
1360	670.0200 ITS DOCUMENTATION 3002. STH 59	LUMP	LUMP			.
1370	670.0200 ITS DOCUMENTATION 3003. CTH O	LUMP	LUMP			.
1380	670.0200 ITS DOCUMENTATION 3004. USH 18	LUMP	LUMP			.
1390	670.0200 ITS DOCUMENTATION 3005. USH 18 / STH 181	LUMP	LUMP			.
1400	671.0222 CONDUIT HDPE DIRECTIONAL BORE 2-DUCT 2-IN	2,720.000 LF	.			.
1410	672.0230 BASE CAMERA POLE 30-FT	3.000 EACH	.			.
1420	672.0250 BASE CAMERA POLE 50-FT	1.000 EACH	.			.
1430	673.0105 COMMUNICATION VAULT TYPE 1	4.000 EACH	.			.
1440	673.0200.S INSTALL ITS FIELD CABINET	2.000 EACH	.			.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
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N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1450	673.0225.S INSTALL POLE MOUNTED CABINET	18.000 EACH	.		.	
1460	675.0400.S INSTALL ETHERNET SWITCH	11.000 EACH	.		.	
1470	677.0100 INSTALL CAMERA POLE	4.000 EACH	.		.	
1480	677.0200 INSTALL CAMERA ASSEMBLY	9.000 EACH	.		.	
1490	677.0300.S INSTALL VIDEO ENCODER	9.000 EACH	.		.	
1500	678.0006 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT	1,700.000 LF	.		.	
1510	678.0012 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 12-CT	155.000 LF	.		.	
1520	678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT	5,225.000 LF	.		.	
1530	678.0072 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 72-CT	30,510.000 LF	.		.	
1540	678.0300 FIBER OPTIC SPLICE	430.000 EACH	.		.	
1550	678.0400 FIBER OPTIC TERMINATION	270.000 EACH	.		.	

SCHEDULE OF ITEMS

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CONTRACT:
20130611008PROJECT(S):
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N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1560	678.0500 COMMUNICATION SYSTEM TESTING 0001. FTMS	LUMP	LUMP			.
1570	678.0500 COMMUNICATION SYSTEM TESTING 3001. STH 100	LUMP	LUMP			.
1580	678.0500 COMMUNICATION SYSTEM TESTING 3002. STH 59	LUMP	LUMP			.
1590	678.0500 COMMUNICATION SYSTEM TESTING 3003. CTH O	LUMP	LUMP			.
1600	678.0500 COMMUNICATION SYSTEM TESTING 3004. USH 18	LUMP	LUMP			.
1610	678.0500 COMMUNICATION SYSTEM TESTING 3005. USH 18 / STH 181	LUMP	LUMP			.
1620	SPV.0060 SPECIAL 2001. INSTALL 900 MHZ RADIO	10.000 EACH	.		.	.
1630	SPV.0060 SPECIAL 2002. INSTALL DYNAMIC MESSAGE SIGN	10.000 EACH	.		.	.
1640	SPV.0060 SPECIAL 2003. DUAL ITS CONCRETE BASE	1.000 EACH	.		.	.
1650	SPV.0060 SPECIAL 2004. INSTALL CELLULAR MODEM	3.000 EACH	.		.	.
1660	SPV.0060 SPECIAL 2005. GROUND ROD	23.000 EACH	.		.	.

