

**HIGHWAY WORK PROPOSAL**

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

# ADDENDUM REQUIRED ATTACHED AT BACK

Proposal Number: **003**

<u>STATE ID</u>	<u>FEDERAL ID</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>	<u>COUNTY</u>
1100-20-77	N/A	IH 41 Zoo Freeway, Hampton I/C	IH 041	Milwaukee
1100-21-70	WISC 2025548	IH 41 Zoo Freeway, Silver Spring Dr to Good Hope Rd	IH 041	Milwaukee
1100-21-71	WISC 2025549	IH Zoo Freeway, Mill Rd Bridges (B-40-0348 & 0349)	IH 041	Milwaukee
2984-13-77	N/A	C Milwaukee, Florist Ave, Bridge Over IH 41 B40-0369	LOC STR	Milwaukee

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: \$790,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: July 8, 2025 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code
Contract Completion Time 333 Calendar Days	<b>SAMPLE NOT FOR BIDDING PURPOSES</b>
Assigned Disadvantaged Business Enterprise Goal 8%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date \_\_\_\_\_

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

\_\_\_\_\_  
(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:	For Department Use Only
Removals, Milling, Grading, Aggregate, Concrete Pavement, Asphalt Pavement, Structure Replacement, Structure Rehabilitation, Sign Structure, Curb and Gutter, Concrete Sidewalk, Storm Sewer, Beam Guard, Erosion Control, Permanent Signing, Traffic Control, Pavement Marking, Lighting, Traffic Signals, ITS, Retaining Wall and Restoration.	
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH  
PROPOSAL GUARANTY HERE**

## **PROPOSAL REQUIREMENTS AND CONDITIONS**

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

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

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

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

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

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

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

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

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

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

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

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

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



## BID PREPARATION

### **Preparing the Proposal Schedule of Items**

#### **A. General**

- (1) Obtain bidding proposals as specified in section 102 of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:
  1. Electronic bid on the internet.
  2. Electronic bid on a printout with accompanying diskette or CD ROM.
  3. Paper bid under a waiver of the electronic submittal requirements.
- (2) Bids submitted on a printout with accompanying diskette or CD ROM or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.
- (3) The department will provide bidding information through the department's web site at:

<https://wisconsin.gov/Pages/doing-business/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://wisconsin.gov/Pages/doing-business/contractors/hcci/bid-let.aspx>

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the department's web site listed above or by picking up the addenda at the Bureau of Highway Construction, 4th 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:
  4. Have a properly executed annual bid bond on file with the department.
  5. 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<sup>TM</sup> generated schedule of items is not the same on each page.
  2. The check code printed on the printout of the Expedite<sup>TM</sup> 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.

**B Waiver of Electronic Submittal**

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

# PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

## PRINCIPAL

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

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature and Title)

## NOTARY FOR PRINCIPAL

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

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

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

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

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

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

**Notary Seal**

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

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

## NOTARY FOR SURETY

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

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

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

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

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

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

**Notary Seal**

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

# CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

\_\_\_\_\_  
(Signature of Authorized Contractor Representative)

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

## LIST OF SUBCONTRACTORS

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

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

[illegible]

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

### Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.
4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.
7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR- 1273 - "Required Contract Provisions Federal Aid Construction Contracts," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

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

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



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## STSP'S Revised January 8, 2025

### SPECIAL PROVISIONS

#### 1. General.

Perform the work under this construction contract for:

- Project 1100-20-77, IH 41 Zoo Freeway, Hampton, I/C, IH 41, Milwaukee County
- Project 1100-21-70, Silver Spring Drive to Good Hope Road, IH 41, Milwaukee County
- Project 1100-21-71, Mill Road Bridges (B-40-0348 & 0349), IH 41
- Project 2984-13-77, C Milwaukee, Florist Ave, Bridge Over IH 41 B-40-0369, Local Street

Milwaukee 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, 2025 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 (20250108)

#### 2. Scope of Work.

The work under this contract shall consist of removals, asphaltic milling, grading, HMA pavement, base aggregate, breaker run, base patching, concrete pavement, concrete barrier, concrete sidewalk removal, concrete sidewalk, concrete curb and gutter, storm sewer, traffic control, erosion control, pavement marking, signing, lighting, bridges, retaining walls, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

##### Structures – Bridges:

B-40-213	B-40-346	B-40-214	B-40-248	B-40-249	B-40-347
B-40-350	B-40-351	B-40-365	B-40-366	B-40-369	B-40-1022
B-40-1023					

##### Structures – Retaining Walls:

R-40-714	R-40-715
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##### Structures – Signs:

S-40-3063

104-005 (20090901)

#### 3. Prosecution and Progress.

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 ten calendar days before the approved start date.

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

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

## **Schedule of Operations**

### **Project 1100-20-77**

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

Anticipated schedule:

Do not move to the next stage until all work in the current stage is completed or as approved by the engineer.

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

Anticipated schedule:

Do not move to the next stage until all work in the current stage is completed or as approved by the engineer.

Contact the WisDOT signals group in writing 7 days prior to placing any long-term closures at signalized intersections or interchanges.

Temporary signals may be in place at the IH 41 NB ramp terminals as part of the signal replacement work under ID 1100-20-71 to be completed by others. If temporary signal timing changes at either ramp terminal are needed, contact the WisDOT signal operations group at (414) 750-2605.

### **Stage 1 Construction**

This stage consists of work on Hampton Ave. EB and Hampton Ave. WB. More specifically, the work includes the following:

- Replace sections of concrete sidewalk and concrete curb and gutter.
- Adjust storm sewer inlets.
- Replace fencing.

Maintain pedestrian access on Hampton Ave. during stage 1.

### **Stage 2 Construction**

This stage consists of roadway rehabilitation on Hampton Ave. EB and Hampton Ave. WB. More specifically, the work includes the following:

- Mill existing asphalt pavement 1.75".
- Pave asphalt pavement surface.
- Final pavement markings.

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

#### **Pre-Stage 1A Construction**

This stage consists of roadway rehabilitation on IH 41 NB & IH 41 SB. More specifically, the work includes the following:

- Bridge overlays and expansion joint replacement on inside half of B-40-365, B-40-366, B-40-213, and B-40-214.
- Roadway work consists base patching inside shoulder and inside lane between structures over UPRR and Carmen Avenue.

#### **Pre-Stage 1B Construction**

This stage consists of roadway rehabilitation on IH 41 NB & IH 41 SB. More specifically, the work includes the following:

- Bridge overlays and expansion joint replacement on outside half of B-40-365, B-40-366, B-40-213, and B-40-214.

- Ramp work consists base patching, diamond grinding, beam guard replacement and pavement marking for Silver Spring/SB IH 41 exit ramp and Silver Spring/NB IH 41 entrance ramp/auxiliary lane.

### **Stage 1 Construction**

This stage consists of roadway rehabilitation on IH 41 NB & IH 41 SB. More specifically, the work includes the following:

- Roadway work consists of milling the existing asphalt, base patching inside shoulder, inside lane and outside shoulder.
- Construct two temporary crossovers: south crossover between STA 361+44 and STA 369+00; north crossover between STA 417+00 and STA 422+25
- Place temporary vane drain.
- Install or modify median drainage structures with temporary cover plates.
- Place temporary precast barrier prior to winter shutdown.
- Bridge painting at B-40-248 and B-40-249.

### **Winter Shutdown**

Winter shutdown will commence with the completion of Stage 1 in the Fall of 2025. Do not resume work until April 15, 2026 unless approved by the engineer. Provide a start date in writing at least 14 days prior to the planned recommencement of work in 2026. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

### **Stage 2A Construction**

This stage consists of work on the IH 41 NB over Mill Road Existing Structure B-40-349.

- Temporary sheet piling along interface of IH 41 NB over Mill Rd Structure B-40-349 and IH 41 SB over Mill Road Existing Structure B-40-348
- Girder delivery for IH 41 NB over Mill Road Structure B-40-1022
- Demolish IH 41 NB over Mill Road Structure B-40-349
- Construct the IH 41 NB over Mill Road Structure (B-40-1022)
- Construct portion of MSE Walls (R-40-0714 & R-40-0715)
- Construct IH 41 NB approach slabs and mill & overlay of mainline pavement
- Construct IH 41 NB outside shoulder and concrete barrier
- Place NB storm sewer laterals between STA 396+65 and STA 400+18
- Bridge overlays and expansion joint replacement at B-40-347 and B-40-351.
- Bridge painting at B-40-369.
- Widening under B-40-369.
- Ramp work consists base patching, diamond grinding and final pavement marking for Silver Spring/SB IH 41 entrance ramp, Good Hope/SB IH 41 entrance ramp, Good Hope/SB IH 41 exit ramp and Good Hope/NB IH 41 entrance ramp
- Roadway work consists of milling the existing asphalt, base patching, HMA overlay, concrete barrier, storm sewer inlets and lighting replacement on inside shoulder and inside lane and final pavement marking (outside of crossover areas).

### **Stage 2B Construction**

This stage consists of work on the IH 41 SB over Mill Road Existing Structure B-40-348 and work on the IH 41 SB over Mill Road Structure B-40-1023.

- Demolish IH 41 SB over Mill Road Structure B-40-348
- Girder delivery for IH 41 SB over Mill Road Structure B-40-1023
- Construct the IH 41 SB over Mill Road Structure (B-40-1023)



- Construct portion of MSE Walls (R-40-0714 & R-40-0715)
- Construct IH 41 SB approach slabs and mill & overlay of mainline pavement
- Construct IH 41 SB outside shoulder and concrete barrier
- Place SB storm sewer laterals between STA 396+65 and STA 400+18
- Construct Mill Road pavement and shoulders
- Roadway work consists of milling the existing asphalt, base patching, HMA overlay, concrete barrier, and beam guard replacement on outside and middle lanes final pavement marking (outside of crossover areas).
- Ramp work consists base patching, diamond grinding and final pavement marking for Good Hope/SB IH 41 entrance loop ramp
- High friction surface treatment on IH 41 SB at Florist Ave.

### **Stage 3 Construction**

This stage consists of work on the IH 41 NB and IH 41 SB inside shoulder.

- Remove temporary vane drain.
- Remove temporary crossovers.
- Construct IH 41 median pavement, median barrier and lighting
- Install or complete construction of storm sewer structures. Completion of storm sewer structures that were constructed in previous stages to reach final rim elevation is incidental to the storm sewer bid items.

### **Stage 4 Construction**

This stage consists of work on the IH 41 NB & IH 41 SB middle lane and outside shoulders and lane.

- Final pavement markings.

### **Stage 5 Construction**

This stage consists of work on the IH 41 NB & IH 41 SB inside shoulders.

- Final pavement markings.

## **Echelon Paving**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

Pave the following locations utilizing echelon paving.

Stage 1 – Temporary Crossovers

Station 361+37 to Station 366+59

Station 417+76 to Station 423+00

## **Base Patching, Mill and Overlay and Crack Repair**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

Where only night-time closures are allowed, perform the operations in the order described below:

- Complete base patching before performing Removing Asphaltic Surface Milling.
- Complete Removing Asphaltic Surface Milling and Removing Concrete Surface Partial Depth. Milling of the concrete base patches is incidental to the item Removing Asphaltic Surface Milling.
- Perform crack repair.
- Additional base patches may need to be completed after the Removing Asphaltic Surface Milling and Removing Concrete Surface Partial Depth, as identified by the engineer.

- Place the lower layer of HMA prior to opening the lane to traffic. Do not place traffic on milled surface. Additional base patching may be performed prior to the placement of the upper HMA layer as identified by the engineer.
- Place wedging for any drop-offs between the stages of operations.
- Place the upper layer of HMA.

Where daytime and night-time closures are allowed, perform the operations in the order described below:

- Complete Removing Asphaltic Surface Milling and Removing Concrete Surface Partial Depth.
- Perform base patching and crack repair.
- Place the HMA.

## **Pavement Marking Operations**

Installation of the final pavement markings shall be coordinated with the roadway construction operations, when possible. Moving pavement markings operations are allowed and shall be coordinated with the engineer in the field.

## **Lighting Equipment Installation**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

Work on lighting equipment shall be coordinated with the roadway construction operations to minimize closures and delays to the traveling public.

## **Ramp Closures**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

All entrance and exit ramps shall be posted three business days in advance of their closure with dates and time of closure.

Do not close consecutive entrance ramps or consecutive exit ramps unless it is shown in the traffic control plans or approved by the engineer.

## **Rolling Closure**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

Short term freeway mainline rolling closures may be allowed for a maximum of 15 minutes for the removal and erection of sign structures, equipment moves across the road, or other required work as determined by the engineer. The department will allow short-term rolling closures only between 2 AM and 4 AM, and they may only be performed by freeway law enforcement.

Obtain approval from the engineer before coordinating these closures with freeway law enforcement. Coordinate 14 calendar days before closure. Present the scheduled time for the short-term rolling closure at the weekly traffic meeting a minimum of one week before the closure.

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## **Portable Changeable Message Signs (PCMS)**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

Obtain acceptance from the engineer regarding the working of all messages on portable changeable message signs prior to placing the message.

## **General Work Restrictions**

### **Project 1100-20-77**

All work and operations shall be completed in accordance with WisDOT Standard Detail Drawings, the MUTCD, and as directed by the engineer. Installing construction zone signage on existing sign posts or utility poles is not permitted.

Comply with all local ordinances that apply to work operations pertaining to work during night time work hours. Furnish in writing any ordinance variance issued by the municipality or required permits to the engineer no less than three days before performing such work.

Park or store equipment and materials only at work sites approved by the engineer.

Provide the Wisconsin State Patrol, Milwaukee County Highway Maintenance, the City of Milwaukee Police Department, the City of Wauwatosa Police Department, and Milwaukee County Sheriff's Department with a 24-hour emergency contact number for when maintenance is required.

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

All work and operations shall be completed in accordance with WisDOT Standard Detail Drawings, the MUTCD, and as directed by the engineer. Installing construction zone signage on existing sign posts or utility poles is not permitted.

Comply with all local ordinances that apply to work operations pertaining to work during night time work hours. Furnish in writing any ordinance variance issued by the municipality or required permits to the engineer no less than three days before performing such work.

Park or store equipment and materials only at work sites approved by the engineer.

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

Provide the Wisconsin State Patrol, Milwaukee County Highway Maintenance, the City of Milwaukee Police Department and Milwaukee County Sheriff's Department with a 24-hour emergency contact number for when maintenance is required.

## **Contractor Coordination**

Attend weekly scheduling meetings to discuss the near-term schedule activities, address any long-term schedule issues, and discuss any relevant technical issues. Develop a rolling three-week schedule identifying the previous week worked and a two week "look ahead". Provide sufficient detail to include actual and planned activities and all the subcontractors for offsite and construction activities, addressing all activities including ramp and lane closure schedules to be performed and identifying issues requiring engineering action or input.

Provide an individual to serve as the contractor's sole point of contact for field utility coordination and communication for the duration of the project.

## **Roadway Work Restrictions**

### **Project 1100-20-77**

#### **Definitions**

The following definitions apply to this contract for local street work restrictions:

#### **Peak Hours**

6:00 AM – 9:00 PM Monday, Tuesday, Wednesday, Thursday, Friday

11:00 AM – 8:00 PM Saturday

1:00 PM – 5:00 PM Sunday

#### **Off-Peak Hours**

9:00 PM – 6:00 AM Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM

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

## **Freeway and Ramp Work Restrictions**

### **Project 1100-20-77**

#### **Definitions**

The following definitions apply to this contract for freeway work restrictions:

**System Ramps** Freeway to freeway ramps

**Service Ramps** Freeway to/from local road ramps

The following definitions apply to this contract for freeway work restrictions:

#### **Peak Hours**

5:30 AM – 7:00 PM Monday, Tuesday, Wednesday, Thursday

5:30 AM – 11:00 PM Friday

#### **Weekend Peak Hours**

8:00 AM – 7:00 PM Saturday, Sunday

#### **Weekend Off-Peak Hours**

7:00 PM – 11:00 PM Saturday

7:00 PM – 9:30 PM Sunday

#### **Weekday Off-Peak Hours**

7:00 PM – 9:30 PM Monday, Tuesday, Wednesday, Thursday

#### **Night Time Hours**

9:30 PM – 5:30 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)

11:00 PM – 8:00 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM)

#### **Service Ramp Closure Hours**

9:00 PM – 6:00 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)

10:30 PM – 8:30 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM)

#### **Full Freeway Closure/Hours**

11:00 PM – 4:30 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)

11:00 PM – 6:00 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM)

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

#### **Definitions**

The following definitions apply to this contract for freeway work restrictions:

**System Ramps** Freeway to freeway ramps

**Service Ramps** Freeway to/from local road ramps

#### **Peak Hours**

5:30 AM – 7:00 PM Monday, Tuesday, Wednesday, Thursday

5:30 AM – 11:00 PM Friday

#### **Weekend Peak Hours**

8:00 AM – 7:00 PM Saturday, Sunday

**Weekend Off-Peak Hours**

7:00 PM – 11:00 PM      Saturday

7:00 PM – 9:30 PM      Sunday

**Weekday Off-Peak Hours**

7:00 PM – 9:30 PM      Monday, Tuesday, Wednesday, Thursday

**Night Time Hours**

9:30 PM – 5:30 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)

11:00 PM – 8:00 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM)

**Service Ramp Closure Hours**

9:00 PM – 6:00 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)

10:30 PM – 8:30 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM)

**Full Freeway Closure Hours**

11:00 PM – 4:30 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)

11:00 PM – 6:00 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM)

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**Local Street Work Restrictions****Project 1100-20-77**

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

Keep sidewalks open unless otherwise shown on the plans, or to facilitate the removal of structures and erection of girders or as approved by the engineer. Maintain pedestrian access to adjacent properties, businesses, schools, and at bus stops or provide where necessary, as directed by the engineer. Protect pedestrians from falling debris at all times when sidewalks are open.

Provide adequate temporary sidewalk and bridging between the curb and right-of-way line over freshly paved concrete or other obstructions in the sidewalk area, as directed by the engineer.

Do not close residential approaches or remove from service without giving sufficient notice to the occupants of the premises to remove their vehicles prior to driveway removal or closing of the driveway approach access. If necessary, make other access arrangements, agreed to in writing and signed by the contractor and the property owner serviced by the driveway. Obtain approval from the engineer prior to alternating construction sequencing.

Existing trees, street light poles, hydrants and other utility poles are to remain in place during construction unless otherwise noted in the plan. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the trees, hydrants and poles and the paving equipment. No additional compensation will be made.

**Project 1100-21-70, 1100-21-71, 2984-13-77**

Do not close local street traffic lanes or intersections and ensure that the local street traffic lanes are entirely clear for traffic during Peak Hours, except as shown in the traffic control plans. One local street traffic lane and/or the shoulder may be closed but maintain at least one local street traffic lane open to traffic, during Off-Peak Hours. Do not close any intersections unless otherwise specified in the plan, or unless otherwise approved by the engineer for safety and operational reasons with the adjacent local street closures.

Follow plan details for closures. Lane restrictions beyond that shown on the traffic control plans must be approved by the engineer. If plan details are not provided in the traffic control plan, furnish plans for review by the engineer for approval. Once approved, allow at least five business days prior to the closure of local roadway and/or intersection as identified in Contractor Coordination.

Do not, at any time, conduct construction operations in the median area and adjacent outside shoulder area of the local street at the same time without obtaining prior permission of the engineer, beyond that shown on the traffic control plans.

Do not begin or continue any work that closes local street traffic lanes or intersection outside the allowed time periods specified in this contract. If the contractor fails to open local roadway lanes of traffic and/or intersections to traffic by the specified times, assessments shown in the article Lane Rental Assessment will be placed upon the contractor based on the hourly rental rate that the non-compliant closure occurs. The total assessment to the contractor will be the summation of the separate assessments for each local street traffic lane and local street intersection closure violation.

## **Mill Road**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

Mill Road may only be closed long-term for the duration of Stage 2A and Stage 2B, as it is shown in the plans. The closure shall not exceed 230 calendar days.

## **Interim Completion of Work**

### **Project 1100-20-77**

Complete construction operations associated with ID 1100-20-77 on Hampton Ave (CTH EE) to the stage necessary to reopen it to through traffic by November 15, 2025. Do not reopen until completing the following work: HMA milling, HMA paving, curb and gutter, concrete sidewalk, inlet adjustments, and pavement marking.

If the contractor fails to complete Stages 1 and 2 to the stage necessary to be opened to traffic by 12:01 AM November 16, 2025, the department will assess the contractor \$1,000 interim liquidated damages for each calendar day that this work remains incomplete after 12:01 AM November 16, 2025. An entire calendar day will be charged for any period of time within a calendar day that this work remains incomplete beyond 12:01 AM.

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

#### **Stage 1**

Complete construction on Stage 1 necessary for the following construction season:

- Temporary crossovers within 60 calendar days of the closure date.

If the contractor fails to complete the work on Stage 1 necessary for the following construction season within 60 calendar days of the closure date, the department will assess the contractor \$1,500 interim liquidated damages for each calendar day that the work remains incomplete. An entire calendar day will be charged for any period of time within a calendar day that the facility remains incomplete beyond 12:01 AM.

#### **Stage 2A and Stage 2B**

Complete construction on Stage 2A through Stage 2B to the stage necessary to fully reopen:

- Mill Road to traffic during all times (peak hours, off-peak hours and nighttime hours) within 230 calendar days of the closure date.

If the contractor fails to complete the work on Stage 2A through Stage 2B necessary to fully reopen Mill Road to traffic within 230 calendar days of the closure date, the department will assess the contractor \$1,500 interim liquidated damages for each calendar day that the work remains incomplete. An entire calendar day will be charged for any period of time within a calendar day that the facility remains incomplete beyond 12:01 AM.

## **Winter Maintenance**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

Milwaukee County will perform snow removal operations for freeway and ramp lanes and shoulders that are open to traffic. The City of Milwaukee will perform snow removal operations for local streets that are open to traffic. Provide for snow removal in those areas closed to traffic as required to facilitate safe construction operations and stage changes and as required to eliminate snow melt run-off from crossing active roadways. Provide Milwaukee County Highway Maintenance and Milwaukee County Sheriff's Department with a 24-hour emergency contact number for when maintenance is required.

sef-999-060 (20120330)

## **Migratory Birds**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

No evidence of swallow or other migratory bird nests have been observed on or under the following structures(s) during the preconstruction inspection. However, if nesting is later observed prior to or during construction, the contractor shall implement avoidance/deterrent measures or obtain a depredation permit. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. The nesting season for swallows and other birds is from April 15 to August 31.

Bridges:

B-40-213

B-40-214

B-40-248

B-40-249

B-40-346

B-40-347

B-40-350

B-40-351

B-40-365

B-40-366

B-40-369

B-40-348

B-40-349

## **Protection of Endangered Bats (Tree Clearing)**

Northern long-eared bats (*Myotis septentrionalis*, or NLEB) have the potential to inhabit the project limits because they roost in trees, bridges and culverts. 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).

Ensure all operators, employees, and subcontractors working in areas of known or presumed bat habitat are aware of environmental commitments and avoidance and minimization measures (AMMs) to protect both bats and their habitat.

Direct temporary lighting, if used, away from wooded areas during the bat active season April 1 to October 31, both dates inclusive.

Contractor means and methods to remove trees will not be allowed. If it is determined that trees with a 3-inch or greater diameter at breast height (dbh) need to be removed beyond contractor means and methods, notify the engineer to coordinate with the WisDOT REC to determine if consultation with United States Fish and Wildlife Service (USFWS) is required. The contractor must be aware that the WisDOT REC and/or USFWS may not permit modifications.

## **Rusty Patched Bumble Bee**

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

The project will involve ground disturbance in several areas along the existing highway, bridges, and structures. Construction ground disturbance activity will occur during the bee's active season (April 15 through October 10) to avoid the overwintering period. As mitigation for the RPBB, WisDOT will restore 0.73 acres with native wildflower seed mix (90 A) that includes milkweed to enhance habitat for both RPBB and Monarch butterfly, currently listed as a Candidate species under the Endangered Species Act (ESA).

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. Apply time of year restrictions for tree removal when bats are not likely to be present (Nov. 1 to March 31), or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

## **4. Lane Rental Fee Assessment.**

### **Project 1100-20-77**

#### **A General**

The contract designates some lane closures to perform the work. The contractor will not incur a Lane Rental Fee Assessment for closing lanes during the allowable lane closure times. The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the allowable lane closure times. If a lane is obstructed at any time due to contractor operations, it is considered a closure. The purpose of lane rental is to enforce compliance of lane restrictions and discourage unnecessary closures.

The allowable lane closure times are shown in the Traffic article.

Submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule.

Coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project. If other projects are in the vicinity of this project, coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

#### **B Lane Rental Fee Assessment**

The Lane Rental Fee Assessment incurred for each lane closure, each ramp closure, and each full closure of a roadway, per direction of travel, is as follows:

Local Road Night Time Lane/Full Closure Extending into Peak Hours

- \$2,000 per lane, per direction of travel, per hour broken into 15-minute increment.

IH 41 Service Ramp

- \$1,000 per lane, per direction of travel, per hour broken into 15-minute increments.

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

The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

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



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

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires before the completion of specified work in the contract, additional liquidated damages will be assessed as specified in standard spec 108.11 or as specified within this contract.

## **Project 1100-21-70, 1100-21-71, 2984-13-77**

### **A General**

The contract designates some lane closures to perform the work. The contractor will not incur a Lane Rental Fee Assessment for closing lanes during the allowable lane closure times. The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the allowable lane closure times. If a lane is obstructed at any time due to contractor operations, it is considered a closure. The purpose of lane rental is to enforce compliance of lane restrictions and discourage unnecessary closures.

The allowable lane closure times are shown in the Prosecution and Progress article.

Submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule.

Coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project. If other projects are in the vicinity of this project, coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

### **B Lane Rental Fee Assessment**

The Lane Rental Fee Assessment incurred for each lane closure, each ramp closure, and each full closure of a roadway, per direction of travel, is as follows:

#### **IH 41 Night-Time Lane Closure Extending into Weekday Peak Hours**

- 3 lanes to 2 lanes: \$8,000 per lane, per direction of travel, per hour broken into 15-minute increments.
- 2 lanes to 1 lane: \$15,000 per lane, per direction of travel, per hour broken into 15-minute increments.

#### **IH 41 Night-Time Lane Closure Extending into Weekend Peak Hours**

- \$6,000 per lane, per direction of travel, per hour broken into 15-minute increments.

#### **Local Road Night Time Lane/Full Closure Extending into Peak Hours**

- \$1,000 per lane, per direction of travel, per hour broken into 15-minute increment.

#### **IH 41 Service Ramp**

- \$1,000 per lane, per direction of travel, per hour broken into 15-minute increments.

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

The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

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

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

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires before the completion of specified work in the contract, additional liquidated damages will be assessed as specified in standard spec 108.11 or as specified within this contract.

stp-108-070 (20161130)

## 5. Traffic.

### 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>
Shoulder Closures	3 calendar days
Lane 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.

### Project 1100-20-77

Supplement standard spec 643.3.1 with the following:

Provide the Milwaukee County Sheriff's Department, the Wisconsin State Patrol, Milwaukee Police Department, Wauwatosa Police Department, and the project engineer a current telephone number with which the contractor or his representative can be contacted during non-working hours in the event a safety hazard develops.

Yield to all through traffic at all locations. Equip all vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders, except when parked behind barrier wall. Do not park personal vehicles within the access control limits of the freeway. Do not cross live traffic lanes of IH 41 with equipment or vehicles.

Obtain prior approval from the engineer for the locations of egress or ingress for construction vehicles to prosecute the work.

Provide minimum 24 hour advance notification to the engineer for any LCS cancellations (not related to weather).

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

SER-643-001 (20230214)

### **Pedestrian Access**

Maintain existing pedestrian accommodations including the sections of roadway closed to through traffic at all times during construction as provided in the plans and approved by the engineer. Stage the

construction to divert pedestrians around the construction work activities which may require sidewalk on one side of the roadway to remain open. If sidewalks on either side of the road cannot be maintained, guide pedestrians around the work zone using a detour. Limit work at intersections to maintain at least one crossing in each direction. Maintain an ADA compliant surface for pedestrian accommodations at all times.

### **Schedule of Operations**

Traffic shifts shown in a given stage may occur at different times during that stage depending on the controlling elements for a given traffic movement as approved by the engineer. The department anticipates that the schedule of major traffic shifts and roadway openings and closings for each stage shall be as follows, unless approved by the engineer:

#### **Stage 1 Traffic**

- Close lane 2 and outside shoulder of Hampton Ave EB and Hampton Ave WB
- Stagger sidewalk closures to maintain pedestrian access across IH 41 at all times

#### **Stage 2 Traffic**

- Close Hampton Ave during off-peak hours.

### **Project 1100-21-70, 1100-21-71, 2984-13-77**

#### **General**

Keep IH 41 and all service ramps open to through traffic at all times for the duration of this project except as noted below and in the Prosecution and Progress article in these special provisions.

#### **Residential and Business Property Access**

Maintain access to properties along Mill Road and all adjacent side streets, and any other local road affected by construction for local residents, businesses, and emergency vehicles. Maintain and keep open the access to all driveways and parking lots where alternative access is not available at all times by closing one driveway at a time.

#### **Railroad**

Except for railroad crossing DOT # 178868U where STSP 107-034 applies: Do not place any items within 50-feet of the railroad right-of-way, including items that could foul the same area. Including but not limited to signing, equipment, or material. This includes at-grade crossings and structures with RR under or over. If this is not adhered to Railroad Protective Liability Insurance will be required of the contractor and incidental to the project.

### **Schedule of Operations**

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

Anticipated schedule:

Do not move to the next stage until all work in the current stage is completed or as approved by the engineer.

#### **Pre-Stage 1A Traffic**

- Shift IH 41 NB and SB traffic to the outside of IH 41 SB for construction between Carmen Avenue and Florist Avenue.
- Ramp closures include Silver Spring/IH 41 SB Exit Ramp and Silver Spring/IH 41 NB Entrance Ramp.

#### **Pre-Stage 1B Traffic**

- Shift IH 41 NB and SB traffic to the outside of IH 41 SB for construction between Carmen Avenue and Florist Avenue.
- Ramp closures include Silver Spring/IH 41 SB Exit Ramp and Silver Spring/IH 41 NB Entrance Ramp.

### **Stage 1 Traffic**

- Close lane 1 and median shoulder of IH 41 NB and IH 41 SB.
- Close lane 2 during overnight hours. Shift traffic to lane 3.
- Close lane 3 and outside shoulder. Shift traffic to lane 2.
- No ramp closures.

### **Winter Shutdown**

- Traffic will follow the existing lane configuration prior to construction.

### **Stage 2A Traffic**

- Close lane 1 and median shoulder of IH 41 NB and IH 41 SB.
- Close lane 2 during overnight hours. Shift traffic to lane 3.
- Maintain two lanes IH 41 NB and two lanes IH 41 SB on Existing Structure: B-40-348
- Shift IH 41 NB traffic to crossover to inside of IH 41 SB between Carmen Avenue and Florist Avenue, and STH 175 and Good Hope Road.
- Shift IH 41 SB traffic to outside between Appleton Avenue (STH 175) interchange and Good Hope Road, Carmen Avenue and Florist Avenue.
- Close Mill Road
- Ramp closures (night-time only) include Silver Spring/IH 41 SB Entrance Ramp, Good Hope/IH 41 SB Entrance Ramp, Good Hope/IH 41 NB Entrance Ramp, Good Hope/IH 41 SB Exit Ramp.
- Prior to construction along Good Hope Road, install temporary traffic signal at the intersection of IH 41 SB Off Ramp/115th St and Good Hope Rd. Temporary traffic signal shall be operational throughout Stage 2A. Refer to Temporary Traffic Signal Plans for further instruction.
- Shift Good Hope Road EB and WB traffic to inside lanes during overnight hours.

### **Stage 2B Traffic**

- Maintain two lanes IH 41 NB and two lanes IH 41 SB on New Structure: B-40-1022
- Shift IH 41 SB traffic to crossover to inside of IH 41 NB between STH 175 and Good Hope Road.
- Shift IH 41 NB traffic to outside between Carmen Avenue and Florist Avenue.
- Close Mill Road
- Ramp closures (night-time only) include Silver Spring/IH 41 NB Entrance Ramp, Silver Spring/IH 41 NB Exit Ramp, Good Hope/IH 41 SB Entrance Loop Ramp
- Shift Good Hope Road EB and WB traffic to outside lanes during overnight hours.
- At the conclusion of Stage 2B, the permanent traffic signal at the intersection of IH 41 SB Off Ramp/115th St and Good Hope Rd shall be operational. Refer to Traffic Signal Plans for further instruction.

### **Stage 3 Traffic**

- Maintain two lanes IH 41 NB and two lanes IH 41 SB on New Structure: B-40-1022
- Close lane 1 and median shoulder of IH 41 NB and IH 41 SB.
- Close lane 2 during overnight hours.
- No ramp closures.

### **Stage 4 Traffic**

- Close lanes 2 and 3 and outside shoulder. Shift traffic to lane 1 and median shoulder.
- Close lane 1 during overnight hours. Shift traffic to median shoulder.
- No ramp closures.

## **Stage 5 Traffic**

- Close lane 1 and median shoulder.

### **Detours**

Provide signed detour routes, as shown in the plans that are fully open and free of construction. If the signs are installed prior to the beginning of construction, they shall be covered until the work begins. The following detours are needed for this project:

IH 41 SB Exit Ramp to Silver Spring Drive – Pre-Stage 1A & 1B: This detour shall be established to guide traffic to Silver Spring Drive when the IH 41 SB Exit Ramp to Silver Spring Drive is closed. Traffic travelling southbound along IH 41 will exit on the IH 41 SB Exit Ramp to Hampton Avenue, turn left onto Hampton Avenue and turn left onto STH 100. The detour ends at the intersection of STH 100 and Silver Spring Drive. Alternately, traffic travelling southbound along IH 41 or southbound along STH 175, will continue southbound on STH 175 and turn right on Silver Spring Drive. The detour ends at the intersection of STH 175 and Silver Spring Drive

Mill Road Through Movement – Stage 2A/2B: This detour shall be established to guide Mill Road traffic when the IH-41 NB & SB over Mill Road is closed at the Appleton Avenue (STH 175) interchange for bridge reconstruction. Traffic travelling westbound and eastbound along Mill Road will travel north on Pilgrim Road/CTH YY and 91<sup>st</sup> Street to Good Hope Road.

IH 41 NB Exit Ramp to Appleton Avenue (STH 175) NB – Stage 2A: This detour shall be established to guide traffic to STH 175 NB when the IH 41 NB Exit Ramp to Appleton Avenue (STH 175) NB is closed. Traffic travelling northbound along IH 41 will exit on the IH 41 NB at Good Hope Road Exit Ramp, turn left onto Good Hope Road and turn right onto Appleton Avenue (STH 175) NB. The detour ends at the intersection of Good Hope Road and Appleton Avenue (STH 175).

STH 175 SB Through Movement – Stage 2B: This detour shall be established to guide traffic to STH 175 SB when the Appleton Avenue (STH 175) SB through movement is closed at the Appleton Avenue (STH 175) interchange. Traffic travelling southbound along Appleton Avenue (STH 175) will exit on the IH 41 SB Entrance Ramp, exit on the IH 41 SB at Silver Spring Drive Exit Ramp, turn left onto Silver Spring Drive, exit on the Silver Spring Drive at Appleton Avenue (STH 175) SB Exit Ramp and turn right onto Appleton Avenue (STH 175) SB. The detour ends at the Appleton Avenue (STH 175) & Silver Spring Drive interchange.

IH 41 SB Exit Ramp to Appleton Avenue (STH 175) SB – Stage 2B: This detour shall be established to guide traffic to STH 175 SB when the IH 41 SB Exit Ramp to Appleton Avenue (STH 175) SB is closed. Traffic travelling southbound along IH 41 will exit on the IH 41 SB at Silver Spring Drive Exit Ramp, turn left onto Silver Spring Drive, exit on the Silver Spring Drive at Appleton Avenue (STH 175) SB Exit Ramp and turn right onto Appleton Avenue (STH 175) SB. The detour ends at the Appleton Avenue (STH 175) & Silver Spring Drive interchange.

## **6. 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 IH 41 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:

- From noon Friday, August 29, 2025 to 6:00 AM Tuesday, September 2, 2025 for Labor Day
- From noon Friday, May 22, 2026 to 6:00 AM Tuesday, May 26, 2026 for Memorial Day;
- From noon Friday, July 3, 2026 to 6:00 AM Monday, July 6, 2026 for Independence Day;
- From noon Friday, September 4, 2026 to 6:00 AM Tuesday, September 8, 2026 for Labor Day
- From noon Wednesday, November 25, 2026 to 6:00 AM Monday, November 30, 2026 for Thanksgiving Day.

stp-107-005 (20210113)

### **Freeway Special Event Restrictions**

During Summerfest, schedule to be determined, keep open the following roadways until one hour after the event closes each night:

- Two open lanes on northbound IH 41.
- One open lane on southbound IH 41.

During Wisconsin State Fair, scheduled for August 6 through August 16, 2026, keep open the following roadways until one hour after the event closes each night:

- Two open lanes on northbound IH 41.
- One open lane on southbound IH 41.

On days with a Milwaukee Brewer home game at American Family Field, maintain two open lanes on northbound IH 41 until four hours after the event begins. IH 41 restrictions during other special events at American Family Field will be determined on an as needed basis as determined by the engineer.

Special event work restrictions do not apply to roadways or ramps already closed long term during construction as shown on the plans. New long-term closures of ramps and roadways must be coordinated with the special event work restrictions.

These restrictions also apply to hauling of materials and equipment.

## **7. Utilities.**

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

The utility work plan includes additional detailed information regarding the location of known discontinued, relocated, or removed utility facilities. These can be requested from the department during the bid preparation process, or from the project engineer after the contract has been awarded and executed. Any utility facility locations (Stations, offsets, elevations, depths) listed in this article are approximate.

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 notices of when the utility is to start work at this site. Provide this notice 14 to 16 calendar days in advance of when the prior work will be completed, and the site will be available to the utility owner or as noted below. Follow up with a confirmation notice to the engineer and the utility owner not less than three working days before the site will be ready for the utility owner to begin its work.

### **ID 1100-20-77**

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

**AT&T WI - Communication Line**

**City of Milwaukee – Sewer**

**City of Milwaukee – Water**

**Spectrum – Communication Line**

**Sprint – Communication Line**

**Verizon Business – Communication Line**

**We Energies – Electricity**

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

We Energies Electric Dispatch #1-800-662-4797

**WE Energies - Gas**

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

We Energies Gas Dispatch #1-800-261-5325

**ID 1100-21-70**

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

AT&T Local Network – Communications  
AT&T Wisconsin – Communications  
ATC Management – Electricity Transmission  
City of Milwaukee – Sewer  
City of Milwaukee – Water  
Everstream - Communications  
Level 3 – Communications  
Midwest Fiber Networks – Communications  
Spectrum (Charter) – Communications  
Sprint – Communications  
Verizon – Communications  
WE Energies – Electric  
WE Energies – Gas  
WIN – Communications

**ID 1100-21-71**

The following utility companies have facilities within the project area that need adjustments:

**Midwest Fiber Network – Communication Line** has facilities within the project limits. MWFN will relocate the fiber line on the north side of Mill Rd. from Station 32+00 to Station 26+00 (and beyond) that is currently in conflict with retaining wall R 40-715 prior to construction. The line will be moved to 30 feet north of centerline with final grade elevations between 760-765 leaving 4-5' of cover. Existing duct will be abandoned in place.

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

AT&T Wisconsin - Communication Line  
City of Milwaukee - Sewer  
City of Milwaukee - Water  
We Energies - Electric  
We Energies - Gas

**Wisconsin Independent Network – Communication Line** has an underground communication line in the WisDOT communication duct that runs along US-41.

**ID 2984-13-77**

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

ATR Pull Boxes– Electric  
City of Milwaukee – Sewer  
City of Milwaukee – Street Lighting  
City of Milwaukee – Water  
Midwest Fiber Networks – Communications  
Sprint – Communications

**WisDOT – Communications**

**WisDOT – Street Lighting**

**WE Energies – Electric**

**WE Energies – Gas**

## **8. Other Contracts.**

Coordinate your work in accordance to standard spec 105.5.

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

The following projects may be under construction concurrently with the work under this contract.

Coordinate activities, detours, work zone traffic control, roadway and lane closures, and other work items as required with other contracts.

- Project 1100-20-70, 1100-20-71

IH-41, Burleigh St to Silver Spring Drive

WisDOT Contact: Clayton Smith, (262) 548-6428

[Clayton.Smith@dot.wi.gov](mailto:Clayton.Smith@dot.wi.gov)

- Project 1100-20-77

B-40-360 deck seal and northbound ramp terminal signal improvements to be completed by others. Coordinate with the department construction project manager for scheduling.

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

## **9. Railroad Insurance and Coordination - Union Pacific Railroad Company.**

### **Project 1100-20-77**

#### **A. Description**

Comply with standard spec 107.17 for all work affecting Union Pacific Railroad Company property and any existing tracks.

#### **A.1 Railroad Insurance Requirements**

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3 Insurance is filed in the name of Union Pacific Railroad Company.

Notify evidence of the required coverage, and duration to David C. LaPlante, Director -Real Estate-Special and Public Projects, 1400 Douglas St. STOP 1690, Omaha, NE 68179; Telephone: (402) 544-8563; E-mail: [dclaplante@up.com](mailto:dclaplante@up.com).

Also send a copy to the following: Jason Kazmierski, SE Region Railroad Coordinator, 141 N. Barstow Street, Waukesha, WI 53188; Telephone (262)548-6700; E-mail [jason.kazmierski@dot.wi.gov](mailto:jason.kazmierski@dot.wi.gov)

Include the following information on the insurance document:

- Project ID: 1100-20-77
- Project Location: Milwaukee, Wisconsin
- Route Name: CTH EE / West Hampton Ave, Milwaukee County
- Crossing ID: 177276F
- Railroad Subdivision: Milwaukee Sub
- Railroad Milepost: MP 95.42
- Work Performed on or within 50' of RR ROW: Traffic control.



## **A.2 Train Operation**

Approximately 18 through freight trains operate daily at up to 30 mph. There are regular switching movements at this location.

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

### **Construction Contact**

Chris T. Keckeisen, Manager Special Projects - Industry & Public Projects Engineering Department; 1400 Douglas, MS 0910, Omaha, NE, 68179; Telephone (402) 5445131; E-mail [ctkecke@up.com](mailto:ctkecke@up.com) for consultation on railroad requirements during construction.

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

### **Flagging Contact**

See Construction Contact. If more than 30 days of flagging is required contact UP 40 days prior to needing a flagger on site. Reference the Wisconsin Milepost and Subdivision located in A.1.

### **Cable Locate Contact**

In addition to contacting Diggers Hotline, contact the UP Call Before You Dig line at (800) 336-9193 at least five working days before the locate is needed. Normal business hours are 6:30 AM to 6:30 PM, Central Time, Monday through Friday, except holidays and are subject to change. Calls will be routed at all times in case of an emergency. Reference the Wisconsin Milepost and Subdivision located in A.1.

UP will only locate railroad owned cable buried 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.

## **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.

## **Project 1100-21-70, 1100-21-71, 2984-13-77**

### **A. Description**

Comply with standard spec 107.17 for all work affecting Union Pacific Railroad Company property and any existing tracks.

### **A.1 Railroad Insurance Requirements**

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of Union Pacific Railroad Company.

Notify evidence of the required coverage, and duration to David C. LaPlante, Director -Real Estate-Special and Public Projects, 1400 Douglas St. STOP 1690, Omaha, NE 68179; Telephone: (402) 544-8563; E-mail: [dclaplane@up.com](mailto:dclaplane@up.com) .

Also send a copy to the following: Jason Kazmierski, SE Region Railroad Coordinator, 141 N. Barstow Street, Waukesha, WI 53188; Telephone (262)548-6700; E-mail [jason.kazmierski@dot.wi.gov](mailto:jason.kazmierski@dot.wi.gov)

Include the following information on the insurance document:

- Project ID: 1100-21-70, 1100-21-71, 2984-13-77
- Project Location: Milwaukee, Wisconsin
- Route Name: I41 / WI45
- Crossing ID: 178868U
- Railroad Subdivision: Milwaukee Sub
- Railroad Milepost: 96.71
- Work Performed on or within 50' of RR ROW: PPC overlay, approach slab, expansion joint & bearing replacement, girder painting, traffic control.

## **A.2 Train Operation**

Approximately 12 through freight trains operate daily at up to 20 mph. Additionally, there are switching movements at this location.

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

### **Construction Contact**

Chris T. Keckeisen, Manager Special Projects - Industry & Public Projects Engineering Department; 1400 Douglas, MS 0910, Omaha, NE, 68179; Telephone (402) 5445131; E-mail [ctkecke@up.com](mailto:ctkecke@up.com) for consultation on railroad requirements during construction.

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

### **Flagging Contact**

See Construction Contact. If more than 30 days of flagging is required contact UP 40 days prior to needing a flagger on site. Reference the Wisconsin Milepost and Subdivision located in A.1.

### **Cable Locate Contact**

In addition to contacting Diggers Hotline, contact the UP Call Before You Dig line at (800) 336-9193 at least five working days before the locate is needed. Normal business hours are 6:30 AM to 6:30 PM, Central Time, Monday through Friday, except holidays and are subject to change. Calls will be routed at all times in case of an emergency. Reference the Wisconsin Milepost and Subdivision located in A.1.

UP will only locate railroad owned cable buried 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.

## **A.6 Temporary Clearances During Construction**

*Replace standard spec 107.17.1(3) items 4.1 and 4.2 with the following:*

- 4.1 Provide 15 feet 0 inches plus 1.5 inches per degree of track curvature, measured horizontally from the track center line.
- 4.2 Provide 21 feet 6 inch measured vertically above the top of the highest rail.

## **A.7 Contractor Right of Entry**

The contractor will be required to obtain a Right of Entry from Union Pacific Railroad prior to working on railroad right of way. Contact the person in A.1 Railroad Insurance Requirements at least 45 days prior to start of work. The Right of Entry will be issued at no cost to the contractor. If the contractor pays for the Right of Entry, it will not be reimbursed by the project. The Project ID will serve as the ROE permit number unless otherwise stated. The contractor will be required to fill out the attached Maintenance Consent Letter (MCL). Reference A.1 Railroad Insurance Requirements for railroad protective liability insurance requirements. The required insurance is modified per the attached Maintenance Consent Letter (MCL).

## **B Railroad Flagging**

Arrange with the railroad for the flagging of trains and safety of railroad operations if clearances specified in subsection 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 - Union Pacific**

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

- \$1,150 daily rate for an eight-hour day (including wages, labor surcharges, lodging, vehicle and mileage expenses),
- \$1,500 "Rest Time" or nightly rate for weekday overnight work for an eight-hour day (including wages, labor surcharges, lodging, vehicle and mileage expenses)
- \$1,260 daily rate for an eight-hour day on Saturdays, Sundays, or holidays (including wages, labor surcharges, lodging, vehicle and mileage expenses)
- \$1,500 "Rest Time" or nightly rate for weekend overnight work for an eight-hour day (including wages, labor surcharges, lodging, vehicle and mileage expenses)

- \$175 per hour overtime rate for all time worked before or after the regular assigned eight hours on any day, or for a minimum three hour call on Saturdays, Sundays, or Holidays.

The railroad or its third-party flagging contractor [www.up.com/flagging](http://www.up.com/flagging) will require pre-payment and a minimum 30-day notice. The flagger is required to set flags each day in advance of the contractor commencing work that will require flagging. The flagger must also remove the flags each day after the completion of work that required flagging. Any time worked before or after the minimum eight-hour flagging day to set or remove flags will be billed at the overtime rate. The contractor is responsible for knowing the requirements of the railroad for arranging and terminating flagging services and for the associated costs of those services.

### **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.

### **D Rail Security Awareness and Contractor Orientation**

Prior to entry on railroad right-of-way, the contractor shall arrange for on-line security awareness and contractor orientation training and testing and be registered through "e-RAILSAFE" for all contractor and subcontractor employees working on railroad right-of-way. See [e-railsafe.com](http://e-railsafe.com) "Information". The security awareness and contractor orientation training are shown under the railroad's name.

The security awareness and contractor orientation certification is valid for 2 year(s) and must be renewed for projects that will carry over beyond the 2 year period. Contractor and subcontractor employees shall wear the identification badge issued by e-RAILSAFE when on railroad right-of-way. Costs associated with training and registration are incidental to other items in the contract.

stp-107-034 (20250108)



**BUILDING AMERICA®**

**REMS Project:** 557586  
**Agency Project:** 1100-21-70  
**Start Date:** 1/15/2025  
**End Date:** 1/15/2027

## Maintenance Consent Letter

Jason Kazmierski  
Wisconsin Department of Transportation  
141 NW Barstow Street  
Waukesha, WI 53188

It is the intention of the WISCONSIN DEPARTMENT OF TRANSPORTATION (**Agency**) to perform the scope of work at the location(s) identified in Exhibit A (**Work**) of the Contractor Endorsement (**Endorsement**). This letter serves as acceptance by UNION PACIFIC RAILROAD COMPANY (**Railroad**) of the proposed Work to be performed.

If a contractor is to perform any Work on Railroad's property, the Agency shall require its contractor to execute and return the attached Endorsement. Under no circumstances will Agency's contractor be allowed on Railroad's property until the executed Endorsement has been received.

This Consent Letter shall be valid for two (2) years or until the Work is completed or this Consent Letter is revoked by the Railroad.

Prior to performing the Work, the contractor agrees to provide forty-five (45) days advance notice to the Railroad Representative identified below.

**Lars Leemkuil (715) 410-5927 – [lleemkuil@olsson.com](mailto:lleemkuil@olsson.com)**

DocuSigned by:  
*Erik Lewis*  
Erik S. Lewis  
B2EE06D9B27B4E0...

Manager I 1/20/2025

Engineering-Public Projects

REMS Project: 557586  
Agency Project: 1100-21-70  
Consent End Date: 1/15/2027

## Contractor Endorsement

A. It is the intention of the WISCONSIN DEPARTMENT OF TRANSPORTATION (**Agency**) to perform the scope of work at the location(s) identified in Exhibit A (**Work**) of this Contractor Endorsement (**Endorsement**). As a condition to entering upon UNION PACIFIC RAILROAD COMPANY (**Railroad**) property to perform the Work, contractor acknowledges and agrees to comply with the following conditions.

- Completion of Union Pacific Property Access Training (UP-PAT).  
[www.up.com/up-pat](http://www.up.com/up-pat)
- Compliance with Contractor Endorsement-General Terms and Provisions.  
[www.up.com/ce-terms](http://www.up.com/ce-terms)
- Acknowledgement of Third-party Flagging Policy.  
[www.up.com/flagging](http://www.up.com/flagging)
- Acknowledgement that insurance documentation will be provided to Railroad upon request.

B. Fiber optics and telecommunication facilities can be present on Railroad property. Prior to performing work with the potential to impact Railroad facilities, the Agency or its contractor shall follow the procedures outlined on the Railroad webpage link below.

**Fiber Optics & Telecommunications (Call Before You Dig)** - [www.up.com/CBUD](http://www.up.com/CBUD)

C. Prior to performing the Work, contractor agrees to provide forty-five (45) days advance notice to the Railroad Representative identified below.

Lars Leemkuil (715) 410-5927 – [lleemkuil@olsson.com](mailto:lleemkuil@olsson.com)

D. This Endorsement must be executed and sent to the Railroad before the **Consent End Date** above. The terms of this Endorsement shall commence on the date of execution and continue for two (2) year or until such time as contractor has completed the Work. The Work may be terminated within 24 hours' notice by either party. No work may proceed until the terms of this Endorsement have been met. Email a scanned copy of the executed Endorsement to [upmaintenance@olsson.com](mailto:upmaintenance@olsson.com).

Company Name			
Contact Name			
Address			
City, ST Zip			
Phone	Email		
Contact Signature	Date		

REMS Project: 557586  
Agency Project: 1100-21-70  
Consent End Date: 1/15/2027

## Exhibit A to Contractor Endorsement

### Project Scope and Location(s)

#### Scope of Work

Perform PPC overlay, approach slab repair, girder painting, expansion joint, bearing replacement, full depth patching, and traffic control.

#### Location

Milwaukee Subdivision

DOT	Milepost	Street Name
178868U	96.71	I-41 / WI 45

## 10. Hauling Restrictions.

*Replace standard spec 107.2 with the following:*

- (1) Present to the department, five business days before proposed hauling, a proposed haul route plan detailing haul routes that are not part of the state trunk highway system. Include the months, days of the week, time of day, number of trucks, types of trucks and maximum loads of trucks anticipated to accomplish the project work in the haul route submittal.
- (2) The department will review the submittal and either approve or provide a letter with comments and proposed revisions to the contractor within five business days of its receipt. If approved, the department will subsequently survey the existing condition of that haul route to establish a baseline for assessing damage that the contractor's hauling operations might cause.
- (3) At all times, conduct operations in a manner that will cause a minimum of disruption to traffic on existing roadways.

sef-107-015 (20170310)

## 11. Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.

The department has obtained an individual Section 404 Permit from the U.S. Army Corps of Engineers. Comply with the requirements of the permit in addition to requirements of the special provisions.

A copy of the permit is available from the regional office by contacting Brenda Ruenger at (262) 548-6709.

If the contractor requires work outside the proposed slope intercepts, based on their method of operation to construct the project, it is the contractor's responsibility to determine whether a U.S. Army Corps of Engineers Section 404 permit modification is required. If a Section 404 permit modification is necessary, obtain the permit modification prior to beginning construction operations requiring the permit. No time extensions as discussed in standard spec 108.10 will be granted for the time required to apply for and obtain the permit modification. The contractor must be aware that the U.S. Army Corps of Engineers may not grant the permit modification request.

stp-107-054 (20230629)

## 12. Information to Bidders, WPDES Transportation Construction General Permit (TCGP) for Storm Water Discharges.

The calculated land disturbance for the project site is 1.3 acres.

The department has obtained permit coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities under this contract. Conform to all permit requirements for the project.

This permit is the Wisconsin Pollutant Discharge Elimination System, Transportation Construction General Permit, (WPDES Permit No. WI-S066796-2). The permit can be found at:

<https://widnr.widen.net/s/s5mwp2gd7s/finalsignedwisdotcsgp>

A "Certificate of Permit Coverage" is available from the regional office by contacting Clayton Smith at (262)548-6428. Post the "Certificate of Permit Coverage" in a conspicuous place at the construction site.

Permit coverage for additional land disturbing construction activities related to contractor means and methods will be considered as part of the ECIP review and approval process. Coverage under the TCGP for additional land disturbance areas will be considered if the areas meet all of the following:

- Must meet the permit's applicability criteria.
- Must be for the exclusive use of a WisDOT project.
- Land disturbance first commences after the ECIP approval, and the areas are fully restored to meet the final stabilization criteria of the permit upon completion of the work.



The contractor is responsible for obtaining any permits for areas that are not approved by the department for coverage under the TCGP.

stp-107-056 (20250108)

### 13. Erosion Control

*Add the following to standard spec 107.20 as paragraphs nine through fifteen:*

- (9) Erosion control best management practices (BMP's) the plans show are at suggested locations. The actual locations shall be determined by the contractor's ECIP and by the engineer. Include each dewatering (mechanical pumping) operation in the ECIP submittal. The ECIP shall supplement information the plans show and not reproduce it. The ECIP shall identify how to implement the project's erosion control plan. ECIP shall demonstrate timely and diligently staged operations, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-application of topsoil to minimize the exposure to possible erosion.
- (10) Provide the ECIP 14 days before the pre-construction conference. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaison (*Ryan Pappas, (414) 750-7495, [Ryan.Pappas@Wisconsin.gov](mailto:Ryan.Pappas@Wisconsin.gov)*). Do not implement the ECIP until department approval and perform all work conforming to the approved ECIP.
- (11) Maintain Erosion Control BMP's until permanent vegetation is established or until the engineer determines that the BMP is no longer required.
- (12) Stockpile excess materials or spoils on upland areas away from wetlands, floodplains, and waterways. Install perimeter silt fence protection around stockpiles within a timeframe acceptable to the engineer. If stockpiled materials will be left for more than 14 days, install temporary seed and mulch or other temporary erosion control measures the engineer orders.
- (13) Do not allow excavation for; structures, utilities, grading, maintaining drainage that requires dewatering (mechanical pumping) of water containing sediments (sand, silt, and clay particles) to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Before each dewatering operation, submit to the department a separate ECIP amendment describing in words and pictorial format an appropriate BMP for sediment removal, conforming to WisDNR Storm Water Construction Technical Standard, Code 1061, Dewatering. Include reasoning, location, and schedule duration proposed for each operation. Per Code 1061, include all selection criteria: site assessment, dewatering practice selection, calculations, plans, specifications, operations, maintenance, and location of proposed treated water discharge. Provide a stabilized discharge area. If directing discharge towards or into an inlet structure, provide additional inlet protection for back-up protection.

sef-107-010 (20180104)

The contractor should restrict the removal of vegetative cover and exposure of bare ground to the minimum amounts necessary to complete construction. Restoration of disturbed soils should take place as soon as conditions permit. If sufficient vegetative cover will not be achieved because of late season construction, the site must be properly winterized. A plan for 'over-wintering' the project or a specific project area should be compiled and submitted to the project staff and WDNR for review in an amendment to the ECIP.

All temporary stockpiles must be in an upland location and protected with erosion control measures (e.g., silt fence, rock filter-bag berm, etc.). Proposed stockpile locations should be included in the ECIP. Do not stockpile fill or other construction materials in or adjacent to wetlands, waterways or floodplain.

The DOT Select Site process must be adhered to for clean fill or any other material that leaves the work site. The project staff and the WDNR liaison will review all proposed select sites and a site visit may be required. Filling of wetlands, waterways or floodplain is not allowed under the select site process, unless the site owner has proof of required local/state/federal permits. No new impermeable surfaces can be left at a select site (including gravel roads or pads), unless the site owner attains required permits. Contaminated materials leaving the site need to adhere to the Hazardous Material Management Plan.

Construction materials and debris, including fuels, oil, and other liquid substances, will not be stored in the construction area in a manner that would allow them to enter a wetland or waterbody as a result of spillage, natural runoff, or flooding. If a spill of any potential pollutant should occur, it is the responsibility of the permittee to remove such material, to minimize any contamination resulting from this spill, and to immediately notify the State Duty Officer at 1 (800) 943-0003.

Construction of structure over navigable waterways shall be completed as quickly as possible in order to minimize disruption. Construction shall minimize the removal of shoreline vegetation below the ordinary high water mark (OHWM), unless otherwise directed by the WDNR Transportation Liaison. Construction equipment should not operate on the bed of the stream or below the OHWM, except for that which is necessary for the placement of the structure. The contractor must provide a means of separating the live flow channel of the waterway from disturbed areas (cofferdam, turbidity barrier, etc.). Any plan for diverting the flow of a navigable waterway (listed under Fish Spawning provision) needs to be submitted, reviewed and approved by the project staff and the WDNR liaison.

When performing concrete or asphalt sawcutting operations, the slurry shall be squeegeed off to the shoulder gravel or shoveled into the gravel behind curbs and not allowed into storm sewers, ditches, waterways or wetlands.

## **14. Notice to Contractor – Milwaukee County Transit System.**

### **Project 1100-20-77**

The Milwaukee County Transit System (MCTS) operates the following bus routes within and/or directly adjacent to the construction limits: route 11 (Hampton Avenue) and route 28 (108<sup>th</sup> Street).

#### **Impacts to MCTS Routing**

Invite MCTS to all coordination meetings between the contractor, the department, local officials and business stakeholders to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Notify MCTS at least ten (10) business days prior to beginning project work to provide advance notice of potential service impacts.

#### **Impacts to MCTS Signs and Posts**

Notify MCTS of work impacting MCTS signs and posts in advance five (5) or more business days. MCTS signs include “Bus Stop” and turn disc signs. MCTS signs are mounted on MCTS posts; and on assets owned by others including streetlights, traffic regulators, crosswalk and street signposts. MCTS shall be responsible for MCTS sign and post removal and installation, with the contractor granting access to MCTS personnel to perform such work. Signs stating “No Parking Bus Stop” are the under the ownership and responsibility of City of Milwaukee.

#### **Impacts to Bus Shelters**

Contractor work may require bus shelter(s) to be temporarily removed. MCTS will be responsible for the removal and reinstallation of bus shelters, with the contractor granting access to MCTS personnel for the purposes of reinstallation before new pavement opens to vehicular traffic. Notify MCTS in advance ten (10) business days for each site-specific bus shelter location.

#### **Non-detour Service Suspension at MCTS Bus Stops and Temporary Bus Stops**

Occasions may arise when work requires neither a detour nor the physical alteration of MCTS bus stop assets, but (for passenger safety) those occasions involved require MCTS to temporarily suspend service at a bus stop location. Notify MCTS in advance five (5) business days of the site-specific occasion, and MCTS will sign appropriately to instruct passengers to board at a temporary bus stop. Notify MCTS upon completion of work. MCTS will resume service to any suspended bus stop locations when it is safe to do so.

#### **Temporary Bus Stops**

MCTS will designate temporary bus stop boarding locations using MCTS temporary signs. Temporary bus stops will be in existing right-of-way at ADA-accessible locations outside the project’s construction zone. MCTS is not requesting this project to provide temporary boarding pads.

#### **MCTS contacts:**

Dan Adams (primarily construction planning & design)  
Milwaukee County Transit System  
1942 N. 17th St.  
(414) 937-3273  
[dadams@mcts.org](mailto:dadams@mcts.org)

Armond Sensabaugh (primarily staging & detours)  
Milwaukee County Transit System  
1942 N. 17th St.  
Milwaukee, WI 53205  
Phone: (414) 343-1728  
[asensabaugh@mcts.org](mailto:asensabaugh@mcts.org)

David Locher  
Milwaukee County Transit System  
1942 N. 17th St.  
Milwaukee, WI 53205  
Phone: (414) 343-1727  
[dlocher@mcts.org](mailto:dlocher@mcts.org)

## **15. Notice to Contractor – Airport Operating Restrictions.**

Fill out the FAA Notice Criteria tool for all permanent structure (bridge, light pole, etc.) or equipment (crane, etc.) used during construction.

<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>

If required by the Notice Criteria tool, and for all crane or construction equipment higher than 200 feet above the ground, submit completed form 7460-1 (Notice of Proposed Construction or Alteration) to The Federal Aviation Administration (FAA) at least 45 days before starting construction.

Contact Levi Eastlick (608-267-5018), WisBOA airspace/tall structure manager for assistance submitting forms.

## **16. Notice to Contractor – Contamination Beyond Construction Limits.**

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

1. Mill Road Bridges, as shown on plan sheets and corners located at IH41 STA 394+90, 145 ft right of reference line; IH41 STA 395+15, 100 ft right of reference line; IH41 STA 395+35, 160 ft right of reference line; and IH41 STA 395+65, 115 ft right of reference line; from 0' to 2' bgs. Soil contains lead.
2. Mill Road Bridges, as shown on plan sheets and corners located at IH41 STA 395+15, 100 ft right of reference line; IH41 STA 395+35, 65 ft right of reference line; IH41 STA 395+65, 115 ft right of reference line; and IH41 STA 395+95, 65 ft right of reference line; from 0' to 4' bgs. Soil contains lead.

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

The Hazardous Materials Report is available by contacting: Andrew Malsom, Wisconsin Department of Transportation, 141 NW Barstow, Waukesha, WI 53187, 262-548-6705, [Andrew.Malsom@dot.wi.gov](mailto:Andrew.Malsom@dot.wi.gov).  
stp-107-100 (20230113),

## **17. Notice to Contractor, Asbestos Containing Materials on Structure.**

### **Project 1100-20-77**

Jennifer Reed, License Number All-155710, inspected Structure B-40-360 for asbestos on September 14, 2015. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities: Gaskets under the railing attachment plate, 8.3 sq ft on non-friable asbestos.

A copy of the inspection report is available from Andrew Malsom, (262) 548-6705, [Andrew.malsom@dot.wi.gov](mailto:Andrew.malsom@dot.wi.gov). Locations of asbestos containing material are noted on the plan set. Do not disturb any asbestos containing material. Should asbestos containing material be disturbed, stop work immediately, notify the engineer, and the engineer will notify the department's Bureau of Technical

Services at (608) 266-1476 for an emergency response as specified in standard spec 107.24. Keep material wet until it is abated.

**Project 1100-21-70, 1100-21-71, 2984-13-77**

John Roelke, License Number All-119523, inspected Structure B-40-369 for asbestos on October 1, 2014, and June 28, 2023. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities: The gaskets under the railing attachment plates on the concrete parapets. The RACM material is estimated at 28 square feet and is classified as non-friable

A copy of the inspection report is available from Clayton Smith, WisDOT SE Region Project Manager, 262-548-6428, Clayton.Smith@dot.wi.gov. Locations of asbestos containing material are noted on the plan set. Do not disturb any asbestos containing material. Should asbestos containing material be disturbed, stop work immediately, notify the engineer, and the engineer will notify the department's Bureau of Technical Services at (608) 266-1476 for an emergency response as specified in standard spec 107.24. Keep material wet until it is abated.

stp-107-120 (20220628)

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

John Roelke, License Number All-119523, inspected Structure B-40-213, B-40-214, B-40-248, B-40-249, B-40-346, B-40-347, B-40-348, B-40-349, B-40-350, B-40-351, B-40-365, and B-40-366 for asbestos on October 1, 2014. No Regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is included with the bid package or available from Clayton Smith, WisDOT SE Region Project Manager, (262)548-6428, Clayton.Smith@dot.wi.gov.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 03/20), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Andrew Malsom, WisDOT SE Region Hazmat Program Environmental Engineer, 262-548-6705, Andrew.Malsom@dot.wi.gov and via e-mail to dothazmatunit@dot.wi.gov or via U.S. mail to DOT BTS-ESS attn: Hazardous Materials Specialist, 5 South S.513.12, PO Box 7965, Madison, WI 53707 7965. In addition, comply with all local or municipal asbestos requirements.

Use the following information to complete WisDNR form 4500-113:

**B-40-213**

- Site Name: Structure B-40-213, IH 41/USH 45/STH 100 SB over Carmen Ave.
- Site Address: 1.1 MI S JCT USH41/STH175
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 24 years old. This structure was constructed in 2000
- Area: 7,522 SF of deck

**B-40-214**

- Site Name: Structure B-40-214, IH 41/USH 45/STH 100 NB over Carmen Ave.
- Site Address: 2.5M N JCT STH 190
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 23 years old. This structure was constructed in 2001
- Area: 9,132 SF of deck

**B-40-248**

- Site Name: Structure B-40-248, CTH PP – EB Good Hope Rd. over IH 41/USH 45/STH 100
- Site Address: 1.0 MI E JCT STH 175/Appleton Ave.
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798

- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 60 years old. This structure was constructed in 1964
- Area: 12,796 SF of deck

#### **B-40-249**

- Site Name: Structure B-40-249, CTH PP – WB Good Hope Rd. over IH 41/USH 45/STH 100
- Site Address: 0.2 MI W JCT STH 145
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 60 years old. This structure was constructed in 1964
- Area: 12,796 SF of deck

#### **B-40-346**

- Site Name: Structure B-40-346, IH 41/USH 45/STH 100 SB over STH 175 SB
- Site Address: 0.9 MI S JCT CTH PP
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 57 years old. This structure was constructed in 1697
- Area: 9,550 SF of deck

#### **B-40-347**

- Site Name: Structure B-40-347, IH 41/USH 45/STH 100 NB over STH 175 SB
- Site Address: 0.2 MI N JCT STH 175
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 57 years old. This structure was constructed in 1967
- Area: 8,758 SF of deck

#### **B-40-348**

- Site Name: Structure B-40-348, IH 41/USH 45/STH 100 SB over W MILL RD (CTH S)
- Site Address: 0.9 MI S JCT CTH PP
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 57 years old. This structure was constructed in 1967
- Area: 13,302 SF of deck

#### **B-40-349**

- Site Name: Structure B-40-349, IH 41/USH 45/STH 100 NB over W MILL RD (CTH S)
- Site Address: 1.2 MI N JCT CTH E
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 57 years old. This structure was constructed in 1967
- Area: 13,302 SF of deck

#### **B-40-350**

- Site Name: Structure B-40-350, IH 41/USH 45/STH100 SB over STH 175 NB-SOUTH INTRCH
- Site Address: 0.7 MI S JCT CTH PP

- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 57 years old. This structure was constructed in 1967
- Area: 9,072 SF of deck

#### **B-40-351**

- Site Name: Structure B-40-351, IH 41/USH45/STH 100 NB over STH 175 NB
- Site Address: 0.5 MI N JCT STH 175
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 57 years old. This structure was constructed in 1967
- Area: 9,081 SF of deck

#### **B-40-365**

- Site Name: Structure B-40-365, IH 41/USH 45/STH 100 SB over UPRR
- Site Address: 2.3 MI N JCT STH 190
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 57 years old. This structure was constructed in 1967
- Area: 11,149 SF of deck

#### **B-40-366**

- Site Name: Structure B-40-366, IH 41/USH 45/STH 100 NB over UPRR
- Site Address: 2.3M N JCT STH 190
- Ownership Information: WisDOT Transportation SE Region, 141 NW Barstow St., PO Box 798, Waukesha, WI 53187-0798
- Contact: Alex Grasse
- Phone: (414) 750-1404
- Age: 57 years old. This structure was constructed in 1967
- Area: 11,316 SF of deck

Insert the following paragraph in Section 6.g.:

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

stp-107-125 (20220628)

## **19. Notice to Contractor – Safety.**

All workers shall wear OSHA and ANSI compliant safety head protection, safety glasses, safety-toe protective footwear, and an ANSI 107-2015 Type R, Class 2 safety vest and at all times while within the project footprint. Ensure workers wear a high visibility Class 3 top and pants ensemble that meets or exceeds ANSI/ISEA 107-2015 Type R during hours of darkness, including 1/2 hour before sunset through 1/2 hour after sunrise, and during times of low visibility while in the project footprint.

The contractor and respective subcontractors shall provide a copy of their current Company Safety Plans to the department at the preconstruction meeting. All workers shall comply with the Safety Plans of their employer. The department will not issue a notice to proceed until all safety plans have been submitted.

Noncompliance with this contract provision may result in removal of contractor personnel from the project or suspension of work according to Wisconsin Department of Transportation standard spec 108.6

applicable under the contract. The department may request amendments to safety plans or follow up action reports for any safety incidents occurring on the project.

## **20. Notice to Contractor – Project Site Air Quality.**

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

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

### **Portable Concrete Crusher Plants**

Portable concrete crusher plants may need a NR 440 Concrete Crusher Plant Air Permit for air emissions. Please contact Wisconsin Department of Natural Resources to request additional information and permit application materials. Complete permit applications may take 3 months to process.

## **21. Notice to Contractor, Electronic Load Tickets.**

*Replace standard spec 109.1.4.3 (1) with the following:*

(1) Submit an electronic ticket for each load of material for the following bid items:

- 502.0100 Concrete Masonry Bridges
- 509.2100.S Concrete Masonry Deck Repair
- 531.1100 Concrete Masonry Ancillary Structures Type NS
- SPV.0035.200 HPC Masonry Structures

Include the information as specified in 109.1.4.2 on each electronic ticket. If there is a failure in the electronic ticket system, provide a printed ticket for each load of material as a substitute for electronic tickets.

stp-107-230 (20250108)

## **22. Traffic Meetings and Traffic Control Scheduling.**

Every Wednesday (or Thursday depending on project location – confirm with construction which traffic meeting the project will be required to attend) by 8:00AM, submit a detailed proposed 2-week look-ahead traffic closure schedule to the engineer. Type the detailed proposed 2-week look-ahead closure schedule into an excel spreadsheet provided by the engineer. Enter information such as closure dates, duration, work causing the closure and detours to be used. Also enter information such as ongoing long-term closures, emergency contacts and general 2-month look-ahead closure information into the excel spreadsheet. Any closure schedules submitted after 8:00AM Wednesday morning is subject to being denied by the engineer.

Attend, in person, the 10:00am contractor/utility traffic coordination meeting every Wednesday (or Thursday) at the project field office to discuss and answer questions on the proposed schedule. The prime contractor, traffic control subcontractor, and any other subcontractors that have work that requires should, lane, ramp, or full closures on the 2-week schedule is required to attend the 10:00 AM meeting. Edit, delete and add closures to the detailed proposed 2-week look-ahead schedule, as directed by the engineer, so that proposed closures meet specification (insert project ID's/standard spec as needed). Other edits, deletions or additions unrelated to meeting specification requirements may also be agreed upon with the engineer during the 10:00 AM meeting.

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

For any mid-week changes, submit requests for additions or modifications in writing to the engineer for review and approval. sef 643 040 (20150319). Any cancellations also need to be communicated in writing including a reason for the cancellation. Any cancellations, additions, or modifications should be submitted by 4pm to allow for review, approval, and schedule updates. Any additions to the schedule need to adhere to the required advance notice requirements.

## **23. Material and Equipment Staging.**

Submit a map showing all proposed material stockpile and equipment storage locations to the engineer 14 calendar days before either the preconstruction conference or proposed use, whichever comes first. Identify the purpose; length, width & height; and duration of material stockpile or equipment storage at each location. Obtain written permission and necessary permits from the property owner and local governments/agencies and submit two copies to the engineer. Do not stockpile material or store equipment until the engineer approves. Do not stockpile or store materials or equipment on wetlands.

SER-107-011 (20181019)

## **24. Available Documents.**

The department will make its information available to bidding contractors. The list of documents that are available for contractors' information includes:

- Design Study Report
- Scoping Document
- Safety Certification Document
- Environmental Document
- As-Built Drawings
- Preconstruction survey
- Traffic Management Plan

These documents are available from Clayton Smith at 141 NW Barstow Street, Waukesha, WI 53187, (262) 548-6428.

Reproduction costs will be applied to all copies requested.

sef-102-005 (20170310)

## **25. Geotechnical Investigation Information.**

*Replace standard spec 102.5(3) 2 with the following:*

Available information relative to subsurface exploration, borings, soundings, water levels, elevations, or profiles are available for review at the department's WisDOT Southeast Region office. Contact Clayton Smith at 141 NW Barstow Street, Waukesha, WI 53187, (262) 548-6428. Email at Clayton.Smith@dot.wi.gov

- Geotechnical Site Investigation Report – WisDOT Structure IDs: B-40-1022 & B-40-1023 – I-41 over Mill Road – Milwaukee County, WI, September 3, 2020
- Shoulder borings.

Additional geotechnical information is available from studies and analyses that have been performed by HNTB for the department for other aspects of this project. Review the available information to determine if it is of use.



The use or not of the geotechnical information does not relieve performing the work conforming to the plans and specifications.

sef-102-010 (20170310)

## **26. Contractor Notification.**

*Replace standard spec 104.2.2.2(2) with the following:*

- (2) If the contractor discovers the differing condition, provide a written notice, as specified in 104.3.2, of the specific differing condition before further disturbing the site and before further performing the affected work.

*Replace standard specs 104.3.2 with the following:*

### **104.3.2 Contractor Initial Written Notice**

- (1) If required by 104.2, or if the contractor believes that the department's action, the department's lack of action, or some other situation results in or necessitates a contract revision, promptly provide a written notice to the engineer. At a minimum, provide the following:
1. A written description of the nature of the issue.
  2. The time and date of discovering the problem or issue.
  3. If appropriate, the location of the issue.
- (2) Provide the additional information specified in 104.3.3 as early as possible to assist the engineer in the timely resolution of an identified issue. The engineer will not require, in subsequent submissions, duplication of information already provided.

sef-104-005 (20141211)

## **27. Contractor Document Submittals.**

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

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

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

Submit electronic copies in PDF format via email to accounts the engineer determines. If possible, create PDFs from original documents in their native format (e.g. Word, Excel, AutoCAD, etc.). Scan other documents to PDF format with a minimum resolution of 600 dpi.

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

sef-105-010 (20150619)

## **28. Dust Control Implementation Plan.**

### **A Description**

This special provision describes developing, updating, and implementing a detailed Dust Control Implementation Plan (DCIP) for all land-disturbing construction activities and associated impacts both within the project site boundaries and outside the project site boundaries. Incorporate contract bid items that this article specifies into the DCIP.

### **B (Vacant)**

### **C Construction**

## **C.1 General**

Control dust on the project as specified in standard spec 107.18. Minimize dust emissions resulting from land disturbing activities. Do not generate excessive air borne particulate matter (PM) or nuisance dust conditions. Control dust at all times during the contract.

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

## **C.2 DCIP Contents**

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

Include all of the following:

1. A single contact person with overall responsibility for the DCIP development as well as surveillance and remediation of job related dust. Provide:
  - Name, firm, address, and working-hours phone number.
  - Non-working-hours phone number.
  - Email address.
2. A site map locating project features, the job site boundaries, all ingress and egress points, air intakes and other dust-sensitive areas, and all public and private paved surfaces within and adjacent to the job site. Show where specific land disturbing, dust generating activities will occur and, to the extent possible, where employing various dust control or prevention strategies.
3. A matrix, or plan, for each anticipated land disturbing, dust generating activity, showing the following:
  - Preventive measures that shall be employed.
  - The applicable contact person.
  - The contractor's timetable and surveillance measures used to determine when remediation is required.
  - The specific dust control and remediation measures that shall be employed. Identify the specific contract bid items that shall be used for payment. Indicate costs and practices that are incidental to the contract.
  - Both maintenance and cleanup schedules and procedures.
  - Excess and waste materials disposal strategy.
4. A description of monitoring and resolving off-site impacts.

## **C.3 Updating the DCIP**

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

## **C.4 Dust Control Deficiencies**

Coordinate with engineer to determine deadlines for resolving dust control deficiencies. Deficiencies include actions or lack of actions resulting in excessive dust, non-compliance with the contractor's DCIP or associated special provisions, and not properly maintaining equipment.

## **D Measurement**

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

Measurement under the DCIP includes the contract bid items listed in this special provision:

623.0200	Dust Control Surface Treatment
624.0100	Water
628.7560	Tracking Pads
SPV.0075.001	Pavement Cleanup Project 1100-21-71

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

## **E Payment**

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

sef-107-005 (20170323)

## **29. Maintaining Drainage.**

Maintain drainage at and through worksite during construction conforming to standard specs 107.22, 204, 205 and 520.

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

### **Dewatering (Mechanical Pumping) for Bypass Water (sediment-free) Operations**

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

### **Dewatering (Mechanical Pumping) for treatment Water (sediment-laden) Operations**

If dewatering operations require pumping of water containing sediments (sand, silt, and clay particles), the discharge will not be allowed to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Refer to article Erosion Control in these special provisions for additional requirements.

sef-107-016 (20170310)

## **30. CPM Progress Schedule.**

*Replace standard spec 108.4 with the following:*

### **108.4 Critical Path Method Progress Schedule**

#### **108.4.1 Definitions**

(1) The department defines terms used in 108.4 as follows:

<b>Activity</b>	An administrative or construction task performed during the course of the project with a defined duration, and scheduled (or actual) start and finish dates.
<b>Critical Path</b>	The sequence of activities that must start and finish on time to minimize the overall duration and ensure interim and project completion milestones are completed by the contract completion dates.
<b>Longest Path</b>	The sequence of activities through a project network from start to finish where the total duration is longer than any other path.
<b>Construction Activity</b>	Construction activities are discrete work activities performed by the contractor, subcontractors, utilities, or third parties within the project limits.
<b>CPM Progress Schedule</b>	A Critical Path Method (CPM) Progress Schedule is a network of logically related activities. The CPM schedule calculates when activities can be performed and establishes the critical or longest continuous path or paths of activities through the project.

<b>Float</b>	Float, as used in this special provision, is the total float of an activity; i.e., it is the amount of time between the date when an activity can start (the early start), and the date when an activity must start (the late start). In cases where the total float of an activity has a different value when calculated based on the finish dates, the lower (more critical) value will govern.
<b>Forecast Completion Date</b>	The completion date predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date, depending on progress.
<b>Fragnet</b>	A group of logically-related activities, typically inserted into an existing CPM schedule to model a portion of the project, such as the work associated with a change order.
<b>Initial Work Plan</b>	The initial work plan is a time-scaled CPM schedule showing detailed activities for the first 90 calendar days of work and summary level activities for the remainder of the project.
<b>Intermediate Milestone Date</b>	A contractually required date for the completion of a portion of the work, so that a subsequent portion of the work or stage of traffic phasing may proceed.
<b>Department's Project Schedule Template</b>	The department's project schedule template for the overall Zoo Interchange Freeway Program, including interim and final contract completion dates, and containing codes for use as a template for the development of the contractor's schedule.
<b>Work Breakdown Structure (WBS)</b>	A framework for organizing the activities that make up a project by breaking the project into successively greater detail by level. A WBS organizes the project work. It does not address the sequencing and scheduling of project activities.

## 108.4.2 Department's Project Schedule Template

### 108.4.2.1 Project Schedule

(1) Within five business days after award, the department will provide its current Project Schedule Template, containing intermediate milestone constraints, standard activity codes, and a standard WBS for the contractor to use to develop its schedule.

### 108.4.2.2 Use of Project Schedule Template

(1) The Project Schedule Template provides information to assist the contractor in preparing its schedule. The Project Schedule Template is not a contract document. The logic contained in the Project's Schedule Template is not intended to alter or supplement contract requirements for the phasing of the work, but to reflect those requirements.

## 108.4.3 Contractor's Scheduling Responsibilities

(1) Prepare and submit a CPM progress schedule that accurately reflects the plan for the performance of the work, based on the physical requirements of the Work, and Traffic Phasing requirements. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines. Full responsibility is assumed for the prosecution of the work as shown. The CPM schedule is not part of the contract. Schedule the Work in the manner required to achieve the completion date and interim completion dates specified in the Prosecution and Progress Special Provision. The contractor will schedule and attend a CPM Initial Workshop. If necessary, the engineer may modify the workshop schedule to ensure attendance by the necessary department and contractor personnel; however, the CPM Initial Workshop must be completed prior to issuing the Notice to Proceed. The CPM Initial workshop will include:

1. Department presentation of the use of CPM scheduling on the project.
2. Contractor presentation of the conceptual work plan for the project.
3. Department and contractor discussion of the level of detail on features in the CPM Initial Work Plan and the Baseline CPM Progress Schedule.

(2) Use the department-provided Project Schedule Template to develop the Initial Work Plan and the Baseline CPM Progress Schedule. Use the Project's Schedule Template ID coding structure to categorize activities by Contract, Stage, Location, and Responsibility to ensure compatibility with the Project Schedule Template and with schedules prepared by other contractors. Add additional activity codes as necessary, but do not delete the coding structure provided.

(3) To ensure compatibility with the Project Schedule Template, use the latest version of Primavera P6 Project Management, by Oracle Corporation, Redwood Shores, CA, to prepare the Initial Work Plan, Baseline CPM Progress Schedule, and Monthly CPM Updates.

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

#### **108.4.4 Submittals**

##### **108.4.4.1 Initial Work Plan**

(1) Within ten business days after the CPM Initial Work Plan Workshop, submit an Initial Work Plan as follows:

1. Develop the Initial Work Plan using the Project Schedule Template. Identify the contemplated start and completion dates for each activity.
2. Provide a detailed plan of activities to be performed within the first 90 calendar days of the contract. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
3. Provide activities as necessary to depict administrative work, including submittals, reviews, and procurements that will occur within the first 90 calendar days of the contract. Show additional activities that require department review or approval. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
4. Provide summary activities for the balance of the project. Summary activities may have durations greater than 28 calendar days (20 business days).
5. Submit electronic printout (PDF) copies of the Initial Work Plan and the corresponding Oracle Primavera P6 schedule (XER) in a format acceptable to the engineer.
6. The engineer will accept the contractor's Initial Work Plan or provide comments within five business days after receipt of the Initial Work Plan. Address comments and resubmit the Initial Work Plan as necessary. Do not begin work until the engineer accepts the Initial Work Plan. The department will use the initial work plan to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.
7. Submit an updated version of the Initial Work Plan monthly until the engineer accepts the Baseline CPM Progress Schedule. With each update, include actual start dates, completion percentages, and remaining durations for activities started but not completed. Include actual finish dates for completed activities.
8. Ensure the Initial Work Plan shows completing the work within the interim completion dates and specified completion date.
9. Include activities that describe essential features of the work and activities that might potentially delay contract completion. Identify activities that are controlling items of work.

##### **108.4.4.2 Baseline CPM Progress Schedule**

(1) Within 15 business days after the CPM Initial Workshop, submit a Baseline CPM Progress Schedule and written narrative. The department will use the schedule to monitor the progress of the work.

1. Develop the Baseline CPM using the Project Schedule Template. The Baseline CPM is the contractor's committed plan to complete the Work within the time frames required to achieve the contract completion date and intermediate milestone dates.
  - 1.1. Provide a detailed plan of activities to be performed during the entire contract duration, including all administrative and construction activities required to complete the work as described in the contract documents. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
  - 1.2. Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
  - 1.3. Submit a temporary drainage plan showing the interface between various stages of a project as well as the interface with adjacent projects.
  - 1.4. Include activities that describe essential features of the work and activities that might potentially delay contract completion. Identify activities that are controlling items of work.
  - 1.5. Show completing the work within interim completion dates and the specified completion date.
  - 1.6. Provide activities as necessary to depict third party work related to the contract.

- 1.7. Make allowance for specified work restrictions, non-working days, time constraints, calendars, and weather; and reflect involvement and reviews by the department, and coordination with adjacent contractors, utility owners, and other third parties.
- 1.8. With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start or Finish-to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag unless the engineer accepts requested exceptions. Do not use negative lags with any relationships.
- 1.9 Activity constraints shall be limited to contract-imposed completion dates. Do not use constraints on start or finish dates unless the engineer accepts requested exceptions. Do not use float constraints on any construction task activities. The engineer reserves the right to temporarily delete any date and/or float constraint when evaluating the effects of delays.
- 1.10. Schedule all intermediate milestones in the proper sequence and input as either a "Start-no-Earlier-Than" or "Finish-no-Later-Than" date. Provide predecessors and successors for each intermediate milestone as necessary to model each Stage of the Work. Unless the engineer accepts a requested exception, the schedule should encompass all the time in the contract period between the starting date and the specified completion date.
- 1.11. Using the bid quantities and unit prices, develop an anticipated cash-flow curve for the project, based on the Baseline CPM.
2. Provide a written narrative with the baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:
  - 2.1. The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.
  - 2.2. Use of constraints.
  - 2.3. Use of calendars.
  - 2.4. Estimated number of adverse weather days on a monthly-basis.
  - 2.5. Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.

(1) Submit electronic printout (PDF) copies of the Baseline CPM and the corresponding Oracle Primavera P6 schedule file (XER) in a format acceptable to the engineer.

(2) Within ten business days of receiving the Baseline CPM, the engineer will provide comments and schedule a meeting for the contractor to present its Baseline CPM and answer questions raised in the engineer's review.

(3) At the meeting scheduled by the engineer, provide a presentation of the Baseline CPM. In the presentation, include a discussion of the staging and sequencing of the work, understanding of traffic phasing, and application of labor and equipment resources to the Work. Address comments raised in the engineer's review.

(4) Within five business days after the meeting, the engineer will accept the contractor's Baseline CPM schedule or provide comments. Address the engineer's comments and resubmit a revised Baseline CPM within ten business days after the engineer's request. If the engineer requests justification for activity durations, provide information that may include estimated labor, equipment, unit quantities, and production rates used to determine the activity duration.

(5) The department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2, until the contractor has submitted the Baseline CPM Schedule. The department will retain 10 percent of each estimate until the department accepts the Baseline CPM Schedule.

(6) The engineer will accept the Baseline CPM based solely on whether the schedule is complete as specified in this section. The engineer's acceptance of the schedule does not modify the contract or validate the schedule.

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

#### **108.4.4.3 Monthly CPM Updates**

(1) Submit CPM Updates on a monthly basis after acceptance of the Baseline CPM as follows:

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

2. Include additional activities as necessary to depict additions to the contract by changes and logic revisions as necessary to reflect changes in the contractor's plan for prosecuting the work.
3. Include a narrative report that includes a brief description of monthly progress, changes to the critical path from the previous update, sources of delay, potential problems, work planned for the next 30 calendar days, and changes to the CPM schedule. Changes to the logic of the CPM schedule include the addition or deletion of activities and changes to activity descriptions, original durations, relationships, constraints, calendars, or previously recorded actual dates. Justify changes to the CPM schedule in the narrative by describing associated changes in the planned methods or manner of performing the work or changes in the work itself.
4. Submit electronic printout (PDF) copies of each CPM Update and the corresponding Oracle Primavera P6 schedule file (XER) in a format acceptable to the engineer.

(2) Within five business days of receiving each CPM Update, the engineer will provide comments and schedule a meeting as necessary to address comments raised in the engineer's review. Address the engineer's comments and resubmit a revised CPM Update within five business days after the engineer's request.

#### **108.4.4.4 Three-Week Look-Ahead Schedules**

(1) Submit Three-Week Look-Ahead Schedules on a weekly basis after the notice to proceed (NTP). The schedule can be hand drawn or generated by computer. With each Three-Week Look-Ahead include:

1. Activities underway and as-built dates for the past week.
2. Actual as-built dates for completed activities through final acceptance of the project.
3. Planned work for the upcoming two-week period.
4. The activities underway and critical RFIs and submittals, based on the CPM schedule.
5. Details on other activities not individually represented in the CPM schedule.

(2) On a weekly basis, the department and the contractor shall agree on the as-built dates depicted in the Three-Week Look-Ahead schedule or document all disagreements. Use the as-built dates from the Three-Week Look-Ahead schedules for the month when updating the CPM schedule.

#### **108.4.4.5 Weekly Production Data**

(1) Provide estimated and actual weekly production rates for items of work on a weekly basis as follows:

1. Data on the following items by area or station:
  - 1.1. Retaining Walls
    - 1.1.1. Leveling Pads - LF
    - 1.1.2. Set Panels - SF
    - 1.1.3. Parapets - LF
    - 1.1.4. Wall Face - Bay
    - 1.1.5. Tie Backs – Each
    - 1.1.6. Anchor Slabs – LF
    - 1.1.7. Drilling - Each
    - 1.1.8. Coping – LF
    - 1.1.9. Footing - LF
  - 1.2. Bridge Construction
    - 1.2.1. Footings—Each
    - 1.2.2. Columns—Each
    - 1.2.3. Abutments—Each
    - 1.2.4. Pier Caps—Each
    - 1.2.5. Girder Spans – Each
    - 1.2.6. Decked Spans – Each
    - 1.2.7. Poured Spans – Each
  - 1.3. Roadway Excavation—CY per week
  - 1.4. Roadway Structural Section
    - 1.4.1. Grading/Subgrade Preparation—SY
    - 1.4.2. Base Material Placement—Ton
    - 1.4.3. Base Material Subgrade Preparation—SY
    - 1.4.4. Asphalt Pavement—Ton
    - 1.4.5. Concrete Pavement – SY

#### 1.5. Tunnels

- 1.5.1. Drilled Shafts – Each
- 1.5.2. Beam Seat/Cap - LF
- 1.5.3. Girders - Each
- 1.5.4. Deck – Percent

#### 1.6. Noise Walls

- 1.6.1. Drill/Set Ground Mounted Posts - Each
- 1.6.2. Install Ground Mounted Panels - Each
- 1.6.3. Anchor/Set Structure Mounted Posts - Each
- 1.6.4. Install Structure Mounted Panels - Each

2. The actual daily production for the past week and the anticipated weekly production for the next week.

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

### **108.4.5 Progress Review Meetings**

#### **108.4.5.1 Weekly Progress Review Meetings**

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

#### **108.4.5.2 Monthly Update Review Meetings**

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

### **108.4.6 CPM Progress Schedule Revisions**

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

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

- 1. The forecast completion date is scheduled to occur more than 14 calendar days after the contract completion date.
- 2. An intermediate milestone is scheduled to occur more than 14 calendar days after the date required by the contract.
- 3. The engineer determines that the progress of the work differs significantly from the current schedule.
- 4. A contract change order requires the addition, deletion, or revision of activities that causes a change in the contractor's work sequence or the method and manner of performing the work.

### **108.4.7 Documentation Required for Time Extension Requests**

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

(2) To request a time extension associated with delays to the work to an intermediate milestone date or the contract completion date, provide a revised schedule based on the latest accepted CPM Update. Include



a narrative detailing the affected activities and the cause of the delay. Requests for time extensions due to delays should meet the following criteria:

1. Submit a proposed fragnet of activities to be added or revised in the CPM schedule, indicating how the fragnet is to be tied to the CPM schedule.
2. For requests to extend the contract completion date, include a description of how the delay affected the project's critical path, based on the latest accepted CPM Update.
3. For requests to extend an intermediate milestone date, include a description of how the delay affected the controlling (longest) path to the milestone, based on the latest accepted CPM Update.
4. The department and the contractor agree that the float is not for the exclusive use or financial benefit of either party. Either party has the full use of the float on a first come basis until it is depleted.

#### 108.4.8 Payment for CPM Progress Schedule

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.001	Baseline CPM Progress Schedule	EACH
SPV.0060.002	Monthly CPM Progress Schedule Updates	EACH

(2) The department will only make progress payments for the value of materials, as specified in 109.6.3.2.1, until the Baseline CPM schedule has been submitted. The department will retain ten percent of each estimate until the department accepts the Baseline CPM schedule.

(3) The department will only make progress payments for the value of materials, as specified in 109.6.3.2.1, until the Monthly CPM schedule updates have been submitted. The department will retain ten percent of each estimate until the department accepts the Monthly CPM schedule update.

(4) Payment is full compensation for all work required under these bid items. The department will pay the contract unit price for the Baseline CPM schedule after the department accepts the schedule. Then, the department will pay the contract unit price for each Monthly CPM Update acceptably completed.

sef-108-005 (20231101)

## 31. Removing Old Bridges.

*Add the following to standard spec 203.3.1:*

### 203.3.1.1 Structure Removal Site Safety Plan

(1) Prepare a Structure Removal Site Safety Plan covering all structure removal work included in the contract. Maintain posted copies of the Structure Removal Site Safety Plan at the site in the project field office. Provide two copies of the Structure Removal Site Safety Plan to the engineer at least four weeks before beginning removal work.

### 203.3.1.2 Structure Removal Plans

(1) Prepare a structure specific removal plan for each of the following existing structures indicating the methods and sequence of demolition:

Existing Structure	Structure Type	Feature On	Feature Under
40-348	Span PPC I-Girder Bridge	94 SB	Ill Rd.
40-349	Span PPC I-Girder Bridge	94 NB	Ill Rd.

This table does not include all the structure removals included in the contract. It is a list of existing structure removals included in the contract for which a structure specific detailed removal plan is required to be submitted.

Examine the existing structure plans and visit the site before preparing and submitting the structure removal plan(s). The contractor is responsible for the methods and sequence of demolition, including effects on the overall stability of each structure being removed. At a minimum, each removal plan shall include:

1. The name of the professional engineer, registered in the state of Wisconsin who will be on site and monitoring the removal of existing structures as required in this specification.
2. The name of the contractor's on-site-employee designated in responsible charge of all removal operations.
3. The removal method and sequence of removal for each individual structure, including the staging of bridge removals.
4. Analysis of the stability of the structure based on the methods and sequence of demolition proposed, to ensure that the structure is demolished in a safe and controlled manner. The analysis computations shall be prepared, signed and sealed by a professional engineer registered in the State of Wisconsin.
5. Design and details of temporary supports, shoring or temporary bracing, if required to stabilize portions of partially remaining structures during the removal sequence or support partially remaining structures after staged removals. Include design computations and detail drawings for all temporary supports, shoring and bracing that indicate the exact placement of the temporary supports, shoring or bracing; verification of design loads; attachment details; and methods for the safe transfer of loads from existing structural elements to be removed to the temporary supports, shoring, or bracing. Temporary support, shoring, or bracing design computations and drawings details are to be prepared, signed and sealed by a professional engineer registered in the State of Wisconsin.
6. Design and details of temporary support foundations. Include in the foundation design the evaluation of expected foundation settlement and the effect that this will have on the structure being supported. Temporary support foundation design computations and drawing details are to be prepared, signed and sealed by a professional engineer registered in the State of Wisconsin.
7. Equipment type and locations of equipment on the structure(s) or adjacent roadways during the removal operations
8. Locations and type of work to be performed directly adjacent to traffic.
9. Details and locations of protective covers and other measures to ensure that people, property and improvements will not be endangered or damaged as a result of the removal operations. Include methods for protecting any pavement surfaces including shoulders, concrete barriers, and other highway features.
10. Methods of removal, hauling and disposal, including haul routes and disposal destination.
11. A schedule of anticipated roadway and lane closures to accommodate removal operations. Include the timing of individual lane or temporary roadway closures and the nature of removal operations that will be performed during the lane or roadway closures.
12. Acknowledgement that the contractor and removal design engineer responsible for preparing the removal plan have visited the site and reviewed the existing structure plans in preparing the removal plan.

### **Structure Pre-Removal Meetings**

After submission of the Structure Removal Site Safety Plan and required Structure Removal Plan(s), schedule and conduct structure pre-removal meetings at a time agreed to by the engineer. Hold structure pre-removal meetings at least three working days before beginning structure removal activities. If the engineer agrees before, multiple structure removals can be combined and discussed at one structure pre-removal meeting. Otherwise, schedule and conduct a separate structure pre-removal meeting for each structure to be removed.

*Supplement standard spec 203.3.2.1 with the following:*

Perform structure removals conforming to the submitted Structure Removal Site Safety Plan and applicable Structure Removal Plan(s).

*Supplement standard spec 203.5.1(2) with the following:*

Payment includes preparation and submittal of a Structure Removal Site Safety Plan; preparation and submittal of Structure Removal Plan(s) and performing all structure removal work conforming to the submitted plans.

### **32. Pavement Breaking Equipment.**

Do not use guillotine, drop hammer, falling weight, gravity impact breakers or equivalent equipment within 300 feet of any structure. A multi-head hydraulic hammer is allowed unless a structure is within 50 feet of the roadway.

SER-204-001 (20161123)

### **33. Removing Concrete Barrier.**

*Add the following to standard spec 204.3.2.2.1 as paragraph fourteen:*

- (14) Under the Removing Concrete Barrier bid item, remove barrier and footing, unless specified in the plans, at the locations the plans show. Removal includes all required sawing conforming to standard spec 690.

*Add the following to standard spec 204.5.1(2) as paragraph two:*

- (2) Payment for Removing Concrete Barrier is full compensation for all required sawing and removal of existing barrier and footing, and sludge removal.

sef-204-025 (20180104)

### **34. Storm Sewer.**

*Supplement standard spec 204.5.2 with the following:*

QMP sampling, testing and documentation if applicable is incidental to removing storm sewer bid item and no separate payment will be made.

*Supplement standard spec 608.2 with the following:*

Two weeks prior to start of storm sewer construction, provide a shoring design and installation sequence for each location where shoring is to be used. Have a professional engineer, currently registered in the State of Wisconsin and knowledgeable of the specific site conditions and requirements, verify the adequacy of the design. Submit one electronic copy in portable document format of each shoring design, signed and sealed by the same professional engineer verifying the design, to the engineer for incorporation into the permanent project record.

*Supplement standard spec 608.3.1.1 with the following:*

- (1) Incorporate excavated material in the work to the extent practicable. Use materials with suitable engineering properties for embankment.

- (2) Dispose of surplus or unsuitable material as specified in standard spec 205.3.12.

*Supplement standard spec 608.3.4 with the following:*

Place rubber gasket joints over the spigot end or tongue of the entering pipe for all round storm sewer pipes horizontal and elliptical pipes with a rise less than or equal to 40-inches. Clean the gasket and the ends of the pipe from sand and gravel. If the gasket provided is neither factory lubricated nor self-lubricating, lubricate the outside of the gasket and the inside of the bell or groove of the last pipe with an engineer - approved vegetable lubricant immediately before making the joint. Place the spigot or tongue of the pipe being laid with the gasket in place into the bell or groove end of the previously laid pipe. Set pipe carefully to line and grade, and push or jack home. The engineer may order the use of a jack or "come-along" if deemed necessary to ensure that the joints are completely tight.

For horizontal elliptical pipe rise greater than 40-inches use mastic joint compound. Where factory lubricated rubber gasket joints are not available, clean the ends of the pipe from sand and gravel. Place engineer-approved mastic joint sealer on both the spigot and bell ends of the pipe being laid. Apply additional mastic around each joint exterior and wrap each joint with Geotextile Fabric Type DF laid flat

meeting requirements of standard spec 645. Wrap each joint so that the Geotextile Fabric overlaps each joint a distance of approximately ½ of the pipe diameter.

*Replace standard spec 608.5(2) with the following:*

Payment for the Storm Sewer Pipe bid items is full compensation for providing all materials, including all special Y's, mitered sections, elbows and connections required; for all submittals; for excavating and wasting excess material, except rock excavation; for providing rubber gaskets; Lubrication of rubber gaskets; mastic joint sealer; for supporting utilities in storm sewer trench; for shoring design, providing a signed and sealed copy of the design; for installation, monitoring, and removal of shoring; for forming foundation; for laying pipe; for sealing joints and making connections to new or existing features, bedding material; for backfilling and granular backfill material; for QMP sampling, testing and documentation; for cleaning out; and absent the pertinent contract bid items, for restoring the work site.

### **35. Removing Concrete Surface Partial Depth, Item 204.0109.S.**

#### **A Description**

This special provision describes removing a portion of concrete surfaces as the plans show and conforming to standard spec 204.

#### **B (Vacant)**

#### **C Construction**

##### **C.1 Equipment**

Use a machine that provides a surface finish acceptable to the engineer. Shroud the machine to prevent discharge of any loosened material into adjacent work areas or live traffic lanes.

Use a machine that is equipped with electronic devices that provide accurate depth, grade and slope control, and acceptable dust control system.

##### **C.2 Methods**

Remove existing concrete to the depths as shown on the plan by grinding, planing, chipping, sawing, milling, or by using other methods approved by the engineer.

Perform the removal operation in such a manner as to preclude damage to the remaining pavement and results in a reasonable uniform plane surface free of excessive large scarification marks and having a uniform transverse slope.

The sequence of removal operations shall be such that no exposed longitudinal joints 2 inches or more in depth remain during non-working hours. Windrowing or storing of the removed material on the roadway will only be permitted in conjunction with a continuous removal and pick-up operation. During non-working hours, clear the roadway of all materials and equipment.

Removed pavement becomes the property of the contractor. Properly dispose of it as specified in standard spec 204.3.1.3.

#### **D Measurement**

The department will measure Removing Concrete Surface Partial Depth in area by the square foot of surface area removed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0109.S	Removing Concrete Surface Partial Depth	SF

Payment is in full compensation for removing the concrete; and for disposing of materials.

stp-204-041 (20080902)

**36. Removing Apron Endwall, Item 204.9060.S.001.**

**A Description**

This special provision describes removing Apron Endwall conforming to standard spec 204.

**B (Vacant)**

**C (Vacant)**

**D Measurement**

The department will measure Removing Apron Endwall in each individual apron endwall, acceptably completed.

**E Payment**

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S	Removing Apron Endwall	Each
stp-204-025 (20230113)		

**37. Remove Traffic Signals IH 41 SB Off Ramp/N 115<sup>th</sup> St & CTH PP, Item 204.9060.S.301.**

**A Description**

This special provision describes removing existing traffic signals at the intersection of IH SB Off Ramp/N 115<sup>th</sup> St & CTH PP in accordance with the pertinent provisions of section 204 of the standard specifications and as hereinafter provided. Specific removal items are noted in the plans.

**B (Vacant)**

**C Construction**

Notify the department's Electrical Field Unit at (414) 266-1170 at least five (5) working days prior to the removal of the traffic signals. Complete the removal work as soon as possible following shut down of the equipment.

Remove all standards and poles per plan from their concrete footings and disassemble out of traffic. Remove the transformer bases from each pole. Remove the signal heads, radio antenna, mast arms, wiring/cabling, and traffic signal mounting devices from each signal standard, arm or pole. Dispose of all equipment, including traffic signal poles, arms, cables and wiring (underground and above-ground) unless otherwise noted in the plans. Traffic signal LED and switch disposal and removing detection equipment, concrete bases, and pull boxes, shall be paid for as a separate items.

DOT forces shall remove the signal cabinet from the footing. The signal cabinet and associated traffic signal cabinet equipment will be removed from the site by DOT forces and will remain the property of the department.

**D Measurement**

The department will measure Remove Traffic Signals [Location] as each individual intersection, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.301	Remove Traffic Signals IH 41 SB Off Ramp/N 115 <sup>th</sup> St & CTH PP	EACH

Payment is full compensation for removing, disassembling traffic signals, scrapping materials, and disposing of scrap material.

**38. Remove Loop Detector Wire and Lead-in Cable IH 41 SB Off Ramp/N 115th St & CTH PP, Item 204.9060.S.302.**

**A Description**

This special provision describes removing loop detector wire and lead-in cable at the intersection of IH 41 SB Off Ramp/N 115th St & CTH PP. Removal will be in accordance with section 204 of the standard specifications, as shown in the plans, and as hereinafter provided.

**B (Vacant)**

**C Construction**

Notify the department's Electrical Field Unit at (414) 266-1170) at least five working days prior to the removal of the loop detector wire and lead-in cable.

Remove and dispose of detector lead-in cable including loop wire for abandoned loops off the right of way.

**D Measurement**

The department will measure Remove Loop Detector Wire and Lead-in Cable [Location] as each individual intersection, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.302	Remove Loop Detector Wire and Lead in Cable IH 41 SB Off Ramp/N 115 <sup>th</sup> St & CTH PP	EACH

Payment is full compensation for removing, scrapping, and disposing of material.

**39. Roadway Excavation.**

Borrow or excavation common will not be paid for structure excavation used in embankments.

*Add the following to standard spec 205.5.2(1):*

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

Identify all excavation required for the project, all sources of embankment fill, shrinkage and swell factors, proposed stockpile material, structure excavation (if used in embankments), waste, and fills anticipated to be treated with a soil drying agent. Provide start and finish dates for each grading area within the division. These dates should correspond to the dates shown on the project schedule.

*Replace standard spec 205.3.13(3) with the following:*

The engineer will evaluate cuts and shallow fills to determine if corrective work, EBS Excavation/EBS Backfill, or Fly Ash Stabilization is required. If the engineer requests, provide loaded trucks and run the grade as the engineer directs to confirm yielding areas. Perform EBS Excavation/EBS Backfill or Fly Ash Stabilization in yielding areas as the engineer directs.

*Add the following to standard spec 205.5.2(2):*

The department will not pay EBS to remove frost from embankments or cut sections, unless directed by the engineer. It is the contractor's responsibility to stage construction so that exposed subgrades do not freeze or to provide adequate frost protection. Any work necessary to remove and replace frozen materials from newly constructed embankments or exposed cut sections is considered incidental to the excavation bid items.

#### **40. Base Aggregate Dense 1 1/4-Inch for Lower Base Layers.**

*Replace standard spec 305.2.2.1(2) with the following:*

(2) Unless the plans or special provisions specify otherwise, do the following:

1. Use 1 1/4-inch base throughout the full base depth.
2. Use 3/4-inch base in the top 3 inches of the unpaved portion of shoulders. Use 3/4-inch base or 1 1/4-inch base elsewhere in shoulders.

stp-305-020 (20080902)

#### **41. Select Crushed Material**

*Replace standard spec 312.2(6) with the following:*

The department will assess Select Crushed Material acceptability based primarily on the engineer's visual inspection. The department may require the contractor to sample, test, and report gradation or the fracture results to show conformance of the material. One test per source, production process, or change of production process may be required.

*Replace standard spec 312.5(2) with the following:*

Payment for Select Crushed Material is full compensation for providing and compacting Select Crushed Material and all work necessary to provide gradation or fracture test results.

SER-321-001 (20160831)

#### **42. QMP HMA Pavement Nuclear Density.**

##### **A Description**

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

- (1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 except as modified in this special provision.
- (2) Provide and maintain a quality control program defined as all activities and documentation of the following:
  1. Selection of test sites.
  2. Testing.
  3. Necessary adjustments in the process.
  4. Process control inspection.
- (3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures.

<https://wisconsindot.gov/rdw/cmm/cm-08-00.pdf>

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

<http://www.atwoodsystems.com/>

##### **B Materials**

###### **B.1 Personnel**

- (1) Nuclear gauge owners and personnel using nuclear gauges shall comply with WisDOT requirements according to 460.3.3 and CMM 815.

###### **B.2 Testing**

- (1) Conform to WTM T355 and CMM 815 for density testing and gauge monitoring methods. Conform to CMM 815.10.4 for test duration and gauge placement.

###### **B.3 Equipment**

### **B.3.1 General**

- (1) Furnish nuclear gauges according to CMM 815.2.
- (2) Furnish nuclear gauges from the department's approved product list at <https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

### **B.3.2 Comparison of Nuclear Gauges**

#### **B.3.2.1 Comparison of QC and QV Nuclear Gauges**

- (1) Compare QC and QV nuclear gauges according to WTM T355.

#### **B.3.2.2 Reference Site Monitoring**

- (1) Conduct reference site monitoring for both QC and QV gauges according to WTM T355.

### **B.4 Quality Control Testing and Documentation**

#### **B.4.1 Lot and Sublot Requirements**

##### **B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances**

- (1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 815.10.2.
- (2) Determine required number of tests according to CMM 815.10.2.1.
- (3) Determine random testing locations according to CMM 815.10.3.

##### **B.4.1.2 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts**

- (1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 815.10.2.
- (2) Determine required number of tests according to CMM 815.10.2.2.
- (3) Determine random testing locations according to CMM 815.10.3.

#### **B.4.2 Pavement Density Determination**

##### **B.4.2.1 Mainline Traffic Lanes and Appurtenances**

- (1) Calculate the average sublot densities using the individual test results in each sublot.
- (2) If all sublot averages are no more than one percent below the target density, calculate the daily lot density by averaging the results of each random QC test taken on that day's material.
- (3) If any sublot average is more than one percent below the target density, do not include the individual test results from that sublot when computing the lot average density and remove that sublot's tonnage from the daily quantity for incentive. The tonnage from any such sublot is subject to disincentive pay as specified in standard spec 460.5.2.2.

##### **B.4.2.2 Mainline Shoulders**

###### **B.4.2.2.1 Width Greater Than 5 Feet**

- (1) Determine the pavement density as specified in B.4.2.1.

###### **B.4.2.2.2 Width of 5 Feet or Less**

- (1) If all sublot test results are no more than 3.0 percent below the minimum target density, calculate the daily lot density by averaging all individual test results for the day.
- (2) If a sublot test result is more than 3.0 percent below the target density, the engineer may require the unacceptable material to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine the limits of the unacceptable material according to B.4.3.

##### **B.4.2.3 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts**

- (1) Determine the pavement density as specified in B.4.2.1.

##### **B.4.2.4 Documentation**

- (1) Document QC density test data as specified in CMM 815. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.



### **B.4.3 Corrective Action**

- (1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.
- (2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted subplot. Testing in a previously accepted subplot will not be used to recalculate a new lot density.
- (3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full subplot width within the traffic lanes or shoulders.
- (4) Retesting and acceptance of replaced pavement will be as specified in standard spec 105.3.
- (5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the subplot and lot densities.
- (6) If two consecutive subplot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

### **B.5 Department Testing**

#### **B.5.1 Verification Testing**

- (1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one subplot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.
- (2) The QV tester will test each selected subplot using the same testing requirements and frequencies as the QC tester.
- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft<sup>3</sup> of the QC subplot average, use the QC tests for acceptance.
- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft<sup>3</sup> each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft<sup>3</sup>, use the original QC tests for acceptance.
- (6) If the QV and QC subplot averages differ by more than 1.0 lb/ft<sup>3</sup> after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

#### **B.5.2 Independent Assurance Testing**

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

### **B.6 Dispute Resolution**

- (1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge comparison according to B.3.2.1.
- (2) The testers may use comparison monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.

- (3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV subplot density test results or retesting of the subplot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.
- (4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

#### **B.7 Acceptance**

- (1) The department will not accept QMP HMA Pavement Nuclear Density if a non-compared gauge is used for contractor QC tests.

#### **C (Vacant)**

#### **D (Vacant)**

#### **E Payment**

##### **E.1 QMP Testing**

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

##### **E.2 Disincentive for HMA Pavement Density**

- (1) The department will administer density disincentives as specified in standard spec 460.5.2.2.

##### **E.3 Incentive for HMA Pavement Density**

- (1) The department will administer density incentives as specified in standard spec 460.5.2.3.  
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### **43. HMA Pavement 5 SMA 58-28 V, Item 460.8625; HMA Pavement Test Strip Volumetrics, Item 460.0115.S; HMA Pavement Test Strip Density, Item 460.0120.S.**

#### **A Description**

Conform to standard spec 450 and 460 except as modified in this special provision.

#### **B (Vacant)**

#### **C Construction**

*Add the following to standard spec 450.3.1.3 to require transfer vehicle for SMA:*

- (2) Use a Material Transfer Vehicle when constructing SMA pavement.

*Add the following to standard spec 450.3.1.5 to prohibit rubber-tire roller on SMA:*

- (3) Do not use a rubber-tired roller for compaction of SMA pavement.

*Add the following to standard spec 460.3.3.2 to require and define approval criteria for SMA test strips:*

- (5) Construct a test strip according to CMM 815.13 to correlate nuclear gauges to pavement cores according to WTM T 355, confirm SMA in-place density using cores and determine mixture air voids. Submit the test strip start time and date to the department in writing at least 5 calendar days in advance of construction of the test strip. The department will assess the contractor \$2,000 for each instance according to Section E of this special provision if paving does not begin within 2 hours of the submitted start time, delaying the test strip. Alterations to the start time and date must be submitted to the department in writing a minimum of 24 hours prior to the start time. The contractor will not be liable for changes in start time related to adverse weather days as defined by standard spec 101.3 or equipment breakdown verified by the department.

Construct the test strip at the beginning of work for each SMA mixture, for each layer and for each thickness. All SMA test strip material produced shall meet the requirements in Tables 460-1 and 460-2 and conform to the JMF limits presented herein except as follows:

ITEM	JMF Limits
Asphaltic content in percent <sup>[1]</sup>	- 0.5
VMA in percent <sup>[2]</sup>	- 1.0
Air Voids in percent	According to the SMA Test Strip Approval Criteria Below
<sup>[1]</sup> Asphalt content more than -0.5% below the JMF will be referee tested by BTS using automated extraction according to WTM D8159.	
<sup>[2]</sup> VMA limits based on minimum requirement for mix design nominal maximum aggregate size in table 460-1 as modified herein.	

The test strip shall remain in place and become part of the completed pavement when acceptably produced, acceptably compacted, and meets finish and smoothness requirements. CMM 815 describes the SMA density and volumetric testing tolerances required for the test strip.

- (6) The test strip is to be treated as a single/separate lot and will have densities and pay adjustments calculated accordingly. The department will test one of the two split samples for volumetrics to determine test strip approval. If the QV air void sample is outside of the limits for 100% pay (i.e.,  $3.2 \leq Va \leq 5.8$ ), send both QV-retained split samples to BTS for dispute resolution testing. The results from the BTS dispute resolution testing will determine material conformance and payment for the test strip according to the SMA Prorated Pay Factors Table in CMM 836.9.3.3. If QV and QC test results exceed testing tolerances (0.015 for Gmm or Gmb), both retained split samples will be tested by BTS. In this case, additional investigation shall be conducted to identify the source of the difference between QV and QC data and BTS referee test data will be used to determine material conformance and pay.

Pay adjustments made as part of dispute resolution on test strip material will be limited to the test strip and will not extend to material placed during main production nor will pay adjustments made on main production extend into the test strip. The department will notify the contractor within 24 hours of the start of test strip construction regarding approval to proceed with paving beyond the test strip. The department will evaluate mixture air voids, test strip density, and nuclear gauge to core correlation in determining test strip approval and material conformance according to the following:

**SMA Test Strip Approval Criteria**

Approval / Material Conformance <sup>[1]</sup>	QV Air Voids	Average Density of All Cores <sup>[2]</sup>	Outcome of Test Strip for Contractor
Approved / Material Conforming	$3.2 \leq Va \leq 5.8$	$\geq 93.0 \%$	Proceed with production
Test Strip Approved / Material Nonconforming	$2.8 \leq Va \leq 3.2$ or $5.8 < Va \leq 6.2$	$\geq 91.0 \%$	Propose solution and proceed with production. Payment for material will be based on BTS referee tests.
Test Strip Not Approved / Material Nonconforming	$2.5 \leq Va < 2.8$ or $6.2 < Va \leq 6.5$	$< 91.0 \%$	Stop production, submit cause and solution, make additional 500-ton test strip. Payment for material will be based on BTS referee tests.
Test Strip and Material are Unacceptable <sup>[3]</sup>	$Va < 2.5$ or $Va > 6.5$	$< 90.0 \%$	Stop production, submit cause and solution, make additional 500-ton test strip, and complete new core to nuclear density gauge correlation.

<sup>[1]</sup> The overall result of each test strip will coincide with the more restrictive result from air voids or density.

<sup>[2]</sup> Individual nuclear density test results more than 3.0% below the minimum density requirement must be addressed according to CMM 815.11.

<sup>[3]</sup> Unacceptable material will be removed and replaced at no additional cost to the department. Alternatively, the engineer may allow the material to remain in place with a 50 percent payment factor. Material allowed to remain in place requires another test strip prior to additional paving.

- (7) An acceptable core to nuclear density gauge correlation must be completed by both the contractor and department according to CMM 815 as part of the test strip.
- (8) A maximum of two test strips will be allowed to remain in place per layer per contract. If the contractor changes the mix design for a given mix type during a contract, no additional compensation will be paid by

the department for the required additional test strip and the department will assess the contractor \$2,000 for each additional test strip according to Section E of this special provision.

#### **D Measurement**

*Add the following to standard spec 460.4:*

- (2) The department will measure HMA Pavement Test Strip Volumetrics and HMA Pavement Test Strip Density as each unit of work, acceptably completed, as described in CMM 815. Material quantities will be determined according to standard spec 450.4.

#### **E Payment**

*Replace standard spec 460.5.1 with the following:*

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

ITEM NUMBER	DESCRIPTION	UNIT
460.8625	HMA Pavement 5 SMA 58-28 V	TON
460.0115.S	HMA Pavement Test Strip Volumetrics	EACH
460.0120.S	HMA Pavement Test Strip Density	EACH

Payment for SMA is full compensation for providing SMA mixture designs; for preparing foundation; for volumetric and density testing and aggregate source testing; for asphalt binder from recycled sources; for asphalt binder modification or processes; and addition of fibers, fines, or filler.

Payment for HMA Pavement Test Strip Volumetrics is full compensation for volumetric sampling, splitting, and testing; and for proper labeling, handling; and retention of split samples.

Payment for HMA Pavement Test Strip Density is full compensation for collecting and measuring of pavement cores, acceptably filling core holes, providing of nuclear gauges and operator(s), and all other work associated with completion of a core-to-gauge correlation, as directed by the engineer.

The department will pay separately for a material transfer vehicle.

Acceptable HMA mixture placed on the project as part of a volumetric or density test strip will be compensated by the appropriate HMA Pavement bid item with any applicable pay adjustments. If a test strip is delayed as defined in standard spec 460.3.3.2(5) as modified herein, the department will assess the contractor \$2,000 for each instance, under the HMA Delayed Test Strip administrative item. If an additional test strip is required because the initial test strip is not approved by the department, or the mix design is changed by the contractor, the department will assess the contractor \$2,000 for each additional test strip (i.e., \$2,000 for each individual volumetrics or density test strip) under the HMA Additional Test Strip administrative item.

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### **44. HMA Pavement Longitudinal Joint Density.**

#### **A Description**

This special provision incorporates longitudinal joint density requirements into the contract and describes the data collection, acceptance, and procedure used for determination of pay adjustments for HMA pavement longitudinal joint density. Pay adjustments will be made on a linear foot basis, as applicable per pavement layer and paving lane. Applicable longitudinal joints are defined as those between any two or more traffic lanes including full-width passing lanes, turn lanes, or auxiliary lanes more than 1,500 lane feet, and those lanes must also include the 460.2005 Incentive Density PWL HMA Pavement bid item. This excludes any joint with one side defined as a shoulder and ramp lanes of any length. If echelon paving is required in the contract, the longitudinal joint density specification shall not apply for those joints. Longitudinal joints placed during a test strip will be tested for information only to help ensure the roller pattern will provide adequate longitudinal joint density during production. Longitudinal joint density test results collected during a test strip are not eligible for pay adjustment.

Pay is determined according to standard spec 460, HMA Pavement Percent Within Limits QMP special provisions, and as modified within.

#### **B Materials**

Compact all applicable HMA longitudinal joints to the appropriate density based on the layer, confinement, and mixture type shown in Table B-1.

**TABLE B-1 MINIMUM REQUIRED LONGITUDINAL JOINT DENSITY**

Layer	Percent of Target Maximum Density			
	Unconfined		Confined	
	LT and MT	HT	LT and MT	HT
Lower (on crushed/recycled base)	88	89	89.5	90.5
Lower (on Concrete/HMA)	90 <sup>[1]</sup>	90 <sup>[1]</sup>	91.5 <sup>[1]</sup>	91.5 <sup>[1]</sup>
Upper	90	90	91.5	91.5

<sup>[1]</sup> Minimum reduced by 1.0 percent for a 1.25-inch-thick No. 5 mix lower layer constructed on a paved or milled surface.

### C Construction

Add the following to standard spec 460.3.3.2:

- (5) Establish companion QC and QV density locations for each applicable joint. Each companion location shares longitudinal stationing with the respective QC or QV mainline density location within each subplot and is located transversely with the center of the gauge 6-inches from the final joint edge of the paving area. Sublot and lot numbering remains the same as mainline densities, however, in addition to conventional naming, joint identification must clearly indicate "M" for inside/median side of lane or "O" for outside shoulder side of lane, as well as "U" for an unconfined joint or "C" for a confined joint (e.g., XXXXX-MC or XXXXX-OU).
- (6) Each joint shall be measured, reported, and accepted under methods, testing times, and procedures consistent with the program employed for mainline density, i.e., PWL.
- (7) For single nuclear density test results greater than 3.0% below specified minimums per Table B-1 herein, perform the following:
  - a) Testing at 50-foot increments both ahead and behind the unacceptable site.
  - b) Continued 50-foot incremental testing until test values indicate higher than or equal to -3.0 percent from target joint density.
  - c) Materials within the incremental testing indicating lower than -3.0 percent from target joint density are defined as unacceptable and will be handled with remedial action as defined in the payment section of this document.
  - d) The remaining subplot average (exclusive of unacceptable material) will be determined by the first forward and backward 50-foot incremental tests that reach the criteria of higher than or equal to -3.0 percent from target joint density.

Note: If the 50-foot testing extends into a previously accepted subplot, remedial action is required up to and inclusive of such material; however, the results of remedial action must not be used to recalculate the previously accepted subplot density. When this occurs, the lane feet of any unacceptable material will be deducted from the subplot in which it is located, and the previously accepted subplot density will be used to calculate pay for the remainder of the subplot.

- (8) Joint density measurements shall be kept separate from all other density measurements and entered as an individual data set into Atwood Systems.
- (9) Placement and removal of excess material outside of the final joint edge, to increase joint density at the longitudinal joint nuclear testing location, shall be done at the contractor's discretion and cost. This excess material and related labor will be considered waste and will not be paid for by the department. Joints with excess material placed outside of the final joint edge to increase joint density or where a notched wedge is used will be considered unconfined joints.
- (10) When not required by the contract, echelon paving may be performed at the contractor's discretion to increase longitudinal joint density and still remain eligible to earn incentive. The additional costs incurred related to echelon paving will not be paid for by the department. If lanes are paved in echelon, the contractor may choose to use a longitudinal vertical joint or notched wedge longitudinal joint as described in [SDD 13c19 HMA Longitudinal Joints](#). Lanes paved in echelon shall be considered

confined on both sides of the joint regardless of the selected joint design. The joint between echelon paved lanes shall be placed at the centerline or along lane lines.

- (11) When performing inlay paving below the elevation of the adjacent lane, the longitudinal joint along the adjacent lane to be paved shall be considered unconfined.

#### D Measurement

- (1) The department will measure each side of applicable longitudinal joints, as defined in Section A of this special provision, by the linear foot of pavement, acceptably placed. Measurement will be conducted independently for the inside or median side and for the outside or shoulder side of paving lanes with two applicable longitudinal joints. Each paving layer will be measured independently at the time the mat is placed.

#### E Payment

Add the following as 460.5.2.4 Pay Adjustment for HMA Pavement Longitudinal Joint Density:

- (1) The department will administer longitudinal joint density adjustments under the Incentive Density HMA Pavement Longitudinal Joints and Disincentive Density HMA Pavement Longitudinal Joints items. The department will adjust pay based on density relative to the specified targets in Section B of this special provision, and linear foot of the HMA Pavement bid item for that subplot as follows:

#### PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY

PERCENT SUBLOT DENSITY	PAY ADJUSTMENT PER LINEAR FOOT
ABOVE/BELOW SPECIFIED MINIMUM	
Equal to or greater than +1.0 confined, +2.0 unconfined	\$0.20
From 0.0 to +0.9 confined, 0.0 to +1.9 unconfined	\$0
From -0.1 to -1.0	\$(0.20)
From -1.1 to -2.0	\$(0.40)
From -2.1 to -3.0	\$(0.80)
More than -3.0	REMEDIAL ACTION <sup>[1]</sup>

<sup>[1]</sup> Remedial action must be approved by the engineer and agreed upon at the time of the pre-pave meeting and may include partial sublots as determined and defined in 460.3.3.2(7) of this document. If unacceptable material is removed and replaced per guidance by the engineer, the removal and replacement will be for the full lane width of the side of which the joint was constructed with unacceptable material.

- (2) The department will not assess joint density disincentives for pavement placed in cold weather because of a department-caused delay as specified in [standard spec 450.5.2\(3\)](#).
- (3) The department will not pay incentive on the longitudinal joint density if the traffic lane is in disincentive. A disincentive may be applied for each mainline lane and all joint densities if both qualify for a pay reduction.
- (4) Inlay paving operations will limit payment for additional material to 2 inches wider than the final paving lane width at the centerline.

The department will pay incentive for longitudinal joint density under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL

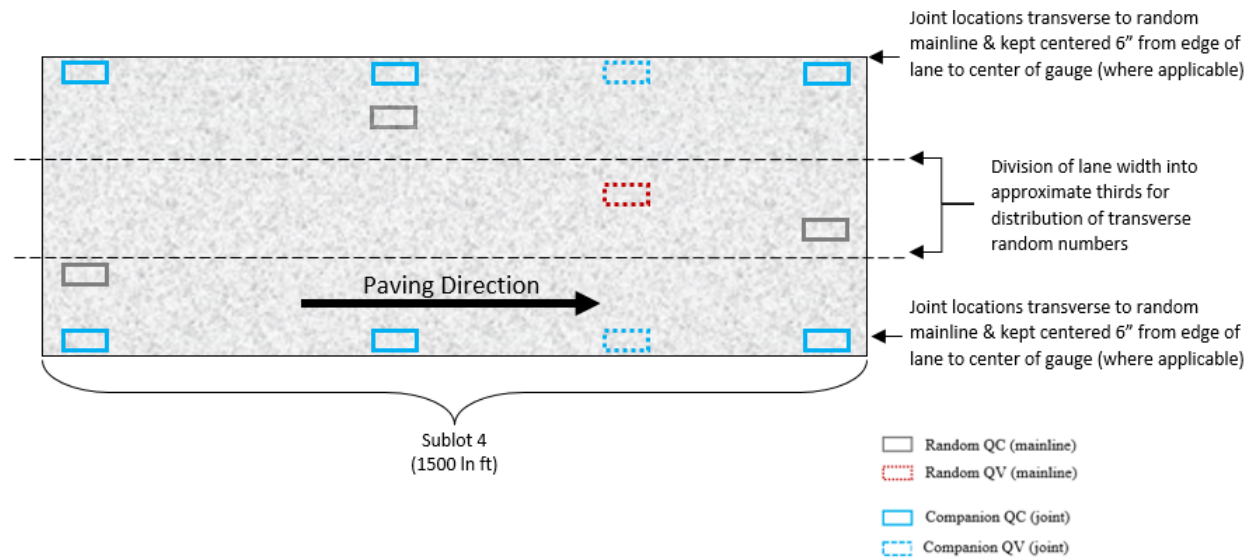
The department will administer disincentives under the Disincentive Density HMA Pavement Longitudinal Joints administrative item.

#### Appendix

##### WisDOT Longitudinal Joint – Nuclear Gauge Density Layout

Each QC and QV density location must have a companion density location at any applicable joint. This companion location must share longitudinal stationing with each QC or QV density location and be located transversely with the center of the gauge 6-inches from the final joint edge of the paving area.

**For HMA Pavement Percent Within Limits QMP projects**, this appears as follows:



**Further Explanation of *PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY* Table**

	Confined				Pay Adjust
	Lower Layer (On Base)		Upper Layer		
	LT/MT	HT	LT/MT	HT	
Mainline Target (SS 460-3)	91.0	92.0	93.0	93.0	-
Confined Target (mainline - 1.5)	89.5	90.5	91.5	91.5	-
Equal to or greater than +1.0	≥ 90.5	≥ 91.5	≥ 92.5	≥ 92.5	\$0.20
From 0.0 to +0.9	90.4 - 89.5	91.4 - 90.5	92.4 - 91.5	92.4 - 91.5	\$0
From -0.1 to -1.0	89.4 - 88.5	90.4 - 89.5	91.4 - 90.5	91.4 - 90.5	(\$0.20)
From -1.1 to -2.0	88.4 - 87.5	89.4 - 88.5	90.4 - 89.5	90.4 - 89.5	(\$0.40)
From -2.1 to -3.0	87.4 - 86.5	88.4 - 87.5	89.4 - 88.5	89.4 - 88.5	(\$0.80)
More than -3.0	< 86.5	< 87.5	< 88.5	< 88.5	REMEDIAL ACTION

	Unconfined				Pay Adjust
	Lower Layer (On Base)		Upper Layer		
	LT/MT	HT	LT/MT	HT	
Mainline Target (SS 460-3)	91.0	92.0	93.0	93.0	-
Unconfined Target (Mainline -3.0)	88.0	89.0	90.0	90.0	-
Equal to or greater than +2.0	≥ 90.0	≥ 91.0	≥ 92.0	≥ 92.0	\$0.20
From 0.0 to +1.9	89.9 - 88.0	90.9 - 89.0	91.9 - 90.0	91.9 - 90.0	\$0
From -0.1 to -1.0	87.9 - 87.0	88.9 - 88.0	89.9 - 89.0	89.9 - 89.0	(\$0.20)
From -1.1 to -2.0	86.9 - 86.0	87.9 - 87.0	88.9 - 88.0	88.9 - 88.0	(\$0.40)
From -2.1 to -3.0	85.9 - 85.0	86.9 - 86.0	87.9 - 87.0	87.9 - 87.0	(\$0.80)
More than -3.0	< 85.0	< 86.0	< 87.0	< 87.0	REMEDIAL ACTION

stp-460-075 (20240105)

**45. Material Transfer Vehicle, Item 460.9000.S.**

**A Description**

This special provision describes providing Material Transfer Vehicles (MTV) and operators for use during HMA upper layer paving operations of the travel lanes as shown in the plan or as directed by the engineer.

**B Materials**

Furnish a self-propelled MTV with the ability to remix, maintain constant temperature, and continually feed the paver hopper. MTV storage capacity shall be adequate to provide continuous forward movement of the paver. Coordinate paver speed to match the delivery of material and capacity of the MTV to minimize stopping of the paver.

**C Construction**

Ensure that an operator stays with the MTV at all times during moving operations. Keep the paver's hopper full at all times and the MTV's hopper filled such that the conveying augers are never exposed to avoid segregation of the material. Placement of HMA upper layer pavement in the travel lanes will not be allowed without the MTV. Tie ins of intersections, shoulders paved separately, and other non-travel lane areas will not require the use of the MTV.

**D Measurement**

The department will measure Material Transfer Vehicle once for the contract, acceptably completed, regardless the number of vehicles in use.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
460.9000.S	Material Transfer Vehicle	EACH

Payment is full compensation for furnishing all material transfer vehicles and operators.

stp-460-900 (20230113)

**46. Asphaltic Surface Temporary.**

*Replace standard spec 465.2 (1) with the following:*

Under the Asphaltic Surface Temporary bid item; submit a mix design. Furnish asphaltic mixture meeting the requirements specified for HT under 460.2; except the engineer will not require the contractor to conform to the quality management program (QMP) specified under 460.2.8.

sef-465-005 (20170310)

**47. 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.

#### **48. Ice Hot Weather Concreting, Item 501.1000.S.**

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

Concrete Masonry Bridges	Concrete Masonry Retaining Walls
Concrete Masonry Bridges HES	Concrete Masonry Retaining Walls HES
Concrete Masonry Culverts	Concrete Masonry Endwalls
Concrete Masonry Culverts HES	Concrete Masonry Overlay Decks
Concrete Barrier Single-Faced 32-Inch	Concrete Barrier (type)
Concrete Barrier Double-Faced 32-Inch	Concrete Barrier Fixed Object Protection (type)
Concrete Barrier Transition Section 32-Inch	Concrete Barrier Transition (type)

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

##### **501.4 Measurement**

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

##### **501.5 Payment**

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

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

- (2) Payment for Ice Hot Weather Concreting is full compensation for ice used to cool concrete placed in hot weather as specified in standard spec 501.3.8.2.
- (3) The department will not pay directly for the concrete specified under this section. Concrete is incidental to the various bid items using it. Payment under those bid items includes providing all materials, including aggregates and associated aggregate source testing, cement, fly ash, slag, and admixtures; and for preparing, transporting, storing, protecting and curing concrete.
- (4) If required to remove and replace any concrete damaged by lack of proper protection. Perform this work at no expense to the department.

stp-501-010 (20210708)

#### **49. Concrete Curing Materials.**

*Supplement standard spec 501.2.8 with the following:*

- (5) The liquid curing compound shall have a color equal to or lighter than Gardner Color Standard No. 2 when tested according to ASTM C 1315 8.7.6 Yellowing Resistance.

## **50. Concrete Maturity Testing.**

### **A Description**

This special provision requires using concrete maturity testing to determine strength for project control of concrete pavement, falsework removal, and structural concrete under the designated standard specs as follows:

Duration of the curing period 415.3.12

Duration of the cold weather protection period 415.3.13

Opening to service 415.3.15

Removing falsework 502.3.4.2

Duration of the required curing period 502.3.8

Duration of the cold weather protection period 502.3.9

Opening to service 502.3.10.1

The requirement for determining strength by the concrete maturity testing method supersedes all provisions for strength determination by other methods or provisions based on equivalent days within those designated subsections. The concrete maturity testing requirement also applies to all other provisions referencing strength determination under these designated subsections.

### **B Materials**

Provide a maturity testing system that uses data-encrypted sensor devices permanently embedded in the field-placed concrete. Data-encrypted sensors have a chip that records both temperature and time information that can be downloaded to a reading device not permanently attached to those sensors.

Provide the department with a maturity reading device for each maturity testing system used on the project. Devices provided for the department use will become department property under the contract.

### **C Construction**

Perform concrete maturity testing conforming to standard specification 502.3.10.1.3.3. Develop a strength/maturity relationship for each concrete mix design used under the contract. Base that relationