

# HIGHWAY WORK PROPOSAL

Wisconsin Department of Transportation  
DT1502 01/2020 s.66.0901(7) Wis. Stats

Proposal Number: **007**

<u>COUNTY</u>	<u>STATE PROJECT</u>	<u>FEDERAL</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Dane	5400-00-72	WISC 2022046	C Madison, S Blair St/John Nolan Dr; Wilson/Williamson St Intersection	USH 151
Dane	5400-00-74	N/A	C Madison, Blair St/E Washington Av; E Wilson St To Blount St	USH 151
Dane	5400-00-73	WISC 2022045	C Madison, Blair St/E Washington Av; E Wilson St To Blount St	USH 151

## ADDENDUM REQUIRED ATTACHED AT BACK

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: \$100,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: November 9, 2021 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code  <h3 style="margin: 0;">SAMPLE</h3> <h3 style="margin: 0;">NOT FOR BIDDING PURPOSES</h3>
Contract Completion Time November 01, 2023	This contract is exempt from federal oversight.
Assigned Disadvantaged Business Enterprise Goal <b>8%</b>	

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)

\_\_\_\_\_  
(Bidder Signature)

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

\_\_\_\_\_  
(Print or Type Bidder Name)

\_\_\_\_\_  
(Date Commission Expires)

\_\_\_\_\_  
(Bidder Title)

Notary Seal

Type of Work: Excavation, Base, Concrete Pavement, HMA Pavement, Curb and Gutter, Sidewalk, Signs, Pavement Marking, Street Lighting, Traffic Signals, Sign Structures, Storm Sewer, Sanitary Sewer	<b>For Department Use Only</b>
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH  
PROPOSAL GUARANTY HERE**

**Effective with November 2007 Letting**

**PROPOSAL REQUIREMENTS AND CONDITIONS**

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

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

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

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

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

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

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

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

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

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

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

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

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

## Effective with August 2015 Letting

### BID PREPARATION

#### Preparing the Proposal Schedule of Items

##### A General

- (1) Obtain bidding proposals as specified in section 102 of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:
  1. Electronic bid on the internet.
  2. Electronic bid on a printout with accompanying diskette or CD ROM.
  3. Paper bid under a waiver of the electronic submittal requirements.

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

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

The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 PM local time on the Thursday before the letting. Check the department's web site after 5:00 PM 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 PM 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](http://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:  
<https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, 4<sup>th</sup> floor, 4822 Madison Yards Way, Madison, WI, during regular business hours.

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

##### B Submitting Electronic Bids

###### B.1 On the Internet

- (1) Do the following before submitting the bid:
  1. Have a properly executed annual bid bond on file with the department.

2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.
- (2) In lieu of preparing, delivering, and submitting the proposal as specified in 102.6 and 102.9 of the standard specifications, submit the proposal on the internet as follows:
  1. Download the latest schedule of items reflecting all addenda from the Bid Express™ web site.
  2. Use Expedite™ software to enter a unit price for every item in the schedule of items.
  3. Submit the bid according to the requirements of Expedite™ software and the Bid Express™ web site. Do not submit a bid on a printout with accompanying diskette or CD ROM or a paper bid. If the bidder does submit a bid on a printout with accompanying diskette or a paper bid in addition to the internet submittal, the department will disregard the internet bid.
  4. Submit the bid before the hour and date the Notice to Contractors designates.
  5. Do not sign, notarize, and return the bidding proposal described in 102.2 of the standard specifications.
- (3) The department will not consider the bid accepted until the hour and date the Notice to Contractors designates.

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

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

**Bidder Name**

**BN00**

**Proposals: 1, 12, 14, & 22**

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

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

### **C Waiver of Electronic Submittal**

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

**PROPOSAL BID BOND**

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)

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

\_\_\_\_\_  
(Signature of Attorney-in-Fact)

**NOTARY FOR PRINCIPAL**

**NOTARY FOR SURETY**

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Date)

State of Wisconsin )  
 ) ss.  
 \_\_\_\_\_ County )

State of Wisconsin )  
 ) ss.  
 \_\_\_\_\_ County )

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

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

\_\_\_\_\_  
(Signature, Notary Public, State of Wisconsin)

\_\_\_\_\_  
(Signature, Notary Public, State of Wisconsin)

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

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

\_\_\_\_\_  
(Date Commission Expires)

\_\_\_\_\_  
(Date Commission Expires)

**Notary Seal**

**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)





**DECEMBER 2000**

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

Instructions for Certification

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

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

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

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

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

## Special Provisions

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## STSP'S Revised July 8, 2021

### SPECIAL PROVISIONS

#### 1. General.

Perform the work under this construction contract for Project 5400-00-72, C Madison, S Blair St/ John Nolan Dr, Wilson/Williamson St Intersection, USH 151; Project 5400-00-73, C Madison, Blair St/ E Washington Av, E Wilson St to Blount St, USH 151; and Project 5400-00-74, C Madison, Blair St/ E Washington Av, E Wilson St to Blount St, USH 151; all projects located in Dane County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2022 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 (20210708)

#### 2. Scope of Work.

The work under this contract shall consist of pavement removal, grading, base aggregate dense, HMA pavement, concrete pavement, Structures S-13-566, S-13-567, and S-13-568, concrete sidewalk, asphaltic surface temporary, concrete curb and gutter, storm sewer, marking, signing, traffic control, signals and lighting, sanitary sewer, erosion control, finishing items, 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.

##### A General

Begin work within 10 calendar days after the engineer issues a written notice to do so.

Provide the start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within 10 calendar days before the approved start date.

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

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

Prior to beginning operations under this contract, submit in writing a proposed schedule of operations and method of coordination and handling traffic to the engineer for approval.

Be advised that there may be multiple mobilizations and/or remobilizations to complete construction operations, for example such items as: HMA pavement, concrete pavement, concrete sidewalk, concrete curb and gutter, traffic control, signing, pavement marking, traffic signals, street lighting, finishing items and other incidental items related to the staging. No additional payment will be made, by the department, for additional mobilizations.

##### B Contractor Coordination and Advance Notification

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

Hold progress meetings once a week. The contractor's superintendent or designated representative and subcontractor's representatives for ongoing subcontract work or subcontractor work to begin within the next two weeks are to attend and provide a written schedule of the next week(s) operations. Include begin and end dates of specific prime and subcontractor work operations. Agenda items to include review of

contractor's schedule and subcontractor's schedule, evaluation of progress and pay items, and revisions if necessary. Plans and specifications for upcoming work will be reviewed to prevent potential problems or conflicts between contractors.

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

Maintain access for mail delivery and garbage/recycling pickup for all properties in the project area.

Notify Madison Metro transit system two weeks prior to construction. Notify one week prior to traffic switches and street closures. Contact Tim Sobota at (608) 261-4289.

Contact and coordinate with City of Madison for signal timing and phasing setup for temporary signals a minimum of two weeks prior to the start of a traffic change or stage. City of Madison contact is Gretchen Aviles Pineiro (608) 266-4899.

Notify the Dane County Regional Airport if any type of crane or lift is to be used. When notifying the airport provide the height of the crane or lift to be used and for what time period it will be used. If the schedule for using the crane or lift changes, immediately contact the airport to make them aware of the change. Provide a minimum of five working days' notice to:

Airport Operations  
(608) 235-1001

### **C Work Restrictions**

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

Once concrete sidewalks are poured, take necessary precautions to preserve the condition of the new concrete items. Any pavement or sidewalk that is damaged shall be replaced at the contractor's expense.

Existing trees, streetlight poles, 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 features for the paving and grading equipment.

Keep USH 151 open to traffic at all times, except as permitted by these special provisions. Provide ingress and egress locations to the engineer ten working days in advance of anticipated use. Do not use the ingress or egress locations until approved by the engineer. Sign and/or use flag persons at the ingress and egress locations as directed by the engineer and according to standard spec 104.6.1.2.2.

Do not switch traffic to the next construction stage until all signing, pavement marking, traffic control devices for the stage are in place, conflicting pavement markings and signs are covered or removed, and as directed by the engineer.

#### **Northern Long-eared Bat (*Myotis septentrionalis*)**

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

According to the final 4(d) rule issued for the NLEB, the department has determined that the proposed activity may affect, but will not result in prohibited take of the NLEB. The activity involves tree removal but will not occur within 0.25 miles of a known hibernacula, nor will the activity remove a known maternity roost tree or any other tree within 150 feet of a known maternity roost tree.

If additional trees need to be removed, no Clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the United States Fish and Wildlife Service (USFWS) and may require a bat presence/absence survey. Notify the engineer if additional Clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary.

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

#### **D Construction General**

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

#### **Interim Completion: Stage 1, All Phases Complete – October 31, 2022**

Complete all removals, grading, base aggregate dense, concrete pavement, asphalt pavement, curb and gutter, concrete sidewalk, pavement marking, signing, lighting, traffic signals, placement of traffic control devices, and restoration necessary for Stage 1, All Phases as shown in the plans by October 31, 2022.

If the contractor fails to complete all removals, grading, base aggregate dense, concrete pavement, asphalt pavement, curb and gutter, concrete sidewalk, pavement marking, signing, lighting, traffic signals, placement of traffic control devices, and restoration necessary to complete Stage 1E by October 31, 2022, the department will assess the contractor \$2,175 in interim liquidated damages for each calendar day that Stage 1E work remains incomplete after 12:01 AM, November 1, 2022. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

#### **Winter Shutdown 2022**

Winter shutdown will commence with the completion of Stage 1 in the Fall of 2022. Do not resume work until March 20, 2023 unless approved by the engineer. Provide a start date in writing at least 14 days prior to the planned recommencement of work in 2023. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

### **4. Traffic.**

#### **General**

The traffic requirements are subject to change at the direction of the engineer in the event of an emergency, local event, or significant traffic delays.

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control as shown on the plans. Submit the plan 14 days before the preconstruction conference, or if after the preconstruction conference, 14 days before the intended use of the revised traffic control. A request does not constitute approval.

Do not disturb, remove, or obliterate any traffic control signs, or advisory signs in place along the traveled roadways without the approval of the engineer. Immediately repair or replace any damage done to the above during the construction operations at contractor's expense.

Provide 24 hours-a-day availability of equipment and forces to expeditiously restore devices such as, but not limited to, pavement marking, lights, signs, drums, barricades, arrow boards or other traffic control devices that are damaged or disturbed. The department will pay for materials that the engineer deems necessary to maintain these items at contract unit prices, or as extra work, if the disturbance or damage is not the result of the contractor's operations, negligence or noncompliance with the requirements of the contract.

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

- Do not park or store any vehicle, piece of equipment, or construction materials within the roadway lateral clearance or on adjacent streets beyond the project limits without approval of the engineer.
- No operations shall take place until all traffic control devices for such work are in the proper location.

- All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic, bicyclists, and pedestrians.
- Equip all vehicles and equipment entering or leaving the live traffic lanes with a hazard identification beam (flashing yellow signal) capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1,000 feet. Activate the beam when merging into or exiting a live traffic lane.
- Do not deliver and store materials and equipment within open travel lanes or open side roads or sidewalks during any stage of construction. Temporary lane closures and/or halting of traffic within open roadways is not permitted unless mentioned specifically below. Flagging operations will be incidental to the work item being performed for the contract according to the standard specifications.

Maintain areas for turning vehicles at all times except for specific construction operations in those areas. Undistributed quantities of Base Aggregate Dense 1 1/4-Inch are included in this contract to accommodate the turning movements.

Maintain a minimum of 1 foot of lateral clearance from the edge of live travel lanes to all traffic control devices.

Do not use flag persons to direct, control, or stop traffic, unless provided written approval from the engineer.

Upon switching traffic to temporary pavement, designate a representative to monitor the condition of the temporary pavement for a period of not less than 8 hours after the switch and prior to beginning any work that may take place upon the existing roadway after completion of the traffic switch. Should the temporary pavement show signs of failure, immediately notify the engineer.

The project includes street lighting and traffic signals. Maintain existing traffic signals and functionality of the lighting system during the project with existing lighting or temporary lighting. Maintain existing traffic signals at intersections until temporary traffic signals are in place and operating at that intersection. The City of Madison Traffic Engineering department will set timing of signals after the contractor has installed the temporary and permanent signals.

### **General Traffic Operations During All Stages**

Maintain one lane of traffic in each direction at all times on USH 151 and intersecting roadways except for closures and detours defined in this article.

Maintain a minimum lane width of 11 feet at all times during construction unless shown otherwise in the plans and provide wider lane widths when shown in the plans.

### **Utility Trench Restrictions**

Limit the length of open utility trenches adjacent to live travel lanes to 100 feet or less. Backfill or plate utility trenches adjacent to live travel lanes during non-working hours.

### **Property Access**

Maintain access to all commercial and private entrances and access for deliveries to all properties at all times for local residents, businesses, emergency vehicles, garbage pickup, deliveries, and postal services on existing pavement, temporary pavement, or base aggregate dense according to the plans or as directed by the engineer. Maintain a minimum travel width of 20 feet for temporary access to business entrances and a minimum travel width of 10 feet for temporary access to residential entrances. Also maintain accommodation for deliveries to properties made from the roadway. Additional intermediate construction staging or staging gaps, not shown on the plans, may be necessary to maintain continuous access to all properties. A minimum of one driveway access shall be maintained at all times for businesses having multiple access points. Contact the property owner 48 hours prior to removing any existing entrance or impacting areas typically used for deliveries from the roadway in order to coordinate temporary closures and delivery schedules. Restore private entrances, including a gravel surface, within 12 hours of removal.

If the contractor coordinates the closure of any access to a business or private property with the owner(s), provide written documentation of coordination with the owner(s) to the engineer, prior to the start of work regarding the access closure.

**Pedestrian Access**

Maintain pedestrian access, including access to all businesses and residences at all times, according to current Americans with Disabilities Act Accessibility Guidelines (ADAAG), within the project limits by means of existing sidewalk, Temporary Pedestrian Surface bid items, Temporary Pedestrian Curb Ramp bid item, or new sidewalk at a minimum width of 5 feet. Preserve the existing sidewalk as long as practicable to maintain pedestrian access. Provide temporary pedestrian access as detailed in the plans and as directed by the engineer. Place Temporary Pedestrian Barricade as shown in the plans and as directed by the engineer. When required as shown in the plans, close sidewalks according to the standard detail drawing “Traffic Control, Pedestrian Accommodation.”

Maintain pedestrian movements crossing the construction zone at the intersections of East Wilson Street/Williamson Street, East Main Street, and East Washington Avenue (USH 151) at all times and as shown in the plans, unless otherwise directed by the engineer or if shown in the plans.

**Madison Metro Transit Access and Bus Stops**

Maintain pedestrian access, according to current ADAAG, within the project limits to all Madison Metro Transit bus stop locations as shown in the plans. Place Temporary Bus Stop Pad as shown in the plans and as directed by the engineer. Closures of bus stops shall be according to the plans. Do not close a bus stop without approval of the engineer. Notify Madison Metro Transit a minimum of one week prior to closing a bus stop.

**Wisconsin Lane Closure System Advance Notification**

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

**TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION**

<b>Closure type with height, weight, or width restrictions (available width, all lanes in one direction &lt; 16 feet)</b>	<b>MINIMUM NOTIFICATION</b>
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Ramp closures	7 calendar days
Detours	7 calendar days
<b>Closure type without height, weight, or width restrictions (available width, all lanes in one direction ≥ 16 feet)</b>	<b>MINIMUM NOTIFICATION</b>
Lane and shoulder closures	3 business days
Ramp closures	3 business days
Modifying all closure types	3 business days

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

**Advance Width Restriction**

Provide advance width restriction signage according to the following table and as shown in the plans:

**ADVANCE WIDTH RESTRICTION BY STAGE**

Stage	Maximum Width (Feet)	
	NB USH 151	SB USH 151
STAGE 1A	11	NA
STAGE 1B, PHASE 1	NA	11
STAGE 1B, PHASES 2 & 3	NA	11
STAGE 1C, PHASE 1	NA	11
STAGE 1C, PHASE 2	10	11
STAGE 1C, PHASE 3	10	11
STAGE 1D, PHASE 1	10	11
STAGE 1D, PHASE 2	10	11
STAGE 1E	11	11
STAGE 2A, PHASE 1	12	NA
STAGE 2A, PHASE 2	12	NA
STAGE 2B	12	NA
STAGE 2C	NA	11
STAGE 2D	NA	10
STAGE 2E, PHASE 1	NA	10
STAGE 2E, PHASE 2	NA	11
STAGE 2F	NA	10
STAGE 2G	11	NA

NA = No advance width restriction signage needed.

**Traffic Control Signs PCMS**

Install Traffic Control Signs PCMS at the project ends to notify motorists of upcoming construction activities one week before the start of construction activities and three days prior to beginning each construction stage or prior to any detour. These timeframes may be adjusted by the engineer.

Provide PCMS along both eastbound and westbound East Washington Avenue (USH 151) for the duration of Stage 1B, Phase 1 and 2 as shown in the plans.

Coordinate the locations of Traffic Control Signs PCMS with the engineer. Obtain acceptance from the engineer for all messages for all Traffic Control Signs PCMS.

**Advance Notification**

Notify City of Madison first responders (police, fire, EMS), Dane County Sheriff’s Department, engineer, City of Madison traffic engineering, Madison Metro Transit, Madison Metropolitan School District, garbage/recycling pick-up companies, and the post office two weeks in advance of all traffic switches, lane closures, road closures, and detours. Notifications should be confirmed with all parties one week before implementation. Parties shall also be notified if a closure is cancelled.

Notify Eric Heggelund, Wisconsin Department of Natural Resources Transportation Liaison at (608) 275-3301 a minimum of two working days prior to beginning construction.

## **Traffic Control Operations**

This information is included to assist the contractor and its subcontractors; do not interpret this information as a demonstration of specified means and methods. Coordinate the schedule of operations for the construction staging as shown in the plans and as noted in these special provisions. Do not move operations within the proposed construction staging unless modifications to the staging and schedule are approved in writing by the engineer. Address traffic, construction, transit, bicyclists, and pedestrians with any proposed staging modifications provided to the engineer.

### **Stage 1A**

#### **Traffic:**

- John Nolen Drive (USH 151): Close the northbound travel lanes to two travel lanes south of Williamson Street using temporary single lane closures to allow for construction of temporary pavement at the East Wilson Street/Williamson Street intersection. Provide temporary signals as shown in the plans.
- South Blair Street (USH 151): No closures. Maintain full access.
- East Washington Avenue (USH 151): No closures. Maintain full access.
- East Wilson Street: Close the eastbound travel lanes to one travel lane as shown in the plans to allow for construction of temporary pavement at the East Wilson Street/Williamson Street intersection. No closures along westbound travel lanes, maintain full access.
- Williamson Street: Close the eastbound travel lanes to one travel lane as shown in the plans to allow for construction of temporary pavement at the East Wilson Street/Williamson Street intersection. No closures along westbound travel lanes, maintain full access.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: No closures. Maintain full access.

#### **Construction:**

- John Nolen Drive (USH 151): Construct temporary pavement in the pork-chop island at the East Wilson Street and Williamson Street intersection.
- South Blair Street (USH 151): No work. Maintain existing pavement.
- East Washington Avenue (USH 151): No work. Maintain existing pavement.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

#### **Pedestrians:**

- Maintain full access.

#### **Capital City Trail:**

- Detour the Capital City Trail along the south side of Williamson Street and the east side of South Blount Street as shown in the plans.



## **Stage 1B, Phase 1**

### ***During the morning peak (7:00 AM to 9:00 AM)***

#### **Traffic:**

- John Nolen Drive (USH 151): Close the northbound travel lanes to two travel lanes using temporary single lane closures and restrict to a dual, right-turn onto Williamson Street to allow for construction of South Blair Street (USH 151). Provide temporary signals as shown in the plans.
- South Blair Street (USH 151): Close northbound South Blair Street (USH 151). Close the southbound travel lanes to one travel lane using temporary single lane closure.
- East Washington Avenue (USH 151): Close the eastbound, outside travel lane from South Blair Street (USH 151) to the west using a temporary single-lane closure and by closing the outside lane as shown in the plans. Close the dual westbound left-turn lanes to a single left-turn lane.
- East Wilson Street: Close the eastbound left-turn lane and restrict left-turns to South Blair Street (USH 151).
- Williamson Street: Close the westbound travel lanes to one travel lane using a temporary single lane closure and restrict to a single, left-turn onto John Nolen Drive (USH 151). Restrict right-turns onto South Blair Street (USH 151) and restrict through movements to East Wilson Street.
- Railroad Street: Close Railroad Street at South Blair Street (USH 151).
- East Main Street: Restrict the west approach of Main Street to right-in/right-out to southbound South Blair Street (USH 151). Close the east approach of East Main Street at South Blair Street (USH 151).
- North Blair Street: Close the center travel lane as shown on the plans.

#### **Construction:**

- John Nolen Drive (USH 151): No work. Maintain existing pavement.
- South Blair Street (USH 151): Construct the trenchless sanitary crossing of the Wisconsin & Southern Railroad and begin construction on northbound South Blair Street (USH 151), and all other associated roadway items as shown in the plans. Construct temporary pavement in the median and pork-chop island at the East Washington Avenue (USH 151) intersection for use in later stages.
- East Washington Avenue (USH 151): No work. Maintain existing pavement.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.
- Railroad Street: Construct the entire roadway.
- East Main Street: No work on the west approach, maintain existing pavement. East approach, construct the entire roadway.
- North Blair Street: No work. Maintain existing pavement.

#### **Pedestrians:**

- Close the following crosswalks at the intersections below:
  - John Nolen Drive/South Blair Street/East Wilson Street/Williamson Street; north and east approaches.
  - Railroad Street; east approach.
  - East Main Street; stage construction to maintain one crosswalk across South Blair Street (USH 151) at all times. Close the crosswalk across the east approach.
  - East Washington Avenue (USH 151); stage construction to maintain the crosswalk across South Blair Street (USH 151) at all times.

- Close existing sidewalk along both sides of South Blair Street (USH 151) to through traffic. Maintain local access at all times.
- Maintain access and transit stops elsewhere as shown in the plans. Maintain existing sidewalk for as long as possible.

**Capital City Trail:**

- Detour the Capital City Trail along the south side of Williamson Street and the east side of South Blount Street as shown in the plans.

**Stage 1B, Phase 1 (Blair Street Closed)**

***During non-morning peak:***

**Traffic:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM) except for the following:

- South Blair Street (USH 151): Close South Blair Street (USH 151).
- East Washington Avenue (USH 151): Close the dual westbound left-turn lanes and restrict left-turns to South Blair Street.
- East Main Street: Close East Main Street at South Blair Street (USH 151).
- North Blair Street: Restrict through movements to South Blair Street.

**Construction:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM) except for the following:

- South Blair Street (USH 151): Construct sanitary sewer, associated laterals, construct temporary pavement for laterals crossing southbound South Blair Street for use by traffic during the morning peak, and construct temporary pavement in the median at the East Wilson Street and Williamson Street intersection, north of the Wisconsin & Southern Railroad Crossing, for use in later stages.

**Pedestrians:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM).

**Capital City Trail:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM).

**Stage 1B, Phase 2**

***During the morning peak (7:00 AM to 9:00 AM)***

**Traffic:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM) except for the following:

- East Washington Avenue (USH 151): Re-open all eastbound travel lanes.
- Williamson Street: Re-open all travel lanes. Restrict right-turns onto South Blair Street (USH 151).

**Construction:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM) except for the following:

- South Blair Street (USH 151): Construct northbound South Blair Street (USH 151), and all other associated roadway items as shown in the plans from north of the Wisconsin & Southern Railroad Crossing to south of East Washington Avenue (USH 151) and maintain traffic and pedestrians as outlined above and below.

**Pedestrians:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM) except for the following:

- Re-open the following crosswalks at the intersections below:
  - John Nolen Drive/South Blair Street/East Wilson Street/Williamson Street; north and east approaches.

**Capital City Trail:**

- No work. Maintain existing pavement and full access.

**Stage 1B, Phase 2 (Blair Street Closed)*****During non-morning peak:*****Traffic:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM) except for the following:

- Williamson Street: No closures. Maintain full access, except, restrict right-turns onto South Blair Street (USH 151).

**Construction:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM).

**Pedestrians:**

Same as Stage 1B, Phase 1 during the morning peak (7:00 AM to 9:00 AM) except for the following:

- Re-open the following crosswalks at the intersections below:
  - John Nolen Drive/South Blair Street/East Wilson Street/Williamson Street; north and east approaches.

**Capital City Trail:**

- No work. Maintain existing pavement and full access.

**Stage 1B, Phase 3**

Weekend closure starting on Friday after 7:00 PM and ending prior to 2:00 PM the following Monday.

**Traffic:**

Same as Stage 1B, Phase 2 during the morning peak (7:00 AM to 9:00 AM) except for the following:

- East Washington Avenue (USH 151): Close and detour eastbound East Washington Avenue as shown in the plans. Close the dual westbound left-turn lanes and restrict left-turns to South Blair Street.
- North Blair Street: Close the western, outside lane and restrict the center lane of North Blair Street to right-turns only onto East Washington Avenue and restrict the eastern, outside lane on North Blair Street to left-turns only onto East Washington Avenue.

**Construction:**

- East Washington Avenue (USH 151): Construct sanitary sewer tie-in at the South Blair Street (USH 151) approach along the eastbound travel lanes. Construct temporary pavement to restore existing pavement impacted by sanitary sewer construction for use by traffic in following stages.

**Pedestrians:**

Same as Stage 1B, Phase 2 during the morning peak (7:00 AM to 9:00 AM).

**Capital City Trail:**

- No work. Maintain existing pavement and full access.

## **Stage 1C, Phase 1**

### **Traffic:**

- John Nolen Drive (USH 151): Restrict northbound John Nolen Drive (USH 151) to two travel lanes using a temporary single lane closure and restrict to a dual, right-turn onto Williamson Street to allow for construction of southbound South Blair Street (USH 151). Close the outside southbound John Nolen Drive (USH 151) travel south of East Wilson Street using a temporary single lane closure as shown in the plans. Provide temporary signals as shown in the plans.
- South Blair Street (USH 151): Continue the closure of northbound South Blair Street (USH 151). Shift southbound South Blair Street (USH 151) traffic to the outside, northbound travel lane using the pavement constructed in previous stages.
- East Washington Avenue (USH 151): Close the eastbound, outside travel lane from South Blair Street (USH 151) to the west using a temporary single-lane closure and by closing the outside lane as shown in the plans. Close the dual westbound left-turn lanes to a single left-turn lane.
- East Wilson Street: Close the eastbound left-turn lane and restrict left-turns to South Blair Street (USH 151). Close the outside, westbound travel lane.
- Williamson Street: Restrict right-turns onto South Blair Street (USH 151).
- Railroad Street: Restrict Railroad Street to left-in/left-out to southbound South Blair Street (USH 151).
- East Main Street: Restrict the east approach of Main Street to left-in/left-out to southbound South Blair Street (USH 151). Close the west approach of East Main Street at South Blair Street (USH 151).
- North Blair Street: Close the center travel lane as shown on the plans.

### **Construction:**

- John Nolen Drive (USH 151): Construct temporary pavement in the median for use in later stages.
- South Blair Street (USH 151): Construct southbound South Blair Street (USH 151), and all other associated roadway items as shown in the plans. The inside, southbound travel lane must be constructed prior to proceeding to Stage 1C, Phase 2.
- East Washington Avenue (USH 151): No work. Maintain existing pavement.
- East Wilson Street: Construct the northern side of East Wilson Street, and all other associated roadway items, as shown in the plans.
- Williamson Street: No work. Maintain existing pavement.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work on the east approach, maintain existing pavement. West approach, construct the entire roadway.
- North Blair Street: No work. Maintain existing pavement.

### **Pedestrians:**

- Close the following crosswalks at the intersections below:
  - John Nolen Drive/South Blair Street/East Wilson Street/Williamson Street; west and north approaches.
  - East Main Street; stage construction to maintain one crosswalk across South Blair Street (USH 151) at all times. Close the crosswalk across the west approach.
  - East Washington Avenue (USH 151); stage construction to maintain the crosswalks across west and south approaches at all times.

- Close sidewalk along the west side of South Blair Street (USH 151) to through traffic. Maintain local access at all times.
- Close sidewalk along the north side of East Wilson Street from Franklin Street to South Blair Street (USH 151). Maintain local access at all times.
- Maintain access and transit stops elsewhere as shown in the plans. Maintain existing sidewalk for as long as possible.

#### **Capital City Trail:**

- No work. Maintain existing pavement and full access.

#### **Stage 1C, Phase 2**

##### **Traffic:**

- John Nolen Drive (USH 151): Shift southbound John Nolen Drive (USH 151) traffic to the inside, northbound travel lane using the temporary widening/cross-overs constructed in the previous stage. Restrict John Nolen Drive (USH 151) traffic to one travel lane in the southbound direction and two travel lanes in the northbound direction separated by traffic control flexible tubular marker posts and drums and provide turn lanes as shown in the plans.
- South Blair Street (USH 151): Shift southbound South Blair Street (USH 151) traffic to the inside, northbound travel lane. Restrict South Blair Street (USH 151) traffic to one travel lane in each direction and provide turn lanes as shown in the plans.
- East Washington Avenue (USH 151): Close the dual westbound left-turn lanes to a single left-turn lane.
- East Wilson Street: Close the eastbound lanes to one travel lane using a temporary single lane closure to allow for construction of the south side of the roadway. Restrict truck right-turns to John Nolen Drive (USH 151).
- Williamson Street: Close the westbound lanes to one travel using a temporary single lane closure.
- Railroad Street: No closures. Maintain full access.
- East Main Street: East approach, no closures, maintain full access. Close the west approach of East Main Street at South Blair Street (USH 151).
- North Blair Street: No closures. Restrict the outside travel lane to right-turns only.

##### **Construction:**

- John Nolen Drive (USH 151): Construct southbound John Nolen Drive (USH 151), and all other associated roadway items as shown in the plans. Construct temporary pavement in the southwest quadrant of the East Wilson Street intersection for use in later stages.
- South Blair Street (USH 151): Continue construction of the outside lane of southbound South Blair Street (USH 151), and all other associated roadway items as shown in the plans.
- East Washington Avenue (USH 151): No work. Maintain existing pavement.
- East Wilson Street: Construct the south side of East Wilson Street, including the outside travel lane, and all other associated roadway items as shown in the plans.
- Williamson Street: No work. Maintain existing pavement.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work on the east approach, maintain existing pavement. West approach, continue construction of the entire roadway.
- North Blair Street: No work. Maintain existing pavement.

**Pedestrians:**

- Close the following crosswalks at the intersections below:
  - John Nolen Drive/South Blair Street/East Wilson Street/Williamson Street; west and south approaches.
  - South Franklin Street/East Wilson Street; east approach.
  - East Main Street; stage construction to maintain one crosswalk across South Blair Street (USH 151) at all times. Close the crosswalk across the east approach.
- Close sidewalk along the west side of South Blair Street (USH 151) to through traffic. Maintain local access at all times.
- Close sidewalk along the south side of East Wilson Street from South Franklin Street to South Blair Street (USH 151) to through traffic. Maintain local access at all times.
- Maintain access and transit stops elsewhere as shown in the plans. Maintain existing sidewalk for as long as possible.

**Capital City Trail:**

- No work. Maintain existing pavement and full access.

**Stage 1C, Phase 3****Traffic:**

Same as Stage 1C, Phase 2 except for the following:

- East Wilson Street: Close the eastbound lanes to one travel lane using a temporary single lane closure and shift to the outside travel lane constructed in the previous stage to allow for construction of the inside and left-turn lanes and roadway median. Restrict right-turns to John Nolen Drive (USH 151).
- Williamson Street: Shift the westbound lanes to north side of the roadway and provide turn lanes as shown in the plans.

**Construction:**

Same as Stage 1C, Phase 2 except for the following:

- East Wilson Street: Eastbound and westbound direction: construct the inside travel lane, left-turn lane and roadway median.

**Pedestrians:**

Same as Stage 1C, Phase 2 except for the following:

- Re-open the following crosswalks at the intersections below:
  - South Franklin Street/East Wilson Street; east approach.

**Capital City Trail:**

- No work. Maintain existing pavement and full access.

**Stage 1D, Phase 1 and 1A****Traffic:**

- John Nolen Drive (USH 151): Shift northbound John Nolen Drive (USH 151) traffic to the inside, southbound travel lane using the temporary widening/cross-overs constructed in a previous stage. Close John Nolen Drive (USH 151) to one travel lane in each direction as shown in the plans, separated by traffic control flexible tubular marker posts and drums north of the crossover location and provide turn lanes as shown in the plans. Restrict left-turns to East Wilson Street.

- South Blair Street (USH 151): Close southbound South Blair Street (USH 151) traffic to one travel lane using a temporary single lane closure approaching East Wilson Street and provide turn lanes as shown in the plans. Provide two travel lanes along northbound South Blair Street (USH 151) as shown in the plans. Restrict left-turns to Williamson Street.
- East Washington Avenue (USH 151): No closures. Maintain full access.
- East Wilson Street: Close the eastbound lanes to one travel lane using temporary single lane closures and provide turn lanes as shown in the plans. Westbound lanes; no closures. Maintain full access.
- Williamson Street: Close the dual westbound left-turn lanes to a single left-turn lane. Close the eastbound lanes to one travel lane using a temporary single-lane closure, to allow construction along the south side of the roadway.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: No closures. Maintain full access.

#### **Construction:**

- John Nolen Drive (USH 151): Construct northbound John Nolen Drive (USH 151) and all other associated roadway items as shown in the plans.
- South Blair Street (USH 151): No work. Maintain existing pavement.
- East Washington Avenue (USH 151): No work. Maintain existing pavement.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: Construct the south side of the eastbound lanes.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

#### **Pedestrians:**

- Close the following crosswalks at the intersections below:
  - John Nolen Drive/South Blair Street/East Wilson Street/Williamson Street; south approach.
- Maintain access and transit stops elsewhere as shown in the plans. Maintain existing sidewalk for as long as possible.

#### **Capital City Trail:**

- Phase 1 - Maintain the existing Capital City Trail pavement until new pavement along northbound John Nolen Drive (USH 151) is constructed.
- Phase 1A - Route the Capital City Trail onto the newly constructed northbound John Nolen Drive (USH 151) pavement and construct the new Capital City Trail pavement as shown in the plans.

#### **Stage 1D, Phase 2**

##### **Traffic:**

Same as Stage 1D, Phase 1 except for the following:

- John Nolen Drive (USH 151): Shift northbound John Nolen Drive (USH 151) traffic to the inside, southbound travel lane using the temporary widening/cross-overs constructed in a previous stage. Close John Nolen Drive (USH 151) traffic to one travel lane in each direction separated by traffic control flexible tubular marker posts and drums north of the crossover location and provide turn lanes as shown in the plans. Maintain the outside, northbound John Nolen Drive (USH 151) travel lane that becomes a right-turn only lane onto Williamson Street in its existing location on existing pavement and pavement constructed in the previous stage.

- East Wilson Street: Close the eastbound lanes to one travel lane using a temporary single lane closure and provide turn lanes as shown in the plans. Restrict through movements to Williamson Street.
- Williamson Street: Close the westbound lanes to one travel lane along the north side of Williamson Street to allow construction in the core of the USH 151 intersection and construction of Concrete Curb & Gutter 36-Inch Median Type D along Williamson Street.

**Construction:**

- John Nolen Drive (USH 151): Construct the core of the East Wilson Street/Williamson Street intersection, and all other associated roadway items as shown in the plans.
- South Blair Street (USH 151): Construct the core of the East Wilson Street/Williamson Street intersection, and all other associated roadway items as shown in the plans.
- East Washington Avenue (USH 151): No work. Maintain existing pavement.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: Construct Concrete Curb & Gutter 36-Inch Median Type D along the westbound lanes.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

**Pedestrians:**

- Close the following crosswalks at the intersections below:
  - John Nolen Drive/South Blair Street/East Wilson Street/Williamson Street; east approach.
- Maintain access and transit stops elsewhere as shown in the plans. Maintain existing sidewalk for as long as possible.

**Capital City Trail:**

- Detour the Capital City Trail along the south side of Williamson Street and the east side of South Blount Street as shown in the plans.

**Stage 1E**

**Traffic:**

- John Nolen Drive (USH 151): Close John Nolen Drive (USH 151) traffic to two travel lanes in the northbound direction. Close the outside southbound John Nolen Drive (USH 151) travel south of East Wilson Street using a temporary single lane closure as shown in the plans and provide turn lanes as shown in the plans to allow for removal of temporary widening in the roadway median and associated restoration. Provide temporary signals as shown in the plans.
- South Blair Street (USH 151): Close southbound South Blair Street (USH 151) traffic to one travel lane using a temporary single lane closure approaching East Wilson Street and provide turn lanes as shown in the plans. Close northbound South Blair Street (USH 151) traffic to one travel lane using a temporary single lane closure as shown in the plans.
- East Washington Avenue (USH 151): No closures. Maintain full access.
- East Wilson Street: Close the eastbound lanes to one travel lane using temporary single lane closures to allow for the removal of temporary widening and restoration in the southwest quadrant of the USH 151 intersection.
- Williamson Street: No closures. Maintain full access.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: No closures. Maintain full access.



**Construction:**

- John Nolen Drive (USH 151): Remove temporary widening in the roadway median and the southwest quadrant of the East Wilson Street intersection and complete restoration, and all other associated roadway items as shown in the plans.
- South Blair Street (USH 151): Remove temporary widening in the roadway median and complete restoration, and all other associated roadway items as shown in the plans.
- East Washington Avenue (USH 151): No work. Maintain existing pavement.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

**Pedestrians:**

- Close the following crosswalks at the intersections below:
  - John Nolen Drive/South Blair Street/East Wilson Street/Williamson Street; stage construction to maintain one crosswalk across USH 151 at all times.
- Maintain access and transit stops elsewhere as shown in the plans. Maintain existing sidewalk for as long as possible.

**Capital City Trail:**

- No work. Maintain full access.

**Stage 2A, Phase 1****Traffic:**

- John Nolen Drive (USH 151): No closures. Maintain full access.
- South Blair Street (USH 151): Close the northbound lanes to one travel lane using a temporary single-lane closure and provide turn lanes as shown in the plans. Restrict left-turns onto East Washington Avenue.
- East Washington Avenue (USH 151): Close the eastbound lanes to one travel lane using a temporary single lane closure and by closing the outside lane as shown in the plans to allow for construction of the outside travel lane. Close the dual westbound left-turn lanes to a single left-turn lane. Provide turn lanes as shown in the plans.
- East Wilson Street: No closures. Maintain full access.
- Williamson Street: No closures. Maintain full access.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: Close the center travel lane as shown on the plans.

**Construction:**

- John Nolen Drive (USH 151): No work. Maintain existing pavement.
- South Blair Street (USH 151): No work. Maintain existing pavement.
- East Washington Avenue (USH 151): Construct the outside travel lane of westbound East Washington Avenue (USH 151) within the South Blair Street intersection, and all other associated roadway items as shown in the plans.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.

- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

**Pedestrians:**

- Maintain full access.

**Capital City Trail:**

- No work. Maintain full access.

**Stage 2A, Phase 2**

**Traffic:**

Same as Stage 2A, Phase 1 except for the following:

- South Blair Street (USH 151): Close the northbound lanes to one travel lane using a temporary single lane closure and provide turn lanes as shown in the plans.

**Construction:**

- East Washington Avenue (USH 151): Construct the outside travel lane of eastbound East Washington Avenue (USH 151) to the east of South Blair Street, and all other associated roadway items as shown in the plans.

**Pedestrians:**

- Maintain full access.

**Capital City Trail:**

- No work. Maintain full access.

**Stage 2B**

**Traffic:**

- John Nolen Drive (USH 151): No closures. Maintain full access.
- South Blair Street (USH 151): Close the northbound lanes to one travel lane using temporary single lane closure and provide turn lanes as shown in the plans. Restrict left-turns onto East Washington Avenue (USH 151).
- East Washington Avenue (USH 151): Close the westbound lanes to two travel lanes using temporary single lane closures and close the eastbound lanes to one travel lane using a temporary single lane closure and by closing the outside lane as shown in the plans to allow for construction of the roadway median and adjacent travel lanes. Provide turn lanes as shown in the plans.
- East Wilson Street: No closures. Maintain full access.
- Williamson Street: No closures. Maintain full access.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: Close the southbound lanes to one travel lane using temporary single-lane closure and provide turn lanes as shown in the plans.

**Construction:**

- John Nolen Drive (USH 151): No work. Maintain existing pavement.
- South Blair Street (USH 151): No work. Maintain existing pavement.

- East Washington Avenue (USH 151): Construct the dual, left-turn lanes along westbound East Washington Avenue (USH 151), the roadway median, the inside, two travel lanes of eastbound East Washington Avenue (USH 151), and all other associated roadway items as shown in the plans.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

**Pedestrians:**

- Maintain full access.

**Capital City Trail:**

- No work. Maintain full access.

**Stage 2C**

**Traffic:**

- John Nolen Drive (USH 151): No closures. Maintain full access.
- South Blair Street (USH 151): Close the South Blair Street (USH 151) northbound left-turn lane at East Washington Avenue (USH 151). Restrict left turns onto East Washington Avenue (USH 151). Provide turn lanes as shown in the plans.
- East Washington Avenue (USH 151): Close the eastbound lanes to one travel lane using a temporary single-lane closure and by closing the outside lane as shown in the plans to allow for construction of the outside travel lane. Close the dual westbound left-turn lanes to a single left-turn lane. Provide turn lanes as shown in the plans. Restrict right-turns onto South Blair Street (USH 151).
- East Wilson Street: No closures. Maintain full access.
- Williamson Street: No closures. Maintain full access.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: Close the center travel lane as shown on the plans. Provide turn lanes as shown in the plans.

**Construction:**

- John Nolen Drive (USH 151): No work. Maintain existing pavement.
- South Blair Street (USH 151): No work. Maintain existing pavement.
- East Washington Avenue (USH 151): Construct the outside travel lane of eastbound East Washington Avenue (USH 151) and sanitary sewer along the west approach to South Blair Street and all other associated roadway items as shown in the plans.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

**Pedestrians:**

- Close the following crosswalks at the intersections below:
  - Stage construction to maintain the crosswalk across East Washington Avenue at all times.
- Maintain access and transit stops elsewhere as shown in the plans. Maintain existing sidewalk for as long as possible.

**Capital City Trail:**

- No work. Maintain full access.

**Stage 2C - Weekend Closure of Eastbound East Washington Avenue**

Weekend closure starting on Friday after 7:00 PM and ending prior to 2:00 PM the following Monday.

**Traffic:**

Same as Stage 2C except for the following:

- East Washington Avenue (USH 151): Close and detour eastbound USH 151 as shown in the plans.

**Construction:**

Same as Stage 2C except for the following:

- East Washington Avenue (USH 151): Construct the center travel lane of eastbound East Washington Avenue (USH 151) along the west approach to South Blair Street, and all other associated roadway items as shown in the plans. Also construct sanitary sewer across eastbound East Washington Avenue.

**Pedestrians:**

Same as Stage 2E.

**Capital City Trail:**

Same as Stage 2E.

**Stage 2D****Traffic:**

- John Nolen Drive (USH 151): No closures. Maintain full access.
- South Blair Street (USH 151): Close the South Blair Street (USH 151) northbound left-turn lane at East Washington Avenue (USH 151). Restrict left-turns onto East Washington Avenue (USH 151). Provide turn lanes as shown in the plans.
- East Washington Avenue (USH 151): Close the eastbound travel lanes to one travel lane using a temporary single-lane closure and by closing the outside lane as shown in the plans to allow for construction of the inside travel lane and roadway median. Close the westbound travel lanes to two travel lanes as shown in the plans to allow for construction of the inside travel lane and roadway median west of South Blair Street. Close the dual westbound left-turn lanes to a single left-turn lane. Provide turn lanes as shown in the plans.
- East Wilson Street: No closures. Maintain full access.
- Williamson Street: No closures. Maintain full access.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: Close the southbound lanes to one travel lane using temporary single-lane closure. Provide turn lanes as shown in the plans. Restrict through movements onto South Blair Street (USH 151) and left turns onto East Washington Avenue (USH 151).

**Construction:**

- John Nolen Drive (USH 151): No work. Maintain existing pavement.
- South Blair Street (USH 151): No work. Maintain existing pavement.
- East Washington Avenue (USH 151): Construct the inside travel lane of eastbound East Washington Avenue, the roadway median along the west approach to South Blair Street, and all other associated roadway items as shown in the plans.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

**Pedestrians:**

- Close the following crosswalks at the intersections below:
  - Stage construction to maintain the crosswalk across East Washington Avenue at all times.
- Maintain access and transit stops elsewhere as shown in the plans. Maintain existing sidewalk for as long as possible.

**Capital City Trail:**

- No work. Maintain full access.

**Stage 2E, Phase 1****Traffic:**

- John Nolen Drive (USH 151): No closures. Maintain full access.
- South Blair Street (USH 151): Close the South Blair Street (USH 151) northbound left-turn lane at East Washington Avenue (USH 151). Restrict left turns onto East Washington Avenue (USH 151). Provide turn lanes as shown in the plans.
- East Washington Avenue (USH 151): Close the westbound lanes to one through lane and one left-turn lane using a temporary single-lane closure as shown in the plans. Provide turn lanes as shown in the plans.
- East Wilson Street: No closures. Maintain full access.
- Williamson Street: No closures. Maintain full access.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: Same as Stage 2D.

**Construction:**

- John Nolen Drive (USH 151): No work. Maintain existing pavement.
- South Blair Street (USH 151): No work. Maintain existing pavement.
- East Washington Avenue (USH 151): Construct the inside, westbound East Washington Avenue (USH 151) travel lane, and all other associated roadway items as shown in the plans.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.

- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

**Pedestrians:**

- Same as Stage 2D.

**Capital City Trail:**

- No work. Maintain full access.

**Stage 2E, Phase 2**

**Traffic:**

Same as Stage 2E, Phase 1 except for the following:

- East Washington Avenue (USH 151): Close the westbound lanes to one travel lane using a temporary dual-lane closure as shown in the plans. Provide turn lanes as shown in the plans.

**Construction:**

Same as Stage 2E, Phase 1.

**Pedestrians:**

- Maintain full access.

**Capital City Trail:**

- No work. Maintain full access.

**Stage 2F**

**Traffic:**

- John Nolen Drive (USH 151): No closures. Maintain full access.
- South Blair Street (USH 151): No closures. Maintain full access.
- East Washington Avenue (USH 151): Close the westbound lanes to one travel lane using a temporary dual-lane closure to allow for construction of the two outside travel lanes. Provide turn lanes as shown in the plans.
- East Wilson Street: No closures. Maintain full access.
- Williamson Street: No closures. Maintain full access.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: Close North Blair Street at East Washington Avenue (USH 151).

**Construction:**

- John Nolen Drive (USH 151): No work. Maintain existing pavement.
- South Blair Street (USH 151): No work. Maintain existing pavement.
- East Washington Avenue (USH 151): Construct the two outside, westbound East Washington Avenue (USH 151) travel lanes, sanitary sewer, and all other associated roadway items as shown in the plans.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.

- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: Construct the entire roadway.

**Pedestrians:**

- Close the following crosswalks at the intersections below:
  - East Washington Avenue (USH 151)/South Blair Street (USH 151)/North Blair Street; west and north approaches.
- Maintain access and transit stops elsewhere as shown in the plans. Maintain existing sidewalk for as long as possible.
- Close sidewalk along the north side of East Washington Avenue (USH 151) from North Blair Street to North Blount Street to through traffic. Maintain local access at all times.

**Capital City Trail:**

- No work. Maintain full access.

**Stage 2G**

**Traffic:**

- John Nolen Drive (USH 151): No closures. Maintain full access.
- South Blair Street (USH 151): Close southbound and northbound South Blair Street (USH 151) traffic to one travel lane in each direction and provide turn lanes as shown in the plans. Restrict left-turns onto East Washington Avenue (USH 151).
- East Washington Avenue (USH 151): Close the eastbound, outside travel lane from South Blair Street (USH 151) to the west using a temporary single-lane closure. Close the dual westbound left-turn lanes to a single left-turn lane. Provide turn lanes as shown in the plans.
- East Wilson Street: No closures. Maintain full access.
- Williamson Street: No closures. Maintain full access.
- Railroad Street: No closures. Maintain full access.
- East Main Street: No closures. Maintain full access.
- North Blair Street: Close the center travel lane as shown on the plans.

**Construction:**

- John Nolen Drive (USH 151): No work. Maintain existing pavement.
- South Blair Street (USH 151): Remove temporary widening in the roadway median and right-turn island along the south approach to the East Washington Avenue (USH 151) intersection and complete restoration, and all other associated roadway items as shown in the plans.
- East Washington Avenue (USH 151): No work. Maintain existing pavement.
- East Wilson Street: No work. Maintain existing pavement.
- Williamson Street: No work. Maintain existing pavement.
- Railroad Street: No work. Maintain existing pavement.
- East Main Street: No work. Maintain existing pavement.
- North Blair Street: No work. Maintain existing pavement.

**Pedestrians:**

- Close the following crosswalks at the intersections below:
  - East Washington Avenue (USH 151); stage construction to maintain the crosswalk across south approach at all times.
- Maintain access and transit stops elsewhere as shown in the plans.

**Capital City Trail:**

- No work. Maintain full access.

**5. Holiday and Special Event Work Restrictions.**

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying USH 151 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 and special event periods:

**2022**

- From noon Friday, May 27 to 6:00 AM Tuesday, May 31 for Memorial Day;
- From noon Friday, July 1 to 6:00 AM Tuesday, July 5 for Independence Day;
- From noon Friday, September 2 to 6:00 AM Tuesday, September 6 for Labor Day;
- From 3:00 PM to 11:59 PM, Monday, October 31 for Halloween;
- Concerts on the Square, starting at 3:00 PM, dates pending;
- Independence Day fireworks show, all day, date pending;
- Downtown apartment move in dates, all day Monday, August 15 and Tuesday, August 16;
- Art Fair on the Square, all day Saturday and Sunday, dates pending;
- University of Wisconsin-Madison spring Graduation, all day, date pending;
- Wisconsin Badger home football games, all day, September 3, 10, 17, and 24, October 15, and November 5 and 26.

**2023**

- From noon Friday, May 26 to 6:00 AM Tuesday, May 30 for Memorial Day;
- From noon Monday, July 3 to 6:00 AM Wednesday, July 5 for Independence Day;
- From noon Friday, September 1 to 6:00 AM Tuesday, September 5 for Labor Day;
- From 3:00 PM to 11:59 PM, Tuesday, October 31 for Halloween;
- Concerts on the Square, starting at 3:00 PM, dates pending;
- Independence Day fireworks show, all day, date pending;
- Downtown apartment move in dates, all day Tuesday, August 15 and Wednesday, August 16;
- Art Fair on the Square, all day Saturday and Sunday, dates pending;
- University of Wisconsin-Madison spring Graduation, all day, date pending;
- Wisconsin Badger home football games, all day, September 2, 16, 23, and 30, October 28, and November 4, 18, and 25.

stp-107-005 (20210113)

**6. Utilities.**

This contract does not come under the provision of Administrative Rule Trans 220.

stp-107-066 (20080501)

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 10 to 12 working days in advance of when the prior work will be completed, and the site will be available to the utility owner. Follow-up with a confirmation notice to the engineer and the utility owner 3 to 5 working days before the site will be ready for the utility owner to begin its work.



Additional detailed information regarding the location of the relocated utility facilities is available on the permits issued to the utility companies.

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this construction project as noted below. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

Prospective bidders are cautioned that the arrangements set forth in this article represent the utility companies' best estimate of their plans to relocate and/or adjust conflicting facilities.

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

There may be discontinued utility facilities within the project limits. If a conflict with a discontinued utility facility is encountered, contact the appropriate utility owner/representative to coordinate construction activities and proper removal and disposal of said facility as necessary.

Known utilities in the project area are as follows and station locations are approximate locations:

### **Project 5400-00-72**

#### **AT&T Legacy (Communications)**

##### General AT&T Legacy Utility Description:

AT&T Legacy has buried fiber-optic cable along the west side of John Nolen Drive (USH 151) from the southern project limit to about Station 46+00 where it crosses John Nolen Drive (USH 151). The buried fiber-optic continues north along the east side of John Nolen Drive (USH 151) where it crosses Williamson Street and then leaves the project area heading east along the north side of Williamson Street. AT&T Legacy also has discontinued fiber-optic cable running through a manhole at Station 49+62, 8 feet LT

##### AT&T Legacy Plans to Address Identified Conflicts:

The existing manhole at Station 49+62, 8 feet LT will be removed prior to construction. The slack coil within the manhole will be cut and removed.

Notify Charlie Conley, (608) 338-3015, prior to starting installation of the railroad signal base at Station 51+02, 44 feet right so a watchdog can be present.

#### **AT&T Wisconsin (Communications)**

##### General AT&T Wisconsin Utility Description:

AT&T Wisconsin has numerous telephone and fiber-optic lines along the project corridor. Buried fiber-optic and copper cable is present along east side of John Nolen Drive and South Blair Street (both USH 151) from Williamson Street to East Washington Avenue (USH 151). Buried fiber-optic crosses South Blair Street (USH 151) at East Main Street.

##### AT&T Wisconsin Plans to Address Identified Conflicts:

AT&T Wisconsin has a buried copper cable that crosses John Nolen Drive and South Blair St at about Station 147+60 SB on the east side of the intersection. This cable will be cut and discontinued prior to construction.

Storm sewer Inlets 130-C and 130-D and the pipe between these structures (Station 49+55 to Station 49+65, 28 feet RT), and the light pole base at Station 49+80, 29 feet RT are in conflict with AT&T Wisconsin's 8-PVC conduit package. Notify AT&T Wisconsin prior to when the existing pavement and sidewalk are removed in these areas. AT&T Wisconsin will adjust existing facilities in place at time of construction. AT&T Wisconsin anticipates relocation work their facilities will take approximately three days to complete.

## **American Transmission Company (ATC)(Electric)**

### General ATC Utility Description:

ATC underground 69 kV electric facilities consist of an energized underground line which crosses Williamson Street immediately east of USH 151 and then crosses John Nolen Drive (USH 151) diagonally at Station 47+75 and continues along the westerly side of John Nolen Drive (USH 151). This pipe varies in depth from about 3 to 6 feet.

### ATC Plans to Address Identified Conflicts:

No conflicts with ATC's pipe is anticipated; however, necessary precautions must be made for work near the following facility locations:

- ATC facilities are surrounded by a thermal backfill for heat dissipation. Typically, this fill is at least one foot around all sides of ATC's pipe. ATC's facilities cross proposed storm sewer at Station 44+90, 27 feet LT and Station 47+80, 0 feet RT and also cross proposed sanitary sewer at Station 49+06, 48 feet RT. Any excavation of thermal fill surrounding the ATC pipe must be replaced in kind. See Fluid Thermal Backfill article.

Do not use mechanical equipment within two feet of ATC's pipe or duct. Use non-pointed hand tools to dig around ATC's pipe or duct. Vacuum is preferred method of excavation.

At no time during excavation shall the ATC pipe be unsupported for a length greater than eight feet. Refer to ATC's GDE-2500 for temporary support of pipe.

Do not park heavy equipment over ATC facilities.

Notify ATC prior to start of excavation. An ATC representative must be on site to observe work around the ATC pipe.

## **Charter Communications (Communications)**

### General Charter Communications Utility Description:

Charter has fiber-optic and coaxial cable lines along the project corridor. Buried fiber-optic cable is present along west side of John Nolen Drive (USH 151) from the southern project limit to East Wilson Street and along the south side of East Wilson Street and Williamson Street. Buried fiber-optic is also present along the east side of South Blair Street (USH 151) and the south side of East Washington Avenue (USH 151) with a crossing of South Blair Street (USH 151) at East Main Street.

Buried coaxial is present along the north side of East Wilson Street between Franklin Street and South Blair Street (USH 151). Buried coaxial cable is also present along west side of South Blair Street (USH 151) from about Station 53+75 to East Main Street.

### Charter Communications Plans to Address Identified Conflicts:

Beginning at about Station 44+75 LT on John Nolen Drive (USH 151) Charter will intercept existing underground fiber optic and coaxial cable and place a new hand-hole. Charter will directional bore across John Nolen Drive (USH 151) and continue north to Williamson Street where they will intercept existing fiber-optic cable. Charter will also directional bore south along the east side of John Nolen Drive (USH 151) to about Station 42+75 where they will bore across John Nolen Drive (USH 151) and continue along the east side of South Hancock Street to East Wilson Street. Charter will continue their bore along the south side of East Wilson Street to South Franklin Street. Existing facilities along the west side of John Nolen Drive (USH 151) north of Station 44+75 LT and along the south side of East Wilson Street between South Franklin Street and east side John Nolen Drive (USH 151) of will be discontinued.

Charter plans to relocate the above facilities prior to construction.

Notify Charter prior to starting installation of the light pole base at Station 45+90, 115 feet LT so a watchdog can be present.

Notify Charter prior to starting installation of new concrete curb & gutter along the south side of East Wilson Street at Station 145+80, 182 feet LT. Charter will lower existing facilities in place at time of construction. Charter anticipates relocation work their facilities will take approximately three days to complete.

## **City of Madison (Communications)**

### General City of Madison Utility Description:

City of Madison has buried fiber-optic cable present along both sides of John Nolen Drive (USH 151), along the south side of East Wilson Street and Williamson Street, along the west side of South Blair Street (USH 151) from Williamson Street to East Washington Avenue (USH 151), along the south side of East Main Street, and along both sides of East Washington Avenue (USH 151). Buried fiber optic crosses USH 151 at the intersections of East Wilson Street and Williamson Street, East Main Street, and East Washington Avenue.

### City of Madison Plans to Address Identified Conflicts:

The city of Madison will re-route fiber-optic cable along South Blair Street (USH 151) to new fiber-optic cable placed along Paterson Street. The city of Madison will re-route fiber-optic cable along John Nolen Drive (USH 151) west along East Wilson Street to the City County building. Existing fiber optic within the project limits will be discontinued.

The city of Madison plans to relocate the above facilities prior to construction.

## **City of Madison (Sanitary Sewer)**

### General City of Madison Utility Description:

The City of Madison has sanitary sewer along the center of South Blair Street (USH 151) from Williamson Street to the north. Sanitary sewer also runs along both sides of East Washington Avenue and along the north side of East Wilson Street.

### City of Madison Plans to Address Identified Conflicts:

City of Madison (Sanitary Sewer) will be adjusted according to the plans. This work will be done as part of project 5400-00-74.

## **Division of Enterprise Technology (Communications)**

### General Division of Enterprise Technology Utility Description:

Division of Enterprise Technology has buried fiber-optic crossing East Wilson Street about 150 feet west of USH 151. The buried fiber-optic enters underground Madison Gas & Electric electrical duct in the median of East Wilson Street and runs jointly with Madison Gas & Electric underground facilities heading east.

### Division of Enterprise Technology Plans to Address Identified Conflicts:

No conflicts are anticipated.

## **Lumen (aka CenturyLink and Level 3) (Communications)**

### General Lumen Utility Description:

Lumen has buried fiber-optic cable running parallel on both sides of the Wisconsin & Southern Railroad. Lumen also has buried fiber-optic cable that crosses South Blair Street (USH 151) along the south side of East Wilson Street.

### Lumen Plans to Address Identified Conflicts:

No conflicts are anticipated.

## **Madison Gas & Electric (Electric)**

### Madison Gas & Electric (Electric)(MGE) Utility Description:

Overhead facilities are located along the north side of East Wilson Street and along the west side of South Blair Street (USH 151) from about Station 53+50 to Station 54+00.

Underground electric facilities are located throughout the project along East Wilson Street, the south side of Williamson Street, the west side of South Blair Street (USH 151) from East Wilson Street to East Washington Avenue (USH 151), and along the north side of East Washington Avenue (USH 151). Underground electric crosses South Blair Street (USH 151) at Railroad Street and East Main Street. The underground electric consists of concrete encased conduit and corresponding manholes are concrete hexagonal structures approximately 11 feet by 11 feet in size.

MGE Electric Relocation Plans to Address Identified Conflicts:

No conflicts with overhead facilities are anticipated.

Existing underground facilities and associated manholes along South Blair Street (USH 151) from about Station 49+50 through the East Washington Avenue (USH 151) intersection are within areas of grading/roadway work and must be worked around. MGE Electric has six manholes located along this section as shown on the plans. No conflicts are anticipated with the manholes; however, the top of the structures will be within the roadway subgrade and need to be worked around. MGE Electric will adjust the access manhole covers to final grade during construction. Contact Justin at MGE Electric, (608) 444-9683 to schedule the work. MGE Electric estimates each manhole cover adjustment will take 4 hours to complete. Between these manholes, MGE Electric has concrete encased conduits that will be located within the roadway subgrade and must be worked around. Coordinate with MGE for onsite facility location assistance as needed during grading and subgrade operations. Exercise care in areas of underground electric conduit during grading operations and also when placing select crushed material.

From the existing MGE Electric manhole at about Station 49+55, 18 feet LT, MGE Electric will place six 5-inch PVC conduits during construction extending approximately 20 feet west to connect to existing stub conduits. MGE estimates this work will take three days to complete. Provide MGE Electric two weeks advance notice prior to when the site will be available for their crews to perform this work.

MGE Electric will relocate the elbow cabinet and transformer box at approximately Station 47+30, 80 feet RT approximately 10 feet to the north into the grass area between existing and proposed multi-use path during construction when the path is detoured during Stage 1D, Phase 1A. MGE Electric estimates this work will take four days to complete. Notify MGE Electric in advance of when the site will be available for their crews to perform this work.

MGE Electric anticipates conflicts with existing underground electrical conduit and proposed storm sewer at Station 49+52, 29 feet LT, and from about Station 49+44, 11 feet LT to about Station 49+55, 30 feet RT. MGE Electric will relocate their conduit during construction. MGE Electric estimates each location will take up to three days to complete. Notify MGE Electric prior to when the existing pavement and sidewalk are removed in these areas and when the site will be available for their crews to perform this work.

**Madison Gas & Electric (Gas)**

Madison Gas & Electric (Gas)(MGE) Utility Description:

Natural gas facilities are located along the north side of East Wilson Street, the west side of South Blair Street (USH 151), and along both sides of East Washington Avenue. Natural gas facilities are also present along the north side of East Main Street where they cross South Blair Street (USH 151).

MGE Gas Relocation Plans to Address Identified Conflicts:

Work during Stage 1C:

MGE Gas will relocate the existing gas main on the north side East Wilson Street at Station 49+90 LT to the north under sidewalk around proposed storm sewer structures. MGE Gas estimates this work will take five days to complete. Notify MGE Gas prior to when the existing pavement and sidewalk are removed in these areas and when the site will be available for their crews to perform this work.

**Madison Metropolitan Sewerage District (MMSD)(Sanitary Sewer)**

General MMSD Utility Description:

MMSD has a 30-inch diameter ductile iron force main that crosses South Blair Street (USH 151) at about Station 49+55. The pipe crossing of South Blair Street (USH 151) is within a 48-inch diameter casing pipe.

MMSD also has a discontinued 20-inch cast iron force main along the east side of South Blair Street (USH 151) and along the median of East Washington Avenue (USH 151). No conflicts with the discontinued force main are anticipated.

MMSD Plans to Address Identified Conflicts:

No conflicts are anticipated; however, along East Wilson Street, under storm sewer structures 135-D and 135-C the top of MMSD's pipe is at approximately elevation 848.2. Exercise care when excavating for these storm sewer structures as the bedding material for these storm sewer structures will be in proximity to the top of the force main pipe.

**Madison Water Utility (Water)**

General Madison Water Utility Description:

The Madison Water Utility has water main along the north side of East Wilson Street, the west side of South Blair Street (USH 151), and the east side of East Washington Avenue (USH 151). Water main is also present along the center of East Main Street where it crosses South Blair Street (USH 151). Water main also crosses Williamson Street about 75 feet east of USH 151.

Madison Water Utility Plans to Address Identified Conflicts:

Madison Water Utility valve boxes will be adjusted according to the plans. This work will be done as part of project 5400-00-74.

**Midwest Fiber Networks (Communications)**

General Midwest Fiber Networks Utility Description:

Midwest Fiber Networks has fiber-optic cable within MGE Electric electrical duct along South Blair Street (USH 151).

Midwest Fiber Networks Plans to Address Identified Conflicts:

No conflicts are anticipated.

**MCI (Communications)**

General MCI Utility Description:

MCI has buried fiber-optic cable along the south side of East Wilson Street which crosses John Nolen Drive (USH 151) at about Station 46+75 and continues east along the south side of Williamson Street.

MCI Plans to Address Identified Conflicts:

MCI will expose their existing conduit at Station 47+18 LT and place two 2-inch conduits to Station 46+77 LT and couple to their existing conduit. Existing conduit between these two locations and the existing hand hole at Station 46+75 LT will be discontinued.

MCI plans to relocate the above facilities prior to construction.

Notify MCI prior to starting installation of the storm sewer at Station 46+90, 55 feet RT so a watchdog can be present.

**PaeTec (aka Windstream) (Communications)**

General PaeTec Utility Description:

PaeTec has buried, discontinued, fiber-optic cable running parallel along the south side of the Wisconsin & Southern Railroad.

PaeTec Plans to Address Identified Conflicts:

No conflicts are anticipated.

## **US Signal (Communications)**

### General US Signal Utility Description:

US Signal has fiber-optic cable within MGE electrical duct along East Wilson Street that crosses South Blair Street (USH 151) and continues to the east running parallel along the south side of the Wisconsin & Southern Railroad.

### US Signal Plans to Address Identified Conflicts:

No conflicts are anticipated.

## **WIN Technology (Communications)**

WIN has fiber-optic cable in a city of Madison pullbox at the southeast corner of South Blair Street (USH 151) and East Washington Avenue (USH 151) intersection that proceeds easterly along the south side of East Washington Avenue (USH 151) for about 60 feet where it then enters the building at 615 East Washington Ave.

### WIN Technology Plans to Address Identified Conflicts:

No conflicts are anticipated.

## **Project 5400-00-73/74**

## **AT&T Legacy (Communications)**

### General AT&T Legacy Utility Description:

Refer to Project 5400-00-72.

### AT&T Legacy Plans to Address Identified Conflicts:

No conflicts are anticipated.

## **AT&T Wisconsin (Communications)**

### General AT&T Wisconsin Utility Description:

Refer to Project 5400-00-72.

### AT&T Wisconsin Plans to Address Identified Conflicts:

Storm sewer Inlets 205-A (Station 51+14, 24 feet RT), 210-A (Station 52+65, 24 feet RT), and 210-B (Station 52+48, 24 feet RT) are in conflict with AT&T Wisconsin's 8-PVC conduit package. Notify AT&T Wisconsin when the existing pavement and sidewalk are removed in these areas. AT&T Wisconsin will adjust existing facilities in place at time of construction. AT&T Wisconsin anticipates relocation work their facilities will take approximately three days to complete for each inlet location.

The overhead sign support base at Station 54+85, 28 feet RT and the proposed pavement and temporary pavement from Station 56+00 to Station 60+00 are in conflict with AT&T Wisconsin's 8-PVC conduit package. Notify AT&T Wisconsin prior to when the existing pavement is removed in these areas. AT&T Wisconsin will adjust existing facilities in place at time of construction. AT&T Wisconsin anticipates relocation work their facilities will take approximately ten days to complete.

## **American Transmission Company (ATC)(Electric)**

### General ATC Utility Description:

Refer to Project 5400-00-72.

### ATC Plans to Address Identified Conflicts:

Refer to Project 5400-00-72.

## **Charter Communications (Communications)**

### General Charter Communications Utility Description:

Refer to Project 5400-00-72.

### Charter Communications Plans to Address Identified Conflicts:

Beginning at the existing handhole at Station 53+75, 26 feet LT and continuing to East Main Street, Charter will place new duct under the sidewalk. The existing handhole at Station 54+40, 26 feet LT will remain. Existing facilities within the roadway terrace from Station 53+75, 26 feet LT to East Main Street will be discontinued. At East Main Street, the duct will continue to a new handhole at about Station 56+07, 51 feet LT and then cross East Main Street to a new handhole at about Station 56+53, 50 feet LT.

From the new handhole at about Station 56+53, 50 feet LT, Charter will lower existing crossings of South Blair Street (USH 151) at Station 56+50 and 56+75 to a depth of 48 inches. The lowered crossing at Station 56+75 will proceed to a new handhole at Station 56+83, 25 feet RT. The lowered crossing at Station 56+50 will intercept existing fiber-optic cable crossing East Main Street and proceed to a new vault at Station 56+50, 63 feet RT.

At Station 57+55, RT, Charter will route existing facilities into the sidewalk to avoid the proposed light pole.

Charter plans to relocate the above facilities prior to construction.

Notify Charter prior to starting installation of sanitary sewer replacement along on East Washington Avenue (USH 151). Charter fiber-optic cable crosses the existing sanitary sewer at Station 230+57, RT and continues southwest, parallel to the existing sewer. Charter will lower in place their fiber-optic cable at time of construction. Charter estimates this work will take approximately three days to complete.

## **City of Madison (Communications)**

### General City of Madison Utility Description:

Refer to Project 5400-00-72.

### City of Madison Plans to Address Identified Conflicts:

Refer to Project 5400-00-72.

## **City of Madison (Sanitary Sewer)**

### General City of Madison Utility Description:

Refer to Project 5400-00-72.

### City of Madison Plans to Address Identified Conflicts:

Refer to Project 5400-00-72.

## **Lumen (aka CenturyLink and Level 3) (Communications)**

### General Lumen Utility Description:

Refer to Project 5400-00-72.

### Lumen Plans to Address Identified Conflicts:

No conflicts are anticipated with the buried fiber-optic facilities. Existing facilities crossing East Main Street are anticipated to be at a depth of about 3.5 feet, placing them about 8 inches below the bottom of subgrade excavation.

Lumen's manhole at Station 56+08, 20 feet RT will require adjustment to match the proposed pavement. Contact Lumen in advance of this manhole being available for adjustment. Lumen anticipates up to three working days to complete the adjustment.

## **Madison Gas & Electric (Electric)**

### Madison Gas & Electric (Electric)(MGE) Utility Description:

Refer to Project 5400-00-72.

### MGE Electric Relocation Plans to Address Identified Conflicts:

No conflicts with overhead facilities are anticipated.

MGE Electric's pole at Station 53+71, 26 feet LT is in proximity to a sanitary lateral replacement. Contact MGE Electric in advance of this lateral being constructed to arrange for this pole to be secured to complete the sanitary sewer lateral work.

Existing underground facilities and associated manholes along South Blair Street (USH 151) from about Station 49+50 through the East Washington Avenue (USH 151) intersection are within areas of grading/roadway work and must be worked around. MGE Electric has six manholes located along this section as shown on the plans. No conflicts are anticipated with the manholes; however, the top of the structures will be within the roadway subgrade and need to be worked around. MGE Electric will adjust the access manhole covers to final grade during construction. Contact Justin at MGE Electric, (608) 444-9683 to schedule the work. MGE Electric estimates each manhole cover adjustment will take 4 hours to complete. Between these manholes, MGE Electric has concrete encased conduits that will be located within the roadway subgrade and must be worked around. Coordinate with MGE for onsite facility location assistance as needed during grading and subgrade operations. Exercise care in areas of underground electric conduit during grading operations and also when placing select crushed material.

MGE Electric will remove the manhole cooling fan house structure at approximately Station 56+00, 42 feet RT prior to construction.

MGE Electric anticipates conflicts with existing underground electrical conduit and proposed storm sewer at Station 51+22, 24 feet LT and at Station 51+64, 23 feet LT. MGE Electric will relocate their conduit during construction. MGE Electric estimates each location will take one day to complete. Notify MGE Electric prior to when the existing pavement and sidewalk are removed in these areas and when the site will be available for their crews to perform this work.

MGE Electric anticipates conflicts with existing underground electrical conduit and proposed sanitary sewer at Station 51+58, 1 foot RT. MGE Electric will cut and remove this empty conduit during construction. MGE Electric estimates this work will take one hour to complete. Notify MGE Electric prior to when the existing pavement and sidewalk are removed in these areas and when the site will be available for their crews to perform this work.

## **Madison Gas & Electric (Gas)**

### Madison Gas & Electric (Gas)(MGE) Utility Description:

Refer to Project 5400-00-72.

### MGE Gas Relocation Plans to Address Identified Conflicts:

Work during Stage 1B:

MGE Gas will relocate existing gas service crossings of South Blair Street (USH 151) at Stations 51+45, 54+60, 58+25, and 58+28 in a similar location at a greater bury depth to avoid conflicts with subgrade grading. MGE Gas estimates this work will take four days to complete.

MGE Gas will relocate the existing 12-inch gas main crossing the northbound lanes of South Blair Street (USH 151) at Station 56+55 in similar location at a greater bury depth to avoid conflicts with subgrade grading. MGE Gas estimates this work will take five days to complete.

MGE Gas will relocate the existing gas main crossing the northbound lanes of South Blair Street (USH 151) at Station 60+10 to cross at Station 60+00 at a greater bury depth. MGE Gas estimates this work will take three days to complete.



#### Work during Stage 1C:

MGE Gas will relocate existing 4-inch gas main along the west side of South Blair Street (USH 151) starting at about Station 55+75, 30 feet LT and proceeding under the west sidewalk to East Washington Avenue (USH 151). At East Washington Avenue (USH 151), the gas main relocate will continue across East Washington Avenue (USH 151) at about Station 227+50 and tie-in to existing gas main at about Station 227+45, 58 feet LT. Existing gas main along the west side of South Blair Street (USH 151) in this location will be discontinued. MGE Gas will also finish relocating the existing 12-inch gas main crossing South Blair Street (USH 151) at Station 56+55 that was partially relocated during Stage 1B. MGE Gas estimates the above 4-inch and 12-inch gas main work will take 25 days to complete.

MGE Gas will finish relocating the existing gas main crossing South Blair Street (USH 151) at Station 60+10 that was partially relocated during Stage 1B. This relocated gas main will tie-into the relocated 4-inch gas main along the west side of South Blair Street (USH 151). Relocation work also includes tying this relocated crossing into existing main at about Station 228+90, 59 feet RT. Existing gas main will be discontinued along the south side of East Washington Avenue (USH 151) from about Station 226+25 to Station 228+90. MGE Gas estimates this work will take two days to complete.

#### Work during Stage 2F:

MGE Gas will complete final tie-ins of gas main relocated previously across East Washington Avenue (USH 151) that tied-in to existing gas main at about Station 227+45, 58 feet LT. This will include new gas main from this previous tie-in location heading north along the west side of North Blair Street to about Station 227+65, 90 feet LT. MGE Gas estimates this work will take five days to complete.

For all the conflicts listed above, notify MGE Gas prior to when the existing pavement and sidewalk are removed in these areas and when the site will be available for their crews to perform this work.

### **Madison Water Utility (Water)**

#### General Madison Water Utility Description:

Refer to Project 5400-00-72.

#### Madison Water Utility Plans to Address Identified Conflicts:

Madison Water Utility will perform a ULO on the water/sanitary sewer crossing at Station 226+56, 18 feet RT in the spring of 2022. Madison Water Utility will adjust the water main vertically to accommodate the sanitary design prior to work beginning along East Washington Avenue in 2023.

Madison Water Utility valve boxes will be adjusted according to the plans. This work will be done as part of project 5400-00-74.

### **Midwest Fiber Networks (Communications)**

#### General Midwest Fiber Networks Utility Description:

Refer to Project 5400-00-72.

#### Midwest Fiber Networks Plans to Address Identified Conflicts:

No conflicts are anticipated.

### **WIN Technology (Communications)**

Refer to Project 5400-00-72.

#### WIN Technology Plans to Address Identified Conflicts:

No conflicts are anticipated.

## **7. Other Work.**

The Department of Administration - Division of Facilities Development and Management has buried steam facilities crossing South Blair Street (USH 151) along the south side of East Wilson Street. There are also buried steam facilities that cross East Washington Avenue (USH 151) at about Station 230+25 and proceed west along westbound East Washington Avenue (USH 151) until it leaves the project limits. If any work exposes jacketed piping, backfill with standard 3/4-inch or less granular fill. Maintain a minimum of 12 inches of granular cover over the jacketed piping.

Division of Facilities Development and Management also has a buried lake water line along the east side of South Blair Street (USH 151) from East Main Street to the south. This is a clay tile line approximately 12 feet below grade. Exercise care when working near this line as the use of heavy equipment over the line has the potential of damaging it.

Five manholes exist for the lake water line within the project limits (Station 47+99, 93 feet RT; Station 49+06, 16 feet RT; Station 49+61, 11 feet RT; Station 53+02, 13 feet RT; and Station 55+99, 12 feet RT). These manholes will be adjusted according to the plans. This work will be done as part of project 5400-00-72 and project 5400-00-73. Notify Division of Facilities Development and Management three working days prior to when these manholes are adjusted for an inspection of the access.

The department has buried fiber-optic cable along the west side of John Nolen Drive (USH 151) that enters a handhole at about Station 45+50, 65 feet LT. From this handhole, WisDOT has fiber-optic cable within AT&T Corporation conduit that crosses John Nolen Drive (USH 151). The buried fiber optic continues north along the east side of John Nolen Drive (USH 151) where it crosses Williamson Street and then leaves the project area heading east along the north side of Williamson Street. No conflicts are anticipated.

The department also has buried fiber optic that feeds a camera at Station 227+35, 10 feet RT. The buried fiber-optic crosses East Washington Avenue at Station 227+28 LT to a handhole at Station 227+28, 55 feet LT where it continues to the east along the north side of East Washington Avenue. The conduit and buried fiber optic feeding the camera at Station 227+35, 10 feet RT will be adjusted according to the plans. This work will be done as part of project 5400-00-73. The department will disconnect the camera prior to the conduit being adjusted as part of the project and reconnect the camera after the adjustments have been completed. Provide the department seven days' notice prior to when the camera needs to be disconnected and prior to when the camera can be reconnected.

## **8. Information to Bidders, WPDES General Construction Storm Water Discharge Permit.**

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting Jamie Grainger, P.E. at (608) 287-4058. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

## **9. Notice to Contractor - Railroad Work During Construction and Additional Notification Requirements.**

NOTE TO REVIEWER: Special provision language that addresses WSOR's work during construction and the pending railroad agreement are being coordinated with the Bureau of Rails and Harbors and WSOR.

## **10. Railroad Insurance and Coordination - Wisconsin and Southern Railroad Company.**

### **A Description**

Comply with standard spec 107.17 for all work affecting Wisconsin and Southern 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 Wisconsin and Southern Railroad Company.

Notify evidence of the required coverage, and duration to Amanda Haggerty, Office Administrator; 1890 E Johnson Street, Madison, WI 53704; Telephone (608) 620-2048; E-mail: [ahaggerty@watcocompanies.com](mailto:ahaggerty@watcocompanies.com).

Also send a copy to the following: Teri Beckman, SW Madison Region Railroad Coordinator; 2101 Wright Street, Madison, WI 53704; Telephone (608) 733-1923; E-mail: [teri.beckman@dot.wi.gov](mailto:teri.beckman@dot.wi.gov).

Include the following information on the insurance document:

- Project ID: 5400-00-52
- Project Location: Madison, Wisconsin
- Route Name: Blair Street, Dane County
- Crossing ID: 177820N
- Railroad Subdivision: Reedsburg
- Railroad Milepost: 133.46
- Work Performed: Reconstruction of the pavement

## **A.2 Train Operation**

Approximately 6 through freight trains operate daily at up to 5 mph to 10 mph. Approximately 10 switching train a day.

## **A.3 Names and Addresses of Railroad Representatives for Consultation and Coordination**

### **Construction Contact**

Roger Schaalma, Superintendent of Maintenance of Way, Wisconsin and Southern Railroad Co.; 1890 East Johnson Street, Madison, WI 53704; Telephone (608) 620-2044; E-mail [rschaalma@watcocompanies.com](mailto:rschaalma@watcocompanies.com) for consultation on railroad requirements during construction.

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

### **Flagging Contact**

See Construction Contact. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

### **Cable Locate Contact**

In addition to contacting Diggers Hotline, contact the Construction Contact at least five working days before the locate is needed. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

WSOR will only locate railroad owned facilities located in the railroad right-of-way. The railroad does not locate any other utilities.

## **A.4 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

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.5 Temporary Grade Crossing**

If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.3 at least 40 days 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.

## **B Railroad Flagging**

Arrange with the railroad for the flagging of trains and safety of railroad operations if clearances specified in standard spec 107.17.1 are not maintained during construction operations. At any other time in railroad representative's judgment, the contractor's work or operations constitute an intrusion into the track zone and create an extraordinary hazard to railroad traffic, and at any other time when flagging protection is necessary for safety to comply with the operating rules of the railroad.

Projects with concurrent activity may require more than one flagger.

Projects with heavy contractor activity within 25 feet of the centerline of any track or unusual or heavy impact on railroad facilities will normally require a full-time flagger.

The department and railroad will monitor operations for compliance with the above flagging requirements. Violations may result in removal from railroad property until arrangements to adhere to the flagging requirements are satisfied. If the railroad imposes additional flagging requirements beyond the above flagging requirements due to the previous violations, the contractor shall bear all costs of the additional flagging requirements.

## **C Flagging by Railroad– Railroad Does Not Pay Flagging Costs**

### **C.1 General**

*Replace paragraph (1,3 and 4) of standard spec 107.17.1 with the following:*

- (1) Coordinate with the railroad for all work performed within 25 feet of the track centerline including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities or when working on railroad right-of-way. Include the following on all submittals and other written communications with the railroad:
  - WisDOT crossing number.
  - Railroad milepost.
  - Railroad subdivision.
- (3) Perform all work within 25 feet of the track centerline including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities or when working on railroad right-of-way in a way that does not interfere with the safe and uninterrupted operation of railroad traffic. Maintain clearances during construction as follows:
  1. Do not operate equipment closer than 25 feet horizontally from a track centerline or 22 feet vertically above the top of a rail, except under the protection of railroad flaggers.
  2. Do not store materials or equipment closer than 25 feet horizontally from a track centerline.
  3. Provide an obstruction-free work zone adjacent to a track extending 12 feet or more horizontally on both sides of the track centerline. Keep this work zone free of construction debris.
  4. Unless the railroad's chief engineering officer approves otherwise in writing, maintain minimum clearances from falsework, forms, shoring, and other temporary fixed objects as follows:
    - 4.1 Provide 12 feet, plus 1.5 inches per degree of track curvature, measured horizontally from the track centerline.
    - 4.2 Provide 21 feet, plus compensation for super-elevated track, measured vertically above the top of the highest rail.
- (4) Comply with the railroad's rules and regulations when work is within 25 feet of the track centerline including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities or when working on railroad right-of-way. If the railroad's chief engineering officer requires, arrange with the railroad to obtain the services of qualified railroad employees to protect railroad traffic through the work area. Bear the cost of these services and make payment directly to the railroad. Notify the appropriate railroad representative as listed in section A.3 above, in writing, at least 40 business days before starting work near a track. Provide the specific time planned to start the operations.

### **C.2 Rates - Wisconsin and Southern Railroad Company**

The following rates, reimbursement provisions, and excluded conditions will be used to determine the contractor's cost of flagging:

- \$95 per hour for up to nine-hours at the work-site per day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),
- \$140 per hour for all hours over nine in any week-day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),
- \$190 per hour for up to nine hours at the work-site on Saturdays (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),
- \$190 per hour for all hours over nine on Saturdays (including wages, labor surcharges, meal, lodging, vehicle and mileage expenses).

\$190 per hour for up to nine hours on Sundays or holidays (including wages, labor surcharges, meal, lodging, vehicle and mileage expenses).

### C.3 Reimbursement Provisions

The actual cost for flagging will be billed by the railroad. After the completion of the work requiring flagging protection as provided in section B above, the department will reimburse 50% of the cost of such services up to the rates provided above based on paid railroad invoices, except for the excluded conditions enumerated below. In the event actual flagging rates exceed the rates stated above, the department will reimburse 100% of the portion of the rate that is greater than the rates stated above.

### C.4 Excluded Conditions

The department will not reimburse any of the cost for additional flagging attributable to the following:

1. Additional flagging requirements imposed by the railroad beyond the flagging requirements provided in subsection B above due to violations by the contractor.
2. Temporary construction crossings arranged for by the contractor.

The contractor shall bear all costs of the additional flagging requirements for the excluded conditions.

### C.5 Payment for Flagging

The department will pay for the department's portion of flagging reimbursement as specified in section C of this provision under the following item:

ITEM NUMBER	DESCRIPTION	UNIT
801.0117	Railroad Flagging Reimbursement	DOL

The reimbursement payment, as shown on the Schedule of Items, is solely for department accounting purposes. Actual flagging costs will vary based on the contractor's means and methods.

Railroads may issue progressive invoices. Notify the railroad when the work is completed and request a final invoice from the railroad. Promptly pay railroad-flagging invoices, less any charges that may be in dispute. The department will withhold flagging reimbursement until any disputed charges are resolved and the final invoice is paid. No reimbursement for flagging will be made by the department if a violation of subsection B is documented.

stp-107-034 (20190717)

## 11. Hauling Restrictions.

Conduct operations in a manner that will cause a minimum of inconvenience to the free flow of traffic on roadways carrying USH 151 traffic at all times.

Use City of Madison designated truck routes for material haul roads.

## 12. Dust Abatement.

*Supplement standard spec 104.6.1 with the following;*

Dry brooming of the pavement will not be allowed.

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 a suitable self-contained particulate collector to prevent discharge from the collection bin into the atmosphere.

## 13. Erosion Control.

*Supplement standard spec 107.20 with the following:*

Erosion control best management practices (BMPs) shown on the plans are at suggested locations. The actual locations will be determined by the contractor's ECIP and by the engineer. Include each dewatering (mechanical pumping) operation in the ECIP submittal. The ECIP will supplement information shown on the plans and not reproduce it. The ECIP will identify how to implement the project's erosion control plan. ECIP will demonstrate timely and diligently staged operations, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-application of topsoil to minimize the period of exposure to possible erosion.

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

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

Re-apply topsoil on graded areas, as designated by the engineer, immediately after grading is completed within those areas. Seed/sod, fertilize, and/or mulch/erosion mat top-soiled areas, as designated by the engineer, within five days after placement of topsoil. If graded areas are left not completed and exposed for more than 14 days, seed those areas with temporary seed.

Keep all public roadways clean and free from dirt and debris at all times. Provide a self-contained mechanical or air conveyance street sweeper and dispose of the accumulated material.

Do not wash out equipment in drainage ways or direct conduits to waters of the state. Keep slurry out of inlets and drainage ways. Remove all temporary erosion control measures after disturbed areas are stabilized or at the direction of the engineer.

**14. 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 7:00 PM until the following 7:00 AM (Sunday night through Saturday morning) and from 7:00 PM until the following 10:00 AM (Saturday night to Sunday morning), unless prior written approval is obtained from the engineer.

stp-107-001 (20060512)

Any changes to the above working hours require the approval of the city of Madison.

**15. Municipality Acceptance of Sanitary Sewer and Water Main Construction.**

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

stp-105-001 (20140630)

**16. Referenced Construction Specifications.**

Construct the work enumerated below conforming to the City of Madison Standard Specifications for Public Works Construction-Latest Edition (City Standard Specifications). If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

Sanitary Sewer—All work required in Project 5400-00-74

stp-105-002 (20130615)

**17. Environmental Protection, Aquatic Exotic Species Control.**

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

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

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels before being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Guidelines from the Wisconsin Department of Natural Resources for disinfection are available at:

<http://dnr.wi.gov/topic/invasives/disinfection.html>

Use the following inspection and removal procedures:

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

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

stp-107-055 (20130615)

## **18. Preservation of Existing Trees.**

Tree preservation is of great importance on the project. Take precautions during construction so as not to disfigure, scar, or impair the health of any tree on public or private property that is not marked for removal. Do not place, park, or store on the surface of any unpaved areas within the drip lines of trees any equipment, vehicles, or materials. Do not deposit any chemicals, rinsates, or petroleum products within the drip lines of trees. The drip line is defined as the outermost extent of the tree canopy, extended vertically to the ground surface. The engineer and the City Forestry Representative will review trees that are in close proximity to the grading limits of the project and will identify specific trees to be protected.

### **Preconstruction Pruning**

Trees larger than 10 inches Diameter Breast Height (DBH) will be pruned by City Forestry to an approximate height of 14 feet above the road wherever construction equipment is expected to invade the tree crown. Pruning will be done according to ANSI A300 tree pruning specifications. Occasionally a limb may have to remain at height less than 14 feet above the roadway. Note these instances during the 'walk through' and employ methods to protect the limb.

### **Excavations**

Do not rip or pull roots out towards the trunk of a tree while excavating. The use of an excavator, backhoe, or loader to cut roots is not acceptable. Immediately cut damaged roots over 1/2-inch in diameter in back of the damaged section. Make cuts with an ax, lopping shears, chainsaw, stump grinder, or other means that will produce a clean cut. Cover any exposed roots as soon as excavation and installation are complete. Root pruning will be paid under the item Root Pruning Trees.

## **Underground Utility Excavation and Installation**

Do not grade, excavate, or disturb the area within 5 feet of any tree measured from the outside edge of the tree at DBH along the length of the terrace, without permission from the City Forestry Representative.

The engineer and the City Forestry Representative will review laterals that are in close proximity to terrace trees on a case by case basis. The engineer may elect to terminate lateral or service installation prior to conflict with tree roots (i.e., at the curb line). For laterals that continue to the property line, use construction methods that minimize tree damage as directed by the engineer. The engineer may allow boring under or within the 5 feet protection zone.

## **Curb and Gutter Removal and Replacement**

Provide extra care to root masses that grow very close to, up to or over the curb during excavation. The City Forestry marks "NRC" (No Root Cutting) next to trees with roots that could be damaged in curb removal.

## **Sidewalk Removal and Replacement**

Provide extra care to root masses that grow very close to the sidewalk during excavation. The City Forestry marks "NRC" (No Root Cutting) next to trees with roots that could be damaged in sidewalk removal.

## **Terrace Restoration**

Do not mechanically grade within 5 feet of any tree. If in the root protection zone, grade with hand implements in a manner that will minimize damage to the root system.

## **Damages**

Failure to follow the proper safeguards of this specification, or the Root Pruning Trees Bid Item will result in the following cost recovery charges and liquidated damages assessed against the contractor:

Where construction damage occurs causing or resulting in removal of the tree, the following damages will be assessed against the contractor:

- The costs associated with removing the tree including wood disposal.
- The costs associated with removing the stump to a depth of at least 24 inches below the ground.
- The costs associated with replanting a replacement tree that is balled and burlapped and a minimum caliper diameter of 3 inches. The species and replanting location will be determined by the City Forestry.
- The value of the existing tree which will equal \$125.00 per trunk diameter inch, measured at 4.5 feet above ground.

For bark scraping and broken branches the following damages will be assessed against the contractor:

- The costs associated with pruning broken branches, including wood disposal.
- Loss of limb or broken branch larger than 3 inches in diameter: \$150.00 for each occurrence. Breakage of limbs that are less than 14 feet above the roadway shall be reviewed on a case by case basis.
- Damage to trunk or bark larger than one square foot in area: \$400.00 each area.

For root cutting or excavation within the root protection zone the following damages will be assessed against the contractor:

- For mechanical excavation within 5 feet of a tree, along the length of the terrace or sidewalk of the tree, including ripping of roots back towards the trunk, without prior permission from City Forestry Representative: \$150.00 for each occurrence.
- For mechanical excavation beyond 6 inches or 1 foot of the proposed curb installation, as determined by the size of the existing tree and terrace width, including ripping of roots back towards the trunk: \$150.00 for each occurrence.



## **19. Signing.**

The City of Madison Traffic Engineering Division will remove existing City of Madison signs and sign posts as shown in the plans. Contact Steve Grob, City of Madison Traffic Engineering at (608) 266-4767 at least five days prior to starting construction to arrange to have signs removed. Sign support bases are to be removed and disposed of by the contractor.

The City of Madison Traffic Engineering Division will be installing bus route, bus stop and bike route signs as shown in the plans. Contact Steve Grob, City of Madison Traffic Engineering at (608) 266-4767 at least five days prior to installing new sign support bases and sign posts to arrange for signing installation.

## **20. Coordination with Businesses and Residents.**

The contractor shall arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week before the start of work under this contract and hold one meeting per month thereafter. The contractor shall arrange for a suitable location for meetings that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for meetings. The contractor shall schedule meetings with at least 2 weeks' prior notice to the engineer to allow for these notifications.

stp-108-060 (20141107)

## **21. General Provisions for Storm Sewer.**

Construct all round and elliptical shape storm sewers according to the pertinent provisions of standard spec 608, and 611, as shown on the plans, and as follows.

Prior to ordering drainage pipes and structures, verify related drainage information in the plan with the engineer. This shall include all information obtained from the bid item "Utility Line Opening" (ULO).

Seal the joints for reinforced concrete pipe with either mastic or internal rubber gaskets as described in standard spec 608.2.1. The use of mortar as a pipe joint method is prohibited.

Lay all round and elliptical shape storm sewers on a 6-inch minimum thick bed of Base Aggregate Dense Graded 1 1/4-Inch according to standard spec 305.2.1 or when water is encountered, No. 1 coarse concrete aggregate according to standard spec 501.2.5.4. Bedding for round and elliptical pipe shall be incidental to the installation costs of the round or elliptical pipe.

Construct catch basins, manholes and inlets using only precast or cast in place concrete masonry options. All structures shall be reinforced concrete. Concrete brick and block options are prohibited.

Construct all structures (manholes and inlets) on a 12-inch minimum thick bed of Base Aggregate Dense Graded 1 1/4-Inch according to standard spec 305.2.1 or when water is encountered, No. 1 coarse concrete aggregate according to standard spec 501.3.6.4.5, and as shown on the plans. Bedding for structures shall be incidental to the installation costs of the structure.

Submit shop drawings for all precast structures to the engineer. The engineer will coordinate with the City of Madison design engineer and shall have three days to approve or reject the shop drawings. Under no circumstance shall a precast structure be brought to or used on the construction site without a written approval of the shop drawing for that structure prior to its use on site.

Do not use station and offset for inlet structures, as given on the storm plans, for final layout of the structure. Determine the curb line in the area of the inlet prior to pouring the inlet structure to assure proper location of the inlet relative to the curb line.

The costs to connect storm sewer to existing structures or pipes, placing the pipe and sealing the joint, will be included in the unit price bid for the pipe of the type, class and diameter used. The cost includes installing a concrete plug in the portion of the abandon pipe that remains in place after completion of storm sewer trench.

## 22. General Provisions for City of Madison Sanitary Sewer.

### Contact Information

City of Madison Engineering

Mark Moder

Phone: (608) 261-9250

Email: [mmoder@cityofmadison.com](mailto:mmoder@cityofmadison.com)

### Utility Standard Specifications

Perform work according to these provisions and the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction and the City of Madison Standard Specifications for Public Works Construction-Latest Edition, hereinafter referred to as the *City Standard Specifications*.

### Work Sequence

Contact the identified person above 10 working days prior to starting work on the sanitary sewer and provide a schedule of operations. Construct sanitary sewer main and laterals in stages according to the traffic control plan and in proper coordination with construction for activities adjacent to the sanitary sewer main.

Provide bypass pumping of sanitary sewage to maintain sanitary sewer service when new sewer access structures are being constructed over the existing mains.

### Shop Drawings and Samples

Submit shop drawings and samples to the engineer and City of Madison Engineering Department as required in these Special Provisions and for the following:

- Sanitary Sewer Pipe Material.
- Sanitary Sewer Access Structure Casting and Manhole Covers Type J (Madison logo lid).
- Sanitary Sewer Internal Chimney Seal.
- Sanitary Sewer Access Structure (4-Foot Diameter; 5-Foot Diameter).
- Sanitary Sewer Cleanout Structure.
- Sewer Electronic Markers.
- Select Fill for Sanitary Sewer.
- Steel Casing Pipe
- Casing Pipe Spacers and End Seal.

Contractor's responsibilities include:

- Review shop drawings and samples prior to submittal.
- Determine and verify field measurements, field construction criteria, catalog numbers and similar data, and conformance with specifications.
- Coordinate each submittal with requirements of work and of Special Provisions.

Notify City Engineer or City Engineer's Representative, in writing, at time of submittal of deviations in submittals from requirements of special provisions.

NOTE: Do not begin any fabrication or work listed above as requiring shop drawings or samples until return of submittals with City Engineer's or City Engineer Representative's approval.

Provide shop drawings containing the following:

- Date of submittal and dates of previous submittals.
- Project title and number.
- Contract identification.
- Names of contractor, supplier, and manufacturer.
- Identification of product, with identification numbers, and drawing and specification section numbers.
- Field dimensions clearly identified.

- Identification of details required on drawings and in specifications.
- Manufacturer and model number (give dimensions and provide clearances).
- Relation to adjacent or critical features or work or materials.
- Applicable standards, such as ASTM, and identification of deviations from contract documents.
- Source of samples and material properties.
- Identification of revisions on re-submittals.
- Eight-inch and 3-inch blank space for contractor and City Engineer stamps.
- Contractor's stamp, signed, certifying to review of submittal, verification of products, field measurement, field construction criteria, and coordination of information with submittal with requirements of work and Special Provisions.

If required by the City Engineer or City Engineer's Representative, resubmit shop drawings that include the following:

- Corrections or changes from previous submittals as indicated by City Engineer or City Engineer's Representative. Re-submittals are required until approved.
- Shop Drawings and Product Data: Review initial drawings or data and resubmit as specified for initial submittal. Indicate changes, which have been made other than those requested by City Engineer.

### **Testing and Acceptance**

Submit materials production and field placement testing results as required by the City Standard Specifications or as required by the City Engineer or City Engineer's Representative. Final acceptance of sanitary sewer and related materials such as backfill, slurry, etc. will come from the City Engineer or City Engineer's Representative.

Allow the City of Madison to sample/test materials as requested. Provide complete copies of required submittals as follows:

Shop Drawings: Six copies.

Sampling/Testing Results: Three copies.

Deliver required copies of submittals and testing results to:

Mark Moder  
 City of Madison, Engineering Main Office  
 City-County Building, Room 115  
 210 Martin Luther King Jr. Boulevard  
 Madison, WI 53703.

Email of submittals will be accepted as a transmittal method ([mmoder@cityofmadison.com](mailto:mmoder@cityofmadison.com)).

The City Engineer or City Engineer's Representative will review and return shop drawings to the contractor within one week of date of receipt.

### **Protection of Sewers**

Take adequate measures to prevent impairment of operation of existing sanitary sewer and storm sewer systems. Prevent construction material, concrete, earth, or other debris from entering sewer or sewer structure.

Divert sewage flow interfering with construction to sanitary sewers leading away from construction area. Prior to commencing excavation and construction of work impacting existing city sewer, submit to City Engineer for review, detailed plans, including routing and connections, required to handle and dispose of sanitary wastes. By reviewing the plan, the City Engineer neither accepts responsibility for adequacy thereof nor for damages to public or private property resulting there from, such responsibilities remain with the contractor.

Sanitary sewer damaged or removed during construction, which is to remain in service, will be restored or replaced to original material and workmanship used for original construction at no additional cost to the City of Madison.

All City of Madison manhole castings removed from sewer access structures (removed, abandoned, or swapped out with a casting elevation adjustment) will be delivered to City Engineering's Service Building, 1600 Emil Street, Madison, WI 53713.

The costs to remove all abandoned utility pipes within the new sanitary sewer pipe trench or new sewer access structure excavation will be included in the unit price bid for the new pipe of the type, class and diameter used. The cost includes installing a concrete plug in the portion of the abandon pipe that remains in place after completion of sanitary sewer trench.

According to the City Standard Specifications, "Pipe to be removed that is in the same trench as a new pipe will not be compensated as remove pipe and will be considered to be incidental to the new pipe installation." Same trench will be considered to be any pipe located with 3 feet horizontally of the pipe being installed.

**City of Madison (sanitary sewer)** has underground facilities located within the project area. Relocation of the underground facilities will be accomplished as part of Contract 5400-00-74 by the contractor. Existing facilities and anticipated proposed relocations are as follows:

- South Blair Street-Center of street (12-inch diameter): Station 48+83 to Station 60+20.
- East Washington Avenue-South side of street (10-inch diameter): Station 226+56 to Station 227+87.
- East Washington Avenue-North side of street (8-inch diameter): Station 229+49 to Station 230+70.
- East Washington Avenue-South side of street (8-inch diameter): Station 229+19 to Station 229+66.
- East Wilson Street-North side of street (12-inch diameter): Station 10+67 to Station 11+05.
- Railroad Street-Center of street (12-inch diameter): Station 20+62 to Station 21+03.

Sanitary sewer removals, replacements, and adjustments are included as part of the project as shown on the plans. Complete all work within the existing right-of-way. Coordinate operations with the City of Madison. Contact Mark Moder, (608) 261-9250.

## **23. General Provisions for Conduit Installation.**

*Supplement standard spec 652 as follows:*

Use Schedule 80 conduit under all traffic areas.

Install all conduit at a minimum depth of 30 inches, unless otherwise approved by the engineer. Solvent weld all joints. Mark the location of each conduit, where conduit crosses traffic areas, by a permanent chiseled arrow or other appropriate permanent stamp in top of the curb head.

Install and connect all conduit to the concrete bases, manholes, handholes, existing conduit, or conduit elbows so as to provide a continuous network, unless otherwise indicated on the plan. All connections shall be watertight. Do not install drainage holes in conduit. Uncover the ends or mid-sections of all existing conduit that is being extended by or incorporated into this project work.

When connections are to be made to an existing conduit, first verify that the existing conduit is fully clear and useable for its entire cross-section and length. When the existing conduit is found to be defective, notify the engineer and do not proceed until the engineer so directs. If the contractor connects to an existing defective conduit without the express direction from the engineer, make any and all necessary repairs and replacements to all conduits, including conduit that was "existing" prior to the contractor starting work. All costs of this work shall be at the expense of the contractor.

Turn up conduits terminating in a non-paved location and not in a structure, and end at terrace finish grade with a PVC cap securely attached, per duct termination detail. Where conduit runs parallel to curb and gutter, place the conduit within 12 inches of the back of the curb, except as directed by the engineer. The engineer will determine termination points not within pull boxes or concrete bases.

Unless the contract provides for installation of cable, cap the ends of each run of conduit with standard conduit caps or otherwise appropriately plug the ends to preclude infiltration of water and soil. Install a pull wire in each conduit, except those with only streetlight wire. A pull wire shall be approximately 4 feet longer than the conduit run and shall be doubled back for at least 2 feet at each terminal. The pull wire shall be #10 AWG copper, stranded, with THHN insulation and green color coding. Install the pull wire within seven days of completing a conduit installation from structure-to-structure.

Use a 6-inch minimum sand padding below the conduit and a 6-inch minimum sand lift above the conduit. Do not backfill trench with any rocks larger than 4 inches in diameter or any foreign debris.

## **24. General Provisions for Traffic Signals.**

Perform all work on the lighting and conduit/pull box system according to the Wisconsin Electrical Code, the applicable provisions of the standard specifications, and these special provisions and plans.

The City of Madison will remove existing traffic signals and “signal only” poles when the temporary signals are in place at each intersection. Contact Michael Benzschawel at the City of Madison Traffic Engineering Shop, (608) 266-9031, to coordinate removal of existing signals and installation of new signals.

Remove existing streetlight poles identified for removal, including those that also have traffic signal equipment on them.

Each pedestrian push button installation shall include “Push Button for Walk Signal” signs. Single direction arrow signing shall also be used with all buttons except two direction arrow signing is needed for single buttons on median poles.

Maintain Interconnect to all traffic signals.

All new electric services shall be metered power, 100 amperes, 120-volt. The Electric service at John Nolen Dr/Wilson St/Williamson St/Blair St shall be a CG-5 time-of-use rate.

Maintain a minimum of 6 feet of separation between any adjacent loop detectors.

The City of Madison will maintain and operate the existing signal at the Blair-E Washington intersection. Supplementary temporary signal indications will be installed by the City of Madison at the South Blair-East Washington Avenue intersection for the various construction phases. Provide a temporary pole and overhead wire at the South Blair-East Washington Avenue intersection as shown on the plans for use by the City of Madison. Once temporary signal indications are operational, the City of Madison will remove wire, poles, signal heads, trombone arm and streetlight that will be affected by construction activities. Provide a minimum of seven working days’ notice to contact Michael Benzschawel at the City of Madison Traffic Engineering Shop, (608) 266-9031, prior to beginning each construction stage. The existing signal poles, conduit and structures at the Blair-E Washington intersection will remain in service and be maintained by the City of Madison throughout the construction project.

## **25. General Provisions for City Electrical Systems.**

### **A. General Requirements**

Perform this work according to the Wisconsin Electrical Code, National Electrical Contractors Association (NECA) electrical construction practices, OSHA and the standard specifications.

Perform all work on the lighting and conduit/pull box system according to the Wisconsin Electrical Code, and applicable provisions of standard spec 659, and these special provisions and plans.

Carefully remove and salvage the steel frames and covers from all pull boxes and manholes to be removed or abandoned, and all street light poles, arms, transformer bases, fixtures, concrete handholes, and associated equipment. Material designated by the city to be saved shall be returned to City Traffic Engineering, 1120 Sayle St, Madison, WI.

Complete electrical work by a journey-worker electrician or be completed by an electrical apprentice under the supervision of a journey-worker electrician. Legal status or standing as a journey-worker and apprentice electricians shall be certified or otherwise documented to the engineer before beginning any electrical work. Electrical work is hereby defined as electrical and related construction required to be performed under the contract by the contractor, according to the standard specifications, contract provisions, standard detail drawings and plan details applicable to electrical construction.

At the pre-construction conference, supply the engineer with a list of names and qualifications of journey-workers and/or electrical apprentices who will or may be working on this contract.

Proof of qualification to do electrical journey-worker level work shall be the “Completion of Apprenticeship” certification card issued by an approved state agency, or a resume showing sufficient electrical education and a minimum of 14,000 hours of varied electrical work experience. All apprentices shall be indentured by an approved state agency.

The contractor is hereby advised that electrical apprentices must work under the terms of their indentures, which require an apprentice be under the direct supervision of a journey worker with the exception of an apprentice in the final year as an apprentice. Any violation, or suspected violation, of these terms will be reported to the Bureau of Apprenticeship Standards.

On completion of the work, test the installation and ensure that it is entirely free of grounds and short circuits. This contract contemplates and intends a complete and operating installation of electrical work. Everything in the form of labor or material necessary for this result is in the intent of the contract.

It must be understood that electrical drawings and details are diagrammatic; they are not intended to be shop drawings. It is expected it may be necessary to move conduit, and/or equipment in some cases, to get a coordinated installation. Such changes are considered part of the contract obligation, without cost to the owner. Do not locate any equipment where its usefulness and/or operation may be affected by the work of other trades, door swing, counter, equipment, etc.

The contractor acknowledges his acquaintance with the plans and specifications and their respective requirements and shall guarantee the electrical system has been installed strictly according to the electrical plans and specifications, using only the best of materials available and installed in a substantial manner by experienced labor. The contractor agrees to replace and/or repair items failing from causes of faulty workmanship, material or design, without extra cost, at any time within one year from the date of final acceptance.

Furnish the City of Madison with service manuals for all items furnished under this contract. Service manuals shall be complete with drawings, diagrams, operation and installation instructions, and parts lists.

New streetlight wire in conduits shall consist of 3#6 and 1#8 green wire. The color coding for the #6 wire shall be one black, one red, and one white.

Ground wires shall have green insulation or be marked with green tape at all junction or pull boxes and at all terminations. Equipment and enclosures shall be grounded, ground connection surfaces shall be cleaned, and connections shall be made so it is impossible to move them.

All maintenance of existing streetlight facilities within the project limits shall be the contractor's responsibility. Maintain the new streetlights until project work is accepted. This work shall be considered incidental to installation of streetlight units, temporary lighting, and no separate compensation will be paid.

Extend existing lighting circuits to feed the new and relocated lights as part of this project. Verify the existing loads of each lighting circuit before adding additional load to a lighting circuit. Loading on any circuit shall not exceed NEC requirements.

Submit one copy of as-built plans, including cable and conduit routing diagrams, wiring of fixtures and other pertinent details, to the engineer and the City of Madison.

Furnish equipment and appliances necessary to test the complete installation of electrical conductors. Test and demonstrate to the satisfaction of the engineer that the circuits are properly connected, continuous and free from short circuits and unspecified grounds, that the circuits are connected according to the manufacturer's wiring layout, and that each circuit is operational. The lighting system shall not be deemed complete until the electrical work has been completed and the electrical systems are found to be in proper working order, including operation for ten consecutive nights without failure.

## **B. Materials**

All materials furnished by the contractor for lighting installation under this contract are subject to approval by the engineer.

Manufacturers shall be responsible for providing materials listed by UL or other approved agencies and all governing codes and ordinances. Materials must bear a UL and/or other approved labels, where possible. Items specified by catalog number or brand name and shop drawing approval will not relieve the manufacturer of this responsibility. All electrical material for which a standard has been established by the Underwriters Laboratories, Inc. shall be furnished and installed under this contract. Material shall have the UL label firmly attached and be listed by UL Listing signifies that the material has passed the established standard testing. All electrical materials shall conform to the latest requirements of the Wisconsin Electrical Code.

All materials, not specified herein, used in the work shall conform to the requirements specified on the plan or the contract special provisions.

Furnish and install incidental items, such as wire nuts, grommets, tape, connectors, and electrical varnish that are obviously necessary to make the proposed system complete from the source of supply to the most remote unit.

Touch up mars and scratches on painted equipment with two coats of synthetic resin enamel or as directed by the engineer.

Furnish a complete list and cut sheets/shop drawings of materials to be furnished and used for lighting. Include the names and addresses of manufacturers, together with catalog numbers, certificates of compliance, specifications, and other product information requested by the engineer. Submit the list and cut sheets/shop drawings within 20 calendar days of the award of the contract. Do not incorporate any materials into the lighting system prior to obtaining the written approval of the engineer. Approval does not change the intent of the specifications. Do not substitute any materials. The contractor is allowed up to two submittals of material for approval. If more than two submittals are required, the contractor will be charged on a time-and-material basis for additional review time with payment made before submittals will be reviewed.

### **C. Splices**

Splices shall comply with standard spec 659.3.2. All splices within a junction box, handhole, etc. shall be of the same type. No splices are allowed in underground pull boxes, except for grounding conductors.

### **D. Circuit Identification**

Accomplish color coding by using cable jackets of the proper color. Code all tails of all splices. Color-code secondary distribution circuits as shown on the plans; the ground conductor shall be green. Each accessible location of underground cable in junction boxes, pull boxes and pole bases shall have a permanent white nylon tag with black lettering, attached in a "flag" manner using a nylon tie, identifying the cabinet and conductor circuit number.

### **E. Branch Circuit Tagouts**

The contractor may at his option work on live circuits or he may disconnect and tag out circuits. Any branch circuit not disconnected and tagged out shall be considered live; restrict work force to those qualified to work on live circuits. Disconnection may be made by disconnecting branches at the overcurrent device. Make tagouts with contractor furnished manufactured electrical warning tags and endorse with the name of the contractor, the date, and the project. Clear all tagouts by the end of the workday.

### **F. Threaded Fasteners**

Liberally coat all threaded fasteners, i.e., screws, and bolts with an approved anti-seize compound. Excepting fasteners inside control cabinets, fasteners up to 1/2-inch in diameter shall be stainless steel.

Provide rust, corrosion and anti-seize protection at threaded assemblies by coating the mating surfaces with Markal (Hightemp E-Z Break), Never-Seez (marine grade), LPS 100, Lubriplate or approved equal.

### **G. Bonding Wire**

Install bonding wire in conduits for equipment grounding. Ground all equipment as required.

### **H. Initial Failures**

The contractor and the engineer shall agree on a time for test burning of completed installations, which is generally toward the end of the contract period. Replace failed lamps, along with any other non-functioning component, for no additional compensation. Only one test burn for the purpose of identifying initial failures will be required. Coordinate supply of replacement lamps with the city.

### **I. Project Construction Staging**

The construction of the new lighting system shall maintain the integrity of the existing lighting systems within and beyond the project limits at all times. Exceptions to this shall only be granted for just cause by the engineer.

### **J. Items of the Same Classification**

All items of the same classification shall be of the same manufacturer and series.

**L. Underground Installation**

Ensure that the engineer has inspected all underground conduit and concrete base forms before backfilling any trench or pouring concrete. Any work completed without such inspection is subject to rejection as unacceptable work and shall be immediately removed and acceptably replaced or otherwise satisfactorily corrected by and at the expense of the contractor. It is the contractor's responsibility to arrange for inspections. There will not be any additional compensation to the contractor for delays and inconvenience associate with arranging and waiting for inspections.

**26. Abandoning Sewer, Item 204.0291.S.**

**A Description**

This special provision describes abandoning existing sewer by filling it with cellular concrete as the plans show and conforming to standard spec 204 and standard spec 501 as modified in this special provision.

**B Materials**

Provide cellular concrete meeting the following specifications: 1 part cement, 1 part fly ash, 8 parts sand, or an approved equal, and water. Provide cement meeting the requirements of standard spec 501.2.4.1 for Type 1 Portland Cement. Provide sand meeting the requirements of standard spec 501.2.7.2. Provide water meeting the requirements of standard spec 501.2.6.

**C Construction**

Fill the abandoned sewer pipe with cellular concrete as the engineer directs. In the event that the sewer cannot be completely filled from existing manholes, tap the sewer where necessary and fill from these locations.

**D Measurement**

The department will measure Abandoning Sewer in volume by the cubic yard, as specified in standard spec 109.1.3.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.  
stp-204-050 (20210708)

**27. Base Aggregate Dense 1 1/4-Inch, Item 305.0120.**

*Add the following to standard spec 305.2.2.1:*

When 1 1/4-Inch base aggregate is >= 50 percent crushed gravel, conform to the following gradation requirements:

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

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

swr-305-002 (20170711)



**28. Protection of Concrete.**

*Supplement standard spec 415.3.16 with the following:*

Provide for a minimum of one concrete finisher to remain on the project site after final finishing of all concrete surfaces until such time as the concrete has hardened sufficiently to resist surface scarring caused by footprints, handprints, or any other type of imprint, malicious or otherwise. Actively and continuously patrol on foot the newly placed concrete and repair any damage to the surface that might be sustained as described above.

The cost for providing the finisher(s), the necessary equipment, and materials is construed to be included in the contract unit price for each concrete item.

**29. Coloring Concrete Custom, Item 405.0200.**

This special provision describes coloring concrete Natural Bark for incorporation full-depth in work constructed under other contract bid items. Conform to standard spec 405 as modified in this special provision.

*Replace standard spec 405.2.1.1(1) with the following:*

- (1) Integrally color concrete using non-fading pigments conforming to ASTM C979.
  - For Natural Bark: use synthetic non-fading iron oxides at a loading of six percent minimum and a maximum loading of eight percent by weight of total cementitious material in the mix. Match the concrete color in reasonably close conformance with color similar to the existing colored concrete located along East Johnson Street between Baldwin Street and First Street in the City of Madison.

*Replace standard spec 405.2.1.1(3) with the following:*

- (3) The department will accept the color based on comparison to color samples available for viewing at along East Johnson Street between Baldwin Street and First Street in the City of Madison.

stp-405-020 (20190618)

**30. Cold Patch, Item 495.1000.S.**

**A Description**

This special provision describes furnishing cold patch and filling potholes and other voids in existing pavement surfaces as the engineer directs.

**B Materials**

Furnish a mixture of course aggregate, natural sand, and MC-250 bituminous material designed to have a workability range of 15-100° F without heating. Ensure that the mixture:

- Adheres to wet surfaces.
- Resists damage from water, salt, and deicing products.
- Requires no mixing or special handling before use.
- Supports traffic immediately after placement and compaction.

Conform to the following gradation:

SIEVE SIZE	PERCENT PASSING (by weight)
1/2-inch (12.5 mm)	100
3/8-inch (9.5 mm)	90 - 100
No. 4 (4.75 mm)	90 max
No. 8 (2.38 mm)	20 - 65
No. 200 (0.074 mm)	2 - 10
Bitumen	4.8 - 5.4

The department will accept cold patch based primarily on the engineer's visual inspection. The department may also test for gradation.

### **C Construction**

Stockpile cold patch on site on a smooth, firm, well-drained area cleared of vegetation and foreign material. Cover the stockpile and ensure that it is easily accessible. Replenish the stockpile throughout the project duration but limit the size at any given time to 10 tons on site unless the engineer approves otherwise. Dispose of unused material at project completion unless the engineer directs otherwise.

Place cold patch by hand. Remove ponded water and loose debris before placement. Compact flush with a tamper, roller, or vehicle tire after placement.

Refill patched areas as necessary to maintain a flush pavement surface until project completion.

### **D Measurement**

The department will measure Cold Patch by the ton, acceptably stockpiled on site.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
495.1000.S	Cold Patch	TON

Payment for Cold Patch is full compensation for providing and maintaining patches; for furnishing and replenishing stockpiled material on-site; and for disposing of excess material at project completion.

stp-495-010 (20160607)

### **31. Inlet Covers Type H; Type H-S.**

Perform this work according to standard spec 611 and as hereinafter provided.

Provide inlet covers with the design as detailed in the plans.

### **32. Manhole Covers Type J-Special.**

Perform this work according to standard spec 611 and as hereinafter provided.

Provide castings according to standard spec 611 and Article 507 of the City Standard Specifications and as shown on the plans. Provide lids with logo per City Standard Specifications Standard Detail Drawing 5.7.16.

### **33. Adjusting Manhole Covers, Item 611.8110.**

This special provision describes adjusting manhole covers conforming to standard spec 611 as modified in this special provision.

Adjust manhole covers located in pavement areas in two separate operations. Initially, remove designated manhole covers along with sufficient pavement to permit installation of temporary cover plate over the opening. Fill the excavated area with asphaltic pavement mixture, which shall remain in place until contract milling and paving operations permit setting the manhole frames to grade. During the second phase, remove the asphaltic pavement mixture surrounding the manhole plus the temporary cover plate, and set the manhole cover to final grade. The department will measure and pay for the items of asphaltic pavement mixture, temporary cover plate, milling, and paving separately.

*Supplement standard spec 611.3.7 with the following:*

Set the manhole frames so that they comply with the surface requirements of standard spec 450.3.2.9. At the completion of the paving, a 6-foot straightedge shall be placed over the centerline of each manhole frame parallel to the direction of traffic. A measurement shall be made at each side of the frame. The two measurements shall be averaged. If this average is greater than 5/8 inches, reset the manhole frame to the correct plane and elevation. If this average is 5/8 inches or less but greater than 3/8 inches, the manhole frame shall be allowed to remain in place but shall be paid for at 50 percent of the contract unit price.

If the manhole frame is higher than the adjacent pavement, the two measurements shall be made at each end of the straightedge. These two measurements shall be averaged. The same criteria for acceptance and payment as above, shall apply.

stp-611-005 (20200629)

**34. Cover Plates Temporary, Item 611.8120.S.**

**A Description**

This special provision describes providing and removing steel plates to cover and support asphaltic pavement and traffic loading at manholes, inlets and similar structures during milling and paving operations.

**B Materials**

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

**C (Vacant)**

**D Measurement**

The department will measure Cover Plates Temporary 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
611.8120.S	Cover Plates Temporary	EACH

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

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

stp-611-006 (20151210)

**35. Underdrains.**

*Supplement standard spec 612.5 as follows:*

Payment for the Pipe Underdrain bid items includes connecting to existing or new storm sewer structures, including any holes required in the structure.

**36. Insulation Board Polystyrene, 2-Inch, Item 612.0902.S.**

**A Description**

This special provision describes furnishing and placing polystyrene insulation board as the plans show.

**B Materials**

Provide polystyrene insulation board that conforms to the requirements for Extruded Insulation Board, AASHTO Designation M230 as modified in this special provision.

Delete flammability requirement.

**B.1 Certification**

Before installation, obtain from the manufacturer a certification indicating compliance and furnish it to the engineer.

**C (Vacant)**

**D Measurement**

The department will measure Insulation Board Polystyrene, 2-Inch by area in square yards of work, completed and accepted.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
612.0902.S	Insulation Board Polystyrene, 2-Inch	SY

Payment is full compensation for all excavation; and for furnishing and placing the insulation board.

stp-612-005 (20030820)

## 37. Fence Safety, Item 616.0700.S.

### A Description

This special provision describes providing plastic fence at locations the plans show.

### B Materials

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

Furnish fence fabric meeting the following requirements.

**Color:** International orange (UV stabilized)

**Roll Height:** 4 feet

**Mesh Opening:** 1 inch min to 3 inch max

**Resin/Construction:** High density polyethylene mesh

**Tensile Yield:** Avg. 2000 lb per 4 ft. width (ASTM D638)

**Ultimate Tensile Strength:** Avg. 3000 lb per 4 ft. width (ASTM D638)

**Elongation at Break (%):** Greater than 100% (ASTM D638)

**Chemical Resistance:** Inert to most chemicals and acids

### C Construction

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

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

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

### D Measurement

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

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

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

stp-616-030 (20160607)

## 38. Fastening Signs to Supports.

*Supplement standard spec 637.3.3.3 as follows:*

Fasten type II and type III signs to 2-inch pipe installations using single or double Morris ring sign brackets from Vulcan Signs, TAPCO (#318), or Decker Supply, or approved equal.

**39. Flexible Tubular Markers.**

*Supplement standard spec 643.3.2 to include the following:*

When fastening flexible tubular marker bases to new pavement or existing pavement to remain, attach the base with an engineer-approved adhesive.

**40. Luminaires Utility LED (Type).**

*Supplement standard spec 659.2 to include the following:*

Provide LED luminaires having a Type-3 medium light distribution pattern and a 3000-degree K color temperature.

**41. Crack and Damage Survey, Item 999.1501.S.**

**A Description**

This special provision describes conducting a crack and damage survey of the residences and business located at:

- 524 East Wilson Street (Hotel Rubie Marie)
- 603 Railroad Street (Former Chicago and Northwestern Train Station)
- 603 Railroad Street (Former Chicago and Northwestern Freight Depot)
- 602 Railroad Street (Former Wisconsin Wagon Company)

This Crack and Damage Survey shall consist of two parts. The first part, performed before construction activities, shall include a visual inspection, digital images, and a written report describing the existing defects in the building(s) being inspected. The second part, performed after the construction activities, shall also include a visual inspection, digital images, and written report describing any change in the building's condition.

**B (Vacant)**

**C Construction**

Before any construction activities, thoroughly inspect the building structures for existing defects, including interior and exterior walls. Electronically submit a written report with the inspector's name, date of inspection, descriptions and locations of defects, and digital images. The intent of the written report and digital images is to procure a record of the general physical condition of the building's interior and exterior walls and foundation.

Use a digital camera capable of producing sharp, grain free, high-contrast colored digital images with good shadow details. Label each digital image with the following information:

ID: \_\_\_\_\_  
 Building Location: \_\_\_\_\_  
 View looking: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Photographer: \_\_\_\_\_

Before the start of any construction activities related to this survey, submit a copy of the written report and digital images to the engineer electronically.

After the construction activities are complete, conduct another survey in the same manner, take digital images, and submit another written report to the engineer electronically.

Instead of digital images, a digital video camera capable of producing sharp, high contrast, colored digital video with good shadow detail may be used to perform this work.

**D Measurement**

The department will measure Crack and Damage Survey as single unit for each location, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
999.1501.S	Crack and Damage Survey	EACH

Payment is full compensation for providing the before and after written reports, and for photographs or video.

stp-999-010 (20210708)

## 42. Abandon Sanitary Sewer–Slurry, Item SPV.0035.01.

### A Description

This work consists of abandoning sanitary sewer pipe with slurry as shown in the plans and as hereinafter provided.

### B Materials

Provide slurry conforming to Type B Slurry Mix as specified in Article 301.9 of the City Standard Specifications.

### C Construction

Abandoning sewer pipe with slurry includes plugging one end of the pipe paid separately under the bid item Abandon Sanitary Sewer–Pipe Plug, and requires the entire pipe be filled with slurry. Vent holes may be required by the engineer to verify there are no voids left in the pipe. Saw cutting and removal of the existing pipe at the limits of abandonment is included in this item. Abandon sewer pipe by plugging the end(s) of the pipe. Maintain service in the existing sewers until the replacement sewers or appropriate bypasses approved by the engineer have been installed, at such time bulkheads or plugs may be placed. Contact and coordinate with other utilities so that they may plug their own facilities.

### D Measurement

The department will measure Abandoning Sanitary Sewer with Slurry by the cubic yard, 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.0035.01	Abandon Sanitary Sewer–Slurry	CY

Payment for all work in abandoning sanitary sewer with slurry as specified herein.

## 43. Root Pruning Trees, Item SPV.0060.01

### A Description

This special provision describes pruning roots of existing terrace or median trees by hand or using a mechanical root cutting machine to allow for excavation; storm sewer, sanitary sewer or water main installation; and paving and curb and gutter operations.

### B (Vacant)

### C Construction

Preserve existing terrace or median trees not shown as being removed on the plans. Prune roots of existing terrace or median trees by hand or using a mechanical root cutting machine to allow for adjacent construction operations. Prune roots along the roadway side of the tree from drip edge to drip edge of the tree.

Cleanly cut roots by hand or by using a sharp clean carbide tipped rotary saw blade. If using a saw, disinfect the blade between cuts to avoid spreading disease. All root cuts shall be made smooth and clean to facilitate root regeneration. Tearing or ripping of roots is not acceptable. Removal of roots using a backhoe or endloader without proper root pruning is not acceptable.

Cover exposed tree roots with mulch and keep moist until backfilling is completed.

Backfilling of the area after removal of the roots shall be performed by the contractor as part of this item according to the pertinent provisions of standard spec 207. Backfilling shall be done by use of hand implements within the dripline of terrace or median trees.

Dispose of tree roots according to standard spec 201. Burning or burying of roots will not be permitted.

Do not conduct root pruning during bud break, shoot growth, or environmentally stressful times such as extreme drought or heat conditions.

**D Measurement**

The department will measure Root Pruning Trees as each individual root pruning trees, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.01	Root Pruning Trees	EACH

Payment is full compensation for all pruning, cutting, covering exposed roots with mulch, and backfilling.

**44. Precast Sign Post Base, Item SPV.0060.02**

**A Description**

This special provision describes constructing and installing precast sign post bases at locations shown on the plans and as hereinafter provided.

**B Materials**

All materials furnished for the work shall meet the requirements for the class of materials named.

Specific reference is made to the following sections of the standard specifications:

Concrete Masonry	section 501
Steel Reinforcement	section 505

Concrete Masonry shall be of a 3,200-psi minimum strength in 28 days. The 2-inch x 24-inch +1/3-inch insert shall be an ASTM Designation 120 A53 Fed Spec P404, Schedule 40 untreated black pipe 2-inch diameter, with a galvanized rigid conduit coupling installed.

**C Construction**

Form the 24-inch by 11-inch precast base according to the details in the plan. Weld the coupling and pipe over 50 percent of the circumference. Center the insert in the base and plumb with the vertical axis of the base, and place so that the coupling is flush 1/8 inch with the top of the troweled surface of the base. The bottom of the insert extends a minimum of 1/8-inch below the base and shall remain open to permit drainage. Weld 3/8-inch by 8-inch reinforcing bar to the insert 8 inches from the top of the base and 8 inches from the bottom of the base to prevent the insert from rotating within the concrete base.

Set the signpost bases at the locations shown on the plans. The center of the finished installation shall be 2 feet 6 inches from the face of the adjacent curb.

Upon request and reasonable notice from the contractor, the engineer will establish and stake the location for the sign post bases. The City of Madison Traffic Engineering Division Staff will verify all signpost base locations.

Coat the threads of the pipe and coupling in the base with graphite grease prior to assembly. Install the base and pipe as a unit, level with the finished grade of the surrounding surface with the pipe plumb. Tamp the material used for backfilling around the base in 6-inch layers to ensure the installation will remain plumb. Provide a one-year warranty that the signpost base installation shall remain plumb.

Remove and dispose of all excess excavation, surplus material and debris resulting from operations and satisfactorily repair and restore other work damaged by operations.

## D Measurement

The department will measure Precast Sign Post Base as each individual precast sign post 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.0060.02	Precast Sign Post Base	EACH

Payment is full compensation for furnishing all materials; for the manufacture of the sign post base; for hauling, handling and installing the sign post base, including backfill.

## 45. Sign Post Base for Concrete Installation, Item SPV.0060.03

### A Description

This special provision describes constructing and installing the sign post bases in concrete sidewalk or pavement at locations shown on the plans and as hereinafter provided.

### B Materials

The 2-inch by 16-inch sign post base shall be an ASTM Designation 120 A53 Fed Spec P404, Schedule 40 untreated black pipe 2-inch diameter, with a galvanized rigid conduit coupling installed.

Waterproof anchoring cement for concrete shall be Unitex, Thorogrip 29/64 or equivalent.

### C Construction

The sign post base shall consist of a 2-inch by 16-inch schedule 40 pipe with attached 2-inch rigid conduit galvanized coupling according to the details in the plan. Weld the coupling and pipe over 100 percent of the circumference.

Set the signpost bases at the locations shown on the plans. The center of the finished installation shall be 5 feet 0 inches (2 feet 6 inches for Advanced Street Name Sign Special installations) from the face of the adjacent curb or from the edge of paved shoulder. Upon request and reasonable notice from the contractor, the engineer will establish and stake the location for the sign post bases. The City of Madison Traffic Engineering Division Staff will verify all signpost base locations.

Box out all installations in hard surfaced areas (concrete) with a round PVC pipe with a minimum diameter of 3-inches or installed by drilling or core drilling a 3-inch hole all the way through the concrete to the base material. If drilling in architectural concrete pavement, cover the surface prior to drilling to protect the surface from drilling slurry. Coordinate all box out locations. With a temporary pipe 4 to 5 feet long, hand-tighten it into the insert. Drive the insert into the base material at a level/plumb position until the insert is flush with the top of the concrete. Shim insert to a level/plumb position with lag bolts or p.k. nails. All shims must be set below the concrete/insert. Remove temporary pipe, replace with permanent pipe, and tighten into insert with large pipe wrench until insert turns. Reset shims or add shims until pipe no longer turns. Retighten pipe and recheck level/plumb/top of concrete with insert. Patch concrete with a waterproof anchoring cement for concrete. Mix patch to a liquid consistency, not a paste. Pour patch until it is flush with the top of the insert. Recheck level/plumb/top of concrete with insert immediately due to fast setting time of cement. Additional cement may be required as it settles. Completed installation shall be level/plumb, solid, and able to support required sign post and signs. Patch shall be flush with adjacent concrete without exposed shims.

Coat the threads of the pipe and coupling in the base with graphite grease prior to assembly. Install the base such that the installed sign post will be plumb. Provide a one-year warranty that the signpost base installation shall remain plumb.

Remove and dispose of all excess excavation, surplus material and debris resulting from operations and satisfactorily repair and restore other work damaged by operations.

### D Measurement

The department will measure Sign Post Base for Concrete Installation as each individual sign post base for concrete installation, acceptably completed.



## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Sign Post Base for Concrete Installation	EACH

Payment is full compensation for furnishing all materials; for the manufacture of the sign post base; for hauling, handling and installing the sign post base, including drilling holes in concrete; and anchoring cement.

## 46. Utility Line Opening (ULO), Item SPV.0060.04.

### A Description

Excavate and uncover utilities for the purposes of determining elevation and potential conflicts, as shown on the plans or as directed by the engineer, and as hereinafter provided.

### B (Vacant)

### C Construction

The excavation will be done in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

The utility line openings will be performed as soon as possible and at least 10 days in advance of proposed utility construction to allow any conflicts to be resolved with minimal disruption. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening will be called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Utility line openings will include a trench up to 5 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Coordinate all utility line openings with the engineer. Do not perform ULOs without engineer's approval. Notify the utility engineers or their agents of this work a minimum of three days prior to the work so they may be present when the work is completed. Verify the need for performing ULOs with the engineer since some of the utilities may have been relocated prior to the start of construction.

Replace pavement open to traffic within 24 hours of the excavation.

### D Measurement

The department will measure Utility Line Opening (ULO) by the unit, acceptably completed. Where utilities are within 5 feet of each other at a potential conflict location, only one utility line opening will be measured.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Utility Line Opening (ULO)	EACH

Payment is full compensation for the excavation required to expose the utility line, backfilling with existing material removed from the excavation, compacting the backfill material, restoring the site, and cleanup.

## 47. Storm Sewer Tap, Item SPV.0060.05

### A Description

This special provision describes tapping various sized storm sewer pipes or culverts into existing structures, including manholes and inlets, or other pipes as detailed on the plans, using Grade A concrete. However, water levels fluctuate in the existing pipes or box culvert and contractor may encounter water levels above flow line of the proposed storm sewer pipe. If this is the case, the contractor shall also comply with standard spec 502.3.5.3. The tapped pipe shall be left flush with the interior wall of the existing pipe. Tuck-point and seal the tap inside and outside using approved mortar as described in the article, "General Provisions for Storm Sewer."

**B (Vacant)**

**C Construction**

The work under these items shall be according to the provisions of standard spec 611, as shown on the plans and as provided herein.

**D Measurement**

The department will measure Storm Sewer Tap as each individual storm sewer tap, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Storm Sewer Tap	EACH

Payment is full compensation for tapping the hole, connection of the pipe (pipe paid separately), furnishing and placing concrete.

**48. Inlet Covers Type DW, Item SPV.0060.06.**

**A Description**

Perform work according to the applicable provisions of standard spec 611 and as detailed in the plans.

**B (Vacant)**

**C (Vacant)**

**D Measurement**

The department will measure Inlet Covers Type DW as each individual Inlet Covers Type DW, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Inlet Covers Type DW	EACH

Payment is full compensation for providing new covers, including frames, grates or lids, all other required materials, and for installing and adjusting each cover.

**49. Slurry Backfill, Item SPV.0060.07**

**A Description**

Utility Mains and Laterals:

Work under this item will include all work, materials, equipment, and incidentals required to install dig-able slurry backfill where proposed utility mains or laterals cross an existing duct packages (electrical or telephone) or storm sewer boxes. This bid item will only be utilized if the vertical separation between the top of the proposed lateral or main and bottom of the duct being crossed is less than 12 inches and where pipe supports are not called out on the plan set. This bid item is intended for locations where the existing duct packages, conduit, or storm sewer lines are larger diameter (24 inches or larger) where hand digging (tunneling) is used to install the proposed utility.

Various underground structures or manholes:

Work under this item will include all work, materials, equipment, and incidentals required to install dig-able slurry backfill where proposed manholes or other underground structures are less than 12 inches apart from other proposed or existing structures or are too close to allow compaction of backfill between them.

**B Materials**

Provide slurry conforming to the following one cubic yard mix:

25 lbs	Type I Portland Cement
300 lbs	Class C Fly Ash
2700 lbs	Sand
50 gallons	Water

**C Construction**

Utility Mains and Laterals:

Install from the bottom of trench to the bottom the existing duct package or storm sewer box being crossed. Use Select backfill to backfill from the top of the slurry to the finished grade on both sides of the duct being crossed. Allow slurry backfill to completely dry before select backfill is placed.

Various underground structures or manholes:

Install between structures only where their proximity to each other does not allow compaction to be attained. Allow slurry backfill to completely dry before backfill is placed.

**D Measurement**

The department will measure Slurry Backfill as each individual slurry backfill, acceptably completed.

For sewer mains and laterals, the department will measure Slurry Backfill for each completed unit for each existing duct package or storm sewer box being crossed that has less than 12 inches of vertical clearance where tunneling is required to install the proposed utility. For various underground structures or manholes, the department will measure Slurry Backfill for each completed unit between two underground structures where compaction cannot be attained.

The amount of slurry backfill is estimated to be approximately one cubic yard per crossing. Any additional Slurry Backfill used will be considered incidental to the contract unit bid price. No extra compensation will be granted for alternate dig-able flowable mix design. For utility mains and laterals, select fill will still be paid for the full length of the pipe being installed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.07	Slurry Backfill	EACH

Payment is full compensation for all excavation; disposing of excess material; furnishing and placing backfill.

**50. Street Light Removal, Item SPV.0060.08.**

**A Description**

This special provision describes removing and salvaging a base mounted light pole, direct bury light pole, transformer bases, arm, and luminaire.

**B (Vacant)**

**C Construction**

Contact Gretchen Aviles Pineiro, (608) 266-4899, at least seven days prior to removing any street lights on the City of Madison lighting systems. Arrange a meeting to document the existing condition of all street lighting materials that will be affected by construction activities.

The City of Madison will provide the following information:

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

When removing existing street lights, carefully remove and stockpile all equipment at a location approved by the engineer. Place all equipment on blocks so as not to be in direct contact with the ground. Protect luminaires from moisture. Either reinstall lights as the plans show or make available for City of Madison to pick up and salvage. Properly dispose of any equipment that the city does not salvage.

Replace any equipment damaged in the removal process with equipment that is of greater or equal quality than the damaged piece.

See the "Temporary Lighting" article for additional information on maintaining lighting operation in areas as noted.

**D Measurement**

The department will measure Street Light Removal as each individual removing street light, 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.0060.08	Street Light Removal	EACH

Payment is full compensation for removals, salvaging and stockpiling; and disposal as needed.

**51. Locate and Reference Property Corners, Item SPV.0060.09.**

**A Description**

This work consists of locating and referencing existing property corners within or adjacent to temporary limited easements. Locate and provide adequate reference ties for existing property corners which may be disturbed during construction such that the original monument position may be re-established upon completion of construction.

**B (Vacant)**

**C Construction**

Approve the methods with the engineer prior to beginning the work. Use a degree of accuracy for the survey work consistent with A-E 7.06 of the Wisconsin Administrative Code.

**D Measurement**

The department will measure Locate and Reference Property Corners as each individual locate and reference property corners, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.09	Locate and Reference Property Corners	EACH

Payment is full compensation for furnishing all survey work necessary to locate and reference the landmark, and for resetting damaged monumentation.

All survey notes and computations used in referencing property corners shall be given to the engineer within 21 days of completing work under the above item and must be received before final payment for the work will be made.

**52. Reset Property Corners, Item SPV.0060.10.**

**A Description**

This work consists of the setting of property corners that have been damaged or destroyed during construction operations which were unavoidable. Note that this item does not apply to items damaged due to negligence or relieve the contractor of other responsibilities as outlined in standard spec 107.11.

**B Materials**

Match the original monumentation requirements for Reset Property Corners to meet the minimum requirements below:

Round iron bars at least 24 inches (610 mm) long and weighing not less than 1.5 pounds per linear foot (2.23 kg/m).”

**C Construction**

When drive-in monuments are to be used, drive them into the ground with the top flush with the surface. In unstable soils the increase the depth as directed by the engineer to obtain a suitable foundation for the monument. No additional compensation will be made for the increased depth of monument

**D Measurement**

The department will measure Reset Property Corners as each individual reset property corners, 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.0060.10	Reset Property Corners	EACH

Payment is full compensation for furnishing, placing, and adjusting property corners.

**53. Marking Yield Line Epoxy 30-Inch, Item SPV.0060.11.**

**A Description**

Perform the work under this item as shown in the plans and according to the applicable provisions of standard spec 646 and as detailed.

**B (Vacant)**

**C (Vacant)**

**D Measurement**

The department will measure Marking Yield Line Epoxy 30-Inch as each individual marking yield line epoxy 30-inch, 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.0060.11	Marking Yield Line Epoxy 30-Inch	EACH

**54. Temporary Traffic Signals John Nolen Drive-South Blair Street, Item SPV.0060.12.**

**A Description**

This special provision describes installing temporary traffic signals for intersections, using overhead electrical wiring to temporary traffic signal poles and temporary supports, and providing non-intrusive vehicle detection according to standard spec 661 and as amended herein.

**B Materials**

Furnish and use materials according to standard spec 661.2 and as amended herein.

**B.1 Signal Poles and Signal Faces**

Furnish new or used poles and traffic signal standards for use in temporary signals conforming to the pertinent requirements of standard spec 657 and 661. Furnish signal faces according to standard spec 661.2.2.2.

## **B.2 Signal Cabinet**

Furnish new or equivalent to new materials as specified in standard spec 661.2 and as follows:

### **B.2.1 Controller**

Furnish a new or equivalent to new Econolite ASC3-2100 controller with Telemetry Module. The controller shall be compatible with the City of Madison closed loop system (CLS).

### **B.2.2 Conflict Monitor**

Furnish a new or equivalent to new NEMA+ 12-Channel Signal Conflict Monitor, with LCD display, and an Ejector Tab card release on side of card.

Provide keys to the temporary signal control cabinet to the City of Madison in addition to other required keys according to standard spec 661.2.1.

## **B.3 Luminaires**

Furnish luminaire arms and luminaries conforming to the pertinent requirements of standard spec 657 and 659. The luminaries shall be 250-watt, full cutoff, LED and shall be furnished with photo electric cells to turn the luminaire on and off.

## **B.4 Pre-emption Hardware, Cable, and Equipment**

Furnish and install Optical signal preempt for the temporary signals. All approach directions each need to be detected and brought back individually to the signal control cabinet.

## **B.5 Vehicle Detection Hardware, Cable, and Equipment**

The contractor, with prior approval of the engineer and the City of Madison, shall select the vehicle detection technology best suited for the site conditions and the anticipated construction work zones and activities. The engineer reserves the right to request a demonstration of any or all temporary vehicle detection technologies prior to said approval. Vehicle detection technologies considered shall include, but are not limited to, temporary inductive loops, microwave detection, or video detection. Detection technology shall provide for true presence detection.

Damage to new pavement for temporary detection loops will not be allowed. Any pavement damaged during installation shall be replaced at the contractor's expense.

## **C Construction**

### **C.1 General**

*Revise standard spec 661.3.1(2) as follows.*

Request a signal inspection of the complete temporary traffic signal installation. Make this request to the engineer at least 5 working days before the requested inspection. The City of Madison traffic signal personnel will perform the traffic signal inspection.

The City of Madison will load the timing programs into the controller. Do not use new permanent signal conduit for temporary signal wiring. Provide horizontal and vertical clearance between sidewalks and guy wires.

Arrange for all required electrical service modifications with the utility. Pay all utility company installation costs for modifications required to maintain the Temporary Traffic Signal.

Locate and avoid all underground and aboveground utilities and structures. Install temporary supports as required to avoid conflicts with proposed curb and gutter, sidewalk, and traffic signal poles. The engineer will approve the final location of wood poles prior to installation.

Use of self-supporting poles will likely be required due to limited right-of-way limitations and depending on contractor operations.

Maintain temporary signals throughout the construction of the project, until such time that the new signals are operational and have been accepted by and turned over to the city.

### **C.2 Signal Heads**

Install signal heads for the same vehicle travel direction at a minimum of 11 feet from each other. Move signal heads as necessary or as directed by the engineer.

### **C.3 Cabinet**

Require a representative from the cabinet supplier on-site at the time of the turn on. Install equipment in the cabinet as follows:

#### **C.3.1 Controller**

Install the controller and ensure that it is operational as part of the City of Madison closed loop system.

#### **C.4 Luminaires**

Install luminaire arms and luminaires conforming to the pertinent requirements of standard spec 657 and 659.

#### **C.5 Pre-emption Hardware, Cable, and Equipment**

Install detector cards, sensors, cables, and all required ancillary equipment, appurtenances and mounting hardware at the temporary signals to provide a fully functioning pre-emption system. Arrange testing of the pre-emption system with the Electrical Operations Lead Worker at the City of Madison Traffic Engineering Shop, (608) 266-9031, before turn-on of the temporary signal.

Maintain railroad preemption at all times. Coordinate with the engineer, City of Madison Traffic Engineering, and the Wisconsin and Southern Railroad regarding preemption for the railroad. Maintaining the preemption will require temporary aerial cable and temporary poles to maintain the interconnect cable/connection between the railroad bungalow on the south-east corner or the intersection and the temporary controller cabinet for temporary signals for the South Blair Street and John Nolen Drive intersection.

#### **C.6 Vehicle Detection Hardware, Cable and Equipment**

Install detector cards, sensors, cables and all required ancillary equipment, appurtenances and mounting hardware at the temporary signals to provide a fully functioning vehicle detection system for all approaches. The desired vehicle detection zones and temporary signal phasing are shown on the plans.

Arrange testing of the temporary detection system with Mike Benzschawel, (608) 266-9031, before turn-on of the temporary signal.

Adjust, relocate, add, or remove temporary vehicle detection equipment for each traffic control stage or sub stage as shown in the plans, requested by the engineer, or as modified by the contractor's operations to maintain the required traffic and complete the proposed work. Damage to new pavement for temporary detection loops will not be allowed. Any pavement damaged during installation shall be replaced at the contractor's expense.

#### **C.7 Maintenance**

When a signal installation or signal head is not in operation, hood, turn, or take down the signal head(s) to clearly indicate that the signal is not in operation. (See MUTCD 4D-1).

Provide immediate response, 24-hour/7 days per week, to maintain any aspect of the temporary vehicle detection that is defective, completing repairs or adjustment the same day as notification.

#### **C.8 Contractor Qualifications**

Demonstrate the ability to operate all required traffic signal equipment listed in this special provision for the engineer and the City of Madison prior to starting work. Provide proof of the ability to obtain all required traffic signal equipment listed in this special provision to the engineer and the City of Madison prior to starting work.

### **D Measurement**

The department will measure Temporary Traffic Signals (Location) as each individual temporary traffic signals (location), acceptably completed and according to standard spec 661.4.

If repairs or adjustments to restore vehicle detection to full function are not made the same day as notification, the associated pay item shall be reduced by the following amounts:

- First instance: No deduct if repaired within 24 hours.
- Each subsequent instance: 5% deduct for each day or partial day of non-compliance.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.12	Temporary Traffic Signals John Nolen Drive-South Blair Street	EACH

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

1. Providing replacement equipment.
2. All utility charges for installation and disconnection. The City of Madison will pay for energy costs.
3. The cost of delivery and pick-up of the cabinet assemblies for department testing.

## 55. Temporary Traffic Signal Wood Poles and Span Wire Blair Street-East Washington Avenue, Item SPV.0060.13.

### A Description

This special provision describes providing wood poles and span wire for the Blair Street and East Washington Avenue intersection according to standard spec 661 and as amended herein.

### B Materials

Furnish and use materials according to standard spec 661.2 and as amended herein. Provide wood poles, and all associated guy, span, tether, and messenger wire for use by the city of Madison. The city of Madison will be responsible for all electrical wiring, electrical service, temporary signal head placement and maintenance, control cabinet and signal controller, and electrical service charges.

### C Construction

Provide a temporary signal poles and span wire at the Blair Street and East Washington Avenue intersection as shown on the plans for use by the City of Madison. Provide a minimum of seven working days' notice to contact Michael Benzschawel at the City of Madison Traffic Engineering Shop, (608) 266-9031 prior to beginning each construction stage. Existing signal poles, conduit and structures at the Blair Street and East Washington Avenue intersection will remain in service unless shown otherwise in the plans and be maintained by the City of Madison throughout the construction project.

### D Measurement

The department will measure Temporary Traffic Signal Wood Poles and Span Wire Blair Street-East Washington Avenue as each location, acceptably completed and according to standard spec 661.4.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.13	Temporary Traffic Signal Wood Poles and Span Wire Blair Street-East Washington Avenue	EACH

Payment is full compensation for providing the temporary pole and associated guy, span, tether, and messenger wire installations, for removal of the temporary installation, coordinating with the city of Madison, and providing replacement equipment.

## 56. Project Dewatering ID 5400-00-72, Item SPV.0060.14; Project Dewatering ID 5400-00-73, Item SPV.0060.18; Project Dewatering ID 5400-00-74, Item SPV.0060.19.

### A Description

This section describes dewatering the site during construction or working with the water on site in a manner that allows the project to be constructed according to the plans and specifications. This item



includes removal of any water entering a trench or excavation including but not limited to groundwater, surface water runoff and/or trench dewatering, both clean and potentially contaminated.

Groundwater may be encountered during excavation for utilities. Provide and maintain ample means and devices with which to promptly remove all water entering excavations, trenches, and other parts of the work and keep said excavations dry until the structures to be built therein are completed.

Installation of concrete or masonry structures will not be acceptable if placed in water or if water is allowed to rise over masonry or concrete and there is danger of flotation or of setting up unequal pressures in the concrete until the concrete has set at least 24 hours and any danger of flotation has been removed.

The contractor is responsible for all work, materials and equipment required to comply with permit conditions to dewater the site. At a minimum, pump water into a settling tank, or alternate method approved by the engineer, to settle solids prior to discharge into the storm sewer for clean water and into the designated sanitary sewer for potentially contaminated water.

The Excavation, Hauling, and Disposal of Contaminated Soil article contains requirements for any contaminated water.

## **B General**

Discharge clean water (of any type or from any source) to the storm sewer system. For the purposes of this project suspended solids will not be considered a type of contamination.

Provide all equipment and personnel necessary to conduct dewatering operations as required for the proper completion of the work. Prepare a dewatering plan and submit it to the engineer for review and approval prior to starting dewatering operations. The plan shall include a description of the proposed dewatering methods and maps or drawings indicating the location of the dewatering facilities and points of surface discharge of the water.

The contractor is solely responsible for choosing a method of water control that is compatible with the constraints defined. The contractor is responsible for the adequacy of the water control system and will take all necessary measures to ensure that the water control operation will not endanger or damage any existing adjacent utility or structure.

Design, install and operate the method or methods of water control in such a manner as to provide satisfactory working conditions and to maintain the progress of work. Design the methods and systems so as to avoid settlement or damage to adjacent property according to the applicable legislative statutes and judicial decisions of the State of Wisconsin. All required pumping, drainage and disposal of water will be done without damage to adjacent property or structures, or to the operations of other contractors and without interference with the access rights of public or private parties.

Review and approval of the dewatering plan does not relieve the contractor of the dewatering requirements stated in these specifications. The engineer assumes no liability for the performance or safety of the dewatering system.

Comply with all local ordinances and state statutes for the disposal of water from dewatering operations. Further, it is the contractor's responsibility to contact the Wisconsin Department of Natural Resources Private Water Supply Section prior to construction for dewatering discharge requirements and permits and to comply with all conditions of the Department of Natural Resources. According to Paragraph 144.025(2)(e), Wisconsin Statutes, permits are required for all groundwater control wells that singly or in aggregate produce 70 or more gallons per minute. All wells shall be drilled and sealed according to requirements of the WDNR for installing and abandoning wells. The contact for obtaining well permits is:

Wisconsin Department of Natural Resources  
Private Water Supply Section  
Box 7921  
Madison, Wisconsin 53707  
(608) 261-6421  
<http://dnr.wi.gov/topic/Wells/dewatering.html>

File a copy of the permit with the owner 48 hours prior to commencement of any dewatering.

## **C Construction**

*Supplement standard spec 205.3 with the following:*

Water shall not be allowed in trenches while pipe is being laid.

No masonry shall be installed in water nor shall water be allowed to rise over masonry or concrete if there is danger of flotation or of setting up unequal pressures in the concrete until the concrete has set at least 24 hours and any danger of flotation has been removed.

Dewater in such a manner that assures safe working conditions and provides stable trench side slopes and trench bottom for adequate support of the pipe and appurtenances. Dewater sufficiently to minimize or eliminate groundwater pressures below the proposed trench bottom which otherwise may tend to cause boiling or a "quick" condition at the trench bottom. Where silty sands or other impervious soils are encountered at and/or below the pipe zone, the dewatering equipment must be adequate to relieve the groundwater pressure below the impervious soil layer and accomplish sufficient drainage of the impervious soils to provide a stable trench bottom.

Pump water from the dewatering operations directly to a minimum 1,500-gallon holding tank, or alternate method approved by the engineer, to allow for settlement of large solids. Periodically pump clean water from the top of the settling tank into the storm sewer system.

If free phase petroleum product, such as gasoline floating on the water, is observed during dewatering activities, terminate dewatering activities and notify the engineer.

Notify the engineer at least three days in advance of any proposed changes to the dewatering plan.

Any flooding or erosion damage caused by dewatering operations is the responsibility of the contractor. If flooding or erosion damage occurs, take immediate steps to eliminate those conditions and to correct any damage. The control of all surface and subsurface water, ice, and snow are considered part of the dewatering. Erosion control shall be exercised at all times, including the placement of silt fences, sedimentation basins and any other devices necessary for proper control.

Dispose of all water removed so as not to endanger public health, private and public property or completed work. Use only electrically driven pumps for dewatering operations. Comply with local requirements for noise control for all equipment utilized as part of the dewatering system (Madison General Ordinance 24.08). Provide sufficient mufflers or other noise reduction devices necessary to minimize the noise of the equipment. If ordered by the engineer, reduce noise to an acceptable level (as determined by the engineer) or supply an alternate system capable of meeting the noise requirements. This applies to any equipment utilized as part of the dewatering system.

Provide stand-by equipment to maintain continuous dewatering in the event of mechanical breakdown to part of the system.

The contractor is responsible for removal and/or abandonment of dewatering wells. Removal and/or abandonment shall conform to all state and local regulations.

#### **D Measurement**

The department will measure Project Dewatering as each individual project, 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.0060.14	Project Dewatering ID 5400-00-72	EACH
SPV.0060.18	Project Dewatering ID 5400-00-73	EACH
SPV.0060.19	Project Dewatering ID 5400-00-74	EACH

Payment is considered full compensation for furnishing all work necessary for pumping, settling and discharging water, and for eliminating and correcting all flooding or erosion damage caused by dewatering operations.

No disposal fees are required by the City of Madison for discharge to the storm sewer system.

### **57. Salvage and Replace Landscaping Modular Block Retaining Wall, Item SPV.0060.15.**

#### **A Description**

This special provision describes salvaging and replacing modular block wall as shown on the plans and as hereinafter provided.

**B Materials**

Re-use existing blocks, leveling pad, and other wall materials to the extent practical. If new materials are required match existing materials and color. For any new materials needed, submit all documentation related to material and components to the engineer and obtain approval from the engineer of materials to be used.

**C Construction**

Remove, handle, stockpile, and reinstall existing blocks in a manner that prevents damage to them. If fabric, plastic sheeting, granular or aggregate backfill abuts or underlies the existing modular blocks, then replace in a similar manner that will not impede the structural stability or functionality of the portion of the wall to remain and to match the adjusted grade of adjacent sidewalk. If the contractor damages any blocks through its own operations, then replace them at no expense to the department.

**D Measurement**

The department will measure Salvage and Replace Modular Block Retaining Wall as each retaining wall, 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.0060.15	Salvage and Replace Landscaping Modular Block Retaining Wall	EACH

Payment is full compensation for providing all materials, including all fabric or plastic sheeting; for all excavating, backfilling, disposing of surplus material, for any new wall materials required, and for cleaning out and restoring the work site.

**58. Removing Saddle Inlet, Item SPV.0060.16.**

**A Description**

This special provision describes removing a saddle inlet and sealing the hole in the existing pipe to remain as shown on the plans and as hereinafter provided.

**B Materials**

Furnish materials conforming to standard spec 611 and plan details.

**C Construction**

Remove the existing saddle inlet according to standard spec 204 and plan details.

Seal the existing hole in the pipe to remain according to standard spec 611 and plan details.

Maintain existing storm sewer and drainage and provide any dewatering.

**D Measurement**

The department will measure Removing Saddle Inlet as each individual removing saddle inlet, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.16	Removing Saddle Inlet	EACH

Payment is full compensation for all removals, providing all materials, including all concrete masonry, reinforcing steel; for furnishing all excavating, dewatering, and maintaining drainage during the work; for backfilling, disposing of surplus material, and for cleaning out and restoring the work site.

## 59. Fluid Thermal Backfill, Item SPV.0060.17

### A Description

Work under this bid item will include placing Fluid Thermal Backfill around ATC's 69KV line located within the project limits.

### B Materials

Provide slurry conforming to the following one cubic yard mix:

- 30 lb. Type I Portland Cement
- 240 lb. Class C Fly Ash
- 1870 lb. Medium Aggregate (3/8-inch pea gravel)
- 1570 lb. Concrete Sand – 4100 (ASTM C-33)
- 320 lb. Water
- 200 psi Compressive Strength (28 days)

Notes:

- No air entraining agent will be allowed to be used with the mix design
- All design aggregate batch weights are saturated surface dry
- Aggregate batch weights will be adjusted for free moisture at time of mixing
- Admixture quantity may be varied within manufacturers recommended dosage to provide desired results

Use suppliers of Fluid Thermal Backfill that have been previously approved by ATC or an approved equal. Obtain ATC's approval of other suppliers prior to supplying the mix. Approved suppliers of Fluid Thermal Backfill include:

Wingra Redi-Mix Inc;  
P.O. Box 44284  
2975 Kapec Rd Madison, WI 53744  
Web Site: [www.wingrastone.com](http://www.wingrastone.com)  
Central Dispatch Tel.: (608) 271-9388  
Toll Free Tel.: (800) 249-6908  
ATC Approved Thermal Flowable Backfill: Wingra Mix No. 912

Lycon, Inc.; 1110 Harding St.  
Janesville, WI 53545  
Tel.: (608) 754-7701 / (800) 262-8604  
Web Site: [www.lyconinc.com](http://www.lyconinc.com)  
14 plants in South Central Wisconsin Central Dispatch Tel.: (608) 251-0073  
Toll Free Tel.: (800) 955-8758 / (800) 955-7702  
ATC Approved Thermal Flowable Backfill: Lycon Prod. # 956087S (M&M #748)

Prairie Materials  
12005 West Hampton Avenue Milwaukee, WI 53225  
Phone: (414) 258-1985  
(414) 258-7000  
Fax: 414-258-4960  
Website: [www.prairie.com](http://www.prairie.com)  
ATC Approved Thermal Flowable Backfill: Prairie Materials Mix No. MX10386

### C Construction

Complete work in accordance with ATC's utility crossing requirements. Mix design and installation method will be according to the materials section or ATC's requirements.

Each concrete truck will provide a batch mixture ticket prior to material placement. If a truck driver does not have the batch mixture ticket, that load will be rejected. During and prior to placement, take all necessary precautions to not allow the Fluid Thermal Backfill material to segregate.

Remove all debris and standing water from the trench prior to the placement of the Fluid Thermal Backfill.

If the Fluid Thermal Backfill is being placed around coated pipes, do not dump material directly on the pipe; use a baffle, such as a sheet of plywood or similar method, to deflect the fill material.

Use appropriate methods to eliminate the occurrence of air voids around duct banks. If vibration is used, do so in a manner such that the vibration does not affect the integrity of conduit, pipe or cable system and that there is no segregation of the materials.

Prior to installing the Fluid Thermal Backfill, ensure that the conduits/pipes are suitably anchored so that they do not float.

Remove any shoring or sheeting from the trench no later than one hour after the Fluid Thermal Backfill has been placed so that the material is still in a semi-fluid state.

If freezing temperatures are expected to occur during the placement or curing of the Fluid Thermal Backfill implement any necessary precautions to prevent the material from freezing.

#### **D Measurement**

The department will measure Fluid Thermal Backfill as each individual fluid thermal backfill, acceptably completed.

The amount of Fluid Thermal Backfill is estimated to be one cubic yard per crossing. No extra compensation will be granted for alternate mix design/backfill installation method called for by ATC.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.17	Fluid Thermal Backfill	Each

Payment is full compensation for all excavation; disposing of excess material; furnishing and placing backfill.

### **60. Sewer Electronic Markers, Item SPV.0060.20.**

#### **A Description**

Work under this item includes installing Sewer Electronic Markers according to Article 503.2 of the City Standard Specifications. These sewer electronic markers will be installed where called for on the plan set above sanitary sewer.

#### **B Materials**

All materials are described in Article 503.2(f) of the City Standard Specifications. Markers will be provided by the City of Madison.

#### **C Construction**

Install Sewer Electronic Markers (sanitary) according to Article 503.2(f) of the City Standard Specifications.

Notify the engineer when marker balls are installed. Each marker ball will be tested by the city before completion of final pavement surface to confirm that it is installed and functioning properly. If it is not installed or functioning, excavate to expose the existing marker ball or lateral and place a new marker ball. No additional compensation will be provided for this work.

#### **D Measurement**

The department will measure Sewer Electronic Markers as each individual sewer electronic marker, 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.0060.20	Sewer Electronic Markers	EACH

Payment for Sewer Electronic Markers is full compensation for furnishing all work required to complete the installation and all associated work to provide a complete functioning system. The department will not pay for replacing those marker balls that are non-functional. Marker balls will be provided by the City of Madison.

## 61. Sanitary Lateral Reconnect, Item SPV.0060.21.

### A Description

This special provision describes sanitary sewer lateral connections encountered during the course of this project that connect to the sanitary sewer main.

### B Material

Furnish sanitary sewer pipe and fittings that are solid-wall Poly Vinyl Chloride (PVC) and that conform to the requirements of the Specification for PVC Sewer Pipe and Fittings, ASTM D 3034.

Provide sanitary sewer pipe and fittings having a standard dimension ratio of 26 or 35 depending on the depth of the pipe. Sewer lateral pipe and fittings deeper than 12 feet will have ASTM D3034 SDR 26 pipe.

Provide fittings conforming to the requirements of the American National Standard for Ductile-Iron and Gray-Iron fittings for Water and other liquids, ASA A21.10 (AWWA C110) where the sewer main being installed is Pressure Sanitary Sewer Pipe.

Both long body and short body wye ductile iron fittings are acceptable for PVC Pressure Sanitary Sewer Pipe installations where there is less than 8 feet of horizontal separation from water main measured from center of each pipe. AWWA C900 fittings are acceptable if the horizontal separation between sewer and water is over 8 feet. The entering sewer main (SAS to SAS) shall have the same type of wye fitting.

Furnish elastomeric or solvent cement joints made as recommended by the manufacturer.

### C Construction

Install risers, where necessary, according to Standard Detail Drawing 5.3.1 of the City Standard Specifications. Risers five feet in length are included in the bid item Sanitary Lateral Reconnect. Backfill and compaction according to Article 202.3(b) of the City Standard Specifications using select fill.

### D Measurement

The department will measure Sanitary Sewer Reconnect as each individual sanitary sewer reconnect, acceptably completed.

Sanitary sewer lateral pipe exceeding 5 feet in length will be paid under bid item Sanitary Sewer Lateral.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.21	Sanitary Lateral Reconnect	EACH

Payment is full compensation for furnishing all materials, including fill material; plugging the ends of all existing sewer laterals; excavation; trimming and chipping; cutting, protecting or removing reinforcing steel; disposal of surplus materials from the structure or excavation; excavation and compaction of the backfill material; restoring the site.

**62. Sanitary Sewer Tap, Item SPV.0060.22.**

**A Description**

Work under this item includes the connection of a new lateral or main to an existing structure and the connection of an existing lateral or main to a new structure.

**B Materials**

Provide Kor-n-Seal, PSX Press Seal, or approved equal, in the tapped hole, according to Standard Detail Drawing 5.7.31 of the City Standard Specifications.

**C Construction**

**C.1 New Pipe to Existing Structure**

Use a portable coring drill to produce a pipe opening that is round, clean and free of any pitting of the concrete.

Make a watertight connection of the pipe to the sewer access structure with a Kor-n-Seal, PSX Press Seal, or approved equal, according to Standard Detail Drawing 5.7.31 of the City Standard Specifications.

**C.2 Existing Pipe to New Structure**

Provide a flexible connector to connect the existing pipe to any new pipe which is required to make the connection to the structure.

Provide PVC (SDR-26, SDR-35, AWWA C900) that matches the existing pipe's diameter, or the next larger diameter, to reconnect the existing sewer main or lateral. The PVC (SDR-26, SDR-35, AWWA C900) sanitary sewer pipe is considered incidental to this bid item.

The pouring and construction of concrete benches and flowlines in new sewer access structures for the inlet or outlet pipes is not included in this bid item and is considered incidental to the bid item Sanitary Sewer Access Structure (size).

The downstream pipe connection to a Sewer Access Structure (size) is considered incidental to the Sewer Access Structure (size).

**D Measurement**

The department will measure Sanitary Sewer Tap as each individual sanitary sewer tap, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.22	Sanitary Sewer Tap	EACH

Payment is full compensation for providing all connectors and for coring.

**63. Sanitary Sewer Access Structure (4-Foot Diameter), Item SPV.0060.23;  
Sanitary Sewer Access Structure (5-Foot Diameter), Item SPV.0060.33.**

**A Description**

Work under this item includes installing Sewer Access Structures at the depths and locations shown on the plan.

**B Materials**

Provide precast concrete Sanitary Sewer Access Structure (Size) meeting the requirements of Standard Detail Drawing 5.7.2, 5.7.15, and Article 507.3 of the City Standard Specifications.

Furnishing and installing Sewer Access Structure Frames and Covers, according to Standard Detail Drawing 5.7.16 of the City Standard Specifications, will be paid for separately under the Manhole Covers Type J, bid item.

**C Construction**

Install Sanitary Sewer Access Structure (Size) according to Article 507.3 of the City Standard Specifications. Maintain the normal flow of wastewater at all times during installation of the new sanitary sewer access structure and when connecting pipes to the new structure. All bypass pumping, temporary piping, and/or temporary connections, which are required to maintain the normal flow of wastewater throughout construction, is incidental to this bid item.

Construct concrete benches and flow lines as directed by the engineer.

**D Measurement**

The department will measure Sanitary Sewer Access Structure (Size) as each individual sanitary sewer access structure, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.23	Sanitary Sewer Access Structure (4-Foot Diameter)	EACH
SPV.0060.33	Sanitary Sewer Access Structure (5-Foot Diameter)	EACH

Payment is full compensation for installing sanitary sewer access structures, constructing benches and flow lines; for furnishing and installing all bypass or temporary piping and connections.

**64. External Sewer Access Structure Joint Seal, Item SPV.0060.24.**

**A Description**

Furnish and install sealed barrel joints on all sanitary sewer structures around the outside circumference of the Sewer Access Structure.

**B Materials**

Provide barrel joint seals consisting of flexible rubberized seal conforming to ASTM C923 held in place with stainless steel compression bands or butyl adhesive tape conforming to ASTM C877 or heat shrink sleeve over visco-elastic adhesive sealant. Manhole joint seals shall be a minimum of nine (9) inches wide. Acceptable products and manufacturers are the following: 1. Mac Wrap, Mar Mac Manufacturing Company, Inc. 2. NPC External Joint Seal, NPC, Inc. 3. EZ-Wrap, Press-Seal Gasket Corporation 4. Riser-Wrap, Pipeline Seal and Insulator, or equal.

**C Construction**

Install sealed barrel joints according to the manufacturer's instructions.

**D Measurement**

The department will measure External Sewer Access Structure Joint Seal as each individual external sewer access structure joint seal 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.0060.24	External Sewer Access Structure Joint Seal	EACH

Payment is full compensation for the installation of the external sewer access structure joint seal.

**65. Sanitary Sewer Internal Chimney Seal, Item SPV.0060.25.**

**A Description**

Furnish and install an internal chimney seal on all sanitary sewer access structures located within 100 feet of a street low point, in greenways, and where indicated on the plan.



**B Materials**

Provide an internal chimney seal consisting of a low-density polyethylene insert conforming to the Standard Detail Drawing 5.7.17–SAS Internal Chimney Seal of the City Standard Specifications or other equivalent chimney seal products as approved by the engineer.

**C Construction**

Install internal chimney seals according to the manufacturer’s instructions.

**D Measurement**

The department will measure Sanitary Sewer Internal Chimney Seal as each individual sanitary sewer internal chimney seal, 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.0060.25	Sanitary Sewer Internal Chimney Seal	EACH

Payment is full compensation for furnishing and installing the sanitary internal chimney seal.

**66. Remove Sanitary Sewer Access Structure, Item SPV.0060.26.**

**A Description**

This special provision describes removing sanitary sewer access structures as shown on the plans. The work includes salvaging and disposing of the resulting materials and backfilling the trenches with select fill.

**B Materials**

Provide select fill meeting the requirements of Article 202.2 of the City Standard Specifications; furnishing and placing select fill in the void created by the structure removal is included with this bid item.

**C Construction**

Remove sanitary sewer access structures according to Article 203.2(a) of the City Standard Specifications. Plugging of sewer mains and laterals that are connected to a removed Sanitary Sewer Access Structure with a concrete plug are incidental to this item. Payment for Concrete Slurrying of an entire sewer main will be paid for separately under Abandon Sanitary Sewer–Slurry.

**D Measurement**

The department will measure Remove Sanitary Sewer Access Structure as each individual remove sanitary sewer structure, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.26	Remove Sanitary Sewer Access Structure	EACH

Payment is full compensation for furnishing all materials, including fill material; for disposal of surplus materials; excavation and compaction of select fill material; restoring the site.

**67. Abandon Sanitary Sewer Access Structure, Item SPV.0060.27.**

**A Description**

This work consists of abandoning sanitary sewer access structure as shown in the plans and hereinafter provided.

**B Materials**

Provide select fill meeting the requirements of Article 203.2(e) of the City Standard Specifications; furnishing and placing select fill in the void created by the structure abandonment is included with this bid item.

**C Construction**

Abandon the sanitary sewer access structures according to Article 203.2(c) of the City Standard Specifications. Plug sewer mains that are connected to an abandoned sanitary sewer access structure with a concrete plug paid for by separately under Abandon Sanitary Sewer–Pipe Plug. Concrete slurring of an entire sewer main will be paid for separately under Abandon Sanitary Sewer–Slurry.

**D Measurement**

The department will measure Abandon Sanitary Sewer Access Structure as each individual abandon sanitary sewer access structure, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.28	Abandon Sanitary Sewer Access Structure	EACH

Payment is full compensation for furnishing all materials, including fill material; for disposal of surplus materials; excavation and compaction of select fill material; restoring the site.

**68. Abandon Sanitary Sewer–Pipe Plug, Item SPV.0060.28.**

**A Description**

This work consists of plugging pipes as shown in the plans and hereinafter provided.

**B Material**

Provide concrete conforming to Article 301 of the City Standard Specifications.

**C Construction**

Abandon sanitary sewer pipe with a plug according to Article 203 of the City Standard Specifications.

Provide replacement sanitary sewers and laterals or appropriate bypass pumping prior to abandoning sanitary sewer pipe.

Saw cut end of existing pipe and clean interior of pipe to create a good bonding surface. Form and pour a minimum 1-foot deep concrete plug completely filling the opening of the pipe.

Where structures are called out for removal or abandonment, plug pipes at the structure will be considered incidental to removal or abandonment of the manhole

Any plugs required to abandon the existing sanitary main where laterals are being extended will be considered incidental to sanitary sewer lateral bid item. Concrete Slurrying of an entire sewer main will be paid for separately under Abandon Sanitary Sewer–Slurry.

**D Measurement**

The department will measure Abandon Sanitary Sewer–Pipe Plug as each individual pipe plug, 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.0060.28	Abandon Sanitary Sewer–Pipe Plug	EACH

Payment is full compensation for all work in abandoning sanitary sewer-pipe plug.

**69. Sanitary Sewer Cleanout, Item SPV.0060.29.**

**A Description**

Work under this special provision includes installing sanitary sewer cleanouts on laterals in the locations as called for by the engineer. This bid item will be necessary when sewer laterals cannot be routed around an obstruction in the right-of-way with 22.5 degree bends or if called out for on the plan set.

**B Materials**

Provide a lateral cleanout conforming to the requirements called for in Article 507.2 of the City Standard Specifications.

**C Construction**

Install sanitary sewer cleanout according to Article 507.3 of the City Standard Specifications.

Maintain the normal flow of wastewater at all times during installation of the new sanitary cleanout. All bypass pumping, temporary piping, and/or temporary connections, which are required to maintain the normal flow of wastewater throughout construction, is incidental to this bid item.

Obtain prior approval of the engineer to install a Cleanout and selected location of the Cleanout if it is not shown on the plans. It is anticipated that the vast majority of laterals will be installed according to the sanitary sewer lateral (Bid Item SPV.0090.20 Sanitary Sewer Lateral) where bends of 45 degrees will be made with (2) 22.5 degree bends with two feet of straight pipe between the bends.

**D Measurement**

The department will measure Sanitary Sewer Cleanout as each individual sanitary sewer cleanout, 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.0060.29	Sanitary Sewer Cleanout	EACH

Payment is full compensation for all work in installing sanitary sewer cleanout.

**70. Wastewater Control, Item SPV.0060.30.**

**A Description**

Work under this item includes controlling or diverting sanitary sewer flows during reconstruction of the sanitary sewer.

**B (Vacant)**

**C Construction**

Provide a pump with a capacity of 500 gallons per minute and all associated equipment required to maintain a functioning sanitary sewer system during construction. It is not acceptable, at any time, to disrupt normal flow of wastewater in sanitary sewer service laterals without prior approval from the City of Madison. This condition also holds at the time of connection of an existing lateral to the new sewer main.

If the contractor elects to use bypass pumping as a means of wastewater control, the methods, equipment, type of hose, etc. are subject to approval by the engineer. Ramp any hoses crossing streets, driveways, parking areas, etc., to prevent damage to hoses. Contain spillage of wastewater to be within the utility trench and dispose of spillage into existing sewer downstream to previously installed sewer piping. Spillage of wastewater to adjacent streets, lawns, etc. will not be tolerated. Should spillage occur, cease all construction operations immediately and begin cleanup operations. Clean site thoroughly prior to the resumption of any construction operations.

Bypass pumping will need to occur in order to accommodate wastewater flow during the trenchless sewer work beneath the railroad tracks. Bypass pumping will be needed to divert flow from manhole SAS 5249-006 to a sewer manhole near the intersection of South Blount Street and the Capital City Trail. The bypass pumping hoses shall be limited to the green space between the Capital City Trail and the railroad ballast. Provisions shall be made for a backup pump to be connected in sequence to the bypass pumping to maintain continuous 24 hour pumping during the bypass operation. Provisions shall also be made such that bypass pumping operations are continuously monitored either by manned or automated observance. Coordinate the bypass pumping operations with the City of Madison a minimum of 10 days prior to pumping activities occurring.

**D Measurement**

The department will measure Wastewater Control as each individual wastewater control, 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.0060.30	Wastewater Control	EACH

Payment is full compensation for controlling or diverting all sanitary sewer flows during construction of sanitary sewer.

**71. Construction Staking Sanitary Sewer, Item SPV.0060.31.**

**A Description**

Perform work according to the applicable provisions of standard spec 650.

**B (Vacant)**

**C Construction**

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Set and maintain a minimum of two construction stakes to establish location and grade of sanitary sewer structures according to the plans and details for sanitary sewer structures. Set and maintain construction stakes to establish location and grade of sanitary sewer main. Provide stakes that establish the horizontal and grade elevation of sanitary main at intervals of 25 feet for a minimum of 100 feet from each structure and at intervals of 50 feet thereafter. Determine offsets in conjunction with contractor requirements. Verify the invert elevations of existing structures which are to remain and be connected into. Locate all stakes included in this bid item to within 0.02 feet horizontally and establish the grade elevation to within 0.01 feet vertically.

Place additional intermittent stakes as necessary to provide staking information at critical areas such as utility, driveway, roadway, and structure crossings.

**D Measurement**

The department will measure Construction Staking Sanitary Sewer as each individual construction staking sanitary sewer, 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.0060.31	Construction Staking Sanitary Sewer	EACH

Payment is full compensation for locating and setting all construction stakes; and for relocating and resetting damaged or missing construction stakes.

**72. Adjust Water Valve Box Sections, Item SPV.0060.32.**

**A Description**

Work under this item includes the following:

1. Adjust the existing water valve box within a tolerance between ¼-inch to ½-inch below finished grade.
2. In addition to the work described in (1), furnish and install a new water valve box top casting and lid.
3. In addition to the work described in (1) and (2), install a new lower valve box section(s) where the engineer determines existing lower valve box sections to be damaged or non-functioning. The Madison Water Utility will furnish new lower section(s). Contact Peter Holmgren at (608) 261-5530; (608) 215-0225 (mobile) to arrange for furnishing of new lower sections, as needed.

**B Materials**

Furnish materials according to Article 704.20 of the City Standard Specifications.

**C Construction**

Perform the work according to Article 704.20 of the City Standard Specifications

**D Measurement**

The department will measure Adjust Water Valve Box Sections as each individual adjust water valve box section, 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.0060.32	Adjust Water Valve Box Sections	EACH

Payment is full compensation for furnishing all work required to complete the water valve box sections adjustment, including providing a new water valve box top casting and lid, for all excavation and backfill, and for disposal of old valve box sections and lids. New lower valve box section(s) will be provided by the Madison Water Utility.

**73. Adjust Sanitary Sewer Access Structure Special, Item SPV.0060.34.**

**A Description**

Work under this item includes adjusting Sanitary Sewer Access Structure (SAS) castings as called for on the plan set to the final proposed grades. This bid item is required because the casting adjustment is greater than 9 inches of vertical adjustment to set the casting to the final grade or the chimney was determined to be in poor condition. Manhole adjustments less than 9 inches will be paid for separately under Bid Item Adjusting Manhole Covers. Installation of offset cone and casting as called for on the plan will be considered incidental to this bid item. Rotation of an existing cone sections will be considered incidental to this bid item.

**B Materials**

Provide precast concrete barrel sections and manhole adjustment rings meeting the requirements of Article 507.3, as well as SDD 5.7.2 and 5.7.15 of the City Standard Specifications.

**C Construction**

Complete adjust SAS Special according to Article 507.3 of the City Standard Specifications. This bid item will require adjustment rings to be removed and concrete barrel sections to be installed. The maximum allowed adjustment on the Sewer Access Structure will not exceed 9 inches and the final configuration of the structure will be in accordance of SDD 5.7.2 and 5.7.15 of the City Standard Specifications. If the sewer access structure being adjusted is a poured in place structure (4 x 4, 5 x 5, or 6 x 6), install a 4-foot diameter barrel section on the poured in place manhole rooftop and place a concrete collar where the barrel section connects to the manhole rooftop. Center the barrel section over the casting opening. If the existing casting is offset, sawcut the manhole rooftop to create an opening centering the barrel section on the manhole rooftop.

**D Measurement**

The department will measure Adjust Sanitary Sewer Access Structure Special as each individual adjust sanitary sewer access structure, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.34	Adjust Sanitary Sewer Access Structure Special	EACH

Payment is full compensation for adjusting sanitary sewer access structure, sawcutting the roof, and installing mastic and concrete collars.

**74. Reconstruct Bench and Flowlines, Item SPV.0060.35.**

**A Description**

Work under this item includes the removal and replacement of the existing sewer access structure bench and flowline(s) as indicated in the drawings, or as required by the City of Madison, to restore the bench and flow line after completion of a tap connection as described under Sanitary Sewer Tap bid item.

**B Materials**

Furnish concrete materials according to the applicable provisions of standard spec 611.

**C Construction**

Notify the city of Madison of any potential restoration work and provide a minimum of three working days for completion of a field assessment of the structure in question.

Unless shown on the drawings, do not reconstruct bench and flowlines unless directed by the City of Madison.

Complete all work associated with this item according to Article 503 of the City Standard Specifications. Provide a smooth trowel finish to all completed flowlines. Brushed flowlines will not be accepted.

**D Measurement**

The department will measure Reconstruct Bench and Flowlines as each individual reconstruct bench and flowline, 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.0060.35	Reconstruct Bench and Flowlines	EACH

Payment is full compensation for reconstructing the bench and flowlines and removing and disposing of all surplus materials.

**75. Lighting Control Cabinet, Item SPV.0060.50.**

**A Description**

This special provision describes furnishing and installing a lighting control cabinet with all electrical components and wiring assembled.

**B Materials**

Furnish Grade A, A-WR, A-FA, or A-IP concrete masonry conforming to the requirements of standard spec 501. Conduit cast within the bases shall be Schedule 40 polyvinylchloride (PVC).

**B.1 Contactors**

Furnish an open type, multi-pole, 30-amp, 600V electrically held contactor with 120V control coil as required for each proposed circuit.

**B.2 Photocell**

Furnish a button type photocell and install as shown on the detail. Apply silicone caulk to maintain the watertight integrity of the enclosure. The photocell shall be rated for 120V, 1500W with 30 to 60 second delay between "on-off" operations.

**B.3 Panel**

Furnish a 120/240-volt, 100A main lugs only, single-phase, 20-circuit panel board in a 14-inch (approximate) wide NEMA 1 enclosure. Provide copper ground and split neutral bus bars in addition to copper bus bars. Provide bolt-on, thermal-magnetic circuit breakers that clearly indicate ON, OFF, or TRIPPED position in the panel.

#### **B.4 Selector Switches**

Furnish "Hand-Off-Auto" switches to control each circuit separately. Provide a "Hand-Off-Auto" legend plate for each switch. Mount the switches adjacent to the respective contactor.

#### **B.5 Cabinet Enclosure**

Provide a NEMA 3R enclosure made from .125-inch Type 5052-H32 aluminum. The doorframe shall be double flanged and all exterior seams shall be ground smooth. Door handle shall be 3/4-inch diameter stainless steel with threepoint latching system and hasp. Main door shall be sealed with a closed-cell neoprene gasket. Main door hinge shall be continuous 0.075-inch thick stainless steel with a 0.25-inch stainless steel hinge pin. Provide an aluminum-mounting panel at back (interior) of enclosure. Provide a weatherproof pad lock with 2 3/8-inch wide body, repinnable/replaceable cylinder, and five keys. There shall be no louvers or Corbin main door lock. Maintain applicable code working clearances between equipment mounted within the enclosure.

#### **B.6 Surge Arrester**

Furnish a surge suppressor to protect the panel board. The surge suppressor shall provide 6 modes of surge protection, meet UL1449 Second Edition with 32Ka per phase and 48KA system peak surge current, contain LED line indicators, and approximate dimensions of 4.54-inch by 2.58-inch by 0.22-inch. Connect the surge suppressor to the branch circuit breaker as indicated on the plans.

#### **B.7 Field Wiring Termination Blocks**

All connections from the field wiring to equipment in the lighting control cabinet shall be made through termination blocks. Provide quantity of channel mount, NEMA type single terminal blocks as indicated on plans that are capable of holding #12 to #1/0 wire with solderless box lugs, for power, neutral and grounding connections. Mount the terminal blocks on a mounting channel of appropriate length with end anchors and an end barrier. Each terminal block shall have a label indicating the appropriate circuit number, neutral ('N') or ground ('G') wire connected to block; handwritten numbers and letters are not acceptable means of identification. Make connections from the underground field wiring to the equipment in the lighting control cabinet through distribution blocks.

#### **B.8 Convenience GFI Receptacle and Cabinet Light Fixture**

Furnish a 20 Ampere, 120 Volt commercial grade GFI duplex receptacle within a galvanized steel outlet box with cover. 150 Watt, 250 Volt commercial grade lamp holder with galvanized steel box and 60 watt incandescent bulb. Furnish switch to turn on cabinet light by opening the cabinet door.

#### **B.9 Incidental Materials**

Secure all wiring using screw attachment type straps; adhesive type shall not be allowed.

#### **C Construction**

Assemble the control cabinet as shown on the plans. Pretest the cabinet prior to shipment to the site. Mount all equipment to panel in enclosure. Train the cables in straight horizontal and vertical directions and be parallel next to and adjacent to other cables whenever possible. Mount the cabinet to the concrete base per the manufacturer's requirements. The work under this bid item includes connection and termination to the feeder system wiring.

#### **D Measurement**

The department will measure Lighting Control Cabinet as each individual lighting control cabinet, 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.0060.50.	Lighting Control Cabinet	EACH

Payment is full compensation for furnishing and installing photo control, contactors, panel, distribution blocks, surge arrester, enclosure, grounding, wiring and electrical components; and mounting to the concrete base.

76. **Poles 30-FT 11 Gauge, Single Simplex, Item SPV.0060.51;**  
**Poles 30 FT 11 Gauge Black, TLM, Item SPV.0060.52;**  
**Poles 30-FT 7 Gauge Black, TLM, Item SPV.0060.53;**  
**Poles 30-FT 7 Gauge, Item SPV.0060.54;**  
**Poles 20-FT 7 Gauge, Item SPV.0060.55;**  
**Poles 20-FT 7 Gauge Black, Item SPV.0060.56;**  
**Arm 8-FT, Simplex, Item SPV.0060.57.**

#### **A Description**

This special provision describes furnishing and installing poles and arms according to standard spec 657, the details shown on the plans, and these special provisions.

#### **B Materials**

All poles shall be round, with a base plate welded to the bottom end of the pole. All poles are to be a single section, with an eight-inch diameter shaft at the base and 0.14 inches per foot taper

Base plates shall have a slotted opening for anchor bolts.

All 30-foot poles shall be designated to withstand a 90 mile per hour sustained wind velocity and 117 mile per hour gust velocity with the bracket arm and luminaire in place.

All 20-foot 7, gauge poles will be used for supporting aluminum trombone arms holding signs and/or signal heads.

A 4-inch by 6 1/2-inch galvanized handhole shall be provided with contoured or flat cover plate joined to the reinforced handhole frame with two bolts. The handhole shall be located 90 degrees clockwise from the bracket arm side of poles as viewed when looking down from the top of the pole. The center of the handhole should be 14 inches from the bottom of the pole. A solid metal bracket, with a drilled and tapped hole, shall be provided for securing cover plate bolts. Clips for holding these bolts are not acceptable. The machine bolts shall be a slotted hex-head style.

The pole shaft shall be fabricated from the herein specified manufacturer's best grade, hot rolled basic open hearth, or basic oxygen process steel. The shaft shall have only one longitudinal, electrically welded joint, with the strength rated at not less than 100 percent of the yield strength of the steel and shall have no intermediate horizontal joints or welds. Only one length of steel sheet shall be used, and it shall be formed into a continuously tapered shaft, having a taper of approximately 0.14 inches per foot. The weld shall be smooth, allowing the specified taper to be constant. The pole shall be within 1/4-inch in 10 feet of being straight and centered on its longitudinal axis.

A grounding nut or nut holder for accommodating a 1/2-inch by 13 UNC threaded bolt or stud shall be provided on the inside of the shaft immediately opposite the center of the handhole. The nut shall be completely free of any metal residue that would prevent a bolt from easily screwing entirely into the nut.

Single-member bracket arms shall conform to the attached drawings and the following specifications. The pole end of the arm shall have a steel fitting welded to it, which will permit the positioning of the arm on the plate of the pole held only by gravity, while the arm is secured to the pole by two cap screws. The bracket shall provide a weather-resistant connection and smooth wiring raceway. (See detail sheet for sketch.) The bracket arm shall attach to the pole approximately 6 inches below the top of the pole.

All bracket arms shall be made to accept a luminaire with a 2 inch slip fitter.

Required simplex arms shall be single-member, with 2-foot rise for 4-foot arms and 2.5-foot rise for 8-foot arms.

All light poles that require more than one bracket arm shall have the simplex fittings located as close as possible to 6 inches down from the top of the pole. If the simplex fittings are located in such a position that it is not possible to weld them to the pole at the specified location, the attachment shall be as follows: The simplex fittings shall be located so that the bottom of the simplex fitting which is at 90° counter-clockwise to the handhole is at the specified distance down from the top of the pole. The other simplex fitting shall be placed with the top of the fitting as close as possible to the specified distance down from the top of the pole.

Poles designated for TLM mounting shall accommodate either single (Arm Mount Single) or double (Arm Mount 2 @ 180°) Cooper Talon fixture mounting configuration as specified for each location.

A pole-top cover and four nut covers shall be furnished and installed for each pole.



Each steel pole shall have a permanent imprinted metal label attached with rivets midway between the base plate and the handhole. The label shall state the overall pole height, shaft gauge, and year of manufacture. The label shall conform to the curvature of the pole and not have any sharp edges or corners. All rivets shall be smooth inside and outside of the pole.

After all welding has been completed, the exterior surface of the pole, arm, and hardware shall be thoroughly cleaned and shall be free of all loose rust, mill scale, dirt, oil, grease, and other foreign substances. The poles and arms shall be hot-dipped galvanized according to the requirements of ASTM Designation A123. The hardware shall be hot-dipped galvanized according to ASTM designation A153. The galvanized finish shall be bright, shiny, and uniform. Matted or dull pole sections will not be accepted.

For poles that shall be painted, the outside minimum paint system shall be an epoxy prime paint and polyester polyurethane topcoat paint, applied by electrostatic means, or the manufacturer's best paint system, subject to city review and approval. The paint system chosen shall result in a durable weather-resistant paint well adhered to the pole and suitable for streets with heavy salting and the resulting salt spray from passing vehicles. The black finish paint color shall be RAL 9005 80% gloss. The manufacturer shall fully warrant the paint system for five years.

Furnish non-shrink commercial grout from approved products list.

### **C Construction**

Metal poles shall be set and plumbed with the use of leveling nuts furnished with the anchor bolts. Luminaries shall be leveled after erecting and leveling the metal standards with bracket arms. The proper leveling method may be obtained from the manufacturer's

instruction manual. Nuts on anchor and transformer bolts shall be torqued to 175 to 200 foot pounds or as directed by the engineer. Rust, corrosion, and anti-seize protection shall be provided at all threaded assemblies by coating and mating surfaces with Markal (hightemp – E-Z Break), Never-Seez (Marine Grade), LPS 100, Lubriplate, or approved equal.

The stranded copper ground wire that is installed as a part of base construction shall be attached with an approved connector (Fargo GC 202 or approved equal) to a ground nut locate inside the pole opposite the handhole.

When transformer bases are not installed, grout shall be troweled between the pole and concrete base and finished at an angle from the edge of the pole base to the outer edge of the foundation. A 1/2-inch slot for drainage shall be left through the grouting on the street side at the top of the concrete base.

### **D Measurement**

The department will measure Poles (Description) and Arm (Description) 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.0060.51	Poles 30-FT 11 Gauge, Single Simplex	EACH
SPV.0060.52	Poles 30 FT 11 Gauge Black, TLM	EACH
SPV.0060.53	Poles 30-FT 7 Gauge Black, TLM	EACH
SPV.0060.54	Poles 30-FT 7 Gauge	EACH
SPV.0060.55	Poles 20-FT 7 Gauge	EACH
SPV.0060.56	Poles 20-FT 7 Gauge Black	EACH
SPV.0060.57	Arm 8-FT, Simplex	EACH

Payment is full compensation for furnishing and installing all materials, including poles, all hardware and fittings necessary to completely install the pole; for corrosion prevention when required; for installing identification plaques when required.

77. **Electrical Pullbox, Type I, Item SPV.0060.58;  
 Electrical Pullbox, Type III, Item SPV.0060.59;  
 Electrical Pullbox, Type V, Item SPV.0060.60;  
 Electrical Pullbox, Type VII, Item SPV.0060.61.**

**A Description**

Furnish and install electrical pull boxes according to standard spec 653, the plan details, and as hereinafter provided.

**B Materials**

Electrical Pullbox, Type I shall be gray-colored polymer-concrete construction. Box dimensions for Type I shall be 19-inch wide by 32-inch long by 24-inch deep. The Type I box and cover shall be rated to withstand 15,000 lbs over a 10-inch square with a minimum test load of 22,568 lbs.

Electrical Pullbox, Type III shall be high-density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Box dimensions for Type III shall be 12-inch wide by 12-inch long by 12-inch deep. The Type III box and polymer cover shall be rated to withstand 20,000 lbs.

Electrical Pullbox, Type V shall be high-density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Box dimensions for Type V shall be 24-inch wide by 36-inch long by 24-inch deep. The Type V box and polymer cover shall be rated to withstand 20,000 lbs.

Electrical Pullbox, Type VII shall be high-density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Box dimensions for Type VII shall be 30-inch wide by 50-inch long by 36-inch deep. The Type VII box and polymer cover shall be rated to withstand 20,000 lbs.

Each cover shall have the logo "TRAFFIC SIGNAL" imprinted from the manufacturer.

**C Construction**

Install Electrical Pullbox (Type) according to the pertinent provisions of standard spec 653.3 and the plan details.

**D Measurement**

The department will measure Electrical Pullbox (Type) as each individual electrical pullbox, 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.0060.58	Electrical Pullbox, Type I	EACH
SPV.0060.59	Electrical Pullbox, Type III	EACH
SPV.0060.60	Electrical Pullbox, Type V	EACH
SPV.0060.61	Electrical Pullbox, Type VII	EACH

Payment is full compensation for furnishing and installing all materials, including crushed aggregate; and for excavation, backfill, and disposal of surplus materials.

78. **Concrete Base Type G, Item SPV.0060.62;  
 Concrete Base Type LB-1, Item SPV.0060.63;  
 Concrete Base Type LB-3, Item SPV.0060.64;  
 Concrete Base Type LB-8, Item SPV.0060.65;  
 Concrete Base Type LB-SP, Item SPV.0060.66;  
 Concrete Base Type P, Item SPV.0060.67.**

**A Description**

Construct concrete foundations, including furnishing and installing necessary hardware, as shown on the plans, according to the pertinent provisions of standard spec 654, and as hereinafter provided.

## B Materials

Provide Grade A concrete masonry conforming to the requirements of standard spec 501.

Conduit cast within the bases shall be Schedule 40 polyvinyl chloride (PVC) electrical conduit and shall conform to the requirements of standard spec 652.

Anchor bolts for Type G and LB-1 bases shall be made from high-strength steel 50 KSI minimum yield strength, ASTM A36, and each shall be fitted with a hard washer and heavy hex nut. Each bolt shall have approximately 3 inches or more of thread at the top end. The bolts, washers, and nuts shall be galvanized. Bolts for Type G bases shall be 3/4-inch by 24-inch. Bolts for LB-1 bases shall be 3/4-inch by 24-inch.

Anchor bolts for Type LB-3; LB-SP and Type LB-8 bases shall be made from high strength steel (50 KSI minimum yield strength), ASTM A36, and each shall be fitted with two hard washers and two heavy hex nuts. Each bolt shall have approximately 6 inches or more of thread at the top end. The bolts, washers, and nuts shall be galvanized. Bolts for the LB-8 base shall be 1.25-inch by 48-inch, including 4-inch L-bend at the bottom. Bolts for the LB-3 base shall be 1-inch by 40-inches including 4-inch L-bend at the bottom. Bolt size for the LB-SP base shall be confirmed by the engineer prior the pouring the base.

The Type P base shall include a concrete maintenance platform. The Type P base shall generally be constructed according to the Concrete Control Cabinet Base Standard Detail. The location of the conduits in the base shall be confirmed with the City of Madison. Anchor bolts, nuts, and washers for Concrete Controller Base, Type P, will be provided and installed by the City of Madison when installing signal control cabinets. Bar steel reinforcement shall conform to the requirements of standard spec 505.

## C Construction

Place the bases with one side parallel to the centerline of the street.

Provide forms of sufficient depth to provide a minimum of 12 inches of formed base below the finished grade on the low side of the base. Construct the top surface of the base with a 3/4-inch bevel on the edges with a rubbed finish.

Cast anchor bolts into the base as shown on the plans. Verify bolt circle diameters before constructing the bases.

Furnish and install manufactured elbows in all bases, except as noted on the details. Install elbows that permit conduit to be installed in as nearly straight-line runs as possible, without unnecessary bends. Bases not installed to this standard will not be accepted. Extend existing conduit into the bases. Install an extra elbow as directed by the engineer at each base at the end of a run. Install extra elbows in any new base as directed by the engineer.

Erect poles on the concrete bases until the bases after the concrete has cured for at least seven days.

Provide a rubbed finish down to finished grade for all concrete bases.

## D Measurement

The department will measure Concrete Base (Type) as each individual concrete base, 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.0060.62	Concrete Base Type G	EACH
SPV.0060.63	Concrete Base Type LB-1	EACH
SPV.0060.64	Concrete Base Type LB-3	EACH
SPV.0060.65	Concrete Base Type LB-8	EACH
SPV.0060.66	Concrete Base Type LB-SP	EACH
SPV.0060.67	Concrete Base Type P	EACH

Payment is full compensation for furnishing and installing all materials including conduit, bushings, caps and/or plugs, ground rod, anchor bolts, cadwelding, copper grounding wire; bar steel reinforcement, and concrete masonry; for providing openings through existing pavement where required; for excavation, including hand-digging as required, backfill, and disposal of surplus materials.

**79. Concrete Base Offset, Item SPV.0060.68.**

**A Description**

Construct concrete street light bases, including necessary hardware, according to the pertinent provisions of standard spec 654 and as hereinafter provided.

**B Materials**

Concrete masonry shall be Grade A conforming to the requirements of standard spec 501. Conduit cast within the bases shall be Schedule 40 polyvinyl chloride (PVC) electrical conduit and shall conform to the requirements of standard spec 652. Anchor bolts shall be made from high strength steel (50 KSI minimum yield strength), ASTM A36, and each shall be fitted with two hard washers and two heavy hex nuts. Each bolt shall have approximately 6 inches or more of thread at the top end. The bolts, washers, and nuts shall be galvanized. Bar steel reinforcement shall conform to the requirements of standard spec 505.

**C Construction**

Locate proposed street light bases as shown in the plans according to the Construction Staking Electrical Installations bid item. Where potential underground conflicts exist, locate the existing utility. Hand excavation may be required. Utilities may require an inspector to be present when excavating near their facilities. Refer to Utilities Article of these special provisions for additional requirements. The engineer will determine whether to adjust the base location laterally to avoid the conflict or require the use of an Offset Base.

Forms shall be of sufficient depth to provide a minimum of 12 inches of formed base below the finished grade on the low side of the base. The top surface of the base shall be level with a 3/4 inch bevel on the edges and shall be given a rubbed finish.

Anchor bolts shall be cast into the base as shown on the plans. Bolt circle diameters shall be verified before constructing the bases.

Manufactured elbows shall be furnished and installed in all bases by the contractor, except as noted on the details. Elbows shall be installed to permit conduit to be installed in as nearly straight-line runs as possible, without unnecessary bends. Bases not installed to this standard will not be accepted.

Existing conduit shall be extended into the bases. Elbows shall conform to the requirements of the type of conduit entering the base. Each base at the end of a run shall have an extra elbow installed as directed by the engineer.

Extra elbows shall also be installed in any base as directed by the engineer. Poles shall not be erected on the concrete bases until the bases have cured for at least seven days.

Provide a rubbed finish down to finished grade for all concrete bases.

**D Measurement**

The department will measure Concrete Base Offset as each individual concrete base offset, 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.0060.68	Concrete Base Offset	EACH

Payment is full compensation for furnishing and installing all materials including conduit, bushings, caps and/or plugs, ground rod, anchor bolts, cadwelding, copper grounding wire; bar steel reinforcement, and concrete masonry; for providing openings through existing pavement where required; for excavation, including hand-digging as required, backfill, and disposal of surplus materials.

**80. Transformer Base 16-Inch Steel Black, Item SPV.0060.69;  
Transformer Base 16-Inch Steel, Item SPV.0060.70.**

**A Description**

This special provision describes furnishing and installing steel transformer bases as shown on the plans and as follows.

## **B Materials**

The steel transformer bases shall be hot-dipped galvanized according to ASTM designation A123. The bases shall have slotted bolt openings. Steel connecting bolts, size 1.25 inches by 4 inches, hold down lugs for 1.25-inch bolts and nuts and washers shall be furnished. Verify the bolt diameter, projection and bolt circle dimension required for each application. Ensure the concrete bases and pole bases are compatible with the transformer bases and bolts. All such material shall be hot-dipped galvanized and be of sufficient size and strength to exceed the capacity of the bases. The 16-inch base shall conform to the detail in the plan.

The paint system chosen shall result in a durable weather-resistant paint well adhered to the transformer base and suitable for streets with heavy salting and the resulting salt spray from passing vehicles. The black finish paint color shall be RAL 9005 80% gloss. The manufacturer shall fully warrant the paint system for five years.

Furnish to the engineer at the time of delivery of the bases, a manufacturer's certificate of compliance that the base and hardware as furnished meets the above requirements.

## **C Construction**

Install transformer bases according to the manufacturer's instructions, and as shown on the plans.

## **D Measurement**

The department will measure Transform Base 16-Inch Steel (type) as each individual transformer base, 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.0060.69	Transformer Base 16-Inch Steel Black	EACH
SPV.0060.70	Transformer Base 16-Inch Steel	EACH

Payment is full compensation furnishing and installing transformer bases, streetlight pole wire, mechanical grounding connector and related hardware; for leveling shims when required.

## **81. Traffic Signal Control Cabinet, Item SPV.0060.71.**

### **A Description**

This specification describes furnishing a fully configured and equipped, sixteen channel (minimum), NEMA TS2 Type 1 traffic signal control cabinet with 8-Wire Railroad Interconnection capability and integrated BBS/UPS compartment, for testing by the city and subsequent installation. The traffic signal control cabinet provided shall be capable of operating the intersections as shown in the plans.

### **B General Requirements**

Furnish and install equipment and assemble the hybrid cabinet conforming to the latest revision of NEMA Standards Publication TS Version 2.06 (R2008), Traffic Controller Assemblies with NTCIP Requirements, National Electrical Manufacturers Association, hereinafter called NEMA TS2 Standard, except where modified in this specification. Conform all work to the Wisconsin State Electrical Code (WSEC).

Provide a traffic signal control cabinet designed for TS2 Type 1 operation. Pre-wire cabinet for a minimum of sixteen phases as specified herein. Provide a second harness ready for communication between the traffic signal control cabinet itself and a NEMA TS2 Type 2 Traffic Signal Controller. TS2 Type 2 harness should be easily connected without having to drop the back panel or modify the wiring on the power panel.

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

The City of Madison will install this item as part of the construction of this project.

## **C Materials**

### **C.1 Cabinet Design**

Furnish a door-in-door ground mounted (without anchor bolts) aluminum hybrid cabinet of clean-cut design and appearance. Provide a joint traffic signal control cabinet / BBS/UPS compartment of minimum size 58 inches wide, minimum 26 inches deep and minimum 52 inches to maximum 60 inches high. The size of the cabinet and BBS/UPS enclosure shall provide ample space for housing the controller, all of the associated devices which are to be furnished with the controller, the UPS, the batteries, all other auxiliary devices herein specified, and any equipment to be furnished and installed by others.

The BBS/UPS compartment shall be located on the right side of the traffic signal control cabinet. The roof over the traffic signal control cabinet and BBS/UPS compartment shall incorporate a 1-inch slope toward the back of the hybrid cabinet to prevent rain accumulation. Incorporate a rain channel into the design of the main door and BBS/UPS compartment door opening to prevent liquids from entering either enclosure.

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

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

Include an exhaust plenum with a vent screen into the roof of the traffic signal control cabinet. Perforations in the vent screen shall not exceed 0.125 inches in diameter. Insulate the remaining area of the roof of the traffic signal control cabinet with a moisture resistant rigid foam board insulation with a minimum R value of 4.0 that can be perforated for an antenna.

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

The BBS/UPS compartment shall be approved by the manufacturer of the UPS system and not void the UPS system standard warranty.

Provide arc flash protection within the cabinet as needed to satisfy NFPA 70E and OSHA requirements.

### **C.2 Doors**

#### Traffic Signal Control Cabinet

The cabinet door opening shall be a minimum of 80 percent of the front surface of the cabinet. The main door and police door-in-door shall each close against a weatherproof and dust-proof, closed-cell neoprene gasket seal. The gasket material for the main door shall be a minimum of 0.188 inches thick by 1.00 inch wide. The gasket material for the police door shall be a minimum of 0.188 inches thick by 0.500 inches wide. Permanently bond the gaskets to the cabinet.

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

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

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

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

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

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

#### BBS/UPS Enclosure

Provide an access door on the front of the cabinet with a continuous hinge, door latch assembly with 3-point locking mechanism, #2 Corbin lock, dust cap, and two #2 keys. The door shall have a closed-cell neoprene gasket on all four edges. The continuous hinge shall be heavy gauge aluminum with 1/4-inch diameter stainless steel hinge pin. Secure hinge with 1/4-inch by 20 TPI stainless steel carriage bolts and stainless steel nylon locking nuts. The 3-point locking system shall have 1/2-inch by 1/4-inch by length required latch bars and nylon rollers. Door handle shall be a 3/4-inch solid stainless steel inward-turning handle with provisions for padlocking. Provide a steel rod door holder. All hardware shall be stainless steel, unless otherwise specified.

The door shall close against a weatherproof and dust-proof, closed-cell neoprene gasket seal. The gasket material shall be a minimum of 0.188 inches thick by 1.00 inch wide. Permanently bond the gasket to the cabinet.

The door hinge shall be a one-piece, continuous 14 gauge piano hinge with a minimum 0.12 inch stainless steel pin running the entire length of the right side of the door (right-handed). Attach the hinge in such a manner that no rivets or bolts are exposed.

Provide ventilation louvers on the front of the cabinet of sufficient open area to provide air flow for the cabinet fan. Provide a 1/2-inch air filter over all the louver area. Air filter shall slide into a channel and shall be easily removed and replaced.

Provide an aluminum floor welded to the bottom of the BBS/UPS enclosure to allow for mounting to concrete traffic signal cabinet base of standard dimensions.

### **C.3 Shelves and Mountings**

#### Traffic Signal Control Cabinet

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

Provide two full-width, 11-inch deep, fully adjustable, aluminum shelves to support the controller and other equipment. Mount the lower shelf at a height above the bottom of the cabinet such that the shelf and attached drawer does not interfere with the ability to tilt the terminal facility forward on its hinges for maintenance purposes. Mount the top shelf at least 13 inches above the surface of the lower shelf.

The controller and MMU2 will be located on the lower shelf. Locate the loop detector racks and other auxiliary equipment on the top shelf. The power supply may be mounted on either shelf.

Provide an under-shelf drawer beneath the lower shelf. The drawer shall be approximately 20 inches wide and a minimum of 12 inches deep. The drawer shall operate easily and smoothly and shall have a stop to prevent inadvertently pulling the drawer out of its support. Design the stop to allow purposeful complete removal of the drawer without the use of tools. Provide a slide out shelf capable of supporting a 5 pound, 14-inch wide by 11-inch deep load. This slide out support can be the cover for the drawer, as long as it extends far enough out to support the entire 11-inch depth of the laptop.

Provide a fully wired receptacle on the door that is specifically designed to support the twist and lock style plug specified for the optional heater element. Locate receptacle such that when installed, heater should be mounted a minimum of 6.5 inches from the bottom of the door.

#### BBS/UPS Compartment

Mount a minimum of two vertical "C" channels on each interior side wall of the cabinet for the purpose of mounting the cabinet components. The channels shall accommodate spring mounted nuts or studs. Install two vertical "C" channels or two slotted rails on the interior back wall of the cabinet. All mounting channels and rails shall be of sufficient strength to rigidly hold specified shelves and equipment.

Provide installed a minimum of three full width and 12 inch depth, aluminum shelves sufficient to hold all equipment furnished with this specification. All shelves shall have neoprene (or similar material) pads. The shelves shall not be the swing out type. The shelf locations shall be adjustable to within six inches of the top of the cabinet and 12 inches from the bottom of the cabinet. The shelves shall be capable of supporting up to 180 pounds. The shelves shall be mounted with a gap between them and the back of the compartment to allow room behind them for wiring.

#### **C.4 Auxiliary Cabinet Equipment**

##### Traffic Signal Control Cabinet

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

Mount a single LED light strip (GESS32-13200K or approved equal) at the top of the cabinet and the appropriate power supply to support up to four (4) light strip panels. Wire the power supply to an ON/OFF toggle switch. Mount two LED light strips under the lower shelf fed off the power supply on the top of the cabinet. Locate one strip on each side of the drawer.

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

##### BBS/UPS Compartment

Provide and install a power distribution terminal block for wire connections, wire size up to #8AWG, from the traffic signal control cabinet.

Mount a NEMA 3R-rated enclosure within the compartment, but opening to the outside of the compartment and secured with a brass Corbin tumbler lock No. 2 with a swing away dust cap. Within this enclosure, furnish and install a generator connection outlet. The outlet shall be a Marincio 125/250 V 50A turn and pull or equivalent, back wired, surface mounted, twist lock receptacle with a watertight cover and meter seal tabs, or equal.

Ventilate the compartment by means of an installed 120 VAC, 60HZ, tube axial compact type fan. The fan's free delivery airflow shall be greater than 2.83 cubic meters per minute. The magnetic field of the fan motor shall not affect the performance of control equipment. The fan bearings shall operate freely. The fan unit shall not crack, creep, warp, or have bearing failure within a 7-year duty cycle. The maximum noise level shall be less than 40 decibels. The fan unit shall be corrosion resistant. The fan shall be thermostatically controlled. Thermostat shall be set to manufacturer required settings. The fan shall be fused.

#### **C.5 Terminal Facility**

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

Mount the bottom of the terminal facility a minimum of nine inches from the bottom of the cabinet. Hinge the terminal facility at the bottom to allow easy access with simple tools to all wiring on the rear of the panel. It shall not be necessary to remove the lower shelf, the shelf drawer, or any shelf-mounted equipment to hinge down the terminal facility. Provide sufficient slack in the load bay wiring to allow for dropping the load bay.

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



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

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

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

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

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

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

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

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

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

Permanently label all logic-level, NEMA-controller and MMU2 input and output terminations on the terminal facility. Identify the function of each terminal position on the cabinet drawings.

Terminal blocks for DC signal interfacing shall have a number 6-32 by 7/32 inch screw as minimum. Functions to be terminated shall be as specified in the listing of Input/Output Terminals in Section 5 of the NEMA TS2 Standard.

Conform all terminal facility and cabinet wiring to the WSEC. The green/walk, yellow, and red/don't walk load switch outputs shall be minimum 16 gauge wire. The MMU2 (other than AC power), controller I/O, and logic ground shall be minimum 22 gauge wire. All wire colors shall be consistent in all cabinets furnished in one order.

### **C.6 Vehicle Detection Interface Panel**

Provide a 32-position interface panel or two 16-position panels. Each interface panel shall allow for the connection of 32 or 16 independent field loops, respectively. One panel shall allow for 4 EVP channel inputs. The panels shall have barrier strip type terminals using 8-32 screws and be rated for 20 inch pounds of torque.

Provide a ground bus terminal between each loop pair terminal to provide a termination for the loop lead-in cable ground wire. Secure the interface panels to a mounting plate attached to the left interior side wall of the cabinet.

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

Provide a pathway or mechanism for securing loop lead in cables neatly next to interface panel.

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

### **C.7 Lighting Control Panel**

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

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

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

Provide panel cover that is secured on the top and bottom of the panel with a minimum of 4 thumb screws.

Provide a switch in the cabinet that can turn intersection lighting on/off.

### **C.8 Auxiliary Surge Suppressor**

Provide and mount within the cabinet an auxiliary surge suppressor unit conforming to the following minimum requirements:

- 6-NEMA 5-15R receptacles
- 2700 joule rating

Surge suppressor should be wired off a circuit breaker that is separate from the cabinet equipment such that if this circuit is faulted, the cabinet/controller and all associated equipment will still function.

### **C.9 Conductors and Cabling**

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

Provide controller and MMU2 cables of sufficient length to allow the units to be placed on either cabinet shelf in the operating mode. Connecting cables shall be sleeved in a braided nylon mesh. Exposed tie-wraps and interwoven cables are unacceptable.

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

Pre-wire the terminal facility for a Type 16 MMU2.

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

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

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

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

## C.10 Cabinet Switches

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

- a. Controller On/Off
- b. Stop Time (Three Positions)

<u>Position</u>	<u>Switch</u>	<u>Label Function</u>
Upper	Stop Time	Place stop time on the controller
Center	Run	Remove the stop time input to the controller
Lower	Normal	Connects the MMU2 to the controller stop time input

Locate the following switches behind the police access door:

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

The above switches shall function as follows:

Off: Signals Dark

Signal: Signals On and operating as follows:

<u>Auto</u>	<u>Hand</u>
Flash: Signals Flash	Signals Flash
Normal: Signals Normal	Signals Advance by use of hand control

## C.11 Power Panel

### C.11.1 Design

The power panel shall consist of a separate module, securely fastened to the interior right side wall of the cabinet. Wire the power panel to provide the necessary power to the cabinet, controller, MMU2, cabinet power supply, and all auxiliary equipment. Manufacture the power panel from 0.090-inch, 5052-H32 aluminum. Panel layout shall facilitate field inspection and maintenance accessibility without excessive disassembly or special tools.

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

All components of power panel shall meet or exceed the electrical requirements as laid out in section 5.4 of the NEMA TS2 Standard.

### C.11.2 Grounding System

On each side of the cabinet, provide a minimum 20-position neutral bus bar capable of connecting three #12 AWG wires per position.

Also, on each side of the cabinet, provide a minimum 20-position equipment ground bus bar capable of connecting three #12 AWG wires per position. Install this bus bar below the neutral bus bar.

### C.11.3 Circuit Breakers

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

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

- One 15-amp auxiliary breaker. This breaker shall supply power to the fan and heater.
- One 10-amp breaker. This breaker shall supply power for control equipment: controller, MMU, and cabinet power supply.
- One 20-amp circuit breaker for future use.

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

#### **C.11.4 Power receptacle**

Mount a two-position, 120 VAC 20 amp, NEMA 5-20R GFCI convenience outlet on the interior right side wall above or as part of the power panel. The outlet shall be fully operational and fuse protected.

#### **C.12 Auxiliary Devices**

##### **C.12.1 Flashers**

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

##### **C.12.2 Flash Transfer Relays**

Provide four flash transfer relays conforming to the requirements of section 6.4 of the NEMA TS2 Standard.

##### **C.12.3 Cabinet Power Supply**

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

##### **C.12.4 Load Switches**

Provide sixteen solid state load switches conforming to the requirements of Section 6.2 of the NEMA TS2 Standard.

##### **C.12.5 Bus Interface Units (BIU)**

Provide four BIUs conforming to the requirements of section 8 of the NEMA TS2 Standard. Provide two BIUs with the main panel and one BIU with each of the detector racks.

##### **C.12.6 Inductive Loop Detector Amplifier Card**

Provide sixteen, two-channel, type C, rack mounted, inductive loop detector amplifier cards conforming to section 6.5, Inductive Loop Detector Units, of the NEMA TS2 Standard.

Install inductive loop detector amplifier cards in the rack in traffic signal control cabinet. Program the signal controller to make the inductive loop detector and signal cabinet fully operational per plan.

##### **C.12.7 Time Clock**

Furnish a Tork EWZ210C astronomical time clock with an 8-year lithium battery time backup, -40° F to 120° F operating range, 40-year program schedule retention, LCD type, daylight saving time, and leap year correction. Program as required by the City of Madison.

#### **C.13 Railroad Preempt Interface Panel**

Provide a railroad preempt interconnect panel built to meet state-standard and railroad requirements for the intersection where the railroad preempt is being installed. The interconnect panel shall be capable of providing at a minimum a full 8-wire interconnect with advance, simultaneous and gate-down preempt sequences. The interface panel shall also be capable of operating with a minimum 2-wire interconnect, single sequence advance (or simultaneous) preempt. Use relays with an indicator light that illuminates when the relay for a specific circuit is energized.

Mount the interface panel on the left inside wall of the traffic signal control cabinet. Furnish and install any cabling necessary for interconnection with the devices in the signal cabinet with which the interface panel is intended to communicate. Make the interface panel fully operational.

## **C.14 NEMA TS2 Type 2 Traffic Signal Controller with Special Programming Functions**

### **C.14.1 General Requirements**

Provide a shelf-mounted NEMA TS2 Type 2 traffic signal controller programmed and ready for operation within the associated traffic signal control cabinet. The controller unit shall be fully actuated, solid state, digital microprocessor based capable of providing the number and sequence of phases, overlaps, and any special logic as described herein. The controller unit and engine board shall comply with or exceed the industry's latest Advanced Traffic Controller (ATC) standard 5.2b and proposed standard 6.10. The controller unit shall also conform to NEMA TS2 Standard, Section 3, specifications for the Type 1 Actuated configuration in the areas where the ATC standard is silent.

The traffic signal controller shall have the capability to be programmed for MUTCD allowed signal sequences and non-standard operations using inputs on the front panel without requiring revisions to the operating system and the controller application software. Controller unit shall have a Linux-based operating system.

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

Provide a 4-ring, programmable both for single and dual entry concurrent timing, 9-phase frame or equivalent. Provide volume density timing for 8 phases and pedestrian timing for all phases. Provide MUTCD flash capability. All controls shall be according to the NEMA TS2 Standard.

All controller timing parameters shall be fully programmable from the front panel keyboard inputs, and memory storage features shall be non-volatile under power-off conditions for at least 30 days. The locking, non-locking detection mode and per phase recall shall also be accessible on the front panel. The controller shall have the option for a security code entry before any timing parameters can be changed.

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

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

The controller shall provide a method for programming special user created logic functions. User created logic functions shall include, but not be limited to: nonstandard overlaps, special detector logic based on user selected parameters, coordination plan selection, and phase and pedestrian omits. Programming these special functions shall be accomplished through the use of the controller front panel keyboard. The need for special programming applications will not be considered acceptable; however, it is acceptable to provide the programming functionality as part of a computer based controller programming application. Special user created logic functions shall be stored as intersection programming and be capable of being transferred from controller to controller through the use of a data-key or computer based controller programming application.

### **C.14.2 Front Panel Display**

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

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

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

### **C.14.3 Timing**

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

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

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

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

- yellow clearance - 3.0 seconds
- standard minimum walk - 4.0 seconds
- preemption minimum walk = 0.0 seconds
- minimum pedestrian clearance - 6.0 seconds

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

#### **C.14.4 Manual (Police) Control**

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

#### **C.14.5 Coordination**

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

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

#### **C.14.6 Diagnostic Program**

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

### **C.14.7 Message Logging**

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

### **C.14.8 Closed Loop Operation**

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

### **C.14.9 Firmware/Software**

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

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

- All phase sequences used by the city, including flashing yellow for both left and right turns.
- Closed loop, adaptive, Performance Measure application, and on-street control software currently utilized by the city including Centracs and Centracs Adaptive.
- Both the controller and the MMU2.
- City PC laptop and desktop computers with Windows 7 operating systems.
- Backwards compatibility with older traffic signal controllers and software produced by the controller manufacturer and installed at city traffic signal installations since 2010.
- Capable of SPaT output for Connected Vehicle operations.

### **C.14.10 Controller Programming**

Provide a controller that has been programmed to operate the associated intersection based upon the signal plan and sequence of operations sheet or as provided by the city.

## **C.15 Battery Backup System**

### **C.15.1 UPS Features**

The UPS shall be an inverter/charger complying with UL 1778.

When utilizing battery power, the BBS output voltage shall be between 110 VAC and 125 VAC, pure sine wave output with THD < 3% at 60 Hz +/- 3 Hz.

Provide buck and boost capability to provide constant output voltage without battery input.

The range of operating temperatures for the inverter/charger shall be -34° C to +74° C.

The UPS shall be programmable and controllable using the UPS touch pad. The UPS shall also be fully programmable and controllable using a standard personal computer USB interface with Windows 7 operating system.

Provide a backlit LCD display to indicate current battery charge status, input/output voltages, power output, battery temperature, faults, alarms, date, time, and settings of the various relays.

UPS shall be fully SNMP Ethernet ready, including a RJ-45 (also known as an 8P8C) Ethernet connector port, for future activation. A SNMP card is not required with this specification.

Provide on the UPS a resettable inverter event counter and a cumulative inverter timer.

All controls and external connections shall be on the front panel. The UPS unit shall sit horizontally on a shelf. All controls and labels shall be oriented to read horizontally.

Provide lightning/ surge protection complying with ANSI/IEEE C.62.41 and C.62.45 Cat A & B and UL 1449.

Equip the UPS with an event log for at minimum the last 100 events. The events shall be time and date stamped. The event log shall be retrievable via the USB port and the last event in the log shall be viewable from the LCD screen.

The UPS shall be capable of performing a SELF-TEST of the BBS. The duration of the SELF-TEST shall be programmable in 1-minute increments from one minute to four hours.

The operation of the flash mode shall be field programmable to activate at various times, battery capacities, or alarm conditions.

Provide password protection for certain maintenance controls such as Battery Test, BBS inverter ON/OFF, viewing the Event log, and changing default settings. Furnish the UPS with a default password and the ability for the user to change the password.

Use the following LED lights conditions to indicate current status:

- Red LED Flashing for ALARM.
- Red LED steady ON for FAULT.
- Green LED Flashing for battery back-up mode.
- Green LED steady ON for normal line mode operation.

Provide on the UPS at least four sets of NO / NC panel-mounted and potential free contact relays rated 1 Amp, 120 VAC, and labeled 1 through 4. Each relay's setting shall be either preset or programmable to activate under any number of conditions. The available settings for the relays shall be:

- ON BATTERY – relay activates when BBS switches to battery power.
- LOW BATTERY – relay activates when batteries have reached a certain level of remaining useful capacity while on battery power. This number is adjustable by battery voltage.
- TIMER – relay activates after being on battery power for a given amount of time. This number is adjustable from 0 to 8 hours.
- UPS FAILURE – relay activates in the event of UPS inverter/charger failure to be able to run according to these specifications.

### **C.15.2 Specifications**

Battery String Voltage 48 Vdc

#### Input Specifications

Nominal Input Voltage 120 VAC, Single Phase

Input Voltage Range 120 VAC +/- 25%

Input Frequency 60 Hz +/- 5%

#### Output Specifications

Nominal Output Voltage 120 VAC, Single Phase

Power Rating 1100 VA minimum at 25° C (1500 Watts at 74° C)

Output Frequency 60 Hz (+/- 3%)

Voltage Wave Form Pure Sine Wave, THD < 3.0%

Efficiency (nominal) Minimum 85% at 100% load

### **C.15.3 Switches**

The three switches listed in this section may be in separate units or may be integrated into one or more units.

The range of operating temperatures for all switches shall be -34° C to +74° C.



### C.15.3.1 Automatic Bypass Transfer Switch

Furnish and install an automatic/manual bypass switch to transfer the critical load to the utility line if there is a fault on the BBS/UPS, if there is battery failure, and upon complete battery discharge. The transfer from battery power to utility power shall not interfere with the normal operations of the traffic controller, conflict monitor, or any other peripheral devices within the traffic control system.

#### Input / Output Specifications

Nominal Voltage	120 VAC, Single Phase
Voltage Range	92 to 135 VAC
Input Frequency	60 Hz +/- 5%
Current	30 A

### C.15.3.2 Manual Bypass Switch

Furnish and install a manual bypass switch to provide a mechanical bypass of the BBS/UPS without any interruption of power to the intersection.

#### Input / Output Specifications

Nominal Voltage	120 VAC, Single Phase
Voltage Range	92 to 135 VAC
Input Frequency	60 Hz +/- 5%
Current	20 A minimum

### C.15.3.3 Generator Transfer Switch

Furnish and install a generator transfer switch to automatically transfer the input to the BBS/UPS from the utility line to a portable AC generator. The switch shall break both line and neutral to the utility and prevent back-feeding the utility lines. This switch shall be mounted within the same enclosure as the generator plug.

#### Input / Output Specifications

Nominal Voltage	120 VAC, Single Phase
Voltage Range	92 to 135 VAC
Input Frequency	60 Hz +/- 5%
Current	20 A minimum

### C.15.4 Other Equipment

Furnish all equipment, mounting hardware, wire, cable, fasteners, and connectors not otherwise specified to provide a complete and operational BBS/UPS, including but not limited to, the cable connections to the batteries.

#### C.15.4.1 Battery Monitor System

A remote battery monitor system (RBMS) shall be permanently installed into the BBS/UPS compartment to monitor the four batteries (4-12V battery blocks). The RBMS shall have the ability to monitor, read and record both the battery string and individual battery voltages, admittance (internal battery resistance), individual battery temperatures and to provide a real-time evaluation of the battery bank health.

The RBMS shall have a built-in web interface for communications over Ethernet. The device shall be hardened and operate at a temperature range of -40C to +65C. The device shall include individual 12 volt battery sensors and operate in the range of -40C to +80C. Communications shall be SNMP via TCP/IP.

The RBMS shall include software to automatically poll each intersection, up to 100 per software program, reading individual battery voltage, admittance and temperature, confirming each is within its user programmable parameters. The system shall have the ability to program the intervals as to when each reading is taken, by days, weeks or months. The software shall be provided as part of the system cost.

The RBMS shall also perform as a battery balancer, continuously monitoring all batteries in the string and to interface with the UPSs charger voltage/current to keep the batteries equal with all batteries within the battery string. The RBMS shall allow for any single 12V battery within the battery string to be replaced without replacing all batteries in the string during the battery warranty period.

#### **C.15.4.2 Battery Heater Mats**

Provide installed and operational heating mats for the batteries. Heating mats shall be 120 volt. Provide a temperature sensor bonded to the pad, electrical power cord, and a thermal fuse in each power cord.

#### **C.15.5 Operation**

##### **C.15.5.1 Loss / Restoration of Utility Power**

The BBS/UPS shall transfer the load to battery power when the utility line voltage is outside the High and Low Limits. Set the default high and low limits as 130 and 100 VAC, respectively. Operate in the Buck and Boost modes for partial line voltage correction.

For the low line voltage condition, the BBS/UPS shall return to line mode when the utility power has been restored to above 105 VAC for the specified line qualification time. This line qualification time shall be user adjustable from 3 to 30 seconds.

For the high line voltage condition, the BBS/UPS shall return to line mode when the utility power has been restored to below 125 VAC for the specified line qualification time. This line qualification time shall be user adjustable from 3 to 30 seconds. In cases where the nominal voltage is between 125 and 130 VAC, the BBS/UPS shall return to line mode when the utility power is back to nominal.

The maximum transfer time allowed, from disruption of normal utility line voltage to stabilized inverter line voltage from batteries, shall be 65 milliseconds. The same maximum allowable transfer time shall also apply when switching from inverter line voltage to utility line voltage.

##### **C.15.5.2 Battery Operation**

In the event of UPS failure, battery failure, or complete battery discharge, the automatic power transfer switch shall revert to the NC (and de-energized) state, where utility power is supplying the cabinet.

Provide a temperature compensated battery charging system. The charging system shall compensate over a wide range of 2.5 to 4 mV / °C / Cell. The charger shall be rated 10 amps at 48 VDC. Batteries shall not be charged when battery temperature exceeds manufacturer's recommendations for the specific batteries being used. The charging system shall fully recharge the batteries within 20 hours.

##### **C.15.6 Compatibility**

The BBS/UPS shall be compatible with all of the following for full phase operation mode, flash operation mode, or a combination of both full and flash mode operation:

- NEMA TS1 controllers and cabinet components
- NEMA TS2 controllers and cabinet components

##### **C.15.7 Electrical Protections**

The BBS/UPS shall be equipped to prevent a malfunction feedback to the cabinet or from feeding back to the utility service per UL 1778, Section 48 "Back-feed Protection Test". The upstream back-feed voltage from the BBS/UPS system shall be less than 1 volt AC.

##### **C.15.8 Equipment Installation**

Furnish and install the BBS/UPS system according to manufacturer's requirements.

1. Furnish and install from the electrical service to the BBS cabinet and back to the signal cabinet, the larger of #10 AWG, 600 volt, electric wire,
2. The wire size recommended by the UPS manufacturer,
3. The largest size wire used in the signal cabinet for the power connections, or
4. The wire size required by WSEC.

Install the wire through a hole drilled between the traffic signal control cabinets and the BBS/UPS compartment. Install two bushings in the hole.

Provide grounding, suppressors and lightning arrestors according to the WSEC requirements.

Program and/or enter configuration settings for the equipment and make the equipment fully operational.

### **C.15.9 BBS/UPS System 100aH Batteries**

Furnish four 100aH batteries. Batteries shall be newly built and fully charged when delivered. Batteries shall be fully compatible with the associated BBS/UPS system.

The batteries shall be comprised of extreme temperature, float cycle, GEL VRLA (Valve Regulated Lead Acid). Batteries shall be certified to operate at extreme temperatures from  $-40^{\circ}\text{C}$  to  $+71^{\circ}\text{C}$ .

Batteries shall provide 100% runtime capacity out-of-box. Each battery must meet its specification without the requirement of cycling upon initial installation and after the initial 24 hour top off charge.

Batteries shall be configured for a 48 VDC battery buss system.

The batteries shall have maintenance-free threaded insert terminals eliminating annual torqueing. Battery terminals that require annual torqueing of each post connection shall not be permitted.

An integral lifting handle shall be provided on each battery for ease of removal/installation.

### **C.15.10 Maintenance**

The individual BBS/UPS parts shall be easily replaced and installed (complete turnkey system with all necessary hardware). The BBS/UPS shall not require any special tools for removal or installation.

The BBS/UPS shall provide voltmeter standard probe input-jacks (+) and (-) to read the exact battery voltage drop at the inverter input.

The BBS/UPS shall be programmable to perform automatic self-testing, programmed in weekly intervals and programmed by the user to meet their specific requirements or manufacturer's recommendation. During self-test the BBS/UPS shall identify a weak battery or multiple batteries in the string that have reached a weak state and notify maintenance by initiating an alarm.

### **C.16 Documentation**

#### **C.16.1 Cabinet Intersection Wiring Diagrams**

At the time of the cabinet delivery, furnish with the cabinet two sets of printed 22 by 34-inch cabinet intersection wiring diagrams, one set of .dwg CAD files and one .pdf file per cabinet. After cabinet acceptance is complete, if any cabinet wiring changes were made, revise the cabinet wiring diagrams and provide two sets of printed 22 by 34-inch and two sets of printed cabinet intersection wiring diagrams, one set of .dwg CAD files and one .pdf file reflecting any field changes.

#### **C.16.2 BBS/UPS Wiring Diagrams**

Submit detailed equipment layout drawings and inter-equipment wiring diagrams furnished under this specification to the department for approval. Two sets of approved equipment layout drawings and inter-equipment wiring diagrams shall be contained in a heavy-duty clear plastic envelope mounted on the inside of the front door.

#### **C.16.3 Manuals**

##### Traffic Signal Control Cabinets

At the time of the cabinet delivery, furnish the city an electronic copy of installation, operations, and maintenance manuals including each type of standard equipment in the cabinet. The manuals shall as a minimum include the following information:

- a. table of contents,
- b. operating procedure,
- c. step-by-step maintenance and trouble-shooting information for the entire assembly,
- d. schematic diagrams,
- e. pictorial diagrams of parts locations,
- f. itemized parts lists with parts numbers,
- g. theory of operation, and
- h. maintenance checklists.

## UPS/BBS Compartment

For the installed equipment, at the time of the delivery, furnish two printed sets, and one .pdf file on a CD-ROM or flash drive, of equipment installation, operations, and maintenance manuals per cabinet and an itemized price list for each type of equipment, their sub-assemblies, and their replacement parts. The manuals shall as a minimum include the following information for each piece of equipment:

- a. table of contents,
- b. startup procedure,
- c. operating procedure,
- d. step by step maintenance and trouble-shooting information for the entire assembly,
- e. circuit wiring diagrams,
- f. pictorial diagrams of parts locations,
- g. part numbers,
- h. theory of operation, and
- i. maintenance checklists.

The instructional manuals shall include an itemized parts list. The itemized parts list shall include the manufacturer's name and part numbers for all components (such as IC's, diodes, switches, relays, etc.) used in each piece of equipment. The list shall include cross-references to part numbers of other manufacturers who make the same replacement parts. Also provide the .dgn CAD files for the equipment layout drawings and inter-equipment wiring diagrams.

### **C.17 Cabinet Delivery**

Deliver the fully wired, equipped and configured cabinet with required documentation to the City of Madison, Traffic Engineering Electrical Shop located at 1120 Sayle Street, Madison, WI, 53704. Delivery shall be on a business day between 8:00 AM and 3:00 PM. Contact the City of Madison, Traffic Engineering Electrical Shop (Ed Smith at 608-266-9034) a minimum of two business days ahead of the desired delivery time to schedule and confirm the staff availability for delivery.

### **C.18 Warranty**

The vendor shall warrant the performance and construction of the fully-configured cabinet to meet the requirements of the plan, this specification, and shall warrant all wiring parts, components, and appurtenances against defects in design, material and workmanship for a period of one year from the date of installation. In the event defects and failures become apparent during this time, the contractor shall repair and/or replace all defective parts or appurtenances at no additional expense to the department. This specification is to construe that any part, or parts, that fail to function properly shall be replaced at no charge to the department.

### **D (Vacant)**

### **E Measurement**

The department will measure Traffic Signal Control Cabinet as each individual traffic signal control cabinet, 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.0060.71	Traffic Signal Control Cabinet	EACH

Payment is full compensation for furnishing, configuring, and delivering all materials to the City of Madison, 1120 Sayle Street.

**82. Traffic Signal Controller, Item SPV.0060.72.**

**A Description**

This special provision describes furnishing a traffic signal controller with auxiliary equipment to the City of Madison.

**B Materials**

Furnish the following:

1. Econolite Cobalt controller with HTR, data key, and Ethernet.
2. FSK TLM 25 pin for this controller.
3. Econolite TIO board with harness.
4. D connector interface harness and board.

**C (Vacant)**

**D Measurement**

The department will measure Traffic Signal Controller as each individual traffic signal controller, 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.0060.72	Traffic Signal Controller	EACH

Payment is full compensation for furnishing and delivering the signal controller, and all auxiliary equipment, to the City of Madison, 1120 Sayle Street.

**83. Malfunction Management Unit (MMU), Item SPV.0060.73.**

**A Description**

This special provision describes furnishing and configuring equipment conforming to NEMA TS2 Standard, including NEMA Amendment #4-2012 for Flashing Yellow Arrow (MMU2), 16-Channel, solid-state MMU with Ethernet capability configured and assembled on Traffic Signal Control Cabinet (item SPV.0060.71) to the City of Madison.

**B Materials**

Provide one shelf-mountable, 16 channel, solid-state MMU2 complete with programmed card and with Ethernet capability. The MMU2 shall meet the requirements of Section 4 of the NEMA TS2 Standard as well as Amendment #4-2012 for Flashing Yellow Arrow. The MMU2 shall be provided with Ethernet active and available for use without any further modification. The MMU2 shall come with a card that has been programmed per the sequence of operations.

The MMU2 shall be capable of the following:

- Detecting simultaneously active inputs of Green (Walk), Yellow, or Red (Don't Walk) on the same channel.
- Determining if the field signal input states detected as active or inactive by the MMU2 correspond with the data provided by the Controller Unit.
- Monitoring an optional external watchdog output from a Controller Unit or other external cabinet device.
- Monitoring an intersection with up to four approaches using the Flashing Yellow Arrow (for protected/permissive left and right turn movements).
- Event logging for the following: AC Line log, Prior/Previous Faults log, and Monitor Reset Log. All log entries shall include a date and time stamp.

- All monitor functions shall be capable of being programmed through the front panel, without the need for computers or special program cards.
- A built-in Diagnostic Wizard shall be provided that displays detailed diagnostic information regarding the fault being analyzed. This mode shall provide a concise view of the signal states involved in the fault, pinpoint faulty signal inputs, and provide guidance on how the technician should isolate the cause of the malfunction.

The MMU2 shall have an LCD display that allows for viewing of log files and field indications, as well as the viewing and setting of date and time and configuration parameters.

Furnish test results for the MMU2 showing that it has been tested within the past 3 months. The testing should include all standard NEMA TS2 required and optional tests – including flashing yellow arrow testing for the mode appropriate for the cabinet for which it is to be installed.

**C (Vacant)**

**D Measurement**

The department will measure configured and assembled Malfunction Management Unit (MMU) as each individual malfunction management unit (MMU), 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.0060.73.	Malfunction Management Unit (MMU)	EACH

Payment is full compensation for furnishing, configuring, testing, and delivering the malfunction management unit assembled on the Traffic Signal Control Cabinet.

**84. Traffic Signal Ethernet Switch, Item SPV.0060.74.**

**A Description**

This special provision describes furnishing and installing an ethernet switch in an existing traffic signal cabinet, as specified in standard spec 651, 655, 670, 674, and 675, as shown on the plans, and as provided hereinafter.

**B Materials**

Furnish Cisco IE-4000-8T4G-E Ethernet switches as shown in the plans.

Provide all necessary cables between the ethernet switch and device or devices as shown in the plans.

**C Construction**

Install the traffic signal ethernet switch in an existing traffic signal cabinet. Connect it to devices as shown on the plans, according to the manufacturer’s recommendation, and as directed by the engineer.

Contact Mike Benzschawel at the City of Madison Traffic Engineering shop at (608) 266-9031 a minimum of seven working days in advance to coordinate installing equipment in existing traffic signal cabinet.

**D Measurement**

The department will measure Traffic Signal Ethernet Switch as each individual traffic signal ethernet switch, 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.0060.74	Traffic Signal Ethernet Switch	EACH

Payment is full compensation for furnishing and installing an ethernet switch, all necessary incidental wiring and hardware, making all necessary connections.

85. **Traffic Signal Trombone Arms Aluminum 12-Foot, Item SPV.0060.75;**  
**Traffic Signal Trombone Arms Aluminum 15-Foot, Item SPV.0060.76;**  
**Traffic Signal Trombone Arms Aluminum 18-Foot, Item SPV.0060.77;**  
**Traffic Signal Trombone Arms Aluminum 22-Foot, Item SPV.0060.78.**

**A Description**

This special provision describes furnishing and installing trombone mast arms and all necessary miscellaneous hardware needed to complete the installation of the trombone mast arm as shown on the plans, in the standard specifications, and as hereinafter provided.

**B Materials**

The traffic signal trombone arm shall be designed to withstand loadings resulting from a 12-inch 3-section aluminum signal with backplate and an 18-inch by 90-inch aluminum street name sign mounted on the arm as shown on the drawing. Design factors according to the AASHTO Specifications for the Design and Construction of Structural Supports for Traffic Signals, Signs, and Highway Lighting, together with a wind pressure resulting from a wind velocity of 80 miles per hour plus gust factor, shall be applied to these arms, with the above signals attached.

Certification of compliance with these stated AASHTO performance requirements shall be furnished with submission of the material list.

Shop drawings shall be submitted and shall include dimensions of width, depth, length and thickness of all members and ASTM designation and alloy designation of aluminum members.

The trombone arm shall be aluminum and shall consist of round or oval upper and lower members joined by one or more tubular vertical struts welded to them. The pole end of the mast arm shall have a mounting clamp welded to it which will permit the attachment of the mast arm to a round pole of varying diameter. The lower clamp shall be 5 7/8-inch I.D. and the upper clamp shall be 5 1/2-inch I.D. The design of the clamps shall accommodate some variation in pole diameter while still attaining full contact between the clamp and the pole. The surface area of the clamp contacting the pole shall be sufficiently large and designed to prevent horizontal rotation in windy conditions. The bolts connecting the arm bracket to the back bracket shall be galvanized steel; stainless steel bolts are not acceptable. The vertical strut, which has provision for mounting the signal head, shall also provide for horizontal adjustability along the main mast arm members so that signal heads of various lengths with backplates, up to and including 5-section 12-inch heads, can be accommodated within the confines of the mast arm. The cross tees for signal heads shall each have two slots on the threaded hubs that face each other.

The wiring raceway entrance shall be through the lower mounting bracket.

The mast arm shall have a uniform natural aluminum finish and shall be clean. No painting or other corrosion preventive maintenance will be required.

The portion of the main members of the arm to which the arm attachment bands are welded shall be one-piece seamless tapered aluminum tubes.

The main arm member shall be attached to the pole using extruded aluminum clamps fastened with continuously threaded stainless-steel bolts with nuts and washers meeting the requirements of ASTM Designation A-320. Strength and/or grade specification ratings shall be listed on the shop drawings. Stiffeners or gussets shall be provided at the joints between the main arm tubes and arm clamps to provide adequate strength to resist side loads.

Shims shall be made of an aluminum alloy.

A permanent imprint of the "Type" and "Year of Manufacture" shall be made on the underside of the lower member of each arm.

**C (Vacant)**

**D Measurement**

The department will measure Traffic Signal Trombone Arms Aluminum (Length) as each individual traffic signal trombone arms aluminum (length), 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.0060.75	Traffic Signal Trombone Arms Aluminum 12-Foot	EACH
SPV.0060.76	Traffic Signal Trombone Arms Aluminum 15-Foot	EACH
SPV.0060.77	Traffic Signal Trombone Arms Aluminum 18-Foot	EACH
SPV.0060.78	Traffic Signal Trombone Arms Aluminum 22-Foot	EACH

Payment is full compensation furnishing and installing all materials including all hardware, fittings, mounting clamps, shims and attachments necessary to completely install the arm.

## 86. Traffic Signal Heads 12-Inch, 3-Section, Item SPV.0060.79; Traffic Signal Heads 12-Inch, 4-Section, Item SPV.0060.80; Traffic Signal Heads 16-Inch Pedestrian with Countdown, Item SPV.0060.81.

### A Description

This special provision describes furnishing and installing vehicle and pedestrian signals with LED indications according to the standard specifications and these special provisions.

### B Materials

Furnish circular bicycle and arrow LED modules from the department's approved product list and conforming to ITE VTCSH-LED.

Furnish state approved 16-Inch Pedestrian LED Full Hand/Full Man Overlay Module with Countdown conforming to ITE VTCSH-LED.

Provide all pedestrian signals with tunnel visors in place of z-grate specified by the department.

Provide all vehicle signals with cutaway visors.

Provide snow-shedding shield on each signal indication on all signals mounted on monotube arms or trombone arms. The shield shall be impact resistant polycarbonate, designed and installed specifically to reduce snow accumulation, while not allowing water to enter or reside in the signal unit. If there are not any far side signals on monotube arms or trombone arms, then install snow-shedding shields on each signal indication of the far-right signal.

Pedestrian countdown timers shall have a control wire so that when 120V AC current is applied, the timer will immediately go dark. This control wire shall be wired back to the signal control cabinet.

Make all vehicle and pedestrian signal heads with polycarbonate material, UV stabilized, with color impregnated in the material. All features and performance shall meet the requirements outlined in the latest revision of the Institute of Transportation Engineers' publication, "Adjustable Face Vehicular Traffic Control Signal Heads" The front face, exterior, and all visors (inside and outside) shall be flat or semi-gloss black. Use only exterior hardware made of stainless steel.

### C Construction

Construct according to standard spec 658.

### D Measurement

The department will measure Traffic Signal Heads (Type) as each individual traffic signal head, 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.0060.79	Traffic Signal Heads 12-Inch, 3-Section	EACH
SPV.0060.80	Traffic Signal Heads 12-Inch, 4-Section	EACH
SPV.0060.81	Traffic Signal Heads 16-Inch, Pedestrian with Countdown	EACH



Payment is full compensation furnishing and installing all materials including all hardware.

**87. Backplates Signal Face, 3-Section 12-Inch, Item SPV.0060.82;  
Backplates Signal Face, 4-Section 12-Inch, Item SPV.0060.83.**

**A Description**

This special provision describes furnishing and installing backplates for signal faces.

**B Materials**

Furnish Backplates Signal Face (Size) according to the pertinent requirements of standard spec 658 and these special provisions.

Backplates for 12-inch signal heads shall provide a 5-inch wide black band around the signal head. The backplates shall be an approved black rigid material, such as vacuum formed ABS plastic. The backplates shall match the black signal heads being furnished under this bid, equipped with all necessary holes, mounting devices. All mounting hardware shall be stainless steel.

**C Construction**

Install the backplates according to standard spec 658.3, the manufacturer's instructions, and as shown on the plans.

**D Measurement**

The department will measure Backplates Signal Face (Size) as each individual backplates signal face 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.0060.82	Backplates Signal Face, 3-Section 12-Inch	EACH
SPV.0060.83	Backplates Signal Face, 4-Section 12-Inch	EACH

Payment is full compensation furnishing and installing all materials including all hardware.

**88. Decorative Light Pole, Item SPV.0060.84.**

**A Description**

This special provision describes furnishing and installing a decorative light pole according to the details shown on the plans and these special provisions.

**B Materials.**

Furnish P&K Fluted Poles, from P & K Tubular Products, Inc. Model RFTX6L, 11-foot 8-inch tall, 6-inch pole diameter above base, 4 1/2-inch diameter at top, 0.156-inch wall thickness, pole welded to base, 12-flat flute pattern, 3-inch OD x 3-inch tall tenon, with anchor bolts.

Poles shall be painted with RAL9005 Black color, with 80% gloss finish for black poles.

Poles are to match what this manufacturer has provided to the City of Madison in 2020.

**C Construction**

Decorative light pole shall be installed on a contractor installed concrete base type LB-1

Poles shall be set and plumbed with the use of leveling nuts furnished with the anchor bolts. The proper leveling method may be obtained from the manufacturer's instruction manual.

**D Measurement**

The department will measure Decorative Light Pole as each individual decorative light pole, 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.0060.84	Decorative Light Pole	EACH

Payment is full compensation for furnishing and installing all materials, including poles, all hardware and fittings necessary to completely install the pole.

**89. Holophane Washington Decorative Fixture, Item SPV.0060.85.**

**A Description**

This special provision describes furnishing and installing Holophane Washington Decorative Fixtures.

**B Materials.**

**B.1 Material Qualifications**

Provide an integral, LED lighting unit. All parts not specifically mentioned, which are necessary and are regularly furnished in order to provide a complete unit, shall be furnished by the successful bidder at the bid price and shall conform in quality of material and workmanship to that usually provided by the engineering practice indicated in this specification.

Furnish luminaires conforming to all general aspects for luminaires as specified under standard spec 659 except as modified herein.

All equipment to be furnished shall be new, unused, and the latest model being produced. The Holophane Washington Fixture shall be a black housing LED luminaire part number WAUE2-P20-30K-AS-3-GL-2-AO-WLEDHSS12.

Mark information to identify the model, voltage, wattage, P.E.C. receptacle, and I.E.S. distribution of the luminaires on the outside of the shipping boxes. Catalog numbers are acceptable if all of the above information is coded therein.

**B.2 Warranty**

The manufacturer shall warrant that goods provided for this project will conform to applicable specifications, drawings, designs, samples, descriptions and will be free from defects in material and workmanship and will be fit for the particular purpose intended by the city.

This warranty shall remain in effect for one year. The warranty period commences on the date the luminaires are installed.

Under this warranty, the manufacturer agrees to replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the city of Madison.

The manufacturer shall also pay the labor costs of such repair or replacement if three or more units develop or exhibit similar defects within the above described warranty period.

New lighting units will not be accepted before luminaires have operated without failure for a period of at least ten consecutive nights.

**C Construction**

Install Holophane Washington Decorative Fixture LED according to the pertinent provisions of standard spec 659 and according to the manufacturer recommendations.

**D Measurement**

The department will measure Holophane Washington Decorative Fixture as each individual fixture, 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.0060.85	Holophane Washington Decorative Fixture	EACH

Payment is full compensation for furnishing and installing all materials, and all hardware and fittings necessary to completely install the fixture.

**90. Cooper Talon Fixture, Item SPV.0060.86.**

**A Description**

This special provision describes furnishing and installing Cooper fixture luminaires.

**B Materials.**

**B.1 Material Qualifications**

Provide an integral, LED lighting unit. All parts not specifically mentioned, which are necessary and are regularly furnished in order to provide a complete unit, shall be furnished by the successful bidder at the bid price and shall conform in quality of material and workmanship to that usually provided by the engineering practice indicated in this specification.

Furnish luminaires of the "cutoff" type conforming to all general aspects for luminaires as specified under standard spec 659 except as modified herein.

All equipment to be furnished shall be new, unused, and the latest model being produced. The Cooper Talon Fixture shall be a black LED Talon luminaire part number TLM-E05-LED-E1-SL3-BK-8030.

Mark information to identify the model, voltage, wattage, P.E.C. receptacle, and I.E.S. distribution of the luminaires on the outside of the shipping boxes. Catalog numbers are acceptable if all of the above information is coded therein.

**B.2 Warranty**

The manufacturer shall warrant that goods provided for this project will conform to applicable specifications, drawings, designs, samples, descriptions and will be free from defects in material and workmanship and will be fit for the particular purpose intended by the city.

This warranty shall remain in effect for one year. The warranty period commences on the date the luminaires are installed.

Under this warranty, the manufacturer agrees to replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the City of Madison.

The manufacturer shall also pay the labor costs of such repair or replacement if three or more units develop or exhibit similar defects within the above described warranty period.

New lighting units will not be accepted before luminaires have operated without failure for a period of at least ten consecutive nights.

**C Construction**

Install Cooper Talon Fixture LED and Mounting Bracket according to the pertinent provisions of standard spec 659 and according to the manufacturer recommendations.

**D Measurement**

The department will measure Cooper Talon Fixture as each individual cooper talon fixture, 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.0060.86	Cooper Talon Fixture	EACH

Payment is full compensation for furnishing and installing all materials, and all hardware and fittings necessary to completely install the fixture.

**91. Optical Signal Preempt, Item SPV.0060.87.**

**A Description**

This special provision describes furnishing and installing optical signal preempt equipment for the signalized intersections. The acceptability of alternate equipment rests solely with the City of Madison Traffic Engineering Division.

**B Materials**

Provide the following material:

1. Four channel discriminator for each of the two intersections.
2. Optical detectors, six total.
3. Card rack for each intersection, two total.
4. Detector cable as necessary.
5. Cables and auxiliary equipment as necessary for a complete operating system.

Provide all equipment from the same manufacturer and fully compatible. The discriminator shall detect and prioritize Tomar and Opticom brand emitters. The discriminator shall be capable of locking out non-coded emitters. The acceptability of equipment rests solely with the City of Madison Traffic Engineering Division.

**C Construction**

Install detectors on the top horizontal member of monotube arms, between the first and second traffic signal head, and as otherwise shown on the plan or directed by Madison Traffic Engineering.

The detectors will generally be on the far side of the intersection, and aimed at approaching traffic, as further directed by Madison Traffic Engineering staff. Install detector cable from the detector to the control cabinet at each intersection, using the shortest path.

All installation methods to be consistent with the manufacturer's instructions. Card rack and discriminator installation, as well as cabinet connections, will be made by City of Madison Traffic Engineering staff.

**D Measurement**

The department will measure Optical Signal Preempt as each individual optical signal preempt, 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.0060.87	Optical Signal Preempt	EACH

Payment is full compensation furnishing and installing detectors and cable; for furnishing and delivering discriminators, card racks, cables and miscellaneous materials to the city Traffic Engineering Field Office, 1120 Sayle Street.

**92. Temporary Lighting, Item SPV.0060.88.**

**A Description**

This special provision describes furnishing, installing, maintaining, relocating, and removing wood poles, guy wires, luminaires, arms and aerial cable to maintain 100 percent of the existing lighting system.

Work for temporary wood poles and guy wires shall be according to standard spec 661.

**B Materials**

Furnish aerial cable consisting of an assembly of three No. 4 XLP insulated power conductors with an ACSR messenger (grounding) wire. Provide the quantity of parallel cable assemblies necessary to maintain lighting circuits.

Furnish Type 4 wood poles, 35-foot long.

Protect any cable that extends from grade to 10 feet above grade by a plastic cable guard.

## C Construction

Maintain existing, temporary and proposed lighting within the construction limits for the duration of the project. Maintenance includes but is not limited to replacement of burned out lamps, replacement of knocked down poles, relocation of poles due to construction methods or staging and maintaining continuous lighting.

Keep streetlights in operation throughout the construction project until new lights are installed and operational as follows:

- A minimum of two lights per intersection at Blair Street. A minimum of one light at Railroad Street. A minimum of four lights at Blair Street and John Nolen Drive intersection.
- A minimum of one midblock lights on each block. The distance between adjacent street lights shall be no greater than 250 feet. Obtain acceptance from the engineer for any modifications to locations for wood poles as shown on plans.
- If new streetlights are installed to temporarily replace existing lights, each one shall be LED equivalent to Luminaire Utility LED Type B.

Provide off-hours contact name(s) and phone number(s) for the city and police department for repair purposes and be able to respond within 2 hours to the project site for knockdowns or other work that must be completed in a timely manner. All other maintenance needs shall be completed within 24 hours of notification. Continuously monitor the existing and proposed lighting systems operation.

Coordinate work with the city's forces. Existing lighting contains 120 volt circuits. New lighting may need to be temporarily wired from existing circuits to maintain street lighting. Arrange for all required electrical service modifications with the utility. Pay all utility company installation costs for modifications required to maintain the Temporary Lighting. The City of Madison will pay for energy costs.

## D Measurement

The department will measure Temporary Lighting as each individual temporary lighting system, 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.0060.88	Temporary Lighting	EACH

Payment is full compensation for providing a complete temporary lighting system, including furnishing, installing, relocating and removing wood poles, aerial cable, luminaires, arms, guy wires, maintaining lighting units, replacement of burned out lamps; replacement of knockdowns, and for furnishing and installing splice connectors.

## 93. Sign Post, Item SPV.0090.01; Reflective Sign Post, Item SPV.0090.02.

### A Description

This special provision describes furnishing and installing new signposts, reflective signposts, and or powder coated signposts for signs. All signposts shall be round tubular steel and installed as shown in the plans.

### B Materials

All materials shall conform to the standard specifications for hot rolled carbon sheet steel, commercial quality, ASTM A-570-GR-33 for zinc coated tubing to resist corrosion. The tube shall be 2-inch, Schedule-40. Reflective signpost shall have two sheets of engineer grade yellow sheeting completely around pipe as shown in the plans.

### C Construction

Install the signposts at the locations shown on the plans and approved by the engineer. If the finished grade cannot be determined, ask the engineer to identify the final grade. All signs shall be in a true vertical position. Install all signs to conform to the latest edition of the Manual on Uniform Traffic Control Devices. Also, locate all underground utilities prior to placing signposts. Cut off excess length of post in the field to provide the desired sign clearance.

## D Measurement

The department will measure Sign Post and Reflective Sign Post by the linear foot, acceptably completed, measured from the top of the thread to the end of the sign post rounded up to the nearest foot.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Sign Post	LF
SPV.0090.02	Reflective Sign Post	LF

Payment is full compensation for furnishing, hauling, and installing the posts; threading; treating cut post ends; providing and installing a water tight top end cap; providing hardware and anchors; and for reflective sheeting. Replace all materials damaged during construction with new items at no cost to the department.

- 94. Concrete Curb & Gutter Integral 18-Inch Special, Item SPV.0090.03;  
Concrete Curb & Gutter Integral 24-Inch Type A Special, Item SPV.0090.04;  
Concrete Curb & Gutter Integral 24-Inch Type D Special, Item SPV.0090.05;  
Concrete Curb & Gutter Integral 30-Inch Type A Special, Item SPV.0090.06;  
Concrete Curb & Gutter Integral 30-Inch Type D Special, Item SPV.0090.07;  
Concrete Curb & Gutter Integral 30-Inch Type AX Special, Item SPV.0090.08;  
Concrete Curb & Gutter Integral 36-Inch Median Type A, Item SPV.0090.09;  
Concrete Curb & Gutter Integral 36-Inch Median Type D, Item SPV.0090.10.**

## A Description

Construct concrete curb and gutter as shown in the plans, and according to standard spec 601.

## B (Vacant)

## C (Vacant)

## D Measurement

The department will measure Concrete Curb & Gutter (Type) Special by the linear foot, acceptably completed. Measurement for Concrete Curb & Gutter 36-Inch Median (type) will be take along one curb face only.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.03	Concrete Curb & Gutter Integral 18-Inch Special	LF
SPV.0090.04	Concrete Curb & Gutter 24-Inch Type A Special	LF
SPV.0090.05	Concrete Curb & Gutter 24-Inch Type D Special	LF
SPV.0090.06	Concrete Curb & Gutter 30-Inch Type A Special	LF
SPV.0090.07	Concrete Curb & Gutter 30-Inch Type D Special	LF
SPV.0090.08	Concrete Curb & Gutter 30-Inch Type AX Special	LF
SPV.0090.09	Concrete Curb & Gutter 36-Inch Median Type A	LF
SPV.0090.10	Concrete Curb & Gutter 36-Inch Median Type D	LF

- 95. Marking Line Epoxy 6-Inch, Item SPV.0090.11;  
 Marking Crosswalk Epoxy Transverse Line 18-Inch, Item SPV.0090.12;  
 Marking Crosswalk Epoxy Ladder Pattern 18-Inch, Item SPV.0090.13;  
 Marking Stop Line Epoxy 24-Inch, Item SPV.0090.14.**

**A Description**

Perform the work under this item as shown in the plans and according to the applicable provisions of standard spec 646 and as detailed.

**B (Vacant)**

**C (Vacant)**

**D Measurement**

The department will measure Marking (Type) by the linear foot, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.11	Marking Line Epoxy 6-Inch	LF
SPV.0090.12	Marking Crosswalk Epoxy Transverse Line 18-Inch	LF
SPV.0090.13	Marking Crosswalk Epoxy Ladder Pattern 18-Inch	LF
SPV.0090.14	Marking Stop Line Epoxy 24-Inch	LF

- 96. Sanitary Sewer Lateral, Item SPV.0090.20.**

**A Description**

This work consists of excavating required trenches, connecting the lateral to the mainline pipe, placing bedding material, connecting the new lateral to the existing lateral, all required fittings, couplings, and bends, backfilling and compacting the trenches and restoring the work site as provided by the plans, specifications and contract. This work also consists of locating, identifying, and abandoning "inactive" laterals.

**B Materials**

Furnish sanitary sewer pipe and fittings that are solid-wall Poly Vinyl Chloride (PVC) and that conform to the requirements of the Specification for PVC Sewer Pipe and Fittings, ASTM D 3034.

Provide sanitary sewer pipe and fittings having a standard dimension ratio of 26 or 35.

Furnish elastomeric or solvent cement joints made as recommended by the manufacturer.

Sewer laterals deeper than 12 feet will be required to be ASTM D3034 SDR-26. Install AWWA C900 Class 150, DR-18 Pipe type will be installed for laterals where the sewer main being installed is Sanitary Sewer Pressure Pipe (C900).

Install compression coupling connections to the existing sewer laterals in conformance to Standard Detail Drawing 5.3.3, Coupling detail, from the City Standard Specifications.

**C Construction**

Install laterals according to Article 503.3 of the City Standard Specifications.

The use of 45-degree bends is not permitted except with connecting to a wye at the sanitary sewer main. Bends of 22.5 degrees or less may be used, provided they are separated by at least two feet of straight pipe. Provide new lateral pipe having a minimum diameter of six inches that is also greater than or equal to the diameter of the adjoining lateral. Connecting a new lateral pipe to an existing lateral having a smaller diameter than the existing lateral is not permitted.

Per the City of Madison Standard Specifications for sanitary sewer lateral construction on street reconstruction projects, contractors are encouraged to begin installation of sanitary lateral pipe at the proposed sewer main. If contractor starts excavation for the lateral at the property line, it will be at the contractor's risk. If tree conflicts are encountered during the sanitary lateral replacement process,

contractors are instructed to follow the new policy set in the City Standard Specifications. No Utility Line Openings (ULOs) will be granted for the inability to locate the sanitary lateral at the property line. Any extra sidewalk removal will not be compensated to the contractor looking for an existing sanitary lateral at the property line.

Contractors will be required to have a locator device on-site if they intend to start laying lateral pipe at the property line to minimize the amount of extra sidewalk removal. Each sanitary lateral will have a maximum of 4 sidewalk squares removed and replaced. No additional compensation will be awarded beyond this amount for the replacement of a sewer lateral. If laterals called for reinstatement on the plans are to be plugged under the direction of the engineer, contractors are required to use a sonde device to confirm that the laterals that are called abandonment are not active, Couple the junction of a new lateral pipe to an existing lateral pipe as required in the field by the engineer. Saw cut the existing main to accommodate a clean joint for the installation of the compression couplings. Placed the coupling as directed by the City of Madison and per Standard Detail Drawing 5.3.3, Coupling Details, from the City Standard Specifications.

#### **D Measurement**

The department will measure Sanitary Sewer Lateral, by the linear foot, acceptably completed.

The quantity to be paid will be measured from the connection of the mainline sewer pipe to the connection of the existing sanitary lateral along the centerline of the pipe.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.20	Sanitary Sewer Lateral	LF

Payment is full compensation for determining whether laterals are “active”, “inactive”, or abandoned, determining the exact location and size of “active” lateral reconnections, abandoning “inactive” laterals, for excavating required trenches, connecting the lateral to the mainline pipe, placing bedding material, connecting the new lateral to the existing lateral, all required fittings, couplings, and bends, backfilling and compacting the trenches, and restoring the work site.”

Connection of lateral to the proposed sewer main and the first 5 feet of lateral pipe associated with the connection is paid under bid item Sanitary Lateral Reconnect.

Select fill for sanitary sewer lateral is paid under bid item Select Fill For Sanitary Sewer. The quantity for this item may be increased or decreased beyond the limits set forth in Article 104 of the City Standard Specifications.

### **97. Sanitary Sewer Pipe PVC, 8-Inch, Item SPV.0090.21; 12-Inch, Item SPV.0090.22.**

#### **A Description**

This special provision describes installing Sanitary Sewer Pipe PVC (Size) at the alignment and grades shown on the plan. All sections of the sewer mainline are required to pass a low pressure air test, mandrel test, and a visual inspection via televising as specified in Article 501.3(b) of the City Standard Specifications. Testing of the gravity main is included in this item.

Maintain the normal flow of wastewater at all times during replacement of the existing sanitary sewer main with the new sanitary sewer main. Payment for furnishing all bypass pumping, temporary piping, and/or temporary connections, which are required to maintain the normal flow of wastewater throughout the sewer construction, is under the bid item for Wastewater Control.

#### **B Materials**

Provide solid-wall Poly (Vinyl Chloride) (PVC) sanitary sewer pipe and fittings meeting the requirements for Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings, ASTM D 3034.

Provide pipe and fittings having a standard dimension ratio of 26 or 35 as called out on the plan set. Furnish elastomeric or solvent cement joints as recommended by the manufacturer.

The assembled joint will be required to pass the performance tests as required in ASTM D3212. Sewer mains deeper than 12 feet will be required to meet the standards or ASTM D3034 SDR-26.



## C Construction

Install the sanitary sewer pipe according to all applicable provisions of the City Standard Specifications.

Remove all abandoned or existing material located within 3 feet of the new sanitary sewer alignment. Removal of material (including existing sanitary sewer/water main/etc.) is incidental to this bid item.

Use manufactured wye fittings to install new laterals to the new main as called for on the plans; provide and place according to standard spec 503 for City Standard Specifications. Do not install saddle type wyes without prior approval from the City of Madison.

Complete testing and televising of new sewer lines according to Article 501 of the City Standard Specifications.

## D Measurement

The department will measure Sanitary Sewer Pipe PVC, (Size) in length by the linear foot, acceptably completed.

Sanitary Sewer Pipe PVC, (Size) will be measured through sanitary sewer structures, from the center of sanitary sewer casting to center of sanitary sewer casting. Sanitary Sewer Pipe PVC (Size) not terminating at a sanitary sewer structure will be measured to the end of pipe. Deductions from the measure length will not be made for wye installations.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.21	Sanitary Sewer Pipe PVC, 8-Inch	LF
SPV.0090.22	Sanitary Sewer Pipe PVC, 12-Inch	LF

Payment is full compensation for excavation of the trench, except tunneling and jacking; installation and removal of sheeting and bracing; removal of water from the trench; disposal of surplus material from the trench; backfilling the trench and compaction of the backfill material; embankment over the sewer using surplus material from the excavation of the trench; bedding the pipe; laying the pipe and installing the fittings and accessories; jointing and sealing of joints in pipe, fittings and accessories; encasement, where specified; connections to existing structures; cleaning out the sewer; and restoring the site.

## 98. Sanitary Sewer Pressure Pipe (C900), 10-Inch, Item SPV.0090.23.

### A Description

Work under this item will include installing pressure sewer pipe at the alignment and grades shown on the plan set.

Conduct a low-pressure air test as specified in Article 501.3(b) of the City Standard Specifications on all sections of the sewer mainline. A passing test is required in order to be acceptable. Include all costs associated with the testing of the gravity main in this item.

Maintain the normal flow of wastewater at all times during replacement of the existing sanitary sewer main with the new sanitary sewer main. Payment for furnishing all bypass pumping, temporary piping, and/or temporary connections, which are required to maintain the normal flow of wastewater throughout the sewer construction, is under the bid item Wastewater Control.

### B Materials

Provide all sewer pipe and fittings of solid-wall Poly (Vinyl Chloride) (PVC) conforming to the requirements of the Specification for Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings, AWWA C900 Class 150, DR-18.

Provide fittings conforming to the requirements of the American National Standard for Ductile- Iron and Gray-Iron fittings for Water and other liquids, ASA A21.10 (AWWA C110) payable separately under the Sanitary Lateral Reconnect item.

Provide joints with integral bell with elastomeric gaskets, or couplings with elastomeric gaskets. Make solvent cement as recommended by the manufacturer.

**C Construction**

Install sewer pipe according to all applicable provisions of the City Standard Specifications.

Remove all abandoned or existing material located within 3 feet of the new sanitary sewer alignment. Removal of material (including existing sanitary sewer/water main/etc.) is incidental to this bid item.

Use Ductile Iron Wye pressure rated fittings to install new laterals to the new main as called for on the plans; provide and place according to Article 503 of City Standard Specifications.

**D Measurement**

The department will measure Sanitary Sewer Pressure Pipe (C900), 10-Inch by the linear foot, acceptably completed, to the nearest whole foot of each of the various types, classes and sizes of pipe installed at the various depths, measured along the centerline of the pipe center to center of junctions and fittings. The quantity to be paid for includes construction through Sewer Access Structures, from center of Sewer Access Structure casting to center of Sewer Access Structure casting. Main extensions continuing through Sewer Access Structures will be measured from center of Sewer Access Structure casting to the end of pipe. The depths of installation will be measured in feet from the invert of the sewer pipe to the elevation of the existing ground. There will be no deductions from the measured lengths for wye installations.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.23	Sanitary Sewer Pressure Pipe (C900), 10-Inch	LF

Payment is full compensation for furnishing all materials, except wyes, necessary to perform the work; excavation of the trench, except tunneling and jacking; installation and removal of sheeting and bracing; removal of water from the trench; disposal of surplus material from the trench; backfilling the trench and compaction of the backfill material; embankment over the sewer using surplus material from the excavation of the trench; bedding the pipe; laying the pipe and installing the fittings and accessories; jointing and sealing of joints in pipe, fittings and accessories; encasement, where specified; connections to existing structures; cleaning out the sewer; and restoring the site.

**99. Select Fill for Sanitary Sewer, Item SPV.0090.24.**

**A Description**

This special provision describes furnishing and placing select fill over the sanitary sewer main and laterals along the entire length of the pipe.

**B Materials**

Provide select fill meeting the requirements of Article 202.2(b) of the City Standard Specifications for select fill for sanitary sewer mains and laterals.

**C Construction**

Install select fill for sanitary sewer according to all applicable provisions of Article 502.1(e) of the City Standard Specifications.

**D Measurement**

The department will measure Select Fill for Sanitary Sewer in length by the linear foot, acceptably completed. Measurement will be completed along the centerline of the installed sanitary sewer pipe and includes the length through Sewer Access Structures.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.24	Select Fill for Sanitary Sewer	LF

Payment is full compensation for furnishing and placing select fill for sanitary sewer.

## 100. Sanitary Sewer 30-Inch Casing Pipe, Item SPV.0090.25.

### A Description

This special provision describes installing sanitary sewer pipe with engineered spacers within steel casing pipe by trenchless technology. Included in this item is the excavation and backfilling of the receiving pits. Necessary work and materials to adequately secure the pits with full cover or security fencing shall be incidental to this bid item. The 12-inch diameter sanitary sewer being installed with the casing will be paid separately under the Sanitary Sewer Pipe PVC, 12-Inch item.

The contractor is informed that the casing pipe specified shall be at a minimum of 30-inch diameter or as large as deemed necessary by the contractor to successfully complete the work in accordance with the construction plans. Oversizing of the casing pipe to allow for installation is at the discretion of the contractor and is included in this item.

The sanitary sewer main inside the casing shall be ASTM AWWA C900.

### B Materials

Provide all materials necessary to install the 12-inch sanitary sewer pipe in accordance with the requirements above. Provide a casing pipe in accordance with the following:

- ASTM specification A139 Grade B or AWWA specification C200
- Outside diameter as specified by the Contractor
- Not coated or cathodically protected, no hydrostatic testing required
- 0.50-inch minimum thickness
- Specified minimum yield strength, SMYS, of at least 35,000 psi
- New and unused pipe
- Straight and round pipe
- Beveled ends for butt welding

Submit the following to the Engineer for approval prior to ordering of materials and the start of construction:

- Certificate of compliance for the steel casing pipe
- Materials for sand or pea gravel
- Materials for casing spacers and distances between spacers
- Materials and methods for bulkheading the casing ends

### C Construction

Submit the following documents to the City of Madison for approval prior to ordering of materials and the start of construction:

- Certificate of compliance for the steel casing pipe
- Pipe loading calculations for steel casing pipe
- Sieve analysis and material specification for sand or limestone screenings for filling of annular space between carrier pipe and casing pipe
- Sieve analysis and material specification for casing spacers
- Casing spacer design and layout plan
- Boring and receiving pits excavation and soil retention design and plan
- Site security plan
- Material data and design mix and methods for bulkheading the casing ends
- Materials for casing spacers and distances between spacers
- Design and mix for cementitious grout and installation plan for filling voids between casing pipe and surrounding soil

Contractor will be allowed to use wood blocking and/or pipe spacers to suspend the pipe in casing pipe to obtain the proper design slope. Both will be considered acceptable installation methods. The design slope will be reviewed by the engineer. If the slope is back-pitched or not at an acceptable slope, adjust the pipe.

Blocking Method:

Prior to installing pipe in the casing, strap a set of four wood blocks to both ends of the pipe five feet from each end. Set the blocks so that the pipe does not touch the casing. Pipe joints shall be made outside of the casing. Wash or blow sand or pea gravel into the casing to the spring line of the pipe to provide bedding under the pipe.

Pipe Spacers Method:

Install non-centered stainless steel spacers (PSI S8GN-2 [http://www.pipelineseal.com/pdf\\_lit/csem&bg.pdf](http://www.pipelineseal.com/pdf_lit/csem&bg.pdf) or approved equivalent) in the casing pipe as needed to set the sewer main to the desired slope. Install spacers in accordance with the manufacturer's specifications with maximum spacing of 8 feet.

Perform the trenchless construction dry auger boring and jacking. Water jacking for excavation of the soil is not allowed. The use of water to facilitate removal of spoil is permitted. Extend the untrenched construction beneath the railroad tracks to the limits shown on the plan set.

For the casing installation, the bore hole diameter shall be essentially the same as the outside diameter of the pipe. In soft, unstable soil, the auger shall be inside the casing, but not undersized, so as not to create a void between the casing and the soil. If voids should develop or if the bore hole diameter is greater than the outside diameter of the pipe by more than approximately one inch, pressure grout the voids.

Connection of adjacent lengths of steel pipe shall be done by continuous, circumferential, field butt welding in accordance with AWWA C206. The connection shall result in a straight and true casing with a watertight seal.

Install the conduit pipe on line and grade through the casing pipe. Install approved casing spacers at the approved distances. Fill the annular space between the casing and carrier pipe with the approved material (sand or pea gravel).

Contractor is solely responsible for any damage created by thrust and lateral earth pressures created by the installation process. Protect existing utilities in or around the boring and receiving pit areas.

**D Measurement**

The department will measure Sanitary Sewer 30-Inch Casing Pipe as each by the linear foot, acceptably completed.

Measurement will be made on a straight line from one end of the steel casing pipe to the other, measured at the invert.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.25	Sanitary Sewer 30-Inch Casing Pipe	LF

Payment is full compensation for furnishing all materials necessary to perform the work; excavation of the boring and receiving pits; site security; for installation of the steel casing pipe via trenchless bore and jack method, installation of the carrier pipe inside of the casing pipe with casing spacers as described, for filling of annular space between carrier pipe and casing pipe; for bulkheading of the finished installation; for backfilling excavations, disposal of excess materials, restoration of the site, and for protection or replacement of existing structures and utilities. The carrier pipe will be paid for as Sanitary Sewer Pipe PVC, 12-Inch

**101. Fiber Optic Cable 144-Count, Item SPV.0090.50.**

**A Description**

This special provision describes furnishing and installing 144-count according to standard spec 651, 655, 670, and 678, as shown on the plans, and as provided hereinafter.

**B Materials**

Furnish single mode (SM), It armored, loose-tube 72 count fiber optic cable rated for outdoor use.

All fiber optic cable glass shall be supplied by the same manufacturer and shall be part of a fiber optic cable utilizing loose tube construction with the following properties:

Parameters	Single Mode
Type	Step Index
Core Diameter	8.3 μm (nominal)
Cladding Diameter	125 ± 1.0 μm
Core to Cladding Offset	≤0.8 μm
Coating Diameter	245 ± 10 μm
Cladding Non-Circularity	≤1.0%
Proof Tensile Test	0.7 GPa
Attenuation	@ 1310 nm ≤ 0.4 dB/km @ 1550 nm ≤ 0.3 dB/km
Chromatic Dispersion Zero Dispersion	1310 ± nm (centered on a nominal operating wavelength of 1310)
Zero Dispersion Slope	≤ 0.092 ps/nm <sup>2</sup> /km
Maximum Dispersion	≤ 2.8 ps/nm/km at 1285 – 1330 nm
Cut-Off Wavelength	1260 nm

**C Construction**

Follow all manufacturer’s recommended installation procedures.

Contact Mike Benzschawel at the City of Madison Traffic Engineering shop at (608) 266-9031 a minimum of 7 working days in advance to coordinate installing equipment in existing traffic signal cabinet.

**D Measurement**

The department will measure Fiber Optic Cable 144-County by the linear foot, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.50	Fiber Optic Cable 144-Count	LF

Payment is full compensation for furnishing and installing the fiber optic cable.

**102. Electrical Wire Lighting 14-3 UF Grounded, Item SPV.0090.51.**

**A Description**

This special provision describes furnishing and installing electrical wire lighting, 14-3 type UF cable according to standard spec 655 and these specifications.

**B Materials**

Furnish type UF cable with ground including the number and size of conductors as the plans show. Use cable conforming to ANSI/UL 493.

**C Construction**

Furnish and install one cable to each LED luminaire from base of pole to the luminaire.

**D Measurement**

The department will measure Electrical Wire Lighting 14-3 Grounded by the linear foot, acceptably completed, measured from the splice with the system lighting circuit in the pole base to the connection terminals in the luminaire.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.51	Electrical Wire Lighting 14-3 Grounded	LF

Payment is full compensation for furnishing and installing all materials.

**103. Loop Detector Lead-In Cable Special, Item SPV.0090.52.**

**A Description**

This special provision describes furnishing and installing loop detector lead in cable according to standard spec 655.

**B Materials**

Furnish 0.25-inch diameter, 4-conductor, #18 AWG, waterproof, shielded, polypropylene insulation cable, with HDPE outer jacket. Meeting IMSA specifications. Provide loop detector lead in cable to be smooth on the outside without any ripples or ribbing from cable wires.

**C Construction**

Furnish and install one cable for every two loops from each loop handhole to the intersection control cabinet via the most direct route, without intermediate splicing. Most of the loops will be new and are shown on the plan. Install cable for some existing loops. Verify cable needs with the City of Madison Traffic Engineering staff before completing intersection wiring.

**D Measurement**

The department will measure Loop Detector Lead-In Cable Special by the linear foot, acceptably completed, measured from the splice with the loop lead in wire along the centerline of the conduit to its connection with terminals in the control cabinet.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.52	Loop Detector Lead-In Cable Special	LF

Payment is full compensation for furnishing and installing all materials.

**104. Marking Green High Friction MMA, Item SPV.0165.01.**

**A Description**

This work consists of furnishing and applying a high friction surfacing system according to this section and in conformity with the lines and details shown on the plans. The locations on the plans are noted as "Marking Green High Friction MMA." The field installed system consists of a Methyl Methacrylate (MMA) resin system that is used for pavement area markings and anti-skid surfacing to provide high friction resistance and the desired color.

Arrange for the manufacturer's technical representative to come to the construction site to train the engineer and contractor personnel prior to surface treatment and have the representative be available during application as necessary or provide documentation from manufacturer's representative endorsing the contractor as qualified to install the material.

## B Materials

**General:** Use an MMA based resin system capable of retaining an aggregate topping under vehicular traffic conditions. Install according to manufacturer's specifications.

Comply with chromaticity requirements according to MUTCD Interim Approval for Optional Use of Green Colored Pavement for Bike Lanes.

**MMA Based Resin System:** Provide MMA based resin system meeting the following requirements:

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
Tensile Strength @ 7 days, psi, minimum	1000	ASTM D 638
Hardness, Shore D, minimum	80	ASTM D 2240
Gel Time, minutes, minimum	10	ASTM D 2471
Cure Rate, hours, maximum	3	Film@ 75°F
Water Absorption @ 24 hours, %, max.	0.25%	ASTM D 570

**Aggregate:** Provide aggregate that is high friction crushed Bauxite, Granite, or gravel. Deliver the aggregate to the construction site in clearly labeled bags or sacks. Provide aggregate that is clean, dry and free from foreign matter and that meets the following requirements:

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
Aggregate Abrasion Value, maximum	20	LA Abrasion
Aggregate Grading,		
No 6 Sieve Size, minimum passing, %	95	
No 16 Sieve Size, maximum passing, %	5	
Aggregate Color	As shown in plan	

**Certification:** Provide a finished surface having a minimum 60 FN40R according to ASTM E274 of aggregate bonded to a vehicular bearing surface.

## C Construction

**General:** Apply according to manufacturer's specifications.

**Preparation:** Prepare surfaces so that they are clean, dry, and free of all dust, oil, debris and any other material that might interfere with the bond between the resin system and existing surfaces. The manufacturer's representative will determine if all surfaces have been adequately cleaned unless the contractor has been endorsed by the manufacturer as qualified to install the material according to section A of this article.

Protect utilities, drainage structures, curbs and any other structure within or adjacent to the treatment location against the application of the surface treatment materials. Cover and protect all existing pavement markings that are adjacent to the application surfaces as directed by the engineer. Remove by grinding any pavement markings that conflict with the surface application and thoroughly sweep or vacuum the surface clean prior to the resin application.

Pre-treat joints and cracks greater than 1/4 inches in width and depth with the mixed resin specified herein or by using an alternative procedure proposed by the manufacturer and agreed upon by the engineer. Proceed with the resin and aggregate topping installation once the resin, in the pre-treated areas, has gelled or once the alternative procedure has been accomplished.

For applications on new pavements, install the resin and aggregate topping a minimum of 20 days after the placement of the underlying and adjacent pavement.

**Mixing and Application of Epoxy Binder and Aggregate Wearing Course:** Use one of the following methods for the application of the MMA based resin system, as applicable.

(1) **Hand mixing and application:** Proportion the MMA based resin system as recommended by the manufacturer, and mix using a low speed, high torque drill fitted with a helical stirrer. Hand-apply the mixed components onto a prepared pavement surface at a thickness recommended by the manufacturer. Uniformly spread hand-applied base binder onto the substrate surface by means of a serrated edge squeegee.

(2) **Mechanical mixing and application:** Apply the MMA based resin system material by a truck mounted application machine onto the pavement section to be treated in varying widths at a uniform application thickness. Proceed with operations in such a manner that will not allow the MMA based resin system material to separate in the mixing lines, cure, dry, or otherwise impair retention bonding of the high friction surfacing aggregate. Apply the mixed components mechanically onto the prepared pavement surface with a uniform thickness of 50 to 100 mils. Immediately, mechanically apply the high friction surfacing aggregate in a uniform, continuous manner.

For either of the above methods, do not use vibratory or impact type compaction on the aggregate after placement. Use only lightweight rollers to seat the aggregate topping without crushing the aggregate. Complete coverage of the "wet" MMA based resin system material with aggregate is necessary to achieve a uniform surface. Once the aggregate is placed, no exposed wet spots are to be visible.

**Curing:** Allow the high friction aggregate topped MMA based resin system to cure according to manufacturer recommendations. Protect treated surfaces from traffic and environmental effects until the area has cured.

**Removal of Excess Aggregate:** Remove the excess aggregate by hand brooms, mechanical sweeping, or vacuum sweeping before opening to traffic. Excess aggregate can be reused on the following day's installation, provided the aggregate is clean, uncontaminated, and dry.

The engineer may require additional mechanical or vacuum sweeping as necessary after the system fully cures and the treated surface is open to traffic.

## PERFORMANCE REQUIREMENTS

**Raveling and Delamination:** Remove and replace high friction surface treatment that ravel, delaminates, or wears off within 90 days after placement, unless approved to remain in place by the engineer. The limits of removal and replacement are subject to the approval of the engineer. Provide replaced high friction surface treatment meeting the requirements of this article.

Install the MMA based resin system material per the plans and specification. The engineer will notify the contractor within 48 hours of installation regarding any of the MMA based resin system material that is installed not to specification. Remove non-conforming MMA based resin system material at no charge to the department and replace with conforming product.

### D Measurement

The department will measure Colored Crosswalk by the square foot, acceptably completed. No deduction will be made for the areas occupied by manholes, inlets, drainage structures, pavement markings or by any public utility appurtenances within the area.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Marking Green High Friction MMA	SF

Payment is full compensation for furnishing and installing all materials including any re-application or repair required under the Performance Requirements as provided herein.

## 105. Pavement Cleanup, Item SPV.0170.01.

### A Description

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



**B Materials**

Utilize vacuum equipment with 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**

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.

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 4 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 by the full 100-foot station, acceptably completed, measured along the roadway centerline or reference line with each full 100-foot station starting and ending at a +00 station. If two or more roadways occur, the department will measure along the centerline or reference line of each roadway. For divided highways, the department will extend measurement units for each roadway, in width, from 5 feet outside the grading limit of that roadway to a line mid-way between the reference lines or centerlines for each roadway.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0170.01	Pavement Cleanup	STA

Payment is full compensation for surveillance, mobilization, sweeping, and disposing of materials.

**106. Shredded Hardwood Bark Mulch, 3-Inch Depth, Item SPV.0180.01.**

**A Description**

This special provision describes furnishing and installing Shredded Hardwood Bark Mulch, 3-Inch Depth according to the applicable sections of standard spec 627 and as hereinafter provided.

**B Materials**

Provide Shredded Hardwood Bark Mulch, 3-inch Depth that is finely shredded hardwood bark mulch and the product of a mechanical chipper, hammermill, or tub grinder.

Provide fibrous wood mulch, uniformly dark brown in color, free of large wood chunks, and substantially free of mold, dirt, sawdust, and foreign material. Ensure that no portion of the material is in an advanced state of decomposition.

Provide fibrous wood mulch not containing manufactured boards or chemically treated wood, including but not limited to wafer board, particle board, and chromated copper arsenate (CCA) or penta-treated wood. Ensure that the material does not contain bark of black walnut trees.

Provide air dried mulch, passing a 4-inch screen, with no more than 20 percent by mass passing a 0.10-inch sieve. Ensure that unattached bark or greenleaf composition, either singly or combined, do not exceed 20 percent each by mass. The maximum length of individual pieces cannot exceed 4 inches.

## C Construction

Install mulch according to standard spec 632.3.9 to a depth of 3 inches over entire area of bed disturbed by construction activities.

Provide an additional 1-inch topdressing of mulch for all adjacent landscape planting beds to ensure uniform appearance of all beds, both disturbed and undisturbed, at the conclusion of the landscape restoration. This additional topdressing is considered incidental to the Shredded Hardwood Bark Mulch, 3-Inch Depth item.

Do not use any weed barrier fabric in mulch areas.

Do not damage plants, structures, and/or other materials already in place, when placing the mulch.

## D Measurement

The department will measure Shredded Hardwood Bark Mulch, 3-Inch Depth by the square yard, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Shredded Hardwood Bark Mulch, 3-Inch Depth	SY

Payment is full compensation for furnishing and installing all materials.

## 107. Excavation, Hauling, and Disposal of Contaminated Soil, Item SPV.0195.01.

### A Description

#### A.1 General

This special provision describes excavating, loading, hauling, and disposing of contaminated soil. Contaminated soil shall be disposed of at a WDNR-approved facility. The closest WDNR-approved facilities are:

Waste Management Madison Prairie Landfill  
6002 Nelson Road  
Sun Prairie, WI 53590  
(866) 909-4458

Waste Management Deer Track Park Landfill  
N6756 Waldmann Lane  
Watertown, WI 53094  
(866) 909-4458

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

#### A.2 Notice to the Contractor – Contaminated Soil Locations

The department completed testing for soil contamination within this project where excavation is required. Previous investigations indicate that contamination is present at the following locations:

- Site 1 (410 South Blair Street)
  - Station 44+75 to 46+00, reference line to construction limits on right.
  - Station 6+00 A to 7+00 A, reference line to construction limits on right.
  - Station 7+00 A to 8+50 A, 40 feet to 80 feet right of reference line to construction limits on right.

TRC estimates approximately 2,100 tons of impacted soil will require off-site disposal as direct landfilled material from site 1.

- Site 3 (134 South Blair Street)
  - PVOC contamination: Station 51+00 to 52+25, construction limits on left to 5 ft. right of reference line.
- Site 14 (521 East Washington Avenue)
  - PVOC contamination: Station 59+00 to 60+00, construction limits on left to 5 ft. right of reference line.

TRC estimates approximately 500 tons of impacted soil will require off-site disposal as direct landfilled material from sites 3 and 14.

Contaminated soil and/or underground storage tanks (USTs) may be encountered at other locations within the construction limits. If contaminated soil and/or USTs are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. Contaminated soil at other locations shall be managed by the contractor under this contract. USTs will be removed by others.

For further information regarding previous investigation and remediation activities at these sites contact:

Name: Brian Taylor  
Wisconsin DOT, Southwest Region  
Address: 2101 Wright Street  
Madison, WI 53704  
Phone: (608) 516-3452  
E-mail: [brianf.taylor@dot.wi.gov](mailto:brianf.taylor@dot.wi.gov)

Name: Dan Haak  
TRC Environmental Corporation  
Address: 708 Heartland Trail, Suite 3000  
Madison, WI 53717  
Phone: (608) 826-3628 office, (608) 886-7423 mobile  
Fax: (608) 826-3941  
E-mail: [DHaak@trccompanies.com](mailto:DHaak@trccompanies.com)

### **A.3 Coordination**

Coordinate work under this contract with the environment consultant:

Consultant: TRC Environmental Corporation  
Address: 708 Heartland Trail, Suite 3000  
Madison, WI 53717  
Fax: (608) 826-3941

Contact: Dan Haak  
Phone: (608) 826-3628 office, (608) 886-7423 mobile  
E-mail: [DHaak@trccompanies.com](mailto:DHaak@trccompanies.com)

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be hauled to the disposal facility;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contamination management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of contaminated soil from the disposal facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also, notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Identify the WDNR-approved disposal facility that will be used for disposal of contaminated soils and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from the disposal facility.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed. Do not pump or haul contaminated groundwater offsite without specific approval from the environmental consultant. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

#### **A.4 Protection of Groundwater Monitoring Wells**

Groundwater monitoring wells may be present within the construction limits. Protect all groundwater monitoring wells to maintain their integrity. Adjust wells that do not conflict with utilities, structures, curb and gutter, etc. to be flush with the final grade. For wells that conflict with the previously mentioned items, notify the environmental consultant, and coordinate with the environmental consultant for the abandonment or adjustment of the wells by others. The environmental consultant will provide maps indicating the locations of all known monitoring wells, if requested by the contractor.

#### **A.5 Excavation Management Plan Approval**

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR's concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding the investigations, including waste characterization within the project limits, contact Brian Taylor with the department, at (608) 516-3452.

#### **A.6 Health and Safety Requirements for Workers Remediating Contamination**

*Supplement standard spec 107.1 with the following:*

During excavation activities, expect to encounter soil contaminated with gasoline, diesel fuel, fuel oil, or other petroleum related products; polycyclic aromatic hydrocarbons; and metals. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

Disposal of contaminated soil at the disposal facility is subject to the facility's safety policies.

### **B (Vacant)**

### **C Construction**

*Supplement standard spec 205.3 with the following:*

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite disposal. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

On the basis of the results of such field-screening, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, bituminous pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material (PID readings less than 10 ppm and no observation of staining or petroleum odor, or based on existing analytical data) for reuse as fill within the construction limits as allowed, or
- Petroleum contaminated soil (significant petroleum odor, staining, and/or PID readings greater than 10 ppm) for off-site treatment and disposal at the WDNR-licensed bioremediation facility, or
- Contaminated soil (based on the presence of industrial fill or existing analytical data) for off-site disposal at the WDNR-licensed disposal facility, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal.

Directly load and haul soil designated by the environmental consultant for offsite disposal to the WDNR-approved facility. Verify that vehicles used to transport contaminated material are licensed for such activity according to applicable state and federal regulations. Use loading and hauling practices that are appropriate to prevent any spills or releases of contaminated soils or residues. Prior to transport, sufficiently dewater soils so as not to contain free liquids.

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum or chemical products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer.

Groundwater may be present within the construction limits. Water generated during dewatering operations (if necessary) is expected to be permitted to discharge to the surface except in the contaminated locations.

Control operations in the contaminated locations to minimize the quantity of contaminated water managed. Minimize the amount of open trenches, and construct diversion berms and implement other controls to minimize the infiltration of surface water into excavations in areas of known contamination. Maintain surface water controls until construction of utilities in the areas of contamination are complete. Allow contaminated water encountered, but not requiring removal as a standard course of construction, to remain in-place and do not manage according to this special provision.

If surface water infiltrates excavations and dewatering is required, water may be discharged to the surface if the water meets the requirements of the project dewatering permit and the applicable requirements of the Wisconsin Pollution Discharge Elimination System (WPDES) for contaminated groundwater from remedial action operations. This includes, but is not limited to, pretreatment of water in order to meet WPDES discharge requirements. Perform all necessary monitoring to document compliance with WPDES requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with WPDES requirements.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment, and drainage and disposal facilities. Notify the engineer of any dewatering activities and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

The environmental consultant may periodically evaluate water removed from the contaminated locations. Assist the environmental consultant in collecting water samples.

Water generated from dewatering activities within the contaminated locations may exceed the surface water discharge limits for compounds specified in the Wisconsin DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

If dewatering of groundwater is required in the contaminated locations, water shall be either containerized for disposal, treated, and discharged to surface, or upon approval of the municipality, discharged to the sanitary sewer. Pump contaminated water that exceeds surface water discharge limits, as determined by the environmental consultant, into either temporary holding tanks, a treatment system provided by the contractor, or upon approval of the municipality, discharged to the sanitary sewer, as necessary to complete construction. The contractor will coordinate holding tank mobilizations, waste characterization sampling of accumulated water, and transportation/disposal of contaminated water. The cost for holding tank mobilization, transportation, and contaminated water disposal shall be paid by the contractor. Management of contaminated groundwater shall be incidental to this item.

**D Measurement**

The department will measure Excavation, Hauling, and Disposal of Contaminated Soil in tons of contaminated soil, accepted by the disposal facility as documented by weight tickets generated by the facility. Load tickets must be delivered to the engineer within 10 business days of the date on which the soil was accepted by the facility.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Excavation, Hauling, and Disposal of Contaminated Soil	TON

Payment is full compensation for excavating, segregating, loading, hauling, and treatment via disposal of contaminated soil; tipping fees; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and dewatering of soils prior to transport, if necessary.

**108. Construct Inside Drop, 8-Inch, Item SPV.0200.01.**

**A Description**

This special provision describes constructing inside drop structures on sanitary sewer structures where shown in the drawings or as directed by the City of Madison. Inside Drops are required if the elevation difference between the flow line of the incoming pipe and the springline of the outgoing pipe is greater than 2 feet.

**B Materials**

Provide all materials associated with this item according to Standard Detail Drawing 5.7.30 and Article 507.3(d)1 of the City Standard Specifications.

**C Construction**

Construct Inside Drop according to Article 507.3(d)1 of the City Standard Specifications.

Maintain the normal flow of wastewater at all times during installation of the sanitary sewer access structure, construction of the outside drop structure, and when connecting new and existing pipes to the structure.

Complete any necessary temporary wastewater control according to the City Standard Specifications and as described under bid item Wastewater Control item.

Core connections (taps) to sewer access structure associated with the inside drop connection are included with the Inside Drop and not paid for separately as sanitary taps.

**D Measurement**

The department will measure Construct Inside Drop, 8-Inch by the vertical foot, measured from the invert of the entry Tee to the springline of the outgoing sewer according to City of Madison Standard Detail Drawing 5.7.30.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0200.01	Construct Inside Drop, 8-Inch	VF

Payment is full compensation for excavating, backfilling, and disposing of surplus materials for making tap connections and construction of inside drop.

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**ADDITIONAL SPECIAL PROVISION 1 (ASP 1)  
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)  
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS**

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The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including “pipeline” activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

*TrANS* is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor’s needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

**I. BASIC CONCEPTS**

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

- 1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of \$5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that   8   (*number*) TrANS Graduate(s) be utilized on this contract.

- 2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of \$5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).



Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 5 (*number*) TrANS Apprentice(s) be utilized on this contract.

- 3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.
- 4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.
- 5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

## **II. RATIONALE AND SPECIAL NOTE**

The \$5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the \$5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

## **III. IMPLEMENTATION**

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

#### **IV. TRANS TRAINING**

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

#### **V. APPRENTICESHIP TRAINING**

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

- (1) To increase the overall effectiveness of the State highway agencies' approved training programs.
- (2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b) (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a) (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

## ADDITIONAL SPECIAL PROVISION 3

### DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM IMPLEMENTATION

#### Authority

Wisconsin Department of Transportation (WisDOT) is a recipient of funds from the US Department of Transportation's Federal Highway Administration. The DBE program is a federal program applicable on all contracts administered by WisDOT that include federal-aid highway funds. The authority for the DBE program is the Transportation Bill as approved by Congress periodically. DBE program guidance and requirements are outlined in the Code of Federal Regulations at 49 CFR Part 26. This contract is subject to DBE provisions because it is financed with federal-aid-highway funds. Additionally, this contract is subject to the *State of Wisconsin Standard Specifications for Highway and Structure Construction* and all applicable contract documents.

#### Requirements

Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE program regulatory provisions will be considered a material breach of contract. This is nonnegotiable.

If a contractor fails to carry out the DBE program requirements and/or the Required Contract Provisions for Federal Aid Contracts (FHWA 1273) referenced in this document, sanctions will be assessed depending upon the facts, reasoning, severity, and remedial efforts of the contractor that may include: termination of contract, withholding payment, assessment of monetary sanctions, and/or suspension/debarment proceedings that could result in the disqualification of the contractor from bidding for a designated period of time.

- (1) At time of bid, ALL prime contractors must submit DBE Commitments on projects with DBE goals, The submittal of the DBE Commitments includes the DT1506 (Commitment to Subcontract to DBE), which can be attached as a PDF or entered digitally into the bid submittal and Attachments A OR quotes from all DBEs included on the Commitment. The prime contractor must submit a signed Attachment A via eSubmit (preferred) or the DBE Alert email box within 24-hours of the bid closing for all quotes submitted at the time of bid. If the assigned DBE contract goal is not met, Form DT1202 (Documentation of Good Faith Effort) and all supplemental DT1202 documentation is due within 24-hours of bid closing. Any change to DBE Commitments thereafter must follow modification of DBE subcontracting commitment (Section 9).
- (2) The Department requires this list of DBE subcontractors from all bidders at time of bid to ensure the lowest possible cost to taxpayers and fairness to other bidders and subcontractors. Bid shopping is prohibited.
- (3) The contractor must utilize the specific DBE firms listed in the approved DBE Commitment to perform the work and/or supply the materials for which the DBE firm is listed unless the contractor obtains written consent in advance from WisDOT. The contractor will not be entitled to payment for any work or materials on the approved DBE Commitment that is not performed or supplied by the listed DBE without WisDOT's written consent.

#### Description

The Wisconsin Department of Transportation is committed to the compliant administration of the DBE Program. The DBE provisions work in tandem with FHWA 1273 and WisDOT's *Standard Specifications for Highway and Structure Construction* and *Construction and Materials Manual*. The WisDOT Secretary is signatory to assurances of department-wide compliance.

The Department assigns the contract DBE goal as a percentage of work items that could be performed by certified DBE firms on the contract. The assigned DBE goal is expressed on the bid proposal as a percentage applicable to the total contract bid amount.

- (1) WisDOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned contract DBE goal by subcontracting work to a DBE firm or by procuring services or materials from a DBE firm.
- (2) Under the contract, the prime contractor should inform, advise, and develop participating DBE firms to be more knowledgeable contractors who are prepared to successfully complete their contractual agreement through the proactive provision of assistance in the following areas:
  - § Produce accurate and complete quotes
  - § Understand highway plans applicable to their work
  - § Understand specifications and contract requirements applicable to their work
  - § Understand contracting reporting requirements
- (3) The Department encourages contractors to assist DBE subcontractors more formally by participating in WisDOT's Business Development program as a mentor, coach, or resource. For comprehensive information on the Disadvantaged Business Enterprise Program, visit the Department's Civil Rights and Compliance Section website at: <http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx>

## 1. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

- a. **Assigned DBE Contract Goal:** The percentage shown on the cover of the Highway Work Proposal that represents the feasible level of DBE participation for each contract. The goal is calculated using the Engineer's Estimate and DBE Interest Report. Goal assignment includes review of FHWA funds, analyzes bid items for subcontract opportunity and compatibility with DBE certified firm work codes. Additional factors considered include proximity, proportion, and regulations.
- b. **Bid Shopping:** In construction law, bid shopping is the practice of divulging a subcontractor's bid to another prospective contractor(s) before or after the award of a contract to secure a lower bid.
- c. **DBE:** Disadvantaged Business Enterprise – A for-profit small business concern where socially and economically disadvantaged individuals own at least a 51% interest and control management and daily business operations.
- d. **DBE Commitment:** The DBE Commitment is identified in the Commitment to Subcontract to DBE (Form DT1506) and is expressed as the amount of DBE participation the prime contractor has secured. The DT1506, a contract document completed by the bidder, is required to be considered a responsive bidder on an FHWA-funded contract that has an assigned DBE goal. The prime contractor will have the option to submit the DT1506 digitally, as an entry with the bid in Bid Express, or as an attachment to the bid.
- e. **DBE Utilization:** The actual participation of a DBE subcontractor on a project. WisDOT verifies DBE utilization through review of the DBE Commitment, payments to subcontractors, and contract documentation. The Prime Contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved DBE Commitment, and those submitted after approved commitment with Attachment A.
- f. **Good Faith Effort:** Legal term describing a diligent and honest effort taken by a reasonable person under the same set of facts or circumstances. For DBE subcontracting, the bidder must show that it took all necessary and reasonable steps to achieve the assigned DBE goal by the scope, intensity, and

appropriateness of effort that could reasonably be expected for a contractor to obtain sufficient DBE participation.

- g. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.
- h. **Reasonable Price:** Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price.
- i. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.
- j. **Tied quote:** Subcontractor quote that groups multiple bid/line items at a bundled/package price with a notation that the items within the quote will not be separated.

## 2. WisDOT DBE Program Compliance

### a. Documentation Submittal

The Commitment to Subcontract to DBE (Form DT1506 or digital submittal), Attachments A OR quotes from all DBEs included in the Commitment will be submitted at bid by ALL prime contractors. If the assigned DBE contract goal is not met, Documentation of Good Faith Effort (Form DT1202) must be submitted within 24-hours of bid closing. Supplemental DT1202 documentation and signed Attachments A from DBEs included in the DBE Commitment are also due within 24-hours of bid closing. Form DT1202, supporting GFE documentation, and signed Attachments A, not submitted at the time of bid, must be submitted through eSubmit (preferred) or to the DBE Alert email box.

\*\*Bidders have the option of submitting the DBE Commitment at the time of bid via direct entry through Bid Express OR with attachment of Form DT1506 (Commitment to Subcontract to DBE). The DBE Commitment entered with bid is the digital form of the DT1506. Separate submission of Form DT1506 is not required if the DBE Commitment is entered in Bid Express. Form DT1202, if applicable, is no longer required to be submitted at time of bid; submit DT1202 within the 24-hour supplemental time frame following bid closing.

Naming conventions: Follow eSubmit [instructions](#), OR when emailing files, use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, GFE" and "Project #, Proposal #, Let date, Business Name, Attachment A" Email: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)

The DBE Office will not certify Good Faith Effort and the Bureau of Project Development will consider the bid nonresponsive if the contractor fails to furnish the DBE Commitment (digitally entered into the bid OR Form DT1506 as an attachment), Attachments A, and Form DT1202 if applicable, as required. See sample forms in the Appendix.

### b. Verification of DBE Commitment

The documentation related to DBE subcontract commitment submitted prior to contract award is evaluated as follows:

#### (1) DBE Goal Met

If the bidder indicates that the contract DBE goal is met, the Department will evaluate the DBE Commitment submitted with bid OR Form DT1506, and Attachments A to verify the actual DBE

percentage calculation. If the DBE Commitment is verified, the contract is eligible for award with respect to the DBE Commitment.

(2) **DBE Goal Not Met**

- a) If the bidder indicates a bid percentage on the DBE Commitment that does not meet the assigned DBE contract goal, the bidder must request alternative evaluation of good faith effort through submission of Form DT1202 (Documentation of Good Faith Effort) within 24-hours of bid including narrative description. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. The Department will review the bidder's DBE Commitment and evaluate the bidder's good faith efforts submission.
- b) Following evaluation of the bidder's Good Faith Effort documentation the bidder will be notified that the Department intends to:
  1. *Approve* the request (adequate documentation of GFE has been submitted)- no conditions placed on the contract with respect to the DBE Commitment;
  2. *Deny* the request (inadequate documentation of GFE has been submitted)- the contract is viewed as non-responsive per Wisconsin Standard Specifications for Highway and Structure Construction and will not be executed.
- c) If the Department denies the bidder's request, the contract is ineligible for award. The Department will provide a written explanation for denying the request to the bidder. The bidder may appeal the Department's denial (see Section 4).

Supplemental good faith effort documentation must be submitted through eSubmit (preferred) OR to the DBE Office by email at: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov). Email naming convention: "Project #, Proposal #, Let date, Business Name, GFE"

### 3. Department's Criteria for Good Faith Effort Documentation

The Federal-aid Construction Contract Provision, referenced as FHWA-1273, explicitly states that the prime contractor shall be responsible for all work performed on the contract by piecework, station work, or subcontract. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of the contract including assurances of equal employment opportunity laws, DBE regulations, and affirmative action. Compliance encompasses responsible and responsive action, documentation, and good faith effort.

Contractually, all contractors, subcontractors, and service providers on the contract are bound by FHWA 1273 and DBE program provisions. **Prime contractors should encourage subcontractors to utilize DBE firms whenever possible to contribute to the assigned DBE contract goal.**

Bidders are required to document good faith effort. Per 49 CFR Part 26.53, good faith effort is demonstrated in one of two ways. The bidder:

- (1) Documents that it has obtained enough DBE participation to meet the goal; OR
- (2) Documents that it made adequate good faith efforts to meet the goal, even though it did not succeed

*Appendix A* of 49 CFR Part 26 provides guidance concerning good faith efforts. WisDOT evaluates good faith effort on a contract basis just as each contract award is evaluated individually.

The efforts employed by the bidder should be those that WisDOT can reasonably expect a bidder to take to actively and aggressively obtain DBE participation sufficient to meet the DBE contract goal. The Department will only approve demonstration of good faith effort if the bidder documents the quality, quantity, and intensity of the variety of activities undertaken that are commensurate with expected efforts to meet the stated goal.

The Department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort activity. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

**a. Solicitation Guidance for Prime Contractors:**

- (1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use WisDOT-approved DBE outreach tools, including the UCP DBE Directory and the Bid Express Small Business Network to foster DBE participation on all applicable contracts.
- (2) As needed, request assistance with DBE outreach and follow-up by contacting the Department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Phone numbers are (414) 438-4584 and/or (608) 267-3849; Fax: (414) 438-5392; E-mail: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)
- (3) Participate in and document a substantive conversation with at least one DBE firm per Let, to discuss questions, concerns, and any other contract related matters that may be applicable to the DBE firm. Guidelines for this conversation are provided in Appendix A of ASP-3.
- (4) Request quotes by identifying potential items to subcontract and solicit. In their initial contacts, contractors are strongly encouraged to include a single page, detailed list of items for which they are accepting quotes, by project, within a letting. See attached sample entitled "Sample Contractor Solicitation Letter" in Appendix B. Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE firms to do work in a prime contractor's area of specialization.
  - i. Solicit quotes from certified DBE firms who match possible items to subcontract using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which quotes are being sought to [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)
  - ii. Acceptable outreach tools include SBN (Small Business Network, see Appendix C):  
<https://www.bidx.com/wi/main>, postal mail, email, fax, and phone.
    - a. Contractors must ask DBE firms for a response in their solicitations. See *Sample Contractor Solicitation Letter*, Appendix B. This letter may be included as an attachment to the sub-quote request.
    - b. Solicit quotes at least 10 calendar days prior to the letting date to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.
    - c. A follow up solicitation should take place within 5 calendar days of the letting date. Email and/or SBN are the preferred method for the solicitation.
  - iii. Upon request, provide interested DBE firms with adequate information about plans, specifications, and the requirements of the contract by letter, information session, email, phone call, and/or referral.
  - iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit, or insurance if requested.
  - v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:
    - a. Email to all prospective DBE firms in relevant work areas
    - b. Phone call log to DBE firms who express interest via written response or call
    - c. Fax/letter confirmation
    - d. Signed copy of record of subcontractor outreach effort

**b. Guidance for Evaluating DBE quotes**

- (1) Quote evaluation practices required to evaluate DBE quotes:
  - i. Reasonable Price: Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and



non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price. See 49 CFR Part 26, Appendix A. IV.D(2).

- (2) Documentation submitted by the prime of the following evaluation is required to evaluate DBE quotes by contractors:
  - i. Evaluation of DBE firm's ability to perform "possible items to subcontract" using legitimate reasons, including but not limited to, **a discussion** between the prime and DBE firm regarding its capabilities prior to the bid letting. If lack of capacity is the reason for not utilizing the DBE firm's quote, the prime is required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area indicated by the NAICS code(s) listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.
    - a In striving to meet an assigned DBE contract goal, contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.
    - b Additional evaluation - Evaluation of DBE quotes with tied bid items. Typically, this type of quoting represents a cost saving but is not clearly stated as a discount. Tied quotes are usually presented as an 'all or none' quote. When non-DBE subcontractors submit tied bid items in their quotes, the DBE firm's quote may not appear competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples:
      - i Compare bid items common to both quotes, noting the reasonableness in the price comparison.
      - ii Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

See Appendix D – *Good Faith Effort Evaluation Measures* and Appendix E - *Good Faith Effort Best Practices*.

- c. **Requesting Good Faith Effort Evaluation** At the time of bid- if the DBE goal is not met in full, the prime contractor must indicate they will file form DT1202- Documentation of Good Faith Effort within 24-hours of bid submission. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. Supporting documentation for the DT1202 is to include the following:
  - (1) Solicitation Documentation: The names, addresses, email addresses, and telephone numbers of DBE firms contacted along with the dates of both initial and follow-up contact; electronic copies of all written solicitations to DBE firms. A printed copy of SBN solicitation is acceptable.
  - (2) Selected Work Items Documentation: Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.
  - (3) Documentation of Project Information provided to interested DBEs: A description of information provided to the DBE firms regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE firm.
  - (4) Documentation of Negotiation with Interested DBEs: Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts.
  - (5) Documentation of Sound Reasoning for Rejecting DBEs and copies of each quote received from a DBE firm and, if rejected, copies of quotes from non-DBEs for same items.
  - (6) Documentation of Assistance to Interested DBEs- Bonding, Credit, Insurance, Equipment, Supplies/Materials
  - (7) Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support: Contact organizations and agencies for assistance in contacting, recruiting, and

providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

Naming conventions: eSubmit (preferred) follow instructions OR when emailing files, use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, GFE" Email: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)

If the Good Faith Effort documentation is deemed adequate, the request will be approved and the DBE office will promptly notify the Prime Contractor and Bureau of Project Development.

If the DBE Office denies the request, the Prime Contractor will receive written correspondence outlining the reasons. The Department encourages the Prime Contractor to communicate with DBE staff to clarify any questions related to meeting goals and/or contractor demonstration of good faith efforts.

If the contract is awarded, the Prime Contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved DBE Commitment. No contractor, prime or subsequent tier, shall be paid for completing work assigned to a DBE subcontractor on an approved DBE Commitment unless WisDOT has granted permission for the reduction, replacement, or termination of the assigned DBE in writing. If a prime contractor or a subcontractor on any tier uses its own forces to perform work assigned to a DBE on an approved DBE Commitment, **they will not be paid for the work**. Any changes to DBE Commitment after the approval of the DBE Commitment must be reviewed and approved by the DBE Office prior to the change (see Section 9).

#### **4. Bidder's Documentation of Good Faith Effort Evaluation Request Appeal Process**

A bidder can appeal the Department's decision to deny the bidder's demonstration of Good Faith Effort through Administrative Reconsideration. The bidder must provide a written justification refuting the specific reasons for denial as stated in the Department's denial notice. The bidder may meet in person with the Department if so requested. Failure to appeal within 5 business days after receiving the Department's written notice denying the request constitutes a forfeiture of the bidder's right of appeal. Receipt of appeal is confirmed by email date stamp or certified mail signed by WisDOT staff. A contract will not be executed without documentation that the DBE provisions have been fulfilled.

The Department will appoint a representative who did not participate in the original good faith effort determination, to assess the bidder's appeal. The Department will issue a written decision within 5 business days after the bidder presents all written and oral information. In that written decision, the Department will explain the basis for finding that the bidder did or did not demonstrate an adequate good faith effort to meet the contract DBE goal. The Department's decision is final.

#### **5. Determining DBE Eligibility**

##### **Directory of DBE firms**

- a. The only resource for DBE firms certified in the State of Wisconsin is the Wisconsin Unified Certification Program (UCP) DBE Directory. WisDOT maintains a current list of certified DBE firms at: <http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx>
- b. The DBE Program office is available to assist with contracting DBE firms:(608) 267-3849.

- c. DBE firms are certified based on various factors including the federal standards from the Small Business Administration that assigns a North American Industrial Classification (NAICS) Codes. DBE firms are only eligible for credit when performing work in their assigned NAICS code(s). If a DBE subcontractor performs work that is not with its assigned NAICS code, the prime contractor should contact the DBE Office to inquire about compatibility with the Business Development Program.

## 6. Counting DBE Participation

### Assessing DBE Work

The Department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the UCP agencies. The Department only counts the value of the work a DBE actually performs towards the DBE goal. The Department assesses the DBE work as follows:

- a. The Department counts work performed by the DBE firm's own resources. The Department includes the cost of materials and supplies the DBE firm obtains for the work. The Department also includes the cost of equipment the DBE firm leases for the work. The Department will not include the cost of materials, supplies, or equipment the DBE firm purchases or leases from the prime contractor or its affiliate, with the exception of non-project specific leases the DBE has in place before the work is advertised.
- b. The Department counts fees and commissions the DBE subcontractor charges for providing bona fide professional, technical, consultant, or managerial services. The Department also counts fees and commissions the DBE charges for providing bonds or insurance. The Department will only count costs the program engineer deems reasonable based on experience or prevailing market rates.
- c. If a DBE firm subcontracts work, the Department counts the value of the work subcontracted to a DBE subcontractor.
- d. The contractor will maintain records and may be required to furnish periodic reports documenting its performance under this item.
- e. It is the Prime Contractor's responsibility to determine whether the work that is committed and/or contracted to a DBE firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.
- f. It is the Prime Contractor's responsibility to assess the DBE firm's ability to perform the work for which it is committing/contracting the DBE to do. Note that the Department encourages the Prime Contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.
- g. The Prime Contractor will inform the DBE office via email of all DBE subcontractors added to the project following execution of the contract. The Prime Contractor may omit submission of another form DT1506, but must submit signed Attachment A forms for additional DBE firms.
- h. See Section 7 for DBE credit evaluation for Trucking and Section 8 for DBE credit evaluation for Manufacturers, Suppliers, and Brokers

Naming conventions: When emailing files, please use the following language to identify your submission-  
"Project #, Proposal #, Let date, Business Name, Attachment A"      Email: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)

\*Note: A sublet request is required for DBE work, regardless of subcontract tier, and also for reporting materials or supplies furnished by a DBE.

- Sublet Requests via form DT1925 or WS1925 are required for 1st Tier DBEs
- For all 2nd Tier and below notification of DBE sublet is indicated by the contractor entering them in CRCS

## 7. Credit Evaluation for Trucking

All bidders are expected to adhere to the Department's current trucking policy posted on the HCCI website at: <http://wisconsin.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf>

The prime contractor is responsible for ensuring that all subcontractors including trucking firms, receive Form FHWA 1273: <https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf>

See Section 8 for Broker credit.

## 8. Credit Evaluation for Manufacturers, Suppliers, Brokers

The Department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The Department will count the material and supplies that a DBE firm provides under the contract for DBE credit based on whether the DBE firm is a manufacturer, supplier, or broker. Generally, DBE credit is determined through evaluation of the DBE owner's role, responsibility, and contribution to the transaction. Maximum DBE credit is awarded when the DBE firm manufactures materials or supplies. DBE credit decreases when the DBE firm solely supplies materials, and minimal credit is allotted when the DBE firm's role is administrative or transactional. It is the bidder's responsibility to confirm that the DBE firm is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506 or DBE Commitment submitted with the bid.

### a. Manufacturers

- (1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
- (2) If the materials or supplies are obtained from a DBE manufacturer, **100%** percent of the cost of the materials or supplies counts toward DBE goals.

### b. Regular Dealers of Material and/or Supplies

- (1) Supplies purchased in bulk from DBE firms at the beginning of the season may be credited to current contracts if submitted with appropriate documentation to the DBE office.
- (2) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
- (3) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
- (4) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
  - i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
  - ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

- (5) When DBE suppliers are contracted, additional documentation must accompany the DBE Commitment and Attachment A forms. An invoice or bill-of-sale that includes names of the bidder and the DBE supplier, along with documentation of the calculations used as the basis for the purchase agreement, subcontract, or invoice. WisDOT recognizes that the amount on the Attachment A form may be more or less than the amount on the invoice per b.(1) above.
- i. The bidder should respond to the following questions and include with submission of form DT1506 or the DBE Commitment entered with bid:
    - a. What is the product or material?
    - b. Is this item in the prime's inventory or was the item purchased when contract was awarded?
    - c. Which contract line items were referenced to develop this quote?
    - d. What is the amount of material or product used on the project?

**c. Brokers, Transaction Expeditors, Packagers, Manufacturers' Representatives**

- (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit. However, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies, or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions.
- (2) Brokerage fees are calculated as **10%** of the purchase amount.
- (3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, fees, or transportation charges for the delivery of materials or supplies required on a job site.
- (4) Evaluation of DBE credit includes review of the contract need for the item/service, the sub-contract or invoice for the item/service, and a comparison of the fees customarily allowed for similar services to determine whether they are reasonable.

## 9. DBE Commitment Modification Policy (Formerly "DBE Replacement Policy")

**a. Issuing a Contract Change Order**

Any changes or modifications to the contract once executed are considered contract modifications and as such require a change order. In addition, the DBE office must provide consent for reduction, termination, or replacement of subcontractors approved on the DBE Commitment *in advance* of the modification for the prime contractor to receive payment for work or supplies. Additions to the DBE Commitment do not require advance notification of the DBE office. (see below e. DBE Utilization beyond the approved DBE Commitment)

**b. Contractor Considerations**

- (1) A prime contractor cannot modify the DBE Commitment through reduction in participation, termination, or replacement of a DBE subcontractor listed on the approved DBE Commitment without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.
- (2) If a prime contractor reduces participation, replaces, or terminates a DBE subcontractor who has been approved for DBE credit toward its contract, the prime is required to provide documentation supporting its inability to fulfill the contractual commitment made to the Department regarding the DBE utilization.
- (3) The Prime Contractor is required to demonstrate efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE subcontractor that was terminated, to the extent needed to meet the assigned DBE contract goal. When additional opportunity is available by contract modifications, the Prime Contractor must utilize DBE subcontractors that were committed to equal work items, in the original contract.

- (4) In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason, or is terminated from a contract, the Prime Contractor must undertake efforts to maintain its commitment to the assigned DBE goal.
- (5) The DBE subcontractor should communicate with the Prime Contractor regarding its schedule and capacity in the context of the contract. If the DBE firm anticipates that it cannot fulfill its subcontract, they will advise the Prime Contractor and suggest a DBE subcontractor that may replace their services and provide written consent to be released from its subcontract.
  - i. Before the Prime Contractor can request modification to the approved DBE Commitment, the Prime Contractor must:
    - a. Make every effort to fulfill the DBE Commitment by working with the listed DBE subcontractor to ensure that the firm is fully knowledgeable of the Prime Contractor's expectations for successful performance on the contract. Document these efforts in writing.
    - b. If those efforts fail, provide written notice to the DBE subcontractor of the Prime Contractor's intent to request to modify the Commitment through reduction in participation, termination, and/or replacement of the subcontractor including the reason(s) for pursuing this action.
    - c. Copy the DBE Office on all correspondence related to changing a DBE subcontractor who has been approved for DBE credit on a contract, including preparation and coordination efforts.
    - d. Clearly state the amount of time the DBE firm has to remedy and/or respond to the notice of intent to replace/terminate. The DBE must be allowed five days from the date notice was received as indicated by email time stamp or signed certified mail, to respond, in writing. EXCEPTION: The Prime Contractor must provide a verifiable reason for a response period shorter than five days. For example, a WisDOT project engineer or project manager confirms that WisDOT has eliminated an item the DBE subcontractor was contracted for.
    - e. The DBE subcontractor must acknowledge the contract modification with written response to the Prime Contractor and the DBE Office. If objecting to the subcontract modification, the DBE subcontractor must outline the basis for objection to the proposed modification, providing sound reasoning for WisDOT to reject the prime's request.

### **c. Request to Modify DBE Subcontracting Commitment**

The written request referenced above may be delivered by email or fax. The request must contain the following:

1. Project ID number
2. WisDOT Contract Project Engineer's name and contact information
3. DBE subcontractor name and work type and/or NAICS code
4. Contract's progress schedule
5. Reason(s) for requesting that the DBE subcontractor be replaced or terminated
6. Attach/include all communication with the DBE subcontractor to deploy/address/resolve work completion

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, MODIFICATION" Email: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov) + Project Engineer

WisDOT will review the request and any supporting documentation submitted to evaluate if the circumstance and the reasons constitute good cause for replacing or terminating the approved DBE subcontractor.

*Good Causes to Replace a DBE subcontractor according to the federal DBE program guidelines {49 CFR part 26.53}*

- The listed DBE subcontractor fails or refuses to execute a written contract

- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215, and 1,200 or applicable state law
- The prime has determined that the listed DBE subcontractor is not a responsible contractor
- The listed DBE subcontractor voluntarily withdraws from the project and provides written notice of its withdrawal
- The listed DBE subcontractor is ineligible to receive DBE credit for the type of work required
- A DBE firm owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract

#### **d. Evaluation and Response to the Request**

WisDOT's timely response to the Prime Contractor's request for modification of the approved DBE Commitment will be provided to the prime and the WisDOT project engineer via email.

If WisDOT determines that the Prime Contractor's basis for reduction in participation, replacement, or termination of the DBE subcontractor is not consistent with the good cause guidelines, the DBE office will provide a response via email within 48-hours of receipt of request from the Prime Contractor as indicated by email time stamp. The communication will include: the requirement to utilize the committed DBE, actions to support the completion of the contractual commitment, a list of available WisDOT support services, and administrative remedies, including withholding payment to the prime, that may be invoked for failure to comply with federal DBE guidelines for DBE replacement.

The WisDOT contact for all actions related to modification of the approved DBE Commitment is the DBE Program Engineer who can be reached at [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov) or (414) 335-0413.

#### **e. DBE Utilization beyond the approved DBE Commitment**

When the prime or a subcontractor increases the scope of work for an approved DBE subcontractor or adds a DBE subcontractor who was not on the approved form DT1506 or DBE Commitment submitted with bid at any time after contract execution, this is referred to as voluntary DBE contract goal achievement. The contractor must follow these steps to ensure that the participation is accurately credited toward the DBE goal:

- (1) Forward a complete, signed Attachment A form to the DBE Office. A complete Attachment A includes DBE subcontractor contact information, signatures, subcontract value, and description of the work areas to be performed by the DBE. The DBE Office will verify the DBE participation and revise the DBE Commitment based on the email/discussion and the new Attachment A.
- (2) When adding to an existing DBE Commitment, submit a new Attachment A to the DBE Alert mailbox
- (3) OR Submit a final Attachment A to DBE Alert during the Finals Process when Compliance receives notice of "Substantially Complete"  
 Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, New Attachment A" Email: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)



**Special note on trucking**

- DBE truckers added to the sublets in CRCS *will* be approved without DBE credit (You will see a “N” in CRCS instead of “Y”)
- Prime Contractors may enter a “place holder” e.g. \$1000.00, for DBE Trucking in CRCS if the full amount of trucking is unknown for sublet purposes only
- The hiring contractor may obtain the Attachment A with DBE signature included but the **Prime Contractor** must sign the Attachment A before submitting

**10. Commercially Useful Function**

- a. Commercially Useful Function (CUF) is evaluated after the contract has been executed, while the DBE certified firm is performing contracted work items.
- b. The Department uses Form DT1011, DBE Commercially Useful Function Review and Certification to evaluate if the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.
- c. A DBE firm is performing a commercially useful function if the following conditions are met:
  - (1) For contract work, the DBE is responsible for executing a distinct portion of the work and is carrying out its responsibilities by actually performing, managing, and supervising that work.
  - (2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

**11. Credit Evaluation for DBE Primes**

WisDOT calculates DBE credit based on the amount and type of work performed by DBE certified firms for work submitted with required documentation. If the prime contractor is a DBE certified firm, the Department will only count the work that the DBE prime performs with its own forces for DBE neutral credit. The Department will also calculate DBE credit for work performed by any other DBE certified subcontractor, DBE certified supplier, and DBE certified manufacturer on the contract in each firm’s approved NAICS code/work areas that are submitted with required documentation. Crediting for manufacturers and suppliers is calculated consistent with Section 8 of this document and 49 CFR Part 26.

**12. Joint Venture**

If a DBE performs as a participant in a joint venture, the Department will only count the portion of the total dollar value of the contract equal to the portion of the work that the DBE performs with its own forces, for DBE credit.

**13. Mentor-Protégé**

- a. If a DBE performs as a participant in a mentor-protégé agreement, the Department will credit the portion of the work performed by the DBE protégé firm.
- b. DBE credit is evaluated and confirmed by the DBE Office for any contracts on which the mentor-protégé team identifies itself to the DBE Office as a current participant of the Mentor-Protégé Program.
- c. Refer to WisDOT’s Mentor-Protégé guidelines for guidance on the number of contracts and amount of DBE credit allowed on WisDOT projects.



## 14. Use of Joint Checks

The use of joint checks is allowable if it is a commonly recognized business practice in the material industry. A joint check is defined as a two-party check between a DBE subcontractor, a prime contractor, and the regular dealer or materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE firm in cases where the DBE subcontractor and materials have been approved for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE firm is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE firm must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

- a. The Prime Contractor must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.
  - (1) Request should be made when the DBE Commitment or the Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
  - (2) Approval/Permission must be granted prior to the issuance of any joint checks.
  - (3) The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
  - (4) The joint check for supplies must be strictly for the cost of approved supplies.
- b. The DBE subcontractor is responsible for furnishing and/or installing the material/work item and is not an 'extra participant' in the transaction. The DBE firm's role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor's tasks should include the following:
  - (1) The DBE subcontractor (not the prime/payor) negotiates the quantities, price, and delivery of materials.
  - (2) The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.
- c. The Prime contractor/payor acts solely as a guarantor.
  - (1) The Prime Contractor agrees to furnish the check used for the payment of materials/supplies under the contract.
  - (2) The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractor's negotiated unit price.

## 15. Payment

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

## Appendix A

### Substantive Conversation Guidelines

The substantive conversation is critical to all bidders' demonstration of good faith effort to meet the DBE goal prior to bid opening. Relationship building between primes and subcontractors is crucial to DBE goal attainment. Responsible bidders seek to build rapport with potential DBE subcontractors to understand capacity, areas of expertise, and assess contracting feasibility. Bidders who compete for WisDOT contracts are specialty contractors responding to a growing and changing contract environment. Just as these specialists are responsible for care of the roads, they are likewise responsible for contributing to the health of the industry. The substantive conversation drives collaboration that will build industry health and capacity. The following is intended to provide guidance for such discussions but is not an exhaustive list. Contractors are encouraged to incorporate their existing strategies for cultivating business relationships as well.

Prior to Bid Opening- this discussion should happen as early as possible (WisDOT advertisements are released 5 weeks prior to each Let)

- Determine DBE subcontractor's interest in quoting
- If response indicates inexperience with quoting- offer support/assistance to the DBE in understanding the industry including fundamentals a subcontractor needs to know, required reading and/or resources.
- Assess their interest and experience in the road construction industry by asking questions such as:
  1. Have you competed for other WisDOT contracts? Ratio of competed/to wins
  2. Have you performed on any transportation industry contracts (locally or with other states)?
  3. What the largest contract you've completed?
  4. Have you worked in the industry: apprentice, journeyman, safety, inspection etc.?
  5. Does this project fit into your schedule? Are you working on any contracts now?
  6. Have you reviewed a copy of the plans? Are you comfortable performing within the scope and quantity considerations of this contract?
  7. What region do you work in? Home base?
  8. Which line items are you considering?
  9. Have you read/are you familiar with WisDOT Standard Specifications? Construction Material Manual?
  10. Do you understand where your work fits in the project schedule, project phases?

Following Bid Opening- this discussion can happen at any time

1. After reviewing their quote, note the following in your discussion:
  - Does the quote look complete? Irregular?
  - Are there errors in the quote? Are items very high or very low?
  - In general, does the quote look competitive?
2. Questions and Advice for the bidder to share with the potential DBE subcontractor:
  - What line items would typically be in a competitive quote for a subcontractor of their specialty?
  - How many employees and what is their role/experience/expertise in your firm?
  - Do you have resources for labor (union member, family-based, community-resourced) and capital (banking relationship, bond agent, CPA)?
  - Where have you worked: cities, states, government, commercial, residential/private sector, etc. Explain similarities or differences.
  - Refer them to reliable, trusted, industry resources that can educate or connect them to relevant resources, education/certification resources, more appropriate contract opportunities.
  - Discussion about prime contract and subcontract liability, critical path items, contract quantities, schedule risks, and potential profit/loss (for upcoming known projects or in general).
  - Discussion of bonding, insurance, and overall business risk considerations.

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

**GFESAMPLE MEMORANDUM**

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

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

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

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

Please make every effort to have your quotes into our office by **time deadline** the prior to the letting date. ***Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.*** We prefer quotes be sent via SBN but **prime's alternatives** are acceptable. Our office hours are **include hours and days**.

Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at **contact number**.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at <http://roadwaystandards.dot.wi.gov/hcci/>  
 All questions should be directed to:

Project Manager, John Doe, Phone:  
 (000) 123-4567  
 Email: [Joe@joetheplumber.com](mailto:Joe@joetheplumber.com)  
 Fax: (000) 123- 4657

**Sample Contractor Solicitation Letter Page 2**  
*This sample is provided as a guide not a requirement*  
 REQUEST FOR QUOTE

**Prime's Name:** \_\_\_\_\_  
**Letting Date:** \_\_\_\_\_  
**Project ID:** \_\_\_\_\_

**Please check all that apply**

- Yes, we will be quoting on the projects and items listed below
- No, we are not interested in quoting on the letting or its items referenced below
- Please take our name off your monthly DBE contact list
- We have questions about quoting this letting. Please have someone contact me at this number

Prime Contractor 's Contact Person:

DBE Contractor Contact Person:



Phone: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

Email: \_\_\_\_\_

**Please circle the jobs and items you will be quoting below**

Proposal No.	1	2	3	4	5	6	7
County							

**WORK DESCRIPTION:**

Clearing and Grubbing	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by **time deadline** prior to the letting date.

**We prefer quotes be sent via SBN but **prime's preferred alternatives** are acceptable.**

If there are further questions please direct them to the **prime contractor's contact person** at **phone number.**

## Appendix C

### Small Business Network (SBN) Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription. Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
  - a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for later completion.
2. Create sub-quotes for the subcontracting community:
  - a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
  - b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
  - c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE preferred request.
  - d. Add attachments to sub-quotes.
3. View sub-quote requests & responses:
  - a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
  - b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.
4. View Record of Subcontractor Outreach Effort:
  - a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
  - b. Easily locate pre-qualified and certified small and disadvantaged businesses.
  - c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
  - d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs. **DBE firms can:**

1. View and reply to sub-quote requests from primes:
  - a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
  - a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
  - b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes.
  - c. Add attachments to a sub-quote.
3. Create and send unsolicited sub-quotes to specific contractors:
  - a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
  - a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
  - b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
  - c. Add attachments to a sub-quote.
  - d. Add unsolicited work items to sub-quotes that you are responding to.
5. Easy Access to Valuable Information
  - a. Receive a confirmation that your sub-quote was opened by a prime.
  - b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
  - c. View important notices and publications from DOT targeted to small and disadvantaged businesses.
6. Accessing Small Business Network for WisDOT contracting opportunities
  - a. If you are a contractor not yet subscribing to the Bid Express service, go to [www.bidx.com](http://www.bidx.com) and select "Order Bid Express." The Small Business Network is a part of the Bid Express Basic Service.
  - b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-458

## APPENDIX D

### Good Faith Effort Evaluation Measures *by categories referenced in DBE regulations*

Bidders must demonstrate that they took all necessary and reasonable steps to achieve the assigned DBE contract goal. For each contract, all bidders must submit documentation indicating the goal has been met or if falling short of meeting the assigned goal, must request a DBE Goal Waiver and document all efforts employed to secure DBE subcontractor participation on Form DT1202.

DBE staff analyze the bidder's documented good faith efforts to determine if action taken was sufficient to meet the goal. Sufficiency is measured contract-by-contract. WisDOT evaluates active and aggressive efforts, quality, quantity, scope, intensity, and appropriateness of the bidder's efforts as a scale of the principles of Good Faith outlined in 49 CFR Part 26, Appendix A. Additional emphasis is placed on the bidder's demonstration of timely submission of documentation and communication with DBE subcontractors, and business development initiatives undertaken to support DBE firm growth.

The following is a sample of good faith effort activities that are rated according to the accompanying rubric. Contractors are encouraged to identify additional activities that align with their business type(s).

- Personal, tailored solicitation to firms that specialize in work types planned or desired for subcontracting
- Follow up to initial solicitation via email or phone
- Substantive conversation including topics such as contract liability, critical path work items, schedule risks, and potential profit/loss
- SBN utilization including posting quotes
- Review and response to DBE quotes including provision of information about plans, specifications, and requirements as applicable
- Documentation requesting subcontractors support DBE goal by solicitation and inclusion of DBE subcontractor quotes
- Responsive and timely submission of organized documentation
- Analysis of number of DBE firms who do work types that you typically subcontract
- Analysis of number of DBE firms who reside in geographical areas where prime seeks work
- Analysis of firms who express interest in bidding/quoting including the number of firms who declined your solicitation
- Reference check of DBE subcontractor work or training (documentation of questions and response required)
- Number of different efforts undertaken to meet the assigned DBE goal as documented in accompanying Form DT1202
- Submission of all DBE quotes received matched with a variety of work to be performed by DBEs
- Number and names of DBE firms provided written advice, or referral to industry-specific business development resources
- Overall pattern of DBE utilization on all WisDOT contracts which may include contracting with municipalities
- Documentation of resources expended to meet assigned DBE goal (#of hours, staff titles, average pay rate, actions taken)
- Analysis of subcontractable work items to be completed by prime beyond prime contractor's 30%
- Risk analysis of work items that are typically in tied quotes that could be unbundled
- List of contract work items in smallest economically feasible units, identifying schedule impact
- Submission of a Gap Analysis identifying DBE skillset and/or industry needs
- Staff training in EEO and Civil Rights laws as documented in training logs
- Written Capacity Assessment completed with DBE firm documenting its ability to perform the work quoted
- DBE engagement efforts beyond simple solicitation that include a substantive discussion, initiated as early in the acquisition process as possible (*points added for each day prior to letting*)
- Outreach and marketing efforts with minority, women, and veteran-focused organizations at least 10 days prior to bid opening
- Active involvement in WisDOT's Business Development Program, TrANS training, facilitated networking efforts, workshops
- Customized teaching/training efforts for future opportunities with DBE subcontractor, contract specific and/or annually
- Introduction and reference provided for DBE subcontractor to a prime who has not previously contracted with the DBE firm
- Prime utilization of a DBE subcontractor the prime has not contracted with previously
- Written referral/recommendation to bond/insurance agents, manufacturer, supplier
- Documented efforts fostering DBE participation through administrative and/or technical assistance
- Evidence of negotiation with the DBE firm about current and future Let opportunities
- Recommendation of local and state services that support small business and access to opportunity: DOA, SBA, WEDC, WPI, etc.
- Advice on bonding, lines of credit, or insurance as required to complete the items quoted and contract requirements



**GFE EVALUATION RUBRIC – PHASE 1**

	<b>Active &amp; Aggressive Category</b>	<b>Quality Category</b>	<b>Quantity Category</b>	<b>Scope &amp; Intensity Category</b>	<b>Timing Category</b>	<b>Business Develop't Efforts</b>	<b>Total=</b>
<b>Solicitation Documentation</b>							
<b>Selected Work Items Documentation</b>							
<b>Documentation of Project Information provided to Interested DBEs</b>							
<b>Documentation of Negotiation with Interested DBEs</b>							
<b>Documentation of Sound Reason for Rejecting DBEs</b>							
<b>Documentation of Assistance to Interested DBEs- bonding, credit, insurance, equipment, supplies/materials</b>							
<b>Documentation of Outreach to Minority, Women, and Community organizations and other DBE Business Development Support</b>							
<b>Documentation of other GFE activities</b>							
<b>Overall Total=</b>							

## GFE EVALUATION RATING LEGEND – PHASE 1 – Initial Review

**ACTIVE & AGGRESSIVE:** Demonstrated through engaged and assertive activity

**QUALITY:** Demonstrated through essential character of conscientious and serious activity

**QUANTITY:** Demonstrated through a measurable number of activities

**SCOPE & INTENSITY:** Demonstrated through a rigorous approach to an appropriate and purposeful range of activities

**TIMING:** Demonstrated through engagement efforts beyond simple solicitation, initiated early in the process

**BUSINESS DEVELOPMENT INITIATIVES:** Demonstrated by efforts to support business growth and health of DBEs

### Rating Scale

- Each qualifying activity is worth 5 points per Category
  - **Pro Forma efforts= 0-50 points**  
Perfunctory effort characterized by routine or superficial activities
  - **Bona Fide= 55+ points**  
Genuine effort characterized by sincere and earnest activities

## GFE EVALUATION – PHASE 2 – Team Review

### DBE Office completes:

- Review of quote comparisons submitted by Prime
- Bid analysis to confirm if any bid submitted met the DBE goal
- Review average of other bidders DBE goal achievement
- Team review of combined efforts documented in Phase 1 and 2 by apparent low bidder

Excerpt from Appendix A to 49 CFR Part 26:

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)(vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

## **APPENDIX E**

### **Good Faith Effort Best Practices**

This list is not a set of requirements; it is a list of potential strategies

#### **Primes**

- Ø Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance.
- Ø Participate in speed networking and mosaic exercises as arranged by DBE office.
- Ø Host information sessions not directly associated with a bid letting.
- Ø Participate in a formal mentor protégé or joint venture with a DBE firm.
- Ø Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Ø Facilitate a small group DBE ‘training session’ clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications, and communication methods.
- Ø Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Ø Quality of communication, not quantity creates the best results. Contractors should be thorough in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

#### **DBE**

- Ø DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Ø Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Ø Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list and bid tabs at a minimum.
- Ø Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation related projects of similar size and scope, firm expertise and staffing.
- Ø Participate in DBE office assessment programs.
- Ø Participate on advisory and mega-project committees.
- Ø Sign up to receive the DBE Contracting Update.
- Ø Consider membership in relevant industry or contractor organizations.
- Ø Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the Department are the only ways to get work.

**APPENDIX F**  
**Good Faith Effort Evaluation Guidance**  
*Appendix A of 49 CFR Part 26*

I. When, as a recipient, you establish a contract goal on a DOT-assisted contract for procuring construction, equipment, services, or any other purpose, a bidder must, in order to be responsible and/or responsive, make sufficient good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, Part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, you have the responsibility to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made, based on the regulations and the guidance in this Appendix.

The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call. Determinations should not be made using quantitative formulas.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. (1) Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of transportation firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

(2) The bidder should solicit this interest as early in the acquisition process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. (1) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

(2) A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)(vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

VI. A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

[79 FR 59600, Oct. 2, 2014]

**APPENDIX G**

**(SAMPLE) Forms DT1506 and DT1202**

**COMMITMENT TO SUBCONTRACT TO DBE  
ATTACHMENT A**

**CONFIRMATION OF PARTICIPATION**

Project I.D.:	Proposal Number:
Letting Date:	

Name of DBE Firm Participating in this Contract:	
Name of the Prime/Subcontractor who hired the DBE Firm: <i>(list all names of tiers if more than one)</i>	
Type of Work or Type of Material Supplied:	
Total Subcontract Value:	Total DBE Credit Value:

<b>FOR PRIME CONTRACTORS ONLY:</b> I certify that I made arrangements with the participating DBE firm to perform the type of work listed or supply the material indicated above for the subcontract value listed above.	Prime Contractor Representative's Signature
	Prime Contractor Representative's Name (Print Name)
	Prime Contractor (Print Company Name)
	Date

<b>FOR PARTICIPATING DBE FIRMS ONLY:</b> I certify that I made arrangements with the Prime Contractor or the Hiring Contractor to perform the type of work or supply the material indicated above for the subcontract value listed above.	Participating DBE Firm Representative's Signature & Date
	Participating DBE Firm Representative's Name (Print Name)
	Participating DBE Firm (Print Company Name)
	DBE Firm's Address:
<b>FOR DBE TRUCKING FIRMS ONLY:</b> I certify that I will utilize, for DBE credit, only trucks listed on my WisDOT approved Schedule of Owned/Leased Vehicles for DBE Credit form and I will be utilizing the number of trucks as listed below.	

# Owned Trucks	# Leased Trucks	# DBE-Owned Leased Trucks	# Non-DBE-Owned Leased Trucks





**DOCUMENTATION OF GOOD FAITH EFFORT**  
 Wisconsin Department of Transportation  
 DT1202.....3/2020



Project ID .....	Proposal No. .....	Letting .....
Prime Contractor .....	County .....	
Person Submitting Document .....	Telephone Number .....	
Address .....	Email Address .....	

All bidders must undertake necessary and reasonable steps to achieve the assigned DBE contract goal per federal regulatory guidance at 49 CFR Part 26. Bidders use this form to document all efforts employed to meet the assigned goal as a record of contractor good faith efforts (GFE). Refer to ASP3 or 49 CFR Part 26 for guidance on actions that demonstrate good faith effort.

It is critical to list all efforts, attach documentation, and follow the instructions to complete this submission. Documentation of good faith effort includes copies of each DBE and non-DBE subcontractor quote submitted to the bidder for the same line items. Utilize the sample documentation logs to document and organize efforts.

Submit good faith effort documentation per ASP-3 guidelines.

**Instructions:** Provide a narrative description of all activities pursued to demonstrate good faith efforts, any corresponding documentation, and applicable explanation on separate pages. Include the following items, organized in the order listed below.

**1. Solicitation Documentation:**

- a. **Purpose:** To identify all reasonable and available activities the bidder performed to solicit the interest of all certified DBEs who have the capacity and ability to perform work on the project. All solicitation efforts should begin as early as possible to ensure DBEs have ample time to respond and ask questions.
- b. **Action:** Identify and list all activities engaged in to solicit DBEs using all reasonable and available means such as written notice and follow-up communications; substantive conversations; pre-bid meetings; networking events; market research; advertising.

**2. Selected Work Items Documentation:**

- a. **Purpose:** To ensure that all work items are broken out into economically feasible units to facilitate DBE participation. This must occur even when you prefer to perform the work yourself.
- b. **Action:** Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.

**3. Documentation of Project Information provided to Interested DBEs:**

- a. **Purpose:** To provide interested DBEs with adequate information about the plans, specifications, and any other contractual requirements in a timely manner to assist DBEs in response to solicitation.
- b. **Action:** Provide DBEs access to plans, specifications, and other contract requirements. Early solicitation allows ample opportunity to provide project information, links to Let advertisements, and substantive engagement with DBEs.

**4. → Documentation of Negotiation with Interested DBEs:**

**a. → Purpose:** To ensure that negotiations with interested DBEs were made in good faith providing evidence as to why agreements could not be reached for DBEs to perform work.

**b. → Action:** Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts. A bidder using good business judgment considers a number of factors in negotiating with all subcontractors, and the firm's price and capabilities in addition to contract goals are taken into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for failing to meet the DBE goal as long as costs are reasonable. (see 49 CFR Part 26 Appendix A)

**5. → Documentation of Sound Reason for Rejecting DBEs:**

**a. → Purpose:** To ensure that bidders avoid rejecting DBEs as unqualified without sound reasons. Reasons for rejection must be based on thorough investigation of DBE capabilities.

**b. → Action:** Provide sufficient evidence to demonstrate that DBE was rejected for sound reasons such as past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, other tangible factors.

**6. → Documentation of Assistance to Interested DBEs -- Bonding, Credit, Insurance, Equipment, Supplies/Materials:**

**a. → Purpose:** To assist interested DBEs in obtaining bonds, lines of credit, insurance, equipment, supplies, materials, and other assistance or services.

**b. → Action:** Assist interested DBEs in obtaining bonding, lines of credit or insurance, and provide technical assistance or information related to plans, specifications, and project requirements. Assist DBEs in obtaining equipment, supplies, materials or other services related to meeting project requirements (excluding supplies or equipment the DBE purchases from the prime).

**7. → Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support:**

**a. → Purpose:** To effectively use the services of minority, women, and community organizations as well as contractors' groups, local, state, and federal business assistance offices and organization that provide assistance in recruiting and supporting DBEs, as well as participation in activities that support DBE business development.

**b. → Action:** Contact organizations and agencies for assistance in contacting, recruiting, and providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

Return to:  
Wisconsin Department of Transportation  
DBE Program Office  
PO Box 7965  
Madison, WI 53707-7965  
DBE\_Alert@dot.wi.gov

I certify that I have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, as demonstrated by my responses and as specified in Additional Special Provision 3 (ASP-3).

I certify that the information given in the Documentation of Good Faith Efforts is true and correct to the best of my knowledge and belief.

I further understand that any willful falsification, fraudulent statement, or misrepresentation will result in appropriate sanctions, which may involve debarment and/or prosecution under applicable state (Trans 504) and Federal laws.

		(Bidder/Authorized Representative Signature)
	*****	(Print Name)
	*****	(Title)

**Good-Faith-Effort-- Sample-Documentation-Logs**

The sample logs below are provided as guides rather than exhaustive list. See ASP3, Appendix A for additional examples of demonstrable good faith efforts. Attach documentation for each activity listed.

Acceptable forms of documentation include copies of solicitations sent to DBEs, notes from substantive conversations and negotiations with DBEs, copies of advertisements placed, email communications, all quotes received from DBEs and from all subcontractors who were considered alongside DBE quotes, proof of attendance at applicable networking events; flyers for events or workshops for DBEs offered by the prime, and other physical records of good faith efforts activities.

**SOLICITATION LOG**

Date	Activity	Name of DBE Solicited	Follow-up
4/1/2020	Sent May Let solicitation	Winterland Electric	Spoke with Mark Winterland on 4/15/20 to ask if he would quote.

**SELECTED WORK ITEMS SOLICITED LOG**

Work Type	DBE Firm	Contact Person	Date	Contact Mode
Pavement Marking	ABC Marking	Leslie Lynch	4/1/2020	Email; phone
	#1 Marking Co.	Mark Smart	4/1/2020	Email; left VM
Electrical	Winterland Electric	Tabitha Tinker	4/3/2020	Email, left VM
	Superstar Wiring	Jose Huascar	4/3/2020	Email; phone

**INFORMATION PROVIDED LOG**

Request Date	DBE Firm	Information Requested & Provided	Response Date
4/1/2020	Winterland Electric	Requested info on electrical requirements; provided plan and link to specs	4/3/2020
4/21/2020	Absolute Construction	Wanted to know how and when supplies are paid for by WisDOT; referred to spec that covers stockpiling	4/21/2020

**NEGOTIATIONS LOG**

Date	DBE Firm	Contact Name	Work Type	Quotes Rec'd?	Considered for project?	If not selected, why?
4/12/2020	ABC Landscape	John Dean	Erosion Control	Yes	No	Cannot perform all items
4/17/2020	Wild Ferns	Sandy Lynn	Erosion Control	Yes	Yes	
4/20/2020	#1 Marking	Mark Smart	Electrical	Yes	Yes	

**ASSISTANCE LOG**

Date	DBE Firm	Contact Person	Assistance Provided
4/1/2020	ABC Sawing	Jackie Swiggle	Informed DBE on how to obtain bonding
4/17/2020	Supreme Construction	Winston Walters	Provided contact for wholesale supply purchase

**OUTREACH & BUSINESS DEVELOPMENT LOG**

Date	Agency/Organization Contacted	Contact Person	Assistance Requested
4/1/2020	Women in Construction	LaTonya Klein	Contact information for woman-owned suppliers
4/28/2020	WBIC	Sam Smith	Asked for information to provide to DBE regarding financing programs through WBIC

Official Form DT1202 can be found here: [www.wisconsin.gov/DBEcontracting](http://www.wisconsin.gov/DBEcontracting)

**ADDITIONAL SPECIAL PROVISION 4**

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

**Payment to First-Tier Subcontractors**

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor is not allowed to withhold retainage from payments due subcontractors.

**Payment to Lower-Tier Subcontractors**

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

**Additional Special Provision 6**  
**ASP 6 - Modifications to the standard specifications**

*Make the following revisions to the standard specifications:*

**415.3.16 Tolerance in Pavement Thickness**

*Replace the entire text with the following effective with the November 2021 letting:*

**415.3.16.1 General**

- (1) Construct the plan thickness or thicker. The department will accept pavement thickness based on the results of department-performed acceptance testing conforming to:

Magnetic Pulse Induction .....	CMM 870: ASTM E3209 WTM
Probing.....	CMM 870: WTP C-002
Preplacement Measurement .....	CMM 870: WTP C-003

**415.3.16.2 Pavement Units**

**415.3.16.2.1 Basic Units**

- (1) Basic unit is defined as a slip formed, single lane, with a minimum lane width of 10 feet, measured, from the pavement edge to the adjacent longitudinal joint; from one longitudinal joint to the next; or between pavement edges if there is no longitudinal joint.

**415.3.16.2.2 Special Units**

- (2) Establish special units for areas of fillets, intersections, gaps, gores, shoulders, ramps, pavement lanes less than 10 feet wide and other areas not included in basic units.

**415.3.16.3 Test Plate Locations**

- (1) Place department-furnished test plates. Within 5 business days after paving, enter the sequential number and associated position data into MRS available at:

<http://www.atwoodsystems.com/>

- (2) Contractor will maintain plate location markings for 10 business days after paving.

**415.3.16.4 Acceptance Testing**

**415.3.16.4.1 Basic Units**

**415.3.16.4.1.2 Magnetic Pulse Induction**

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable. Department will determine limits of unacceptable pavement by performing the following:
- The engineer will test each consecutive plate stationed ahead and behind until the thickness test result is plan thickness or greater.
  - The engineer will direct the contractor to core the hardened concrete to determine the extent of the unacceptable area. In each direction, the contractor shall take cores at points approximately 20 feet from the furthest out of specification plate towards the plate that is plan thickness of greater. Once a core is within 80 to 100 percent pay range, the coring is complete and the limits of unacceptable pavement extend from the stationing between the core test results of 80 to 100 percent payment, inclusive of all unacceptable core and plate test results.
  - The contractor shall perform coring according to AASHTO T24. The department will evaluate the results according to AASHTO T148
  - The contractor shall fill core holes with concrete or mortar.

**415.3.16.4.2 Special Units**

**415.3.16.4.2.1 Magnetic Pulse Induction**

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the department will measure the second plate in that unit. If both plates are required to be measured, then all six thickness measurements will be averaged for that unit. If the average of the six measurements is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable.

**415.3.16.4.2.2 Probing**

- (1) The department will measure slip form special units during concrete placement. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will probe 2 random locations within the special unit. The average of the two readings will be the reported measurement for the special unit.

**415.3.16.4.2.3 Preplacement Measurement**

- (1) The department will measure non-slip form special units before concrete placement.
- (2) Thickness corrections will be made to a conforming thickness by reshaping the base aggregate before the pavement is placed.

**415.5.2 Adjusting Pay for Thickness**

Replace the entire text with the following effective with the November 2021 letting:

- (1) The department will adjust pay for pavement thickness under the Nonconforming Thickness Concrete Pavement administrative item as follows:

FOR PAVEMENT THINNER THAN PLAN THICKNESS BY:	PERCENT OF THE CONTRACT UNIT PRICE
> 1/4 inch but <= 1/2 inch	80
> 1/2 inch but <= 3/4 inch	60
> 3/4 inch but <= 1 inch	50

- (2) When pavement of unacceptable final thickness is determined, as specified in 415.3.16.4, the department will direct the contractor to either:
  - 1. Remove and replace unacceptable concrete pavement to the nearest joint with new concrete pavement of conforming thickness. The department will pay once for the area at the full contract price.
  - 2. If the unacceptable pavement is less than 100 LF, the department may allow the concrete to remain in place without payment for the unacceptable area.

**460.2.6 Recovered Asphaltic Binders**

Replace paragraph two with the following effective with the November 2021 letting:

- (2) The contractor may replace virgin binder with recovered binder up to the maximum percentage allowed under 460.2.5 without further testing. When the design percent asphalt binder replaced exceeds the allowable limits in 460.2.5, the contractor must:
  - Document adjustments made to the mix design in the mix design submittal.
  - Submit test results that indicate the mixture's asphaltic binder meets or exceeds the upper and lower temperature grade requirements the bid item designates.
    - If only one recycled asphaltic material source is used, furnish one of the following:
      - Test results from extracted and recovered binder from the resultant mixture.
      - Blending charts that indicate the resultant mixture's high and low temperature PG as an interpolation of the percent binder replaced between the virgin binder's and the recycled asphaltic material source binder's high and low temperature PG.
    - If two or more recycled asphaltic material sources are used, furnish test results from extracted and

recovered binder from the resultant mixture.

**501.2.6 Water**

*Retitle with the following effective with the November 2021 letting:*

**501.2.6 Mixing Water**

**501.2.6.2 Requirements**

*Replace paragraph two with the following effective with the November 2021 letting:*

- (2) Water from other sources must comply with the following:
  - Acidity, maximum of 0.1N NaOH to neutralize 200 mL of water; CMM 870: WTP C-001.....2 mL
  - Alkalinity, maximum of 0.1N HCL to neutralize 200 mL of water; CMM 870: WTP C-001 ..... 15 mL
  - Maximum sulphate (SO<sub>4</sub>); CMM 870: WTP C-001 ..... 0.05 percent
  - Maximum chloride; CMM 870: WTP C-001 ..... 0.10 percent
  - Maximum total solids; CMM 870: WTP C-001
  - Organic.....0.04 percent
  - Inorganic..... 0.15 percent

**501.3.2.4.2 Air Entrainment**

*Replace paragraph two with the following effective with the November 2021 letting:*

- (2) Test fresh concrete air content according to AASHTO T152 or AASHTO TP118 at the contract-required frequency and as the engineer directs. Test concrete placed by pumping or belting at the point of discharge from the pump line or belt.

**501.3.7.1 Slump**

*Replace paragraph one with the following effective with the November 2021 letting:*

- (1) Use a 1-inch to 4-inch slump for concrete used in structures or placed in forms, except as follows:
  - Do not exceed a slump of 2 inches for grade E concrete.
  - Increase slump as specified in 502.3.5.3 for concrete placed underwater.
  - If BTS approves a concrete mixture using a superplasticizer, the contractor may increase slump for that mixture to a maximum of 9 inches without exceeding the maximum mix water allowed for that grade.

**531.5 Payment**

*Replace paragraph two with the following effective with the November 2021 letting:*

- (2) Payment for Concrete Masonry Ancillary Structures Type NS is full compensation for providing concrete for non-standard sign structure foundations; and for anchor rod assemblies. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

*Replace paragraph five with the following effective with the November 2021 letting:*

- (5) Payment for the Foundation bid items is full compensation for providing concrete foundations; for anchor rod assemblies; for reinforcing steel; and for embedded conduit and electrical components. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

**642.2.2.1 General**

*Replace paragraph one with the following effective with the November 2021 letting:*

- (1) Provide each field office with two rooms, separated by an interior door with a padlock. Ensure that each room has a separate exterior door and its own air conditioner. Locate the office where a quality internet connection can be achieved. Ensure quality cell phone reception is achievable inside the field office.



**701.3.1 General**

*Replace table 701-1 with the following effective with the November 2021 letting:*

**TABLE 701-1 TESTING AND CERTIFICATION STANDARDS**

TEST	TEST STANDARD	MINIMUM REQUIRED CERTIFICATION (any one of the certifications listed for each test)
Random Sampling	CMM 830.9.2	Transportation Materials Sampling Technician (TMS) TMS Assistant Certified Technician (ACT-TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT-GRADING)
Sampling Aggregates	AASHTO T2 <sup>[1]</sup> <sup>[4]</sup>	TMS, ACT-TMS, AGGTEC-1, ACT-AGG
Percent passing the No. 200 sieve	AASHTO T11 <sup>[1]</sup>	AGGTEC-I, ACT-AGG
Fine & coarse aggregate gradation	AASHTO T27 <sup>[1]</sup>	
Aggregate moisture content	AASHTO T255 <sup>[1]</sup>	
Fractured faces	ASTM D5821 <sup>[1]</sup>	
Liquid limit	AASHTO T89	
Plasticity index	AASHTO T90 <sup>[3]</sup>	Aggregate Testing for Transportation Systems (ATTS) GRADINGTEC-I, or ACT-GRADING
Sampling freshly mixed concrete	AASHTO R60	PCCTEC-1 ACT-PCC
Air content of fresh concrete	AASHTO T152 <sup>[2]</sup> AASHTO TP118 <sup>[5]</sup>	
Air void system of fresh concrete	AASHTO TP118 <sup>[5]</sup>	
Concrete slump	AASHTO T119 <sup>[2]</sup>	
Concrete temperature	ASTM C1064	
Making and curing concrete specimens	AASHTO T23	
Moist curing for concrete specimens	AASHTO M201	
Concrete compressive strength	AASHTO T22	
Concrete flexural strength	AASHTO T97	
Concrete surface resistivity <sup>[2]</sup>	AASHTO T358	
Voids in aggregate	AASHTO T19	Concrete Strength Tester (CST) CST Assistant Certified Technician (ACT-CST)
Profiling	—	PCCTEC-II PROFILER

<sup>[1]</sup> As modified in CMM 860.

<sup>[2]</sup> As modified in CMM 870.

<sup>[3]</sup> A plasticity check, if required under individual QMP specifications, may be performed by an AGGTEC-I in addition to the certifications listed for liquid limit and plasticity index tests.

<sup>[4]</sup> Plant personnel may operate equipment to obtain samples under the direct observation of a TMS or higher.

<sup>[5]</sup> Consolidate by rodding.

**710.2 Small Quantities**

*Replace the entire text with the following effective with the November 2021 letting:*

- (1) The department defines small quantities as follows:
  - As specified in 715.1.1.2 for class I concrete.
  - Less than 50 cubic yards of class II ancillary concrete placed under a single bid item.
- (2) For contracts with only small quantities of material subject to testing, modify the requirements of 710 as follows:
  1. The contractor may submit an abbreviated quality control plan as allowed in 701.1.2.3.
  2. Provide one of the following for aggregate process control:
    - Documented previous testing dated within 120 calendar days. Provide gradation test results to the engineer before placing material.
    - Non-random start-up gradation testing.

**710.4 Concrete Mixes**

Replace paragraph two with the following effective with the November 2021 letting:

- (2) At least 7 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:
  1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and SAM number.
  2. For cementitious materials and admixtures: type, brand, and source.
  3. For aggregates: absorption, SSD bulk specific gravity, wear, soundness, freeze thaw test results if required, and air correction factor. Also include aggregate production records dated within 2 years if using those results in the design. Submit component aggregate gradations, aggregate proportions, and target combined blended aggregate gradations using the following:
    - DT2220 for combined aggregate gradations.
    - DT2221 for optimized aggregate gradations.
  4. For optimized concrete mixtures:
    - Complete the worksheets within DT2221 according to the directions.
    - Ensure the optimized aggregate gradations and the optimized mix design conform to WisDOT specifications and pass the built-in tests within DT2221.
    - Verify slip-form mixture workability according to AASHTO TP137 and conformance to specifications through required trial batching.
    - Submit the completed DT2221 to the engineer electronically. Include the trial batch test results with the mix design submittal.

**710.5.5 Strength**

Replace paragraph one with the following effective with the November 2021 letting:

- (1) Cast all 6" x 12" cylinders or all 6" x 6" x 21" beams in a set from the same sample. Do not cast more than one set of specimens from a single truckload of concrete. Mark each specimen to identify the lot and subplot or location on the project it represents.

**710.5.6 Aggregate Testing**

Retitle and replace the entire text with the following effective with the November 2021 letting:

**710.5.6 Aggregate Testing During Concrete Production****710.5.6.1 General**

- (1) The department will accept gradation based on the results of department-performed acceptance testing.
- (2) The department and contractor will obtain samples using the same method. When belt sampling, contractor personnel shall obtain samples for the department under the direct observation of the department personnel. Contractor will define sampling method in the QMP or abbreviated QMP.

**710.5.6.2 Contractor Control Charts****710.5.6.2.1 General**

- (1) Test aggregate gradations during concrete production except as allowed for small quantities under 710.2. Required contractor testing will be performed using non-random samples.
- (2) Sample aggregates from either the conveyor belt or from the working face of the stockpiles.
- (3) Sample aggregates within 2 business days before placement for each mix design. Include this gradation on the control charts.
- (4) Report gradation test results and provide control charts to the engineer within 1 business day of obtaining the sample. Submit results to the engineer and electronically into MRS as specified in 701.1.2.7.
- (5) Conduct aggregate testing at the minimum frequency shown based on the anticipated daily cumulative plant production for each mix design. The contractor's concrete production tests can be used for the same mix design on multiple contracts.

**TABLE 710-1 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS I**

DAILY PLANT PRODUCTION RATE FOR WisDOT WORK	MINIMUM FREQUENCY
Gradation Report Before Placement	
1000 cubic yards or less	one test per day
more than 1000 cubic yards	two tests per day

**TABLE 710-2 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS II**

MINIMUM FREQUENCY
Gradation Report Before Placement
One test per calendar week of production

**710.5.6.2.2 Optimized Aggregate Gradation Control Charts**

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the following:
  - 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
  - Sum of volumetric percentages retained on No. 8, No. 16, and No. 30 sieves.
  - Sum of volumetric percentages retained on No. 30, No. 50, No. 100, and No. 200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the volumetric percent retained of the optimized aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the volumetric percent retained for each sieve to determine if the blended aggregate gradation is within the tarantula curve limits specified in table 501-4.

**710.5.6.2.3 Combined Aggregate Gradation Control Charts**

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the percent passing by weight requirements of the combined aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the percent passing by weight for each sieve to determine if the blended aggregate gradation is within the combined aggregate gradation limits specified in table 501-4.

**710.5.6.3 Department Acceptance Testing**

- (1) Department testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract.
- (2) The department will split each sample, test for acceptance, and retain the remainder for a minimum of 10 calendar days.
- (3) The department will obtain the sample and deliver to regional testing lab in the same day. Department will report gradation test results to the contractor within 1 business day of being delivered to the lab. Department and contractor can agree to an alternative test result reporting timeframe; alternative timeframe is required to be documented in the QMP.
- (4) Additional samples may be taken at the engineer's discretion due to change in condition.

TABLE 710-3 DEPARTMENT GRADATION TESTING FREQUENCY

CONCRETE CLASSIFICATION	MINIMUM DEPARTMENT FREQUENCY
Class I: Pavement	1 test per placement day for first 5 days of placement. If all samples are passing, reduced frequency is applied.
	Reduced frequency: 1 test per calendar week of placement
Class I: Structures	1 test per 250 CY placed <ul style="list-style-type: none"> <li>- Minimum of 1 test per substructure</li> <li>- Minimum of 1 test per superstructure</li> </ul>
Class I: Cast-in-Place Barrier	1 test per 500 CY placed
Class II	No minimum testing

**710.5.7 Corrective Action**

Replace the entire text with the following effective with the November 2021 letting:

**710.5.7.1 Optimized Aggregate Gradations**

- (1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size, do the following:
1. Notify the other party immediately.
  2. Perform corrective action documented in the QC plan or as the engineer approves.
  3. Document and provide corrective action results to the engineer as soon as they are available.
  4. Department will conduct two tests within the next business day after corrective action is complete.
  5. If blended aggregate gradations are within the tarantula curve limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.
    - For Class I: Pavements, department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
  6. If blended aggregate gradations are not within the tarantula curve limits by the second department test:
    - Provide a new mix design with an increased cementitious content.
    - If the mix design already has a cementitious content of 565 or more pounds per cubic yard, provide a new mix design.
    - If the contract requires optimized aggregate gradations under 501.2.7.4.2.1(2), stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

**710.5.7.2 Combined Aggregate Gradations**

- (1) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by less than or equal to 1.0 percent on a single sieve size, do the following:
1. Notify the other party immediately.
  2. Perform corrective action documented in the QC plan or as the engineer approves.
  3. Document and provide corrective action results to the engineer as soon as they are available.
  4. Department will conduct two tests within the next business day after corrective action is complete.
  5. If blended aggregate gradations are within the combined aggregate gradation limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.

- For Class I: Pavements, department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
- 6. If blended aggregate gradations are not within the combined aggregate gradation limits by the second department test, stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

**715.3.1.1 General**

Replace paragraphs three and four with the following effective with the November 2021 letting:

- (3) Cast a set of 3 additional 6"x12" cylinders and test the concrete surface resistivity according to AASHTO T358. Perform this testing at least once per lot if total contract quantities are greater than or equal to the following:

- 20,000 square yards for pavements.
- 5,000 linear feet for barriers.
- 500 cubic yards for structure concrete.

Submit the resistivity to the nearest tenth into MRS for information only. Resistivity testing is not required for the following:

- Lot with less than 3 sublots.
- Concrete items classified as ancillary.
- Concrete placed under the following bid items:
  - Concrete Pavement Approach Slab
  - Concrete Masonry Culverts
  - Concrete Masonry Retaining Walls

- (4) Test the air void system at least once per lot and enter the SAM number in MRS for information only. SAM testing is not required for the following:

- For lots with less than 3 sublots.
- High early strength (HES) concrete.
- Special high early strength (SHES) concrete.
- Concrete placed under the following bid items:
  - Concrete Pavement Approach Slab
  - Concrete Masonry Culverts
  - Concrete Masonry Retaining Walls
  - Steel Grid Floor Concrete Filled
  - Crash Cushions Permanent
  - Crash Cushions Permanent Low Maintenance
  - Crash Cushions Temporary

**715.3.1.2.3 Lots by Cubic Yard**

Replace the entire text with the following effective with the November 2021 letting:

- (1) Define standard lots and sublots conforming to the following:

**TABLE 715-1 CLASS I - LOT AND SUBLOT SIZES**

CONCRETE CLASSIFICATION	LOT SIZE	SUBLOT SIZE	NUMBER OF SUBLOTS PER LOT
Class I: Pavement	1250 cubic yards	250 cubic yards	5
Class I: Structures	250 cubic yards	50 cubic yards	5
Class I: Cast-in-Place Barrier	500 cubic yards	100 cubic yards	5

- 
- (2) The contractor may include sublots less than or equal to 25 percent of the standard volume in the previous subplot. For partial sublots exceeding 25 percent of the standard volume, notify the engineer who will direct additional testing to represent that partial subplot.
  - (3) An undersized lot is eligible for incentive payment under 715.5 if the lot has 3 or more sublots for that lot.
- 

### **715.3.2 Strength Evaluation**

Replace the entire text with the following effective with the November 2021 letting:

#### **715.3.2.1 General**

- (1) The department will make pay adjustments for strength on a lot-by-lot basis using the compressive strength of contractor QC cylinders or the flexural strength of contractor QC beams.
- (2) Randomly select 2 QC specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day subplot average strength as follows:
  - If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
  - If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

#### **715.3.2.2 Removal and Replacement**

##### **715.3.2.2.1 Pavement**

- (1) If a subplot strength is less than 2500 psi in compressive strength or 500 psi in flexural strength, the department may direct the contractor to core that subplot to determine its structural adequacy and whether to direct removal.
- (2) If the engineer directs coring, obtain three cores from the subplot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24.
- (3) Have an independent consultant test cores according to AASHTO T24.
- (4) The department will assess concrete for removal and replacement based on a subplot-by-subplot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (5) The subplot pavement is conforming if the compressive strengths of all cores from the subplot are 2500 psi or greater.
- (6) The subplot pavement is nonconforming if the compressive strengths of any core from the subplot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

##### **715.3.2.2.2 Structures and Cast-in-Place Barrier**

- (1) The department will evaluate the subplot for possible removal and replacement if the 28-day subplot average compressive strength is lower than  $f'c$  minus 500 psi. The value of  $f'c$  is the design stress the plans show. The department may assess further strength price reductions or require removal and replacement only after coring the subplot.
- (2) The engineer may initially evaluate the subplot strength using a non-destructive method. Based on the results of non-destructive testing, the department may accept the subplot at the previously determined pay for the lot, or direct the contractor to core the subplot.
- (3) If the engineer directs coring, obtain three cores from the subplot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24. Determine core locations, subject to the engineer's approval, that do not interfere with structural steel.
- (4) Have an independent consultant test cores according to AASHTO T24.
- (5) The department will assess concrete for removal and replacement based on a subplot-by-subplot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (6) If the 3-core average is greater than or equal to 85 percent of  $f'c$ , and no individual core is less than 75 percent of  $f'c$ , the engineer will accept the subplot at the previously determined pay for the lot. If the 3-core average is less than 85 percent of  $f'c$ , or an individual core is less than 75 percent of  $f'c$ , the engineer may require the contractor to remove and replace the subplot. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

**715.5 Payment**

*Replace the entire text with the following effective with the November 2021 letting:*

**715.5.1 General**

- (1) The department will pay incentive for compressive strength under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL

- (2) Incentive payment may be more or less than the amount the schedule of items shows.
- (3) The department will administer disincentives for strength under the Disincentive Strength Concrete Structures, Disincentive Strength Concrete Barrier, Disincentive Flexural Strength Concrete Pavement, and Disincentive Compressive Strength Concrete Pavement, administrative items.
- (4) The pay factor that is calculated from the equations in 715.5.2(2) and 715.5.3(2) will be applied to the unit costs listed below:
- Pavement: \$45 per SY.
  - Structure: \$635 per CY.
  - Cast-in-place barrier: \$75 per LF.
- (5) 28-day strength average for a lot is the average of the individual subplot strengths within the given lot.
- (6) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.
- (7) Submit test results to the department electronically using MRS software. The department will validate contractor data before determining pay adjustments.
- (8) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

**715.5.2 Compressive Strength**

- (1) The department will measure PWL relative to strength lower specification limits as follows:
- Compressive strength of 3700 psi for pavements.
  - Compressive strength of 4000 psi for structures and cast-in-place barrier.

- (2) The department will adjust pay for each lot using equation "Comp2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
$\geq 90$ to 100	$(1/5 \times \text{PWL}) + 82$
$\geq 85$ to $< 90$	100
$\geq 50$ to $< 85$	$(5/7 \times \text{PWL}) + (275/7)$
$< 50$	50 <sup>[1]</sup>

<sup>[1]</sup> Any material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

- (3) The department will not pay incentive if the lot standard deviation is greater than the following:
- 400 psi for pavement.
  - 350 psi for structure and cast-in-place barrier
- (4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average compressive strength below the following:
- 3700 psi for pavements.
  - 4000 psi for structures and cast-in-place barrier.

**715.5.3 Flexural Strength**

- (1) The department will measure PWL relative to strength lower specification limits as follows:
- Flexural strength of 650 psi for pavements.

- (2) The department will adjust pay for each lot using equation "Flex2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
$\geq 90$ to 100	$(2/5 \times \text{PWL}) + 64$
$\geq 85$ to $< 90$	100

$\geq 50$  to  $< 85$   
 $< 50$

$(5/7 \times \text{PWL}) + (275/7)$   
 $50^{[1]}$

<sup>[1]</sup> Material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

- (3) The department will not pay incentive if the lot standard deviation is greater than 60 psi.
- (4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average flexural strength below 650 psi.

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### 716.2.1 Class II Concrete

Replace paragraph two with the following effective with the November 2021 letting:

- (2) Perform random QC testing at the following frequencies:
  1. Test air content, temperature, and slump a minimum of once per 100 cubic yards for each mix design and placement method.
  2. Cast one set of 2 cylinders per 200 cubic yards for each mix design and placement method. Cast a minimum of one set of 2 cylinders per contract for each mix design and placement method. Random 28-day compressive strength cylinders are not required for HES or SHES concrete.
  3. For deck overlays, perform tests and cast cylinders once per 50 cubic yards of grade E concrete placed.
  4. For concrete base, one set of tests and one set of cylinders per 250 cubic yards.

The department will allow concrete startup test results for quantities under 50 cubic yards. Cast one set of 2 cylinders if using startup testing for acceptance.



## ERRATA

## 460.2.2.3 Aggregate Gradation Master Range

**Correct errata by adding US Standard equivalent sieve sizes.**

- (1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

**TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS**

SIEVE	PERCENT PASSING DESIGNATED SIEVES							
	NOMINAL SIZE							
	No. 1 (37.5 mm) (1 1/2 inch)	No. 2 (25.0 mm) (1 inch)	No.3 (19.0 mm) (3/4 inch)	No. 4 (12.5 mm) (1/2 inch)	No. 5 (9.5 mm) (3/8 inch)	No. 6 (4.75 mm) (3/16 inch)	SMA No. 4 (12.5 mm) (1/2 inch)	SMA No. 5 (9.5 mm) (3/8 inch)
50.0-mm (2-inch)	100							
37.5-mm (1 1/2-inch)	90 - 100	100						
25.0-mm (1-inch)	90 max	90 - 100	100					
19.0-mm (3/4-inch)	—	90 max	90 - 100	100			100	
12.5-mm (1/2-inch)	—	—	90 max	90 - 100	100		90 - 97	100
9.5-mm (3/8-inch)	—	—	—	90 max	90 - 100	100	58 - 80	90 - 100
4.75-mm (No. 4)	—	—	—	—	90 max	90 - 100	25 - 35	35 - 45
2.36-mm (No. 8)	15 - 41	19 - 45	23 - 49	28 - 58	32 - 67	90 max	15 - 25	18 - 28
1.18-mm (No. 16)	—	—	—	—	—	30 - 55	—	—
0.60-mm (No. 30)	—	—	—	—	—	—	18 max	18 max
0.075-mm (No. 200)	0 - 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	6.0 - 13.0	8.0 - 11.0	8.0 - 12.0
% VMA	11.0 min	12.0 min	13.0 min	14.0 min <sup>[1]</sup>	15.0 min <sup>[2]</sup>	16.0 - 17.5	16.0 min	17.0 min

<sup>[1]</sup> 14.5 for LT and MT mixes.

<sup>[2]</sup> 15.5 for LT and MT mixes.

## 715.5.1 General

Correct the bid item number for Incentive Compressive Strength Concrete Pavement.

- (1) The department will pay incentive for compressive strength under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL

**ADDITIONAL SPECIAL PROVISION 7**

- A. Reporting 1<sup>st</sup> 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.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to [paul.ndon@dot.wi.gov](mailto:paul.ndon@dot.wi.gov) within 5 days of payment receipt to be logged manually.

\*\*\*Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

<https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf>

## **ADDITIONAL SPECIAL PROVISION 9**

### **Electronic Certified Payroll or Labor Data Submittal**

(1) Use the department's Civil Rights Compliance System (CRCS) to electronically submit certified payroll reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

<https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx>

(2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS. These payrolls or labor data 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 their submittals. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals 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/labor data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at [paul.ndon@dot.wi.gov](mailto:paul.ndon@dot.wi.gov). Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:

<https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf>

**REQUIRED CONTRACT PROVISIONS  
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

**ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

**II. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:** The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### **10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor



will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

## 2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

## 3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.



(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

#### 4. Apprentices and trainees

##### a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

##### b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

## VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

#### **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

#### **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

##### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.



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

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

\* \* \* \* \*

## **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

### **2. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

\* \* \* \* \*

**Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

\* \* \* \* \*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

## **Non-discrimination Provisions**

**During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:**

**1. Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

**2. Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

**3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

**4. Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

**5. Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

- a. Withholding payments to the contractor under the contract until the contractor complies; and/or
- b. Cancelling, terminating, or suspending a contract, in whole or in part.



**6. Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:**

**Pertinent Non-Discrimination Authorities:**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

**SEPTEMBER 2002**

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE  
EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.
2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

**Goals for Minority Participation for Each Trade:**

<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

**Goals for female participation for each trade: 6.9%**

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

As referred to in this section, the Director means:

Director  
Office of Federal Contract Compliance Programs  
Ruess Federal Plaza  
310 W. Wisconsin Ave., Suite 1115  
Milwaukee, WI 53202

The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

**APRIL 2013**

**ADDITIONAL FEDERAL-AID PROVISIONS**

**NOTICE TO ALL BIDDERS**

To report bid rigging activities call:

**1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

**Effective November 2020 letting**

### **BUY AMERICA PROVISION**

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or \$2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this "Buy America" provision.

<https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf>

Upon completion of the project certify to the engineer, in writing using department form DT4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form DT4567 is available at:

<https://wisconsindot.gov/Documents/formdocs/dt4567.docx>

## Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses*. "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses*. "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

**WISCONSIN DEPARTMENT OF TRANSPORTATION  
DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT**

**SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS  
FOR PROJECTS WITH FEDERAL AID**

**I. PREVAILING WAGE RATES**

The attached U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) furnishes the minimum prevailing wage rates pursuant to the Davis-Bacon and Related Acts. The wage rates shown are the minimum rates required by the contract to be paid during its life, however 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 will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

**II. COVERAGE OF TRUCK DRIVERS**

Truck drivers are covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Drivers of a contractor or subcontractor for time spent working on the site of the work.
- Drivers of a contractor or subcontractor for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimis. [https://www.dol.gov/whd/FOH/FOH\\_Ch15.pdf](https://www.dol.gov/whd/FOH/FOH_Ch15.pdf)
- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract where a significant portion of such building or work is constructed and the physical place where the building or work called for in the contract will remain.

Truck drivers are not covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Material delivery truck drivers while off the site of the work.
- Drivers of a contractor or subcontractor traveling between a Davis-Bacon job and a commercial supply facility while they are off the site of the work.”
- Truck drivers whose time spent on the site of the work is de minimis, such as only a few minutes at a time merely to pick up or drop off materials or supplies.

Details are available online at:

<https://www.dol.gov/whd/recovery/pwrb/Tab9.pdf>

<https://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/trckng.aspx>



### **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 and accessible place at the site of work:

- a. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

### **IV. RESOURCES**

Required information regarding compliance with federal provisions is found in the following resources:

- FHWA-1273 included in this contract
- U.S. Department of Labor Prevailing Wage Resource Book
- U.S. Department of Labor Field Operations Handbook
- U.S. Code of Federal Regulations
- Any applicable law, Act, or Executive Order enacted by the federal government at the time of the letting of this contract

"General Decision Number: WI20210010 07/09/2021

Superseded General Decision Number: WI20200010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/01/2021
1	03/12/2021
2	03/19/2021
3	04/09/2021
4	05/14/2021
5	07/09/2021

BRWI0001-002 06/01/2020

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPLEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.31	24.7 7
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BRWI0002-002 06/01/2020		

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 42.77	23.47
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BRWI0002-005 06/01/2020		

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 36.68	23.40
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BRWI0003-002 06/01/2020		

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.68	24.40
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BRWI0004-002 06/01/2020		

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 39.90	25.53
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BRWI0006-002 06/01/2020		

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE,

ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 36.60	23.48
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BRWI0007-002 06/01/2020		

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 37.07	24.72
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BRWI0008-002 06/01/2020		

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 40.75	24.32
-----		
BRWI0011-002 06/01/2020		

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.68	24.40
-----		
BRWI0019-002 06/01/2020		

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN,  
PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 34.86	25.22
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BRWI0034-002 06/01/2020		

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 37.36	24.43
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CARP0087-001 05/01/2016		

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 36.85	18.39

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 CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER.....	\$ 33.56	18.00
MILLWRIGHT.....	\$ 35.08	18.35
PILEDRIVER.....	\$ 34.12	18.00

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 CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter.....	\$ 33.56	18.00
Millwright.....	\$ 35.08	18.35
Pile Driver.....	\$ 34.12	18.00

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 CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 35.78	22.11
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CARP0361-004 05/01/2018		

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 36.15	20.43
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CARP2337-001 06/01/2016		

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A.....	\$ 31.03	22.69
Zone B.....	\$ 31.03	22.69
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ELEC0014-002 06/14/2020		

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK  
(except Maryville, Colby, Unity, Sherman, Fremont, Lynn &  
Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA  
CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST  
CROIX, SAWYER, TAYLOR, TREMPLEAU, VERNON, AND WASHBURN  
COUNTIES

	Rates	Fringes
Electricians:.....	\$ 35.98	20.98
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ELEC0014-007 07/05/2020		

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician.....	\$ 27.75	15.14
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Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video)		

including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

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 ELEC0127-002 06/01/2020

KENOSHA COUNTY

	Rates	Fringes
Electricians:.....	\$ 41.62	30%+12.70

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 ELEC0158-002 06/01/2020

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 34.77	29.75%+10.26

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 ELEC0159-003 08/02/2020

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 41.86	22.67

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 ELEC0219-004 06/01/2019

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
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Electricians:

Electrical contracts over \$180,000.....	\$ 33.94	21.80
Electrical contracts under \$180,000.....	\$ 31.75	21.73

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ELEC0242-005 05/31/2020

DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	\$ 39.77	28.11

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ELEC0388-002 06/01/2020

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:.....	\$ 34.85	26%+11.20

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ELEC0430-002 02/02/2021

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	\$ 41.859	22.871

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\* ELEC0494-005 06/01/2021

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	\$ 44.39	25.67

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\* ELEC0494-006 06/01/2021

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES



	Rates	Fringes
Electricians:.....	\$ 37.91	22.74

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 \* ELEC0494-013 06/01/2021

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupun), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 22.39	18.80
Technician.....	\$ 32.49	20.26

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillon, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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 ELEC0577-003 06/01/2020

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:.....	\$ 34.23	29.50%+10.00

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\* ELEC0890-003 06/01/2021

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE,  
RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:.....	\$ 39.00	25.95%+11.17

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ELEC0953-001 06/02/2019

	Rates	Fringes
Line Construction:		
(1) Lineman.....	\$ 47.53	21.43
(2) Heavy Equipment Operator.....	\$ 42.78	19.80
(3) Equipment Operator.....	\$ 38.02	18.40
(4) Heavy Groundman Driver..	\$ 33.27	16.88
(5) Light Groundman Driver..	\$ 30.89	16.11
(6) Groundsman.....	\$ 26.14	14.60

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ENGI0139-005 06/01/2020

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 41.62	23.80
Group 2.....	\$ 41.12	23.80
Group 3.....	\$ 40.62	23.80
Group 4.....	\$ 40.36	23.80
Group 5.....	\$ 40.07	23.80
Group 6.....	\$ 34.17	23.80

HAZARDOUS WASTE PREMIUMS:  
EPA Level ""A"" protection - \$3.00 per hour  
EPA Level ""B"" protection - \$2.00 per hour  
EPA Level ""C"" protection - \$1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or

cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self-propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender, day light machine

GROUP 6: Off-road material hauler with or without ejector.

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\* IRON0008-002 06/01/2021

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC,  
MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO  
COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 38.77	28.15

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor  
Day, Thanksgiving Day & Christmas Day.

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\* IRON0008-003 06/01/2021

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3),  
WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 40.57	28.40

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor  
Day, Thanksgiving Day & Christmas Day.

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\* IRON0383-001 06/06/2021

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST,  
GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA,  
JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON,  
MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern  
area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA,  
WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 37.75	27.06

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IRON0498-005 06/01/2019

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and  
WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 40.25	40.53
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IRON0512-008 06/03/2019		

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPLEAU COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 37.60	29.40
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IRON0512-021 05/03/2021		

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 35.09	31.80
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LABO0113-002 06/01/2020		

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 30.05	22.26
Group 2.....	\$ 30.20	22.26
Group 3.....	\$ 30.40	22.26
Group 4.....	\$ 30.55	22.26
Group 5.....	\$ 30.70	22.26
Group 6.....	\$ 26.54	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler

(Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

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LAB00113-003 06/01/2020

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 29.30	22.26
Group 2.....	\$ 29.40	22.26
Group 3.....	\$ 29.45	22.26
Group 4.....	\$ 29.65	22.26
Group 5.....	\$ 29.50	22.26
Group 6.....	\$ 26.39	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

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LAB00113-011 06/01/2020

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 29.11	22.26
Group 2.....	\$ 29.26	22.26
Group 3.....	\$ 29.46	22.26
Group 4.....	\$ 29.43	22.26
Group 5.....	\$ 29.76	22.26
Group 6.....	\$ 26.25	22.26

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

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LAB00140-002 06/01/2020

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,

RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPLEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 33.72	17.95
Group 2.....	\$ 33.82	17.95
Group 3.....	\$ 33.87	17.95
Group 4.....	\$ 34.07	17.95
Group 5.....	\$ 33.92	17.95
Group 6.....	\$ 30.35	17.95

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

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LAB00464-003 06/01/2020

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1.....	\$ 34.00	17.95
Group 2.....	\$ 34.10	17.95
Group 3.....	\$ 34.15	17.95



Group 4.....	\$ 34.35	17.95
Group 5.....	\$ 34.20	17.95
Group 6.....	\$ 30.35	17.95

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

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PAIN0106-008 05/01/2017

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller.....	\$ 30.33	17.27
Spray, Sandblast, Steel....	\$ 30.93	17.27
Repaint:		
Brush, Roller.....	\$ 28.83	17.27
Spray, Sandblast, Steel....	\$ 29.43	17.27

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PAIN0108-002 06/01/2019

RACINE COUNTY

	Rates	Fringes
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Painters:

Brush, Roller.....	\$ 36.08	20.36
Spray & Sandblast.....	\$ 37.08	20.36

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PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK,  
SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER.....	\$ 24.11	12.15

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PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPLEAU, AND  
VERNON COUNTIES

	Rates	Fringes
PAINTER.....	\$ 22.03	12.45

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PAIN0781-002 06/01/2019

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 33.30	23.86
Brush.....	\$ 32.95	23.86
Spray & Sandblast.....	\$ 33.70	23.86

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PAIN0802-002 06/01/2019

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND,  
ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush.....	\$ 30.93	18.44

PREMIUM PAY:  
Structural Steel, Spray, Bridges = \$1.00 additional per  
hour.

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PAIN0802-003 06/01/2019

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER.....	\$ 30.93	18.58

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PAIN0934-001 06/01/2017

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush.....	\$ 33.74	18.95
Spray.....	\$ 34.74	18.95
Structural Steel.....	\$ 33.89	18.95

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PAIN1011-002 06/02/2019

FLORENCE COUNTY

	Rates	Fringes
Painters:.....	\$ 25.76	13.33

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PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1.....	\$ 39.46	17.17
Area 2 (BAC).....	\$ 35.07	19.75
Area 3.....	\$ 35.61	19.40
Area 4.....	\$ 34.70	20.51
Area 5.....	\$ 36.27	18.73
Area 6.....	\$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET,

CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE,  
 FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE,  
 LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,  
 MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK,  
 PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR,  
 VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD  
 COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA  
 CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPPEALEAU, AND  
 VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK  
 COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

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 \* TEAM0039-001 06/01/2021

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles.....	\$ 32.57	23.81
3 or more Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	\$ 32.72	23.81
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WELL DRILLER.....	\$ 16.52	3.70
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WELDERS - Receive rate prescribed for craft performing  
 operation to which welding is incidental.

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 Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
 for Federal Contractors applies to all contracts subject to the  
 Davis-Bacon Act for which the contract is awarded (and any  
 solicitation was issued) on or after January 1, 2017. If this  
 contract is covered by the EO, the contractor must provide  
 employees with 1 hour of paid sick leave for every 30 hours  
 they work, up to 56 hours of paid sick leave each year.  
 Employees must be permitted to use paid sick leave for their  
 own illness, injury or other health-related needs, including  
 preventive care; to assist a family member (or person who is  
 like family to the employee) who is ill, injured, or has other

health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

#### Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

#### Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average

rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

#### Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted

because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

"General Decision Number: WI20210008 07/09/2021

Superseded General Decision Number: WI20200008

State: Wisconsin

Construction Types: Heavy (Sewer and Water Line and Tunnel)

Counties: Wisconsin Statewide.

TUNNEL, SEWER & WATER LINE CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/01/2021
1	03/12/2021
2	03/19/2021
3	05/14/2021
4	07/09/2021

BRWI0001-002 06/01/2020

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPLEAU, AND VERNON COUNTIES



	Rates	Fringes
BRICKLAYER.....	\$ 35.31	24.7 7
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BRWI0002-002 06/01/2020		

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 42.77	23.47
-----		
BRWI0002-005 06/01/2020		

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 36.68	23.40
-----		
BRWI0003-002 06/01/2020		

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.68	24.40
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BRWI0004-002 06/01/2020		

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 39.90	25.53
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BRWI0006-002 06/01/2020		

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 36.60	23.48
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BRWI0007-002 06/01/2020		

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 37.07	24.72
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BRWI0008-002 06/01/2020		

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 40.75	24.32
-----		
BRWI0009-001 06/01/2020		

GREEN LAKE, MARQUETTE, OUTAGAMIE, SHAWANO, WAUPACA, WASHARA,  
AND WINNEBAGO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.68	24.40
-----		
BRWI0011-002 06/01/2020		

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.68	24.40
-----		
BRWI0013-002 06/03/2019		

DANE, GRANT, IOWA, AND RICHLAND COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 35.56	24.23
-----		
BRWI0019-002 06/01/2020		

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN,

PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 34.86	25.22
-----		
BRWI0021-002 06/01/2020		

DODGE AND JEFFERSON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 36.80	24.97
-----		
BRWI0034-002 06/01/2020		

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 37.36	24.43
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CARP0087-001 05/01/2016		

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen.....	\$ 36.85	18.39
-----		
CARP0252-002 06/01/2016		

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPLEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER.....	\$ 33.56	18.00
MILLWRIGHT.....	\$ 35.08	18.35
PILEDRIVER.....	\$ 34.12	18.00

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 CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter.....	\$ 33.56	18.00
Millwright.....	\$ 35.08	18.35
Pile Driver.....	\$ 34.12	18.00

-----  
 CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 35.78	22.11

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 CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 36.15	20.43

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 CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A.....	\$ 31.03	22.69
Zone B.....	\$ 31.03	22.69

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 CARP2337-003 06/01/2019

	Rates	Fringes
MILLWRIGHT		
Zone A.....	\$ 33.58	21.53
Zone B.....	\$ 33.58	21.53

ZONE DEFINITIONS

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON COUNTIES

ZONE B: KENOSHA & RACINE COUNTIES

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ELEC0014-002 06/14/2020

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPLEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 35.98	20.98

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ELEC0127-002 06/01/2020

KENOSHA COUNTY

	Rates	Fringes
Electricians:.....	\$ 41.62	30%+12.70

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ELEC0158-002 06/01/2020

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausaukee and area South thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 34.77	29.75%+10.26

-----  
ELEC0159-003 08/02/2020

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 41.86	22.67

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 ELEC0219-004 06/01/2019

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over \$180,000.....	\$ 33.94	21.80
Electrical contracts under \$180,000.....	\$ 31.75	21.73

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 ELEC0242-005 05/31/2020

DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	\$ 39.77	28.11

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 ELEC0388-002 06/01/2020

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:.....	\$ 34.85	26%+11.20

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 ELEC0430-002 02/02/2021

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	\$ 41.859	22.871
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* ELEC0494-005 06/01/2021		

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	\$ 44.39	25.67
-----		
* ELEC0494-006 06/01/2021		

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 37.91	22.74
-----		
ELEC0577-003 06/01/2020		

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:.....	\$ 34.23	29.50%+10.00
-----		
* ELEC0890-003 06/01/2021		

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:.....	\$ 39.00	25.95%+11.17
-----		
ENGI0139-003 06/01/2020		

REMAINING COUNTIES

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 42.92	23.15
Group 2.....	\$ 41.67	23.15
Group 3.....	\$ 39.97	23.15
Group 4.....	\$ 39.44	23.15
Group 5.....	\$ 37.37	23.15
Group 6.....	\$ 35.84	23.15

HAZARDOUS WASTE PREMIUMS:

EPA Level "A" Protection: \$3.00 per hour  
 EPA Level "B" Protection: \$2.00 per hour  
 EPA Level "C" Protection: \$1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of over 100 tons; Cranes, Tower Cranes, and Derricks with boom, leads and/or jib lengths 176 ft or longer.

GROUP 2: Backhoes (Excavators) weighing 130,00 lbs and over; Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of 100 tons or less; Cranes, Tower Cranes, and Derricks with boom, leads, and/or jib lengths 175 ft or less; Caisson Rigs; Pile Driver

GROUP 3: Backhoes (Excavators) weighing under 130,000 lbs; Travelling Crane (bridge type); Milling Machine; Concrete Paver over 27 E; Concrete Spreader and Distributor; Concrete Laser Screed; Concrete Grinder and Planing Machine; Slipform Curb and Gutter Machine; Boring Machine (Directional); Dredge Operator; Skid Rigs; over 46 meter Concrete Pump.

GROUP 4: Hydraulic Backhoe (tractor or truck mounted); Hydraulic Crane, 10 tons or less; Tractor, Bulldozer, or End Loader (over 40 hp); Motor Patrol; Scraper Operator; Bituminous Plant and Paver Operator; Screed-Milling Machine; Roller over 5 tons; Concrete pumps 46 meter and under; Grout Pumps; Rotec type machine; Hydro Blaster, 10,000 psi and over; Rotary Drill Operator; Percussion Drilling Machine; Air Track Drill with or without integral hammer; Blaster; Boring Machine (vertical or horizontal); Side Boom; Trencher, wheel type or chain type having 8 inch or larger bucket; Rail Leveling Machine (Railroad); Tie



Placer; Tie Extractor; Tie Tamper; Stone Leveler; Straddle Carrier; Material Hoists; Stack Hoist; Man Hoists; Mechanic and Welder; Off Road Material Haulers.

GROUP 5: Tractor, Bulldozer, or Endloader (under 40 hp); Tampers -Compactors, riding type; Stump Chipper, large; Roller, Rubber Tire; Backfiller; Trencher, chain type (bucket under 8 inch); Concrete Auto Breaker, large; Concrete Finishing Machine (road type); Concrete Batch Hopper; Concrete Conveyor Systems; Concrete Mixers, 14S or over; Pumps, Screw Type and Gypsum); Hydrohammers, small; Brooms and Sweepers; Lift Slab Machine; Roller under 5 tons; Industrial Locomotives; Fireman (Pile Drivers and Derricks); Pumps (well points); Hoists, automatic; A-Frames and Winch Trucks; Hoists (tuggers); Boats (Tug, Safety, Work Barges and Launches); Assistant Engineer

GROUP 6: Shouldering Machine Operator; Farm or Industrial Tractor mounted equipment; Post Hole Digger; Auger (vertical and horizontal); Skid Steer Loader with or without attachments; Robotic Tool Carrier with or without attachments; Power Pack Vibratory/Ultra Sound Driver and Extractor; Fireman (Asphalt Plants); Screed Operator; Stone Crushers and Screening Plants; Air, Electric, Hydraulic Jacks (Slip Form); Prestress Machines; Air Compressor, 400 CFM or over; Refrigeration Plant/Freeze Machine; Boiler Operators (temporary heat); Forklifts; Welding Machines; Generators; Pumps over 3"; Heaters, Mechanical; Combination small equipment operator; Winches, small electric; Oiler; Greaser; Rotary Drill Tender; Conveyor; Elevator Operator

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 ENGI0139-007 06/01/2020

DODGE, FOND DU LAC, JEFFERSON, KENOSHA, MILWAUKEE, OZAUKEE, RACINE, SHEBOYGAN, WALWORTH, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 41.64	23.25
Group 2.....	\$ 40.86	23.25
Group 3.....	\$ 39.91	23.25
Group 4.....	\$ 38.86	23.25
Group 5.....	\$ 37.46	23.25

HAZARDOUS WASTE PREMIUMS:  
 EPA Level ""A"" Protection: \$3.00 per hour  
 EPA Level ""B"" Protection: \$2.00 per hour

EPA Level "C" Protection: \$1.00 per hour

#### POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, Tower Cranes, and Derricks with or without attachments, with a lifting capacity of over 100 tons; or Cranes, Tower Cranes, and Derricks with boom, leads, and/or jib lengths measuring 176 feet or longer; Backhoes (Excavators) 130,000 lbs and over; Caisson Rigs and Pile Drivers

GROUP 2: Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of 100 tons or under; or Cranes, Tower Cranes, and Derricks with boom, lead, and/or jib lengths measuring 175 feet or under; Backhoes (Excavators) under 130,000 lbs; Skid Rigs; Dredge Operator: Traveling Crane (Bridge type); Concrete Paver over 27 E; Concrete Spreader and Distributor; Concrete Pumps and Boring Machines (directional)

GROUP 3: Material Hoists; Stack Hoists; Tractor or Truck mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane, 5 tons or under; Manhoist; Tractor over 40 hp; Bulldozer over 40 hp; Endloader over 40 hp; Forklift, 25 ft and over; Motor Patrol; Scraper Operator; Sideboom; Straddle Carrier; Mechanic and Welder; Bituminous Plant and Paver Operator; Roller over 5 tons; Percussion Drill Operator; Rotary Drill Operator; Blaster; Air Track Drill; Trencher (wheel type or chain type having over 8 inch bucket); Elevator; Milling Machine and Boring Machine (horizontal or vertical); Backhoe Mounted Compactor

GROUP 4: Backfiller; Concrete Auto Breaker (large); Concrete Finishing Machine (road type); Roller, Rubber Tire; Concrete Batch Hopper; Concrete Conveyor System; Concrete Mixers (14S or over); Screw type Pumps and Gypsum Pumps; Grout Pumps; Tractor, Bulldozer, End Loader, under 40 hp; Pumps (well points); Trencher (chain type 8 inch or smaller bucket); Industrial Locomotives; Roller under 5 tons; Fireman (Piledrivers and Derricks); Robotic Tool Carrier with or without attachments.

GROUP 5: Hoists (Automatic); Forklift, 12 ft to 25 ft; Tamper-Compactors, riding type; A-Frame and Winch Trucks; Concrete Auto Breaker; Hydrohammer, small; Brooms and Sweepers; Hoist (Tuggers); Stump Chipper, large; Boats (Tug, Safety, Work Barges and Launch); Shouldering Machine Operator; Screed Operator; Farm or Industrial Tractor; Post Hole Digger; Stone Crushers and Screening Plants; Firemen (Asphalt Plants); Air Compressor (400 CFM or over); Augers

(vertical and horizontal); Generators, 150 KW and over; Air, Electric Hydraulic Jacks (Slipform); Prestress Machines; Skid Steer Loader with or without attachments; Boiler operators (temporary heat); Forklift, 12 ft and under; Screed Operator Milling Machine; Refrigeration Plant/Freeze Machine; Power Pack Vibratory/Ultra Sound Driver and Extractor; Generators under 150 KW; Combination small equipment operator; Compressors under 400 CFM; Welding Machines; Heaters, Mechanical; Pumps; Winches, Small Electric; Oiler and Greaser; Conveyor; High pressure utility locating machine (daylighting machine).

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 \* IRON0008-002 06/01/2021

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 38.77	28.15

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

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 \* IRON0008-003 06/01/2021

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 40.57	28.40

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

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 \* IRON0383-001 06/06/2021

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 37.75	27.06

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 IRON0498-005 06/01/2019

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and  
 WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 40.25	40.53

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 IRON0512-008 06/03/2019

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON,  
 PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPLEAU  
 COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 37.60	29.40

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 IRON0512-021 05/03/2021

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA,  
 PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 35.09	31.80

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 LAB00113-004 06/01/2020

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Laborers: (Open Cut)		
Group 1.....	\$ 16.38	21.08
Group 2.....	\$ 18.65	21.08
Group 3.....	\$ 22.19	21.08
Group 4.....	\$ 31.56	21.08
Group 5.....	\$ 31.70	21.08
Group 6.....	\$ 31.76	21.08

Group 7.....	\$ 34.77	21.08
Group 8.....	\$ 37.59	21.08
Group 9.....	\$ 38.23	21.08

LABORERS CLASSIFICATIONS [OPEN CUT]

GROUP 1: Yard Laborer

GROUP 2: Landscaper

GROUP 3: Flag Person

GROUP 4: Paving Laborer

GROUP 5: General Laborer on Surface; Top Man

GROUP 6: Mud Mixer

GROUP 7: Mucker; Form Stripper; Bottom Digger and Misc;  
Bottom Man and Welder on Surface

GROUP 8: Concrete Manhole Builder; Caisson Worker; Miner;  
Pipe Layer; Rock Driller and Joint Man; Timber Man and  
Concrete Brusher; Bracer in Trench Behind Machine & Tight  
Sheeting; Concrete Formsetter and Shoveler; Jackhammer  
Operator

GROUP 9: Blaster

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LAB00113-005 06/01/2020

SEWER, TUNNEL & UNDERGROUND

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
Laborers:		
Group 1.....	\$ 23.05	21.08
Group 2.....	\$ 28.98	21.08
Group 3.....	\$ 32.34	21.08
Group 4.....	\$ 34.11	21.08

TUNNEL WORK UNDER COMPRESSED AIR: 0-15 lbs add \$1.00, 15-30  
lbs add \$2.00, over 30 lbs add \$3.00

LABORERS CLASSIFICATIONS

GROUP 1: Flagperson

GROUP 2: Top Man, General Laborer, Wellpoint Installation, Wire Mesh and Reinforcement, Concrete Worker, Form Stripper, Strike-off Work

GROUP 3: Machine and Equipment Operator, Sheeting, Form Setting, Patch Finisher, Bottom Man, Joint Sawyer, Gunnite Man, Manhole Builder, Welder-Torchman, Blaster, Caulker, Bracer, Bull Float, Conduit Worker, Mucker and Car Pusher, Raker and Luteman, Hydraulic Jacking of Shields, Shield Drivers, Mining Machine, Lock Tenders, Mucking Machine Operator, Motor Men & Gauge Tenders and operation of incidental Mechanical Equipment and all Power Driven Tools

GROUP 4: Pipelayer, Miner and Laser Operator

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LAB00113-008 06/01/2020

MILWAUKEE, OZAUKEE, WASHINGTON & WAUKESHA COUNTIES

	Rates	Fringes
Laborers: (Tunnel-Free Air)		
Group 1.....	\$ 22.19	21.08
Group 2.....	\$ 31.70	21.08
Group 3.....	\$ 31.76	21.08
Group 4.....	\$ 34.77	21.08
Group 5.....	\$ 34.91	21.08
Group 6.....	\$ 37.59	21.08
Group 7.....	\$ 38.23	21.08

LABORERS CLASSIFICATIONS [TUNNEL - FREE AIR]:

GROUP 1: Flagperson

GROUP 2: General Laborer on surface; Tower Man

GROUP 3: Saw Man; Top Man

GROUP 4: Form Stripper; Car Pusher

GROUP 5: Mucker; Dinkey; Welder (rate on surface)

GROUP 6: Concrete Manhole Builder; Mucking Machine; Miner; Mining Machine; Welder; Rock Driller; Concrete Buster; Jack Hammer Operator; Caisson Worker; Pipelayer and Joint Man; Bracerman

GROUP 7: Blaster

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\* LAB00113-009 06/01/2020

MILWAUKEE, OZAUKEE, WASHINGTON & WAUKESHA COUNTIES

	Rates	Fringes
Laborers: (Tunnel -		
*COMPRESSED AIR 0 - 15 lbs.)		
Group 1.....	\$ 22.19	21.08
Group 2.....	\$ 31.70	21.08
Group 3.....	\$ 35.31	21.08
Group 4.....	\$ 36.11	21.08
Group 5.....	\$ 36.23	21.08
Group 6.....	\$ 38.93	21.08
Group 7.....	\$ 39.55	21.08

LABORERS CLASSIFICATIONS [TUNNEL - COMPRESSED AIR]:

- \*Compressed Air 15 - 30 lbs add \$2.00 to all classifications
- \*Compressed Air over 30 lbs add \$3.00 to all classifications

GROUP 1: Flagperson

GROUP 2: General Laborer on surface

GROUP 3: Lock Tender on surface

GROUP 4: Form Stripper; Car Pusher

GROUP 5: Mucker; Dinkey

GROUP 6: Mucking Machine; Miner; Mining Machine; Welder &  
 Rock Driller; Lock Tender in tunnel; Concrete Buster; Jack  
 Hammer Operator; Caisson Worker; Pielayer and Joint Man;  
 Bracerman; Nozzle Man on Gunite; Timber Man; Concrete  
 Brusher

GROUP 7: Blaster

NOTE: Hazardous & Toxic Waste Removal: add \$0.15 per hour.

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LAB00140-005 06/01/2020

ADAMS, ASHLAND, BARRON, BROWN, BUFFALO, CALUMET, CHIPPEWA,  
 CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DUNN, EAU CLAIRE,

FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, JACKSON, JEFFERSON, JUNEAU, LACROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, ST CROIX, SAUK, SAWYER, SHAWANO, SHEBOYGAN, TAYLOR, TREMPPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER (SEWER & WATER)		
Group 1.....	\$ 29.33	17.88
Group 2.....	\$ 31.18	17.88
Group 3.....	\$ 31.48	17.88
Group 4.....	\$ 32.13	17.88

FOR ALL TUNNEL WORK UNDER COMPRESSED AIR: 0-15 lbs add \$1.00, 15-30 lbs add \$2.00, over 30 lbs add \$3.00

LABORER CLASSIFICATIONS:

GROUP 1: Flagperson

GROUP 2: General Laborer, Wellpoint Installation; Form Stripper; Strike Off worker

GROUP 3: Sheeting Formsetting; Patch Finisher; Bottom Man; Joint Sawyer; Gunnite Man; Manhole Builder; Welder; Torchman; Blaster; Caulker Bracer; Bull Float; Mucker and Car Pusher; Raker and Luteman; Hydraulic jacking of shields, Shield Drivers; Mining Machine; Lock Tenders; Mucking Machine Operators; Motor Men and Gauge Tenders; Power Tool Operators

GROUP 4: Pipelayer, Miner, and Laser Operator

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LAB00464-002 06/01/2020

DANE AND DOUGLAS COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 29.23	17.88
Group 2.....	\$ 31.43	17.88
Group 3.....	\$ 31.63	17.88
Group 4.....	\$ 32.38	17.88



FOR ALL TUNNEL WORK UNDER COMPRESSED AIR: 0 - 15 lbs add \$1.00, 15- 30 lbs add \$2.00, over 30 lbs add \$3.00

LABORERS CLASSIFICATIONS:

GROUP 1: Flagperson

GROUP 2: General Laborer; Wellpoint Installation; Concrete Worker; Form Stripper; Strike Off worker

GROUP 3: Sheeting Formsetting; Patch Finisher; Bottom Man; Joint Sawyer; Gunnite Man; Manhole Builder; Welder; Torchman; Blaster; Caulker Bracer; Bull Float; Mucker and Car Pusher; Raker and Luteman; Hydraulic jacking of shields, Shield Drivers; Mining Machine; Lock Tenders; Mucking Machine Operators; Motor Men and Gauge Tenders; Power Tool Operators

GROUP 4: Pipelayer, Miner, and Laser Operator

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LAB01091-010 06/01/2020

BAYFIELD, BURNETT, IRON, SAWYER, AND WASHBURN COUNTIES

	Rates	Fringes
Laborers: (SEWER & WATER)		
Group 1.....	\$ 29.02	17.88
Group 2.....	\$ 31.08	17.88
Group 3.....	\$ 31.28	17.88
Group 4.....	\$ 32.03	17.88

FOR ALL TUNNEL WORK UNDER COMPRESSED AIR:  
0 - 15 lbs add \$1.00, 15-30 lbs add \$2.00, over 30 lbs add \$3.00

LABORERS CLASSIFICATIONS:

GROUP 1: Flagperson

GROUP 2: Laborers, Wellpoint Installation; Form Stripper; Strike Off worker

GROUP 3: Sheeting Formsetting; Patch Finisher; Bottom Man; Joint Sawyer; Gunnite Man; Manhole Builder; Welder; Torchman; Blaster; Caulker Bracer; Bull Float; Mucker and

Car Pusher; Raker and Luteman; Hydraulic jacking of shields, Shield Drivers; Mining Machine; Lock Tenders; Mucking Machine Operators; Motor Men and Gauge Tenders; Power Tool Operators

GROUP 4: Pipelayer, Miner, and Laser Operator

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 PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1.....	\$ 39.46	17.17
Area 2 (BAC).....	\$ 35.07	19.75
Area 3.....	\$ 35.61	19.40
Area 4.....	\$ 34.70	20.51
Area 5.....	\$ 36.27	18.73
Area 6.....	\$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPLEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

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 \* TEAM0039-001 06/01/2021

Rates	Fringes
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TRUCK DRIVER		
1 & 2 Axles.....	\$ 32.57	23.81
3 or more Axles; Euclids, Dumptor & Articulated, Truck Mechanic.....	\$ 32.72	23.81
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WELL DRILLER.....	\$ 16.52	3.70
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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

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The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

## Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

## Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

## Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage

determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

**August 2018**

**NOTICE TO BIDDERS  
WAGE RATE DECISION**

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

If a project includes multiple types of construction, different wage rate determinations may be inserted into the contract (WI10/Highway = in all WisDOT highway contracts, WI15/Heavy = bridge over navigable water per USDOL and US Coast Guard designation, WI8/Heavy (Sewer & Water Line & Tunnel) = sanitary sewer and water main if the cost is more than 20% of the contract and/or at least \$1,000,000, and Building). If multiple wage rate determinations are inserted into the contract, use the classification in the wage determination for the work being done. Use WI15 wage rates when working on the bridge and/or structure from bank to bank. Use WI8 wage rates when working on any sanitary sewer or water main work. Use Building wage rates for all work done within the footprint of the building. Use WI10 wage rates for all other highway work in the contract and approaches to structures. For example, if a laborer is working within the footprint of a building, use the Laborer rate in the Building wage determination inserted in the contract. If a laborer is working on a bridge/structure within the banks, use the Laborer rate in the WI15/Heavy wage determination if inserted in the contract. If the laborer is working on the highway, use the Laborer rate in the WI10/Highway wage determination.



Proposal Schedule of Items

Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
Federal ID(s): WISC 2022046, N/A, WISC 2022045

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	3.000 STA	_____.	_____.
0004	201.0120 Clearing	117.000 ID	_____.	_____.
0006	201.0205 Grubbing	3.000 STA	_____.	_____.
0008	201.0220 Grubbing	117.000 ID	_____.	_____.
0010	204.0100 Removing Concrete Pavement	19,031.000 SY	_____.	_____.
0012	204.0120 Removing Asphaltic Surface Milling	550.000 SY	_____.	_____.
0014	204.0150 Removing Curb & Gutter	1,400.000 LF	_____.	_____.
0016	204.0155 Removing Concrete Sidewalk	1,916.000 SY	_____.	_____.
0018	204.0185 Removing Masonry	6.000 CY	_____.	_____.
0020	204.0195 Removing Concrete Bases	26.000 EACH	_____.	_____.
0022	204.0210 Removing Manholes	9.000 EACH	_____.	_____.
0024	204.0220 Removing Inlets	21.000 EACH	_____.	_____.
0026	204.0245 Removing Storm Sewer (size) 01. 12-Inch to 21-Inch	530.000 LF	_____.	_____.
0028	204.0245 Removing Storm Sewer (size) 02. 24-Inch to 36-Inch	170.000 LF	_____.	_____.
0030	204.0291.S Abandoning Sewer	0.700 CY	_____.	_____.
0032	205.0100 Excavation Common	21,992.000 CY	_____.	_____.





Proposal Schedule of Items

Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
Federal ID(s): WISC 2022046, N/A, WISC 2022045

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	213.0100 Finishing Roadway (project) 01. 5400-00-72	1.000 EACH	_____.	_____.
0036	213.0100 Finishing Roadway (project) 02. 5400-00-73	1.000 EACH	_____.	_____.
0038	305.0110 Base Aggregate Dense 3/4-Inch	204.000 TON	_____.	_____.
0040	305.0120 Base Aggregate Dense 1 1/4-Inch	7,771.000 TON	_____.	_____.
0042	305.0130 Base Aggregate Dense 3-Inch	415.000 TON	_____.	_____.
0044	310.0110 Base Aggregate Open-Graded	115.000 TON	_____.	_____.
0046	312.0110 Select Crushed Material	20,193.000 TON	_____.	_____.
0048	405.0200 Coloring Concrete Custom	30.000 CY	_____.	_____.
0050	415.0095 Concrete Pavement 9 1/2-Inch	17,472.000 SY	_____.	_____.
0052	415.0210 Concrete Pavement Gaps	11.000 EACH	_____.	_____.
0054	415.1095 Concrete Pavement HES 9 1/2-Inch	200.000 SY	_____.	_____.
0056	415.4100 Concrete Pavement Joint Filling	18,064.000 SY	_____.	_____.
0058	416.0170 Concrete Driveway 7-Inch	191.000 SY	_____.	_____.
0060	416.0270 Concrete Driveway HES 7-Inch	191.000 SY	_____.	_____.
0062	416.0610 Drilled Tie Bars	696.000 EACH	_____.	_____.
0064	416.0620 Drilled Dowel Bars	287.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
Federal ID(s): WISC 2022046, N/A, WISC 2022045

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0066	416.1010 Concrete Surface Drains	1.000 CY	_____.	_____.
0068	455.0605 Tack Coat	125.000 GAL	_____.	_____.
0070	460.2000 Incentive Density HMA Pavement	380.000 DOL	1.00000	380.00
0072	460.5224 HMA Pavement 4 LT 58-28 S	56.000 TON	_____.	_____.
0074	460.6223 HMA Pavement 3 MT 58-28 S	15.000 TON	_____.	_____.
0076	460.6224 HMA Pavement 4 MT 58-28 S	10.000 TON	_____.	_____.
0078	460.7223 HMA Pavement 3 HT 58-28 S	322.000 TON	_____.	_____.
0080	460.7424 HMA Pavement 4 HT 58-28 H	180.000 TON	_____.	_____.
0082	465.0120 Asphaltic Surface Driveways and Field Entrances	36.000 TON	_____.	_____.
0084	465.0125 Asphaltic Surface Temporary	209.000 TON	_____.	_____.
0086	465.0310 Asphaltic Curb	170.000 LF	_____.	_____.
0088	495.1000.S Cold patch	15.000 TON	_____.	_____.
0090	520.8000 Concrete Collars for Pipe	21.000 EACH	_____.	_____.
0092	531.2042 Drilling Shaft 42-Inch	69.000 LF	_____.	_____.
0094	531.5140 Foundation Single-Shaft Type MC-IV (structure) 01. S-13-566	1.000 EACH	_____.	_____.
0096	531.5140 Foundation Single-Shaft Type MC-IV (structure) 02. S-13-568	1.000 EACH	_____.	_____.



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Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
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SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0098	531.5140 Foundation Single-Shaft Type MC-IV (structure) 03. S-13-567	1.000 EACH	_____.	_____.
0100	532.5140 Monotube Cantilever Type IV (structure) 01. S-13-566	1.000 EACH	_____.	_____.
0102	532.5140 Monotube Cantilever Type IV (structure) 02. S-13-568	1.000 EACH	_____.	_____.
0104	532.5140 Monotube Cantilever Type IV (structure) 03. S-13-567	1.000 EACH	_____.	_____.
0106	601.0600 Concrete Curb Pedestrian	18.000 LF	_____.	_____.
0108	602.0410 Concrete Sidewalk 5-Inch	15,480.000 SF	_____.	_____.
0110	602.0420 Concrete Sidewalk 7-Inch	4,100.000 SF	_____.	_____.
0112	602.0515 Curb Ramp Detectable Warning Field Natural Patina	610.000 SF	_____.	_____.
0114	602.1000 Concrete Loading Zone	97.000 SF	_____.	_____.
0116	602.1500 Concrete Steps	15.000 SF	_____.	_____.
0118	603.8000 Concrete Barrier Temporary Precast Delivered	200.000 LF	_____.	_____.
0120	603.8125 Concrete Barrier Temporary Precast Installed	200.000 LF	_____.	_____.
0122	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	544.000 LF	_____.	_____.
0124	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	139.000 LF	_____.	_____.



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SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0126	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	213.000 LF	_____.	_____.
0128	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	22.000 LF	_____.	_____.
0130	608.2419 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	132.000 LF	_____.	_____.
0132	608.6012 Storm Sewer Pipe Composite 12-Inch	6.000 LF	_____.	_____.
0134	611.0430 Reconstructing Inlets	4.000 EACH	_____.	_____.
0136	611.0535 Manhole Covers Type J-Special	27.000 EACH	_____.	_____.
0138	611.0609 Inlet Covers Type B-A	3.000 EACH	_____.	_____.
0140	611.0624 Inlet Covers Type H	23.000 EACH	_____.	_____.
0142	611.0639 Inlet Covers Type H-S	22.000 EACH	_____.	_____.
0144	611.0645 Inlet Covers Type MS-A	2.000 EACH	_____.	_____.
0146	611.2003 Manholes 3-FT Diameter	3.000 EACH	_____.	_____.
0148	611.2004 Manholes 4-FT Diameter	2.000 EACH	_____.	_____.
0150	611.2006 Manholes 6-FT Diameter	1.000 EACH	_____.	_____.
0152	611.2007 Manholes 7-FT Diameter	1.000 EACH	_____.	_____.
0154	611.2008 Manholes 8-FT Diameter	2.000 EACH	_____.	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0156	611.2044 Manholes 4x4-FT	2.000 EACH	_____.	_____.
0158	611.3003 Inlets 3-FT Diameter	2.000 EACH	_____.	_____.
0160	611.3004 Inlets 4-FT Diameter	10.000 EACH	_____.	_____.
0162	611.3220 Inlets 2x2-FT	1.000 EACH	_____.	_____.
0164	611.3230 Inlets 2x3-FT	20.000 EACH	_____.	_____.
0166	611.3901 Inlets Median 1 Grate	2.000 EACH	_____.	_____.
0168	611.8110 Adjusting Manhole Covers	13.000 EACH	_____.	_____.
0170	611.8115 Adjusting Inlet Covers	3.000 EACH	_____.	_____.
0172	611.8120.S Cover Plates Temporary	5.000 EACH	_____.	_____.
0174	612.0406 Pipe Underdrain Wrapped 6-Inch	2,105.000 LF	_____.	_____.
0176	612.0902.S Insulation Board Polystyrene (inch) 01. 2-Inch	10.000 SY	_____.	_____.
0178	614.0905 Crash Cushions Temporary	1.000 EACH	_____.	_____.
0180	616.0700.S Fence Safety	1,560.000 LF	_____.	_____.
0182	618.0100 Maintenance And Repair of Haul Roads (project) 01. 5400-00-72	1.000 EACH	_____.	_____.
0184	618.0100 Maintenance And Repair of Haul Roads (project) 02. 5400-00-73	1.000 EACH	_____.	_____.
0186	619.1000 Mobilization	1.000 EACH	_____.	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0188	620.0300 Concrete Median Sloped Nose	513.000 SF	_____.	_____.
0190	623.0200 Dust Control Surface Treatment	20,890.000 SY	_____.	_____.
0192	624.0100 Water	310.100 MGAL	_____.	_____.
0194	625.0100 Topsoil	3,607.000 SY	_____.	_____.
0196	627.0200 Mulching	11,460.000 SY	_____.	_____.
0198	628.1504 Silt Fence	1,040.000 LF	_____.	_____.
0200	628.1520 Silt Fence Maintenance	3,070.000 LF	_____.	_____.
0202	628.1905 Mobilizations Erosion Control	45.000 EACH	_____.	_____.
0204	628.1910 Mobilizations Emergency Erosion Control	16.000 EACH	_____.	_____.
0206	628.2006 Erosion Mat Urban Class I Type A	1,134.000 SY	_____.	_____.
0208	628.7005 Inlet Protection Type A	56.000 EACH	_____.	_____.
0210	628.7010 Inlet Protection Type B	1.000 EACH	_____.	_____.
0212	628.7015 Inlet Protection Type C	61.000 EACH	_____.	_____.
0214	628.7020 Inlet Protection Type D	43.000 EACH	_____.	_____.
0216	628.7560 Tracking Pads	38.000 EACH	_____.	_____.
0218	629.0210 Fertilizer Type B	9.400 CWT	_____.	_____.
0220	630.0130 Seeding Mixture No. 30	1.100 LB	_____.	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0222	630.0140 Seeding Mixture No. 40	19.000 LB	_____.	_____.
0224	630.0200 Seeding Temporary	1.600 LB	_____.	_____.
0226	630.0300 Seeding Borrow Pit	158.000 LB	_____.	_____.
0228	630.0500 Seed Water	286.300 MGAL	_____.	_____.
0230	631.0300 Sod Water	54.600 MGAL	_____.	_____.
0232	631.1000 Sod Lawn	2,418.000 SY	_____.	_____.
0234	637.2210 Signs Type II Reflective H	381.870 SF	_____.	_____.
0236	637.2230 Signs Type II Reflective F	35.210 SF	_____.	_____.
0238	638.2102 Moving Signs Type II	71.000 EACH	_____.	_____.
0240	638.3000 Removing Small Sign Supports	29.000 EACH	_____.	_____.
0242	642.5401 Field Office Type D	1.000 EACH	_____.	_____.
0244	643.0300 Traffic Control Drums	113,139.000 DAY	_____.	_____.
0246	643.0410 Traffic Control Barricades Type II	4,926.000 DAY	_____.	_____.
0248	643.0420 Traffic Control Barricades Type III	16,503.000 DAY	_____.	_____.
0250	643.0500 Traffic Control Flexible Tubular Marker Posts	66.000 EACH	_____.	_____.
0252	643.0600 Traffic Control Flexible Tubular Marker Bases	60.000 EACH	_____.	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0254	643.0705 Traffic Control Warning Lights Type A	32,061.000 DAY	_____.	_____.
0256	643.0715 Traffic Control Warning Lights Type C	14,062.000 DAY	_____.	_____.
0258	643.0800 Traffic Control Arrow Boards	1,075.000 DAY	_____.	_____.
0260	643.0900 Traffic Control Signs	77,248.000 DAY	_____.	_____.
0262	643.0910 Traffic Control Covering Signs Type I	4.000 EACH	_____.	_____.
0264	643.0920 Traffic Control Covering Signs Type II	17.000 EACH	_____.	_____.
0266	643.1050 Traffic Control Signs PCMS	519.000 DAY	_____.	_____.
0268	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0270	644.1410 Temporary Pedestrian Surface Asphalt	985.000 SF	_____.	_____.
0272	644.1420 Temporary Pedestrian Surface Plywood	1,130.000 SF	_____.	_____.
0274	644.1430 Temporary Pedestrian Surface Plate	600.000 SF	_____.	_____.
0276	644.1601 Temporary Pedestrian Curb Ramp	974.000 DAY	_____.	_____.
0278	644.1810 Temporary Pedestrian Barricade	5,220.000 LF	_____.	_____.
0280	645.0140 Geotextile Type SAS	1,178.000 SY	_____.	_____.
0282	646.1020 Marking Line Epoxy 4-Inch	4,840.000 LF	_____.	_____.
0284	646.3020 Marking Line Epoxy 8-Inch	1,606.000 LF	_____.	_____.
0286	646.5020 Marking Arrow Epoxy	19.000 EACH	_____.	_____.





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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0288	646.5120 Marking Word Epoxy	5.000 EACH	_____.	_____.
0290	646.5220 Marking Symbol Epoxy	6.000 EACH	_____.	_____.
0292	646.5320 Marking Railroad Crossings Epoxy	5.000 EACH	_____.	_____.
0294	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	1,511.000 LF	_____.	_____.
0296	646.8120 Marking Curb Epoxy	99.000 LF	_____.	_____.
0298	646.8220 Marking Island Nose Epoxy	7.000 EACH	_____.	_____.
0300	646.9000 Marking Removal Line 4-Inch	514.000 LF	_____.	_____.
0302	646.9010 Marking Removal Line Water Blasting 4-Inch	119.000 LF	_____.	_____.
0304	646.9055 Marking Removal Line Grooved Contrast Permanent Tape 4-Inch	187.000 LF	_____.	_____.
0306	646.9100 Marking Removal Line 8-Inch	249.000 LF	_____.	_____.
0308	646.9155 Marking Removal Line Grooved Contrast Permanent Tape 8-Inch	293.000 LF	_____.	_____.
0310	646.9200 Marking Removal Line Wide	115.000 LF	_____.	_____.
0312	649.0105 Temporary Marking Line Paint 4-Inch	4,576.000 LF	_____.	_____.
0314	649.0150 Temporary Marking Line Removable Tape 4-Inch	14,875.000 LF	_____.	_____.
0316	649.0155 Temporary Marking Line Removable Contrast Tape 4-Inch	5,154.000 LF	_____.	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0318	649.0205 Temporary Marking Line Paint 8-Inch	1,958.000 LF	_____.	_____.
0320	649.0250 Temporary Marking Line Removable Tape 8-Inch	4,485.000 LF	_____.	_____.
0322	649.0255 Temporary Marking Line Removable Contrast Tape 8-Inch	2,070.000 LF	_____.	_____.
0324	649.0805 Temporary Marking Stop Line Paint 18-Inch	104.000 LF	_____.	_____.
0326	649.0850 Temporary Marking Stop Line Removable Tape 18-Inch	126.000 LF	_____.	_____.
0328	649.0950 Temporary Marking Diagonal Removable Tape 12-Inch	274.000 LF	_____.	_____.
0330	649.0960 Temporary Marking Removable Mask Out Tape 6-Inch	1,980.000 LF	_____.	_____.
0332	649.0970 Temporary Marking Removable Mask Out Tape 10-Inch	1,335.000 LF	_____.	_____.
0334	650.4000 Construction Staking Storm Sewer	46.000 EACH	_____.	_____.
0336	650.4500 Construction Staking Subgrade	3,450.000 LF	_____.	_____.
0338	650.5000 Construction Staking Base	295.000 LF	_____.	_____.
0340	650.5500 Construction Staking Curb Gutter and Curb & Gutter	739.000 LF	_____.	_____.
0342	650.7000 Construction Staking Concrete Pavement	3,450.000 LF	_____.	_____.
0344	650.8500 Construction Staking Electrical Installations (project) 01. 5400-00-72	LS	LUMP SUM	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0346	650.8500 Construction Staking Electrical Installations (project) 02. 5400-00-73	LS	LUMP SUM	_____.
0348	650.9000 Construction Staking Curb Ramps	37.000 EACH	_____.	_____.
0350	650.9910 Construction Staking Supplemental Control (project) 01. 5400-00-72	LS	LUMP SUM	_____.
0352	650.9910 Construction Staking Supplemental Control (project) 02. 5400-00-73	LS	LUMP SUM	_____.
0354	650.9920 Construction Staking Slope Stakes	2,670.000 LF	_____.	_____.
0356	652.0215 Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch	410.000 LF	_____.	_____.
0358	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	2,914.000 LF	_____.	_____.
0360	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	2,611.000 LF	_____.	_____.
0362	652.0325 Conduit Rigid Nonmetallic Schedule 80 2-Inch	798.000 LF	_____.	_____.
0364	652.0335 Conduit Rigid Nonmetallic Schedule 80 3-Inch	1,145.000 LF	_____.	_____.
0366	652.0800 Conduit Loop Detector	791.000 LF	_____.	_____.
0368	653.0135 Pull Boxes Steel 24x36-Inch	1.000 EACH	_____.	_____.
0370	653.0905 Removing Pull Boxes	14.000 EACH	_____.	_____.
0372	655.0230 Cable Traffic Signal 5-14 AWG	2,615.000 LF	_____.	_____.
0374	655.0240 Cable Traffic Signal 7-14 AWG	840.000 LF	_____.	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0376	655.0250 Cable Traffic Signal 9-14 AWG	1,015.000 LF	_____.	_____.
0378	655.0260 Cable Traffic Signal 12-14 AWG	80.000 LF	_____.	_____.
0380	655.0615 Electrical Wire Lighting 10 AWG	9,500.000 LF	_____.	_____.
0382	655.0620 Electrical Wire Lighting 8 AWG	3,782.000 LF	_____.	_____.
0384	655.0625 Electrical Wire Lighting 6 AWG	11,346.000 LF	_____.	_____.
0386	655.0800 Loop Detector Wire	2,136.000 LF	_____.	_____.
0388	656.0200 Electrical Service Meter Breaker Pedestal (location) 01. CB1	LS	LUMP SUM	_____.
0390	657.0100 Pedestal Bases	19.000 EACH	_____.	_____.
0392	657.0420 Traffic Signal Standards Aluminum 13-FT	19.000 EACH	_____.	_____.
0394	658.0500 Pedestrian Push Buttons	17.000 EACH	_____.	_____.
0396	658.5069 Signal Mounting Hardware (location) 01. CB2	LS	LUMP SUM	_____.
0398	659.1115 Luminaires Utility LED A	3.000 EACH	_____.	_____.
0400	674.0300 Remove Cable	70.000 LF	_____.	_____.
0402	674.0400 Reinstall Cable	70.000 LF	_____.	_____.
0404	690.0150 Sawing Asphalt	1,386.000 LF	_____.	_____.
0406	690.0250 Sawing Concrete	9,880.000 LF	_____.	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0408	715.0715 Incentive Flexural Strength Concrete Pavement	5,239.000 DOL	1.00000	5,239.00
0410	715.0720 Incentive Compressive Strength Concrete Pavement	5,239.000 DOL	1.00000	5,239.00
0412	801.0117 Railroad Flagging Reimbursement	57,000.000 DOL	1.00000	57,000.00
0414	999.1501.S Crack and Damage Survey	4.000 EACH	_____	_____
0416	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	2,500.000 HRS	5.00000	12,500.00
0418	ASP.1T0G On-the-Job Training Graduate at \$5.00/HR	3,520.000 HRS	5.00000	17,600.00
0420	SPV.0035 Special 01. Abandon Sanitary Sewer-Slurry	6.200 CY	_____	_____
0422	SPV.0060 Special 01. Root Pruning Trees	25.000 EACH	_____	_____
0424	SPV.0060 Special 02. Precast Sign Post Base	23.000 EACH	_____	_____
0426	SPV.0060 Special 03. Sign Post Base for Concrete Installation	17.000 EACH	_____	_____
0428	SPV.0060 Special 04. Utility Line Opening (ULO)	20.000 EACH	_____	_____
0430	SPV.0060 Special 05. Storm Sewer Tap	4.000 EACH	_____	_____
0432	SPV.0060 Special 06. Inlet Covers Type DW	1.000 EACH	_____	_____
0434	SPV.0060 Special 07. Slurry Backfill	26.000 EACH	_____	_____
0436	SPV.0060 Special 08. Street Light Removal	18.000 EACH	_____	_____



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0438	SPV.0060 Special 09. Locate and Reference Property Corners	8.000 EACH	_____.	_____.
0440	SPV.0060 Special 10. Reset Property Corners	8.000 EACH	_____.	_____.
0442	SPV.0060 Special 11. Marking Yield Line Epoxy 30-Inch	14.000 EACH	_____.	_____.
0444	SPV.0060 Special 12. Temporary Traffic Signals John Nolen Drive-South Blair Street	1.000 EACH	_____.	_____.
0446	SPV.0060 Special 13. Temporary Traffic Signal Wood Poles and Span Wire Blair St - E Washington	1.000 EACH	_____.	_____.
0448	SPV.0060 Special 14. Project Dewatering, ID 5400-00-72	1.000 EACH	_____.	_____.
0450	SPV.0060 Special 15. Salvage and Replace Landscape Modular Block Retaining Wall	1.000 EACH	_____.	_____.
0452	SPV.0060 Special 16. Removing Saddle Inlet	1.000 EACH	_____.	_____.
0454	SPV.0060 Special 17. Fluid Thermal Backfill	3.000 EACH	_____.	_____.
0456	SPV.0060 Special 18. Project Dewatering, ID 5400-00-73	1.000 EACH	_____.	_____.
0458	SPV.0060 Special 19. Project Dewatering, ID 5400-00-74	1.000 EACH	_____.	_____.
0460	SPV.0060 Special 20. Sewer Electronic Markers	54.000 EACH	_____.	_____.
0462	SPV.0060 Special 21. Sanitary Lateral Reconnect	26.000 EACH	_____.	_____.
0464	SPV.0060 Special 22. Sanitary Sewer Tap	18.000 EACH	_____.	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0466	SPV.0060 Special 23. Sanitary Sewer Access Structure (4-Foot Diameter)	11.000 EACH	_____.	_____.
0468	SPV.0060 Special 24. External Sewer Access Structure Joint Seal	14.000 EACH	_____.	_____.
0470	SPV.0060 Special 25. Sanitary Sewer Internal Chimney Seal	5.000 EACH	_____.	_____.
0472	SPV.0060 Special 26. Remove Sanitary Sewer Access Structure	9.000 EACH	_____.	_____.
0474	SPV.0060 Special 27. Abandon Sanitary Sewer Access Structure	2.000 EACH	_____.	_____.
0476	SPV.0060 Special 28. Abandon Sanitary Sewer-Pipe Plug	4.000 EACH	_____.	_____.
0478	SPV.0060 Special 29. Sanitary Sewer Cleanout	1.000 EACH	_____.	_____.
0480	SPV.0060 Special 30. Wastewater Control	1.000 EACH	_____.	_____.
0482	SPV.0060 Special 31. Construction Staking Sanitary Sewer	1.000 EACH	_____.	_____.
0484	SPV.0060 Special 32. Adjust Water Valve Box Sections	30.000 EACH	_____.	_____.
0486	SPV.0060 Special 33. Sanitary Sewer Access Structure (5-Foot Diameter)	3.000 EACH	_____.	_____.
0488	SPV.0060 Special 34. Adjust Sanitary Sewer Access Structure Special	4.000 EACH	_____.	_____.
0490	SPV.0060 Special 35. Reconstruct Bench and Flowlines	3.000 EACH	_____.	_____.
0492	SPV.0060 Special 50. Lighting Control Cabinet	1.000 EACH	_____.	_____.



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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0494	SPV.0060 Special 51. Poles 30-FT 11 Gauge, Single Simplex	2.000 EACH	_____.	_____.
0496	SPV.0060 Special 52. Poles 30-FT 11 Gauge, Black TLM	4.000 EACH	_____.	_____.
0498	SPV.0060 Special 53. Poles 30-FT 7 Gauge, Black TLM	3.000 EACH	_____.	_____.
0500	SPV.0060 Special 54. Poles 30-FT 7 Gauge	1.000 EACH	_____.	_____.
0502	SPV.0060 Special 55. Poles 20-FT 7 Gauge	4.000 EACH	_____.	_____.
0504	SPV.0060 Special 56. Poles 20-FT 7 Gauge Black	2.000 EACH	_____.	_____.
0506	SPV.0060 Special 57. Arm 8-FT, Simplex	3.000 EACH	_____.	_____.
0508	SPV.0060 Special 58. Electrical Pullbox, Type I	20.000 EACH	_____.	_____.
0510	SPV.0060 Special 59. Electrical Pullbox, Type III	5.000 EACH	_____.	_____.
0512	SPV.0060 Special 60. Electrical Pullbox, Type V	8.000 EACH	_____.	_____.
0514	SPV.0060 Special 61. Electrical Pullbox, Type VII	6.000 EACH	_____.	_____.
0516	SPV.0060 Special 62. Concrete Base Type G	19.000 EACH	_____.	_____.
0518	SPV.0060 Special 63. Concrete Base Type LB-1	19.000 EACH	_____.	_____.
0520	SPV.0060 Special 64. Concrete Base Type LB-3	6.000 EACH	_____.	_____.
0522	SPV.0060 Special 65. Concrete Base Type LB-8	11.000 EACH	_____.	_____.
0524	SPV.0060 Special 66. Concrete Base Type LB-SP	1.000 EACH	_____.	_____.





Proposal Schedule of Items

Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
Federal ID(s): WISC 2022046, N/A, WISC 2022045

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0526	SPV.0060 Special 67. Concrete Base Type P	2.000 EACH	_____.	_____.
0528	SPV.0060 Special 68. Concrete Base Offset	3.000 EACH	_____.	_____.
0530	SPV.0060 Special 69. Transformer Base 16-Inch Steel Black	7.000 EACH	_____.	_____.
0532	SPV.0060 Special 70. Transformer Base 16-Inch Steel	2.000 EACH	_____.	_____.
0534	SPV.0060 Special 71. Traffic Signal Control Cabinet	1.000 EACH	_____.	_____.
0536	SPV.0060 Special 72. Traffic Signal Controller	1.000 EACH	_____.	_____.
0538	SPV.0060 Special 73. Malfunction Management Unit (MMU)	1.000 EACH	_____.	_____.
0540	SPV.0060 Special 74. Traffic Signal Ethernet Switch	1.000 EACH	_____.	_____.
0542	SPV.0060 Special 75. Traffic Signal Trombone Arms Aluminum 12-Foot	1.000 EACH	_____.	_____.
0544	SPV.0060 Special 76. Traffic Signal Trombone Arms Aluminum 15-Foot	1.000 EACH	_____.	_____.
0546	SPV.0060 Special 77. Traffic Signal Trombone Arms Aluminum 18-Foot	3.000 EACH	_____.	_____.
0548	SPV.0060 Special 78. Traffic Signal Trombone Arms Aluminum 22-Foot	3.000 EACH	_____.	_____.
0550	SPV.0060 Special 79. Traffic Signal Heads 12-Inch, 3-Section	17.000 EACH	_____.	_____.
0552	SPV.0060 Special 80. Traffic Signal Heads 12-Inch, 4-Section	4.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
Federal ID(s): WISC 2022046, N/A, WISC 2022045

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0554	SPV.0060 Special 81. Traffic Signal Heads 16-Inch Pedestrian with Countdown	9.000 EACH	_____.	_____.
0556	SPV.0060 Special 82. Backplates Signal Face, 3-Section 12-Inch	17.000 EACH	_____.	_____.
0558	SPV.0060 Special 83. Backplates Signal Face, 4-Section 12-Inch	4.000 EACH	_____.	_____.
0560	SPV.0060 Special 84. Decorative Light Pole	19.000 EACH	_____.	_____.
0562	SPV.0060 Special 85. Holophane Washington Decorative Fixture	19.000 EACH	_____.	_____.
0564	SPV.0060 Special 86. Cooper Talon Fixture	7.000 EACH	_____.	_____.
0566	SPV.0060 Special 87. Optical Signal Preempt	1.000 EACH	_____.	_____.
0568	SPV.0060 Special 88. Temporary Lighting	2.000 EACH	_____.	_____.
0570	SPV.0090 Special 01. Sign Post	147.000 LF	_____.	_____.
0572	SPV.0090 Special 02. Reflective Sign Post	257.000 LF	_____.	_____.
0574	SPV.0090 Special 03. Concrete Curb & Gutter Integral 18-Inch Special	663.000 LF	_____.	_____.
0576	SPV.0090 Special 04. Concrete Curb & Gutter 24-Inch Type A Special	1,950.000 LF	_____.	_____.
0578	SPV.0090 Special 05. Concrete Curb & Gutter 24-Inch Type D Special	78.000 LF	_____.	_____.
0580	SPV.0090 Special 06. Concrete Curb & Gutter 30-Inch Type A Special	2,814.000 LF	_____.	_____.



## Proposal Schedule of Items

Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
 Federal ID(s): WISC 2022046, N/A, WISC 2022045

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0582	SPV.0090 Special 07. Concrete Curb & Gutter 30-Inch Type D Special	561.000 LF	_____.	_____.
0584	SPV.0090 Special 08. Concrete Curb & Gutter 30-Inch Type AX Special	234.000 LF	_____.	_____.
0586	SPV.0090 Special 09. Concrete Curb & Gutter 36-Inch Median Type A	81.000 LF	_____.	_____.
0588	SPV.0090 Special 10. Concrete Curb & Gutter 36-Inch Median Type D	100.000 LF	_____.	_____.
0590	SPV.0090 Special 11. Marking Line Epoxy 6-Inch	719.000 LF	_____.	_____.
0592	SPV.0090 Special 12. Marking Crosswalk Epoxy Transverse Line 18-Inch	175.000 LF	_____.	_____.
0594	SPV.0090 Special 13. Marking Crosswalk Epoxy Ladder Pattern 18-Inch	352.000 LF	_____.	_____.
0596	SPV.0090 Special 14. Marking Stop Line Epoxy 24-Inch	444.000 LF	_____.	_____.
0598	SPV.0090 Special 20. Sanitary Sewer Lateral	743.000 LF	_____.	_____.
0600	SPV.0090 Special 21. Sanitary Sewer Pipe PVC 8-Inch	255.000 LF	_____.	_____.
0602	SPV.0090 Special 22. Sanitary Sewer Pipe PVC 12-Inch	1,186.000 LF	_____.	_____.
0604	SPV.0090 Special 23. Sanitary Sewer Pressure Pipe (C900), 10-Inch	194.000 LF	_____.	_____.
0606	SPV.0090 Special 24. Select Fill For Sanitary Sewer	2,378.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
Federal ID(s): WISC 2022046, N/A, WISC 2022045

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0608	SPV.0090 Special 25. Sanitary Sewer 30-Inch Casing Pipe	76.000 LF	_____.	_____.
0610	SPV.0090 Special 50. Fiber Optic Cable 144-Count	2,555.000 LF	_____.	_____.
0612	SPV.0090 Special 51. Electrical Wire Lighting 14-3 UF Grounded	774.000 LF	_____.	_____.
0614	SPV.0090 Special 52. Loop Detector Lead-In Cable Special	4,550.000 LF	_____.	_____.
0616	SPV.0165 Special 01. Marking Green High Friction MMA	2,520.000 SF	_____.	_____.
0618	SPV.0170 Special 01. Pavement Cleanup	50.000 STA	_____.	_____.
0620	SPV.0180 Special 01. Shredded Hardwood Bark Mulch 3-Inch Depth	130.000 SY	_____.	_____.
0622	SPV.0195 Special 01. Excavation, Hauling, and Disposal of Contaminated Soil	2,600.000 TON	_____.	_____.
0624	SPV.0200 Special 01. Construct Inside Drop, 8-Inch	10.850 VF	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.

**PLEASE ATTACH ADDENDA HERE**





## Wisconsin Department of Transportation

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November 3, 2021

**Division of Transportation Systems  
Development**

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

Telephone: (608) 266-1631

Facsimile (FAX): (608) 266-8459

### **NOTICE TO ALL CONTRACTORS:**

#### **ASP-6 Addendum #01**

#### **Letting of November 9, 2021**

Attached is a copy of the revised ASP-6. This ASP-6 replaces ASP-6 in all proposals in the November 9, 2021 Letting.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractors.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

**Additional Special Provision 6****ASP 6 - Modifications to the standard specifications**

*Make the following revisions to the standard specifications:*

**415.3.16 Tolerance in Pavement Thickness**

*Replace the entire text with the following effective with the November 2021 letting:*

**415.3.16.1 General**

- (1) Construct the plan thickness or thicker. The department will accept pavement thickness based on the results of department-performed acceptance testing conforming to:

Magnetic Pulse Induction .....	CMM 870: ASTM E3209 WTM
Probing.....	CMM 870: WTP C-002
Preplacement Measurement .....	CMM 870: WTP C-003

**415.3.16.2 Pavement Units****415.3.16.2.1 Basic Units**

- (1) Basic unit is defined as a slip formed, single lane, with a minimum lane width of 10 feet, measured, from the pavement edge to the adjacent longitudinal joint; from one longitudinal joint to the next; or between pavement edges if there is no longitudinal joint.

**415.3.16.2.2 Special Units**

- (2) Establish special units for areas of fillets, intersections, gaps, gores, shoulders, ramps, pavement lanes less than 10 feet wide and other areas not included in basic units.

**415.3.16.3 Test Plate Locations**

- (1) Place department-furnished test plates. Within 5 business days after paving, enter the sequential number and associated position data into MRS available at:

<http://www.atwoodsystems.com/>

- (2) Contractor will maintain plate location markings for 10 business days after paving.

**415.3.16.4 Acceptance Testing****415.3.16.4.1 Basic Units****415.3.16.4.1.2 Magnetic Pulse Induction**

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable. Department will determine limits of unacceptable pavement by performing the following:
- The engineer will test each consecutive plate stationed ahead and behind until the thickness test result is plan thickness or greater.
  - The engineer will direct the contractor to core the hardened concrete to determine the extent of the unacceptable area. In each direction, the contractor shall take cores at points approximately 20 feet from the furthest out of specification plate towards the plate that is plan thickness of greater. Once a core is within 80 to 100 percent pay range, the coring is complete and the limits of unacceptable pavement extend from the stationing between the core test results of 80 to 100 percent payment, inclusive of all unacceptable core and plate test results.
  - The contractor shall perform coring according to AASHTO T24. The department will evaluate the results according to AASHTO T148
  - The contractor shall fill core holes with concrete or mortar.



**415.3.16.4.2 Special Units****415.3.16.4.2.1 Magnetic Pulse Induction**

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the department will measure the second plate in that unit. If both plates are required to be measured, then all six thickness measurements will be averaged for that unit. If the average of the six measurements is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable.

**415.3.16.4.2.2 Probing**

- (1) The department will measure slip form special units during concrete placement. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will probe 2 random locations within the special unit. The average of the two readings will be the reported measurement for the special unit.

**415.3.16.4.2.3 Preplacement Measurement**

- (1) The department will measure non-slip form special units before concrete placement.
- (2) Thickness corrections will be made to a conforming thickness by reshaping the base aggregate before the pavement is placed.

**415.5.2 Adjusting Pay for Thickness**

Replace the entire text with the following effective with the November 2021 letting:

- (1) The department will adjust pay for pavement thickness under the Nonconforming Thickness Concrete Pavement administrative item as follows:

FOR PAVEMENT THINNER THAN PLAN THICKNESS BY:	PERCENT OF THE CONTRACT UNIT PRICE
> 1/4 inch but <= 1/2 inch	80
> 1/2 inch but <= 3/4 inch	60
> 3/4 inch but <= 1 inch	50

- (2) When pavement of unacceptable final thickness is determined, as specified in 415.3.16.4, the department will direct the contractor to either:
  1. Remove and replace unacceptable concrete pavement to the nearest joint with new concrete pavement of conforming thickness. The department will pay once for the area at the full contract price.
  2. If the unacceptable pavement is less than 100 LF, the department may allow the concrete to remain in place without payment for the unacceptable area.

**460.2.6 Recovered Asphaltic Binders**

Replace paragraph two with the following effective with the November 2021 letting:

- (2) The contractor may replace virgin binder with recovered binder up to the maximum percentage allowed under 460.2.5 without further testing. When the design percent asphalt binder replaced exceeds the allowable limits in 460.2.5, the contractor must:
  - Document adjustments made to the mix design in the mix design submittal.
  - Submit test results that indicate the mixture's asphaltic binder meets or exceeds the upper and lower temperature grade requirements the bid item designates.
    - If only one recycled asphaltic material source is used, furnish one of the following:
      - Test results from extracted and recovered binder from the resultant mixture.
      - Blending charts that indicate the resultant mixture's high and low temperature PG as an interpolation of the percent binder replaced between the virgin binder's and the recycled asphaltic material source binder's high and low temperature PG.
    - If two or more recycled asphaltic material sources are used, furnish test results from extracted and

recovered binder from the resultant mixture.

**501.2.6 Water**

*Retitle with the following effective with the November 2021 letting:*

**501.2.6 Mixing Water**

**501.2.6.2 Requirements**

*Replace paragraph two with the following effective with the November 2021 letting:*

(2) Water from other sources must comply with the following:

Acidity, maximum of 0.1N NaOH to neutralize 200 mL of water; CMM 870: WTP C-001.....	2 mL
Alkalinity, maximum of 0.1N HCL to neutralize 200 mL of water; CMM 870: WTP C-001.....	15 mL
Maximum sulphate (SO <sub>4</sub> ); CMM 870: WTP C-001.....	0.05 percent
Maximum chloride; CMM 870: WTP C-001.....	0.10 percent
Maximum total solids; CMM 870: WTP C-001	
Organic.....	0.04 percent
Inorganic.....	0.15 percent

**501.3.2.4.2 Air Entrainment**

*Replace paragraph two with the following effective with the November 2021 letting:*

(2) Test fresh concrete air content according to AASHTO T152 or AASHTO TP118 at the contract-required frequency and as the engineer directs. Test concrete placed by pumping or belting at the point of discharge from the pump line or belt.

**501.3.7.1 Slump**

*Replace paragraph one with the following effective with the November 2021 letting:*

- (1) Use a 1-inch to 4-inch slump for concrete used in structures or placed in forms, except as follows:
- Do not exceed a slump of 2 inches for grade E concrete.
  - Increase slump as specified in 502.3.5.3 for concrete placed underwater.
  - If BTS approves a concrete mixture using a superplasticizer, the contractor may increase slump for that mixture to a maximum of 9 inches without exceeding the maximum mix water allowed for that grade.

**531.5 Payment**

*Replace paragraph two with the following effective with the November 2021 letting:*

(2) Payment for Concrete Masonry Ancillary Structures Type NS is full compensation for providing concrete for non-standard sign structure foundations; and for anchor rod assemblies. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

*Replace paragraph five with the following effective with the November 2021 letting:*

(5) Payment for the Foundation bid items is full compensation for providing concrete foundations; for anchor rod assemblies; for reinforcing steel; and for embedded conduit and electrical components. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

**642.2.2.1 General**

*Replace paragraph one with the following effective with the November 2021 letting:*

(1) Provide each field office with two rooms, separated by an interior door with a padlock. Ensure that each room has a separate exterior door and its own air conditioner. Locate the office where a quality internet connection can be achieved. Ensure quality cell phone reception is achievable inside the field office.

**701.3.1 General**

*Replace table 701-1 with the following effective with the November 2021 letting:*

**TABLE 701-1 TESTING AND CERTIFICATION STANDARDS**

TEST	TEST STANDARD	MINIMUM REQUIRED CERTIFICATION (any one of the certifications listed for each test)
Random Sampling	CMM 830.9.2	Transportation Materials Sampling Technician (TMS) TMS Assistant Certified Technician (ACT-TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT-GRADING)
Sampling Aggregates	AASHTO T2 <sup>[1]</sup> <sup>[4]</sup>	TMS, ACT-TMS, AGGTEC-1, ACT-AGG
Percent passing the No. 200 sieve	AASHTO T11 <sup>[1]</sup>	AGGTEC-I, ACT-AGG
Fine & coarse aggregate gradation	AASHTO T27 <sup>[1]</sup>	
Aggregate moisture content	AASHTO T255 <sup>[1]</sup>	
Fractured faces	ASTM D5821 <sup>[1]</sup>	
Liquid limit	AASHTO T89	
Plasticity index	AASHTO T90 <sup>[3]</sup>	Aggregate Testing for Transportation Systems (ATTS) GRADINGTEC-I, or ACT-GRADING
Sampling freshly mixed concrete	AASHTO R60	PCCTEC-1 ACT-PCC
Air content of fresh concrete	AASHTO T152 <sup>[2]</sup> AASHTO TP118 <sup>[5]</sup>	
Air void system of fresh concrete	AASHTO TP118 <sup>[5]</sup>	
Concrete slump	AASHTO T119 <sup>[2]</sup>	
Concrete temperature	ASTM C1064	
Making and curing concrete specimens	AASHTO T23	
Moist curing for concrete specimens	AASHTO M201	
Concrete compressive strength	AASHTO T22	
Concrete flexural strength	AASHTO T97	
Concrete surface resistivity <sup>[2]</sup>	AASHTO T358	
Voids in aggregate	AASHTO T19	Concrete Strength Tester (CST) CST Assistant Certified Technician (ACT-CST)
Profiling	—	PCCTEC-II PROFILER

<sup>[1]</sup> As modified in CMM 860.

<sup>[2]</sup> As modified in CMM 870.

<sup>[3]</sup> A plasticity check, if required under individual QMP specifications, may be performed by an AGGTEC-I in addition to the certifications listed for liquid limit and plasticity index tests.

<sup>[4]</sup> Plant personnel may operate equipment to obtain samples under the direct observation of a TMS or higher.

<sup>[5]</sup> Consolidate by rodding.

## 710.2 Small Quantities

*Replace the entire text with the following effective with the November 2021 letting:*

- (1) The department defines small quantities as follows:
  - As specified in 715.1.1.2 for class I concrete.
  - Less than 50 cubic yards of class II ancillary concrete placed under a single bid item.
- (2) For contracts with only small quantities of material subject to testing, modify the requirements of 710 as follows:
  1. The contractor may submit an abbreviated quality control plan as allowed in 701.1.2.3.
  2. Provide one of the following for aggregate process control:
    - Documented previous testing dated within 120 calendar days. Provide gradation test results to the engineer before placing material.
    - Non-random start-up gradation testing.

## 710.4 Concrete Mixes

*Replace paragraph two with the following effective with the November 2021 letting:*

- (2) At least 7 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:

1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and SAM number.
2. For cementitious materials and admixtures: type, brand, and source.
3. For aggregates: absorption, SSD bulk specific gravity, wear, soundness, freeze thaw test results if required, and air correction factor. Also include aggregate production records dated within 2 years if using those results in the design. Submit component aggregate gradations, aggregate proportions, and target combined blended aggregate gradations using the following:
  - DT2220 for combined aggregate gradations.
  - DT2221 for optimized aggregate gradations.
4. For optimized concrete mixtures:
  - Complete the worksheets within DT2221 according to the directions.
  - Ensure the optimized aggregate gradations and the optimized mix design conform to WisDOT specifications and pass the built-in tests within DT2221.
  - Verify slip-form mixture workability according to AASHTO TP137 and conformance to specifications through required trial batching.
  - Submit the completed DT2221 to the engineer electronically. Include the trial batch test results with the mix design submittal.

Replace paragraph four with the following effective with the November 2021 letting:

- (4) Prepare and submit modifications to a concrete mix to the engineer for approval 3 business days before using that modified mix. Modifications requiring the engineer's approval include changes in:
  1. Source of any material. For paving and barrier mixes, a source change for fly ash of the same class does not constitute a mix design change.
  2. Quantities of cementitious materials.
  3. Addition or deletion of admixtures. Minor admixture dosage adjustments required to maintain air content or slump do not require engineer review or approval.

### 710.5.5 Strength

Replace paragraph one with the following effective with the November 2021 letting:

- (1) Cast all 6" x 12" cylinders or all 6" x 6" x 21" beams in a set from the same sample. Do not cast more than one set of specimens from a single truckload of concrete. Mark each specimen to identify the lot and subplot or location on the project it represents.

### 710.5.6 Aggregate Testing

Retitle and replace the entire text with the following effective with the November 2021 letting:

#### 710.5.6 Aggregate Testing During Concrete Production

##### 710.5.6.1 General

- (1) The department will accept gradation based on the results of department-performed acceptance testing.
- (2) The department and contractor will obtain samples using the same method. When belt sampling, contractor personnel shall obtain samples for the department under the direct observation of the department personnel. Contractor will define sampling method in the QMP or abbreviated QMP.

##### 710.5.6.2 Contractor Control Charts

###### 710.5.6.2.1 General

- (1) Test aggregate gradations during concrete production except as allowed for small quantities under 710.2. Required contractor testing will be performed using non-random samples.
- (2) Sample aggregates from either the conveyor belt or from the working face of the stockpiles.
- (3) Sample aggregates within 2 business days before placement for each mix design. Include this gradation on the control charts.
- (4) Report gradation test results and provide control charts to the engineer within 1 business day of obtaining the sample. Submit results to the engineer and electronically into MRS as specified in 701.1.2.7.
- (5) Conduct aggregate testing at the minimum frequency shown based on the anticipated daily cumulative plant production for each mix design. The contractor's concrete production tests can be used for the same mix design on multiple contracts.

**TABLE 710-1 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS I**

DAILY PLANT PRODUCTION RATE FOR WisDOT WORK	MINIMUM FREQUENCY
Gradation Report Before Placement	
1000 cubic yards or less	one test per day
more than 1000 cubic yards	two tests per day

**TABLE 710-2 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS II**

MINIMUM FREQUENCY
Gradation Report Before Placement
One test per calendar week of production

**710.5.6.2.2 Optimized Aggregate Gradation Control Charts**

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the following:
  - 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
  - Sum of volumetric percentages retained on No. 8, No. 16, and No. 30 sieves.
  - Sum of volumetric percentages retained on No. 30, No. 50, No. 100, and No. 200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the volumetric percent retained of the optimized aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the volumetric percent retained for each sieve to determine if the blended aggregate gradation is within the tarantula curve limits specified in table 501-4.

**710.5.6.2.3 Combined Aggregate Gradation Control Charts**

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the percent passing by weight requirements of the combined aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the percent passing by weight for each sieve to determine if the blended aggregate gradation is within the combined aggregate gradation limits specified in table 501-4.

**710.5.6.3 Department Acceptance Testing**

- (1) Department testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract.
- (2) The department will split each sample, test for acceptance, and retain the remainder for a minimum of 10 calendar days.
- (3) The department will obtain the sample and deliver to regional testing lab in the same day. Department will report gradation test results to the contractor within 1 business day of being delivered to the lab. Department and contractor can agree to an alternative test result reporting timeframe; alternative timeframe is required to be documented in the QMP.
- (4) Additional samples may be taken at the engineer's discretion due to change in condition.

**TABLE 710-3 DEPARTMENT GRADATION TESTING FREQUENCY**

CONCRETE CLASSIFICATION	MINIMUM DEPARTMENT FREQUENCY
Class I: Pavement	1 test per placement day for first 5 days of placement. If all samples are passing, reduced frequency is applied.
	Reduced frequency: 1 test per calendar week of placement
Class I: Structures	1 test per 250 CY placed <ul style="list-style-type: none"> <li>- Minimum of 1 test per substructure</li> <li>- Minimum of 1 test per superstructure</li> </ul>

Class I: Cast-in-Place Barrier	1 test per 500 CY placed
Class II	No minimum testing

### 710.5.7 Corrective Action

*Replace the entire text with the following effective with the November 2021 letting:*

#### 710.5.7.1 Optimized Aggregate Gradations

- (1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size, do the following:
1. Notify the other party immediately.
  2. Perform corrective action documented in the QC plan or as the engineer approves.
  3. Document and provide corrective action results to the engineer as soon as they are available.
  4. Department will conduct two tests within the next business day after corrective action is complete.
  5. If blended aggregate gradations are within the tarantula curve limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.
    - For Class I: Pavements, department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
  6. If blended aggregate gradations are not within the tarantula curve limits by the second department test:
    - Provide a new mix design with an increased cementitious content.
    - If the mix design already has a cementitious content of 565 or more pounds per cubic yard, provide a new mix design.
    - If the contract requires optimized aggregate gradations under 501.2.7.4.2.1(2), stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

#### 710.5.7.2 Combined Aggregate Gradations

- (1) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by less than or equal to 1.0 percent on a single sieve size, do the following:
1. Notify the other party immediately.
  2. Perform corrective action documented in the QC plan or as the engineer approves.
  3. Document and provide corrective action results to the engineer as soon as they are available.
  4. Department will conduct two tests within the next business day after corrective action is complete.
  5. If blended aggregate gradations are within the combined aggregate gradation limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.
    - For Class I: Pavements, department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
  6. If blended aggregate gradations are not within the combined aggregate gradation limits by the second department test, stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.



**715.3.1.1 General**

Replace paragraphs three and four with the following effective with the November 2021 letting:

- (3) Cast a set of 3 additional 6"x12" cylinders and test the concrete surface resistivity according to AASHTO T358. Perform this testing at least once per lot if total contract quantities are greater than or equal to the following:
  - 20,000 square yards for pavements.
  - 5,000 linear feet for barriers.
  - 500 cubic yards for structure concrete.

Submit the resistivity to the nearest tenth into MRS for information only. Resistivity testing is not required for the following:

- Lot with less than 3 sublots.
- Concrete items classified as ancillary.
- Concrete placed under the following bid items:
  - Concrete Pavement Approach Slab
  - Concrete Masonry Culverts
  - Concrete Masonry Retaining Walls
- (4) Test the air void system at least once per lot and enter the SAM number in MRS for information only. SAM testing is not required for the following:
  - For lots with less than 3 sublots.
  - High early strength (HES) concrete.
  - Special high early strength (SHES) concrete.
  - Concrete placed under the following bid items:
    - Concrete Pavement Approach Slab
    - Concrete Masonry Culverts
    - Concrete Masonry Retaining Walls
    - Steel Grid Floor Concrete Filled
    - Crash Cushions Permanent
    - Crash Cushions Permanent Low Maintenance
    - Crash Cushions Temporary

**715.3.1.2.3 Lots by Cubic Yard**

Replace the entire text with the following effective with the November 2021 letting:

- (1) Define standard lots and sublots conforming to the following:

**TABLE 715-1 CLASS I - LOT AND SUBLot SIZES**

CONCRETE CLASSIFICATION	LOT SIZE	SUBLot SIZE	NUMBER OF SUBLots PER LOT
Class I: Pavement	1250 cubic yards	250 cubic yards	5
Class I: Structures	250 cubic yards	50 cubic yards	5
Class I: Cast-in-Place Barrier	500 cubic yards	100 cubic yards	5

- (2) The contractor may include sublots less than or equal to 25 percent of the standard volume in the previous subplot. For partial sublots exceeding 25 percent of the standard volume, notify the engineer who will direct additional testing to represent that partial subplot.
- (3) An undersized lot is eligible for incentive payment under 715.5 if the lot has 3 or more sublots for that lot.

**715.3.2 Strength Evaluation**

Replace the entire text with the following effective with the November 2021 letting:

**715.3.2.1 General**

- (1) The department will make pay adjustments for strength on a lot-by-lot basis using the compressive strength of contractor QC cylinders or the flexural strength of contractor QC beams.

- 
- (2) Randomly select 2 QC specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day subplot average strength as follows:
- If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
  - If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

### **715.3.2.2 Removal and Replacement**

#### **715.3.2.2.1 Pavement**

- (1) If a subplot strength is less than 2500 psi in compressive strength or 500 psi in flexural strength, the department may direct the contractor to core that subplot to determine its structural adequacy and whether to direct removal.
- (2) If the engineer directs coring, obtain three cores from the subplot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24.
- (3) Have an independent consultant test cores according to AASHTO T24.
- (4) The department will assess concrete for removal and replacement based on a subplot-by-subplot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (5) The subplot pavement is conforming if the compressive strengths of all cores from the subplot are 2500 psi or greater.
- (6) The subplot pavement is nonconforming if the compressive strengths of any core from the subplot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

#### **715.3.2.2.2 Structures and Cast-in-Place Barrier**

- (1) The department will evaluate the subplot for possible removal and replacement if the 28-day subplot average compressive strength is lower than  $f'c$  minus 500 psi. The value of  $f'c$  is the design stress the plans show. The department may assess further strength price reductions or require removal and replacement only after coring the subplot.
- (2) The engineer may initially evaluate the subplot strength using a non-destructive method. Based on the results of non-destructive testing, the department may accept the subplot at the previously determined pay for the lot, or direct the contractor to core the subplot.
- (3) If the engineer directs coring, obtain three cores from the subplot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24. Determine core locations, subject to the engineer's approval, that do not interfere with structural steel.
- (4) Have an independent consultant test cores according to AASHTO T24.
- (5) The department will assess concrete for removal and replacement based on a subplot-by-subplot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (6) If the 3-core average is greater than or equal to 85 percent of  $f'c$ , and no individual core is less than 75 percent of  $f'c$ , the engineer will accept the subplot at the previously determined pay for the lot. If the 3-core average is less than 85 percent of  $f'c$ , or an individual core is less than 75 percent of  $f'c$ , the engineer may require the contractor to remove and replace the subplot. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

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### **715.3.3 Aggregate**

*Replace the entire text with the following effective with the November 2021 letting:*

#### **715.3.3.1 General**

- (1) Except as allowed for small quantities in 710.2, test aggregate conforming to 710.5.6.

#### **715.3.3.2 Structures**

- (1) In addition to the aggregate testing required under 710.5.6, determine the fine and coarse aggregate moisture content for each sample.
- (2) Calculate target batch weights for each mix when production of that mix begins. Whenever the moisture content of the fine or coarse aggregate changes by more than 0.5 percent, adjust the batch weights to maintain the design w/cm ratio.



**715.5 Payment**

*Replace the entire text with the following effective with the November 2021 letting:*

**715.5.1 General**

- (1) The department will pay incentive for compressive strength under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL

- (2) Incentive payment may be more or less than the amount the schedule of items shows.
- (3) The department will administer disincentives for strength under the Disincentive Strength Concrete Structures, Disincentive Strength Concrete Barrier, Disincentive Flexural Strength Concrete Pavement, and Disincentive Compressive Strength Concrete Pavement, administrative items.
- (4) The pay factor that is calculated from the equations in 715.5.2(2) and 715.5.3(2) will be applied to the unit costs listed below:
- Pavement: \$45 per SY.
  - Structure: \$635 per CY.
  - Cast-in-place barrier: \$75 per LF.
- (5) 28-day strength average for a lot is the average of the individual subplot strengths within the given lot.
- (6) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.
- (7) Submit test results to the department electronically using MRS software. The department will validate contractor data before determining pay adjustments.
- (8) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

**715.5.2 Compressive Strength**

- (1) The department will measure PWL relative to strength lower specification limits as follows:
- Compressive strength of 3700 psi for pavements.
  - Compressive strength of 4000 psi for structures and cast-in-place barrier.

- (2) The department will adjust pay for each lot using equation "Comp2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
>= 90 to 100	$(1/5 \times \text{PWL}) + 82$
>= 85 to < 90	100
>= 50 to < 85	$(5/7 \times \text{PWL}) + (275/7)$
< 50	50 <sup>[1]</sup>

<sup>[1]</sup> Any material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

- (3) The department will not pay incentive if the lot standard deviation is greater than the following:
- 400 psi for pavement.
  - 350 psi for structure and cast-in-place barrier
- (4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average compressive strength below the following:
- 3700 psi for pavements.
  - 4000 psi for structures and cast-in-place barrier.

**715.5.3 Flexural Strength**

- (1) The department will measure PWL relative to strength lower specification limits as follows:
- Flexural strength of 650 psi for pavements.

- (2) The department will adjust pay for each lot using equation "Flex2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
>= 90 to 100	$(2/5 \times \text{PWL}) + 64$
>= 85 to < 90	100

>= 50 to < 85  
< 50

$(5/7 \times \text{PWL}) + (275/7)$   
 $50^{[1]}$

<sup>[1]</sup> Material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

- (3) The department will not pay incentive if the lot standard deviation is greater than 60 psi.
  - (4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average flexural strength below 650 psi.
-

## ERRATA

**460.2.2.3 Aggregate Gradation Master Range****Correct errata by adding US Standard equivalent sieve sizes.**

- (1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

**TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS**

SIEVE	PERCENT PASSING DESIGNATED SIEVES							
	NOMINAL SIZE							
	No. 1 (37.5 mm) (1 1/2 inch)	No. 2 (25.0 mm) (1 inch)	No.3 (19.0 mm) (3/4 inch)	No. 4 (12.5 mm) (1/2 inch)	No. 5 (9.5 mm) (3/8 inch)	No. 6 (4.75 mm) (3/16 inch)	SMA No. 4 (12.5 mm) (1/2 inch)	SMA No. 5 (9.5 mm) (3/8 inch)
50.0-mm (2-inch)	100							
37.5-mm (1 1/2-inch)	90 - 100	100						
25.0-mm (1-inch)	90 max	90 - 100	100					
19.0-mm (3/4-inch)	—	90 max	90 - 100	100			100	
12.5-mm (1/2-inch)	—	—	90 max	90 - 100	100		90 - 97	100
9.5-mm (3/8-inch)	—	—	—	90 max	90 - 100	100	58 - 80	90 - 100
4.75-mm (No. 4)	—	—	—	—	90 max	90 - 100	25 - 35	35 - 45
2.36-mm (No. 8)	15 - 41	19 - 45	23 - 49	28 - 58	32 - 67	90 max	15 - 25	18 - 28
1.18-mm (No. 16)	—	—	—	—	—	30 - 55	—	—
0.60-mm (No. 30)	—	—	—	—	—	—	18 max	18 max
0.075-mm (No. 200)	0 - 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	6.0 - 13.0	8.0 - 11.0	8.0 - 12.0
% VMA	11.0 min	12.0 min	13.0 min	14.0 min <sup>[1]</sup>	15.0 min <sup>[2]</sup>	16.0 - 17.5	16.0 min	17.0 min

<sup>[1]</sup> 14.5 for LT and MT mixes.

<sup>[2]</sup> 15.5 for LT and MT mixes.

**715.5.1 General**Correct the bid item number for Incentive Compressive Strength Concrete Pavement.

- (1) The department will pay incentive for compressive strength under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL





# Wisconsin Department of Transportation

October 26, 2021

## Division of Transportation Systems Development

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

### NOTICE TO ALL CONTRACTORS:

**Proposal #07: 5400-00-72, WISC 2022046**  
**C Madison, S Blair St/ John Nolen Dr**  
**Wilson/Williamson St Intersection**  
**USH 151**  
**Dane County**

**5400-00-73, WISC 2022045**  
**C Madison, Blair St/ E Washington Av**  
**E Wilson St to Blount St**  
**USH 151**  
**Dane County**

**5400-00-74**  
**C Madison, Blair St/ E Washington Av**  
**E Wilson St to Blount St**  
**USH 151**  
**Dane County**

### Letting of November 9, 2021

This is Addendum No. 01, which provides for the following:

#### Special Provisions:

Revised Special Provisions	
Article No.	Description
9	Notice to Contractor - Railroad Work During Construction and Additional Notification Requirements
10	Railroad Insurance and Coordination - Wisconsin and Southern Railroad Company

#### Schedule of Items:

Revised Bid Item Quantities - ID 5400-00-72					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0060.79	Traffic Signal Heads 12-Inch, 3-Section	Each	17	-2	15
SPV.0060.80	Traffic Signal Heads 12-Inch, 4-Section	Each	4	2	6
SPV.0060.82	Backplates Signal Face, 3-Section 12-Inch	Each	17	-2	15
SPV.0060.83	Backplates Signal Face, 4-Section 12-Inch	Each	4	2	6

**Plan Sheets:**

<b>Revised Plan Sheets</b>	
<b>Plan Sheet</b>	<b>Plan Sheet Title (brief description of changes to sheet)</b>
194	Miscellaneous Quantities (Revised quantities for SPV.0060.79, SPV.0060.80, SPV.0060.82, and SPV.0060.83)

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

**ADDENDUM NO. 01**

**5400-00-72/73/74**

**October 26, 2021**

**Special Provisions**

**9. Notice to Contractor - Railroad Work During Construction and Additional Notification Requirements**

*Replace entire article language with the following:*

The information contained within this article outlines requirements for the various work that will be completed by Wisconsin & Southern Railroad (WSOR) and/or its contractor during the project and the resulting notification and working times required.

Provide a minimum of two weeks notification in advance of when WSOR and their contractor C.D.L. Electric (CDL) can begin their work, in advance of any traffic shift, and in advance of any construction stage to:

- Roger Schaalma, WSOR (608) 620-2044
- Mark Smallwood, CDL (502) 608-9855
- Peter Beuchler, CDL (920) 382-0296

Invite the above contacts to the preconstruction meeting and progress meetings during construction.

WSOR has underground railroad signal cable and conduit serving the railroad gates and signals at the crossing of USH 151 and East Wilson Street and Williamson Street. NOTE: WSOR must be contacted directly to have these facilities marked as they are not marked as part of a Digger's Hotline request. Contact Chris Roland with CDL (414) 737-8974, [chris.roland@cdl-electric.com](mailto:chris.roland@cdl-electric.com), a minimum of 72 hours in advance of needing WSOR's facilities marked.

Existing signal equipment is being replaced; however, work around WSOR's existing conduit until WSOR has specifically identified the conduit as discontinued. If an unavoidable conflict is discovered with existing conduit, notify WSOR immediately. WSOR will need adequate notice and approximately two working days to relocate each conduit location that is in conflict.

WSOR will require up to eight days during each construction stage or phase to complete the necessary work to replace the existing railroad signal and gate infrastructure and to accommodate construction staging with temporary railroad signals and gates. Prior to construction, contact WSOR to confirm their anticipated work. Do not proceed to the next construction stage or phase until the necessary railroad signal and gating equipment is installed and operational to accommodate the next stage or phase of construction.

**10. Railroad Insurance and Coordination - Wisconsin and Southern Railroad Company**

*In the first paragraph of the section titled "A.4 Work by Railroad" replace "None" with the following:*

Replacing railroad signals.

**Schedule of Items**

Attached, dated October 26, 2021, 2021, are the revised Schedule of Items Pages 18 and 19.

**Plan Sheets**

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:  
Revised: 194.

END OF ADDENDUM



Addendum No. 01  
 ID 5400-00-72  
 Revised Sheet 194  
 October 26, 2021

TRAFFIC SIGNALS																
TRAFFIC SIGNAL HEADS			BACKPLATES			PEDESTRIAN PUSH BUTTONS			COMMENTS							
CATEGORY	STRUCTURE	PREEMPT	12-INCH 3-SECTION EACH	12-INCH 4-SECTION WITH COUNTDOWN EACH	16-INCH PEDESTRIAN 3-SECTION SIGNAL FACE	12-INCH 3-SECTION EACH	12-INCH 4-SECTION EACH	12-INCH PEDESTRIAN PUSH BUTTONS EACH	SPV.0060.87	SPV.0060.79	SPV.0060.80	SPV.0060.81	SPV.0060.82	SPV.0060.83	658.0500	
0040	SB1		1			1										EB WILSON
	SB2		1			1										EB WILSON/BIKE S LEG/PED & BUTTON W LEG
	SB3		1			1										PED BUTTON S LEG/BIKE BUTTON S LEG
	SB4		1			1										SB BLAIR/PED BUTTON S LEG
	SB5	X	1			1										SB BLAIR/EBRT FROM WILSON
	SB6		1			1										EBRT FROM WILSON
	SB7		1			2										NB JOHN NOLENPED S LEG/PED BUTTON S LEG
	SB8		1			1										BIKE BUTTON S LEG
	SB9		1			2										EB WILSON/SB BLAIR
	SB10		1			1										NB JOHN NOLENPED S LEG/PED BUTTON S LEG
	SB11		1			1										BIKE S LEG/BIKE BUTTON S LEG
	SB12		1			1										PED BUTTON S LEG/BIKE BUTTON S LEG
	SB13		1			1										PED E LEG/ PED BUTTON E LEG/BIKE BUTTON E LEG
	SB14		1			1										PED S LEG/ PED BUTTON S LEG
	SB15		1			1										NBRT FROM JOHN NOLEN
	SB16		1			1										PED BUTTON S LEG/BIKE BUTTON S LEG
	SB17		1			1										PED S LEG/ PED BUTTON S LEG
	SB18		1			1										EB WILSON
	SB19		1			1										PED W LEG/PED BUTTON W LEG
	SB20		1			1										NB JOHN NOLENPED SIGNAL N LEG/PED BUTTON N LEG
	SB21		2			2										SB BLAIR
	SB22		1			1										WB WILLIAMSON
	EXISTING BASE	X	2			2										WBLT WILLIAMSON (ON WILSON MEDIAN)
TOTALS			1	15	6	9	15	6	17							

REMOVALS - TRAFFIC SIGNAL

CATEGORY	STATION	OFFSET	CONCRETE BASES EACH	PULL BOXES EACH	REMOVING MANHOLES EACH	REMOVING PULL BOXES EACH	REMOVING MANHOLES EACH
0010	45+72	44.42 R		1			
	46+85	132.79 L		1			
	47+28	91.30 L		1			
	47+75	46.85 L			1		
	47+77	61.66 R		1			
	47+79	63.61 L			1		
	47+86	51.51 L	1				
	47+88	1.89 R		1			
	48+07	40.84 R			1		
	48+90	80.21 R	1				
	49+09	58.50 R		1			
	49+14	36.43 R		1			
	49+26	49.59 L	1				
	49+34	61.93 L		1			
	49+36	35.86 L	1				
	UNDISTRIBUTED						1
TOTALS			4	8	4		

\*ADDITIONAL QUANTITIES LISTED ELSEWHERE

COUNTY:	DANE	TRAFFIC SIGNAL PLAN
HWY:	UHS 151	
TOTALS	4	8



Proposal Schedule of Items

Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
Federal ID(s): WISC 2022046, N/A, WISC 2022045

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0526	SPV.0060 Special 67. Concrete Base Type P	2.000 EACH	_____.	_____.
0528	SPV.0060 Special 68. Concrete Base Offset	3.000 EACH	_____.	_____.
0530	SPV.0060 Special 69. Transformer Base 16-Inch Steel Black	7.000 EACH	_____.	_____.
0532	SPV.0060 Special 70. Transformer Base 16-Inch Steel	2.000 EACH	_____.	_____.
0534	SPV.0060 Special 71. Traffic Signal Control Cabinet	1.000 EACH	_____.	_____.
0536	SPV.0060 Special 72. Traffic Signal Controller	1.000 EACH	_____.	_____.
0538	SPV.0060 Special 73. Malfunction Management Unit (MMU)	1.000 EACH	_____.	_____.
0540	SPV.0060 Special 74. Traffic Signal Ethernet Switch	1.000 EACH	_____.	_____.
0542	SPV.0060 Special 75. Traffic Signal Trombone Arms Aluminum 12-Foot	1.000 EACH	_____.	_____.
0544	SPV.0060 Special 76. Traffic Signal Trombone Arms Aluminum 15-Foot	1.000 EACH	_____.	_____.
0546	SPV.0060 Special 77. Traffic Signal Trombone Arms Aluminum 18-Foot	3.000 EACH	_____.	_____.
0548	SPV.0060 Special 78. Traffic Signal Trombone Arms Aluminum 22-Foot	3.000 EACH	_____.	_____.
0550	SPV.0060 Special 79. Traffic Signal Heads 12-Inch, 3-Section	15.000 EACH	_____.	_____.
0552	SPV.0060 Special 80. Traffic Signal Heads 12-Inch, 4-Section	6.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20211109007 Project(s): 5400-00-72, 5400-00-73, 5400-00-74  
Federal ID(s): WISC 2022046, N/A, WISC 2022045

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0554	SPV.0060 Special 81. Traffic Signal Heads 16-Inch Pedestrian with Countdown	9.000 EACH	_____.	_____.
0556	SPV.0060 Special 82. Backplates Signal Face, 3-Section 12-Inch	15.000 EACH	_____.	_____.
0558	SPV.0060 Special 83. Backplates Signal Face, 4-Section 12-Inch	6.000 EACH	_____.	_____.
0560	SPV.0060 Special 84. Decorative Light Pole	19.000 EACH	_____.	_____.
0562	SPV.0060 Special 85. Holophane Washington Decorative Fixture	19.000 EACH	_____.	_____.
0564	SPV.0060 Special 86. Cooper Talon Fixture	7.000 EACH	_____.	_____.
0566	SPV.0060 Special 87. Optical Signal Preempt	1.000 EACH	_____.	_____.
0568	SPV.0060 Special 88. Temporary Lighting	2.000 EACH	_____.	_____.
0570	SPV.0090 Special 01. Sign Post	147.000 LF	_____.	_____.
0572	SPV.0090 Special 02. Reflective Sign Post	257.000 LF	_____.	_____.
0574	SPV.0090 Special 03. Concrete Curb & Gutter Integral 18-Inch Special	663.000 LF	_____.	_____.
0576	SPV.0090 Special 04. Concrete Curb & Gutter 24-Inch Type A Special	1,950.000 LF	_____.	_____.
0578	SPV.0090 Special 05. Concrete Curb & Gutter 24-Inch Type D Special	78.000 LF	_____.	_____.
0580	SPV.0090 Special 06. Concrete Curb & Gutter 30-Inch Type A Special	2,814.000 LF	_____.	_____.