SCHEDULE OF ITEMS

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N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1670	SPV.0060 SPECIAL 2006. INSTALL ANTENNA	10.000 EACH	.		.	
1680	SPV.0060 SPECIAL 2007. INSTALL BLUETOOTH READER	20.000 EACH	.		.	
1690	SPV.0060 SPECIAL 2008. BOLLARDS	4.000 EACH	.		.	
1700	SPV.0060 SPECIAL 2009. COMMUNICATION VAULT OVER EXISTING FIBER	1.000 EACH	.		.	
1710	SPV.0060 SPECIAL 2010. EQUIPMENT RACK UNINTERRUPTABLE POWER SUPPLY	2.000 EACH	.		.	
1720	SPV.0060 SPECIAL 3002. RELOCATE TRAFFIC SIGNAL EQUIPMENT	1.000 EACH	.		.	
1730	SPV.0060 SPECIAL 3003. EVP DETECTOR TYPE I	4.000 EACH	.		.	
1740	SPV.0060 SPECIAL 3004. EVP DISCRIMINATOR TYPE IV	1.000 EACH	.		.	
1750	SPV.0060 SPECIAL 3005. EVP CONFIRMATION LIGHT ASSEMBLY TYPE I	4.000 EACH	.		.	
1760	SPV.0060 SPECIAL 3006. EVP CARD RACK	1.000 EACH	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1770	SPV.0060 SPECIAL 3007. REMOVE SALVAGE AND INSTALL TRAFFIC SIGNAL CONTROLLER	EACH 6.000	.		.	
1780	SPV.0090 SPECIAL 3001. INSTALL CAMERA POWER CABLE	LF 32,712.000	.		.	
1790	SPV.0090 SPECIAL 3002. INSTALL CAT 5E CABLE	LF 32,712.000	.		.	
1800	SPV.0090 SPECIAL 3003. TYPE UF CABLE 2 CONDUCTOR NO. 14	LF 1,065.000	.		.	
1810	SPV.0105 SPECIAL 0001. PAVEMENT CLEANUP PROJECT 1060-33-99	LUMP	LUMP		.	
1820	SPV.0105 SPECIAL 0002. SURVEY PROJECT 1060-33-99	LUMP	LUMP		.	
1830	SPV.0105 SPECIAL 3001. REMOVE VIDEO DETECTION EQUIPMENT USH 18 & STH 100	LUMP	LUMP		.	
1840	SPV.0105 SPECIAL 3002. REMOVE VIDEO DETECTION EQUIPMENT STH 100 & W WISCONSIN AVENUE	LUMP	LUMP		.	
1850	SPV.0105 SPECIAL 3003. REMOVE VIDEO DETECTION EQUIPMENT STH 100 & W POTTER RD / W RESEACH DR	LUMP	LUMP		.	

SCHEDULE OF ITEMS

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20130611008PROJECT(S):
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N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1860	SPV.0105 SPECIAL 3004. REMOVE VIDEO DETECTION EQUIPMENT STH 100 & W WATERTOWN PLANK ROAD	LUMP	LUMP		.	
1870	SPV.0105 SPECIAL 3005. REMOVE VIDEO DETECTION EQUIPMENT STH 59 & S 124TH STREET	LUMP	LUMP		.	
1880	SPV.0105 SPECIAL 3006. REMOVE VIDEO DETECTION EQUIPMENT STH 59 & S 116TH STREET	LUMP	LUMP		.	
1890	SPV.0105 SPECIAL 3007. REMOVE VIDEO DETECTION EQUIPMENT STH 100 & STH 59	LUMP	LUMP		.	
1900	SPV.0105 SPECIAL 3008. REMOVE VIDEO DETECTION EQUIPMENT STH 59 & S 101ST STREET	LUMP	LUMP		.	
1910	SPV.0105 SPECIAL 3009. REMOVE VIDEO DETECTION EQUIPMENT USH 45/IH 894 EB RAMPS & STH 59	LUMP	LUMP		.	
1920	SPV.0105 SPECIAL 3010. REMOVE VIDEO DETECTION EQUIPMENT USH 45/IH 894 WB RAMPS & STH 59	LUMP	LUMP		.	
1930	SPV.0105 SPECIAL 3011. REMOVE VIDEO DETECTION EQUIPMENT CTH O & HACKBERRY LANE	LUMP	LUMP		.	

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N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
1940	SPV.0105 SPECIAL 3012. REMOVE VIDEO DETECTION EQUIPMENT IH 94 EB RAMPS & CTH O	LUMP	LUMP		.	
1950	SPV.0105 SPECIAL 3013. REMOVE VIDEO DETECTION EQUIPMENT IH 94 WB RAMPS & CTH O	LUMP	LUMP		.	
1960	SPV.0105 SPECIAL 3015. REMOVE VIDEO DETECTION EQUIPMENT CTH O & SHOPPING CENTER RING RD/DRIVEWAY	LUMP	LUMP		.	
1970	SPV.0105 SPECIAL 3016. REMOVE VIDEO DETECTION EQUIPMENT USH 18 & UNDERWOOD CROSSING PARKWAY	LUMP	LUMP		.	
1980	SPV.0105 SPECIAL 3019. REMOVE VIDEO DETECTION EQUIPMENT USH 18 & N 97TH STREET	LUMP	LUMP		.	
1990	SPV.0105 SPECIAL 3020. REMOVE VIDEO DETECTION EQUIPMENT USH 18 & N 95TH STREET	LUMP	LUMP		.	
2000	SPV.0105 SPECIAL 3021. REMOVE VIDEO DETECTION EQUIPMENT USH 18 & N 92ND STREET	LUMP	LUMP		.	
2010	SPV.0105 SPECIAL 3022. REMOVE VIDEO DETECTION EQUIPMENT STH 181 & W DANA COURT	LUMP	LUMP		.	

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N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2020	SPV.0105 SPECIAL 3023. REMOVE VIDEO DETECTION EQUIPMENT USH 18 & STH 181	LUMP	LUMP		.	
2030	SPV.0105 SPECIAL 3024. REMOVE VIDEO DETECTION EQUIPMENT STH 181 & W WISCONSIN AVENUE	LUMP	LUMP		.	
2040	SPV.0105 SPECIAL 3025. REMOVE TRAFFIC SIGNAL USH 18 & N 121ST STREET	LUMP	LUMP		.	
2050	SPV.0105 SPECIAL 3026. REMOVE TRAFFIC SIGNAL USH 18 & N 112TH STREET	LUMP	LUMP		.	
2060	SPV.0105 SPECIAL 3027. REMOVE TRAFFIC SIGNAL W. WISCONSIN AVENUE & N 87TH STREET	LUMP	LUMP		.	
2070	SPV.0105 SPECIAL 3055. INSTALL STATE-FURNISHED TRAFFIC SIGNAL CABINET USH 18 & N 121ST STREET	LUMP	LUMP		.	
2080	SPV.0105 SPECIAL 3056. INSTALL STATE-FURNISHED TRAFFIC SIGNAL CABINET USH 18 & N 112TH STREET	LUMP	LUMP		.	
2090	SPV.0105 SPECIAL 3060. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & STH 100	LUMP	LUMP		.	
2100	SPV.0105 SPECIAL 3061. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS STH100 & W WISCONSIN AV	LUMP	LUMP		.	

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N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2110	SPV.0105 SPECIAL 3062. TRNSP AND INST S-F ADAPTABLE TRAF SIG CAM STH100 & POTTER RD / RESEARCH DR	LUMP	LUMP		.	
2120	SPV.0105 SPECIAL 3063. TRNSP AND INST S-F ADAPTABLE TRAF SIG CAMERAS STH 100 & WATERTOWN PLANK RD	LUMP	LUMP		.	
2130	SPV.0105 SPECIAL 3064. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS STH 59 & CTH O	LUMP	LUMP		.	
2140	SPV.0105 SPECIAL 3065. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS STH 59 & S SUNNYSLOPE RD	LUMP	LUMP		.	
2150	SPV.0105 SPECIAL 3066. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS STH 59 & S ELM GROVE RD	LUMP	LUMP		.	
2160	SPV.0105 SPECIAL 3067. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS STH 59 & S 124TH STREET	LUMP	LUMP		.	
2170	SPV.0105 SPECIAL 3068. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS STH 59 & S 116TH STREET	LUMP	LUMP		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130611008PROJECT(S):
1060-33-99FEDERAL ID(S):
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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2180	SPV.0105 SPECIAL 3069. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS STH 100 & STH 59	LUMP	LUMP		.	
2190	SPV.0105 SPECIAL 3070. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS STH 59 & S 101ST STREET	LUMP	LUMP		.	
2200	SPV.0105 SPECIAL 3071. TRNSP AND INST S-F ADAPTABLE TRAF SIG CAM USH 45/ IH 894 EB RAMPS & STH 59	LUMP	LUMP		.	
2210	SPV.0105 SPECIAL 3072. TRNSP AND INST S-F ADAPTABLE TRAF SIG CAM USH 45/IH 894 WB RAMPS & STH 59	LUMP	LUMP		.	
2220	SPV.0105 SPECIAL 3073. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS CTH O & HACKBERRY LANE	LUMP	LUMP		.	
2230	SPV.0105 SPECIAL 3074. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS IH 94 EB RAMPS & CTH O	LUMP	LUMP		.	
2240	SPV.0105 SPECIAL 3075. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS IH 94 WB RAMPS & CTH O	LUMP	LUMP		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2250	SPV.0105 SPECIAL 3076. TRNSP AND INST S-F ADAPTABLE TRAF SIG CAM CTH O & SHOPPING CENTER RING RD	LUMP	LUMP			.
2260	SPV.0105 SPECIAL 3077. TRNSP AND INST S-F ADAPTABLE TRAF SIG CAM CTH O & SHOPPING CNTR RING RD/DW	LUMP	LUMP			.
2270	SPV.0105 SPECIAL 3078. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & CTH YY	LUMP	LUMP			.
2280	SPV.0105 SPECIAL 3079. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & ELM GROVE RD	LUMP	LUMP			.
2290	SPV.0105 SPECIAL 3080. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAM USH 18 & UNDERWOOD XING PRKWY	LUMP	LUMP			.
2300	SPV.0105 SPECIAL 3081. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & UPS DRIVEWAY	LUMP	LUMP			.
2310	SPV.0105 SPECIAL 3082. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & N 121ST STREET	LUMP	LUMP			.

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			DOLLARS	CTS	DOLLARS	CTS
2320	SPV.0105 SPECIAL 3083. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & N 112TH STREET	LUMP	LUMP		.	
2330	SPV.0105 SPECIAL 3084. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & N 97TH STREET	LUMP	LUMP		.	
2340	SPV.0105 SPECIAL 3085. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & N 95TH STREET	LUMP	LUMP		.	
2350	SPV.0105 SPECIAL 3086. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & N 92ND STREET	LUMP	LUMP		.	
2360	SPV.0105 SPECIAL 3087. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 181 & W DANA COURT	LUMP	LUMP		.	
2370	SPV.0105 SPECIAL 3088. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 18 & STH 181	LUMP	LUMP		.	
2380	SPV.0105 SPECIAL 3089. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAMERAS USH 181 & W WISCONSIN AVE	LUMP	LUMP		.	

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			DOLLARS	CTS	DOLLARS	CTS
2390	SPV.0105 SPECIAL 3090. TRNSP AND INST S-F ADAPTABLE TRAF SIGNAL CAM W WISCONSIN AVE & N 87TH AVE	LUMP	LUMP		.	
2400	SPV.0105 SPECIAL 3095. INST FIBER OPTIC COMM. IN CABINET STH 59 & CTH O	LUMP	LUMP		.	
2410	SPV.0105 SPECIAL 3096. INST FIBER OPTIC COMM. IN CABINET STH 59 & S. SUNNYSLOPE ROAD	LUMP	LUMP		.	
2420	SPV.0105 SPECIAL 3097. INST FIBER OPTIC COMM. IN CABINET STH 59 & S. ELM GROVE ROAD	LUMP	LUMP		.	
2430	SPV.0105 SPECIAL 3098. INST FIBER OPTIC COMM. IN CABINET CTH O & HACKBERRY LANE	LUMP	LUMP		.	
2440	SPV.0105 SPECIAL 3099. INST FIBER OPTIC COMM. IN CABINET IH 94 EB RAMPS & CTH O	LUMP	LUMP		.	
2450	SPV.0105 SPECIAL 3100. INST FIBER OPTIC COMM. IN CABINET IH 94 WB RAMPS & CTH O	LUMP	LUMP		.	
2460	SPV.0105 SPECIAL 3101. INST FIBER OPTIC COMM. IN CABINET CTH O & SHOPPING CENTER RING ROAD	LUMP	LUMP		.	

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			DOLLARS	CTS	DOLLARS	CTS
2470	SPV.0105 SPECIAL 3102. INST FIBER OPTIC COMM. IN CABINET CTH O & SHOPPING CENTER RING RD/DRIVEWAY	LUMP	LUMP			.
2480	SPV.0105 SPECIAL 3103. INST FIBER OPTIC COMM. IN CABINET USH 18 & CTH YY	LUMP	LUMP			.
2490	SPV.0105 SPECIAL 3104. INST FIBER OPTIC COMM. IN CABINET USH 18 & ELM GROVE ROAD	LUMP	LUMP			.
2500	SPV.0105 SPECIAL 3105. INST FIBER OPTIC COMM. IN CABINET USH 18 & UNDERWOOD CROSING PARKWAY	LUMP	LUMP			.
2510	SPV.0105 SPECIAL 3106. INST FIBER OPTIC COMM. IN CABINET USH 18 & UPS DRIVEWAY	LUMP	LUMP			.
2520	SPV.0105 SPECIAL 3107. INST FIBER OPTIC COMM. IN CABINET USH 18 & N 121ST STREET	LUMP	LUMP			.
2530	SPV.0105 SPECIAL 3108. INST FIBER OPTIC COMM. IN CABINET USH 18 & N 112TH STREET	LUMP	LUMP			.
2540	SPV.0105 SPECIAL 3109. INST FIBER OPTIC COMM. IN CABINET W. WISCONSIN AVENUE & N 87TH STREET	LUMP	LUMP			.

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			DOLLARS	CTS	DOLLARS	CTS
2550	SPV.0105 SPECIAL 3115. EVP DETECTOR HEAD INSTALLATION STH 59 & S 124TH STREET	LUMP	LUMP		.	
2560	SPV.0105 SPECIAL 3116. EVP DETECTOR HEAD INSTALLATION STH 59 & S 116TH STREET	LUMP	LUMP		.	
2570	SPV.0105 SPECIAL 3117. EVP DETECTOR HEAD INSTALLATION USH 18 & CTH YY	LUMP	LUMP		.	
2580	SPV.0105 SPECIAL 3118. EVP DETECTOR HEAD INSTALLATION USH 18 & ELM GROVE ROAD	LUMP	LUMP		.	
	SECTION 0001 TOTAL				.	
	TOTAL BID				.	

PLEASE ATTACH SCHEDULE OF ITEMS HERE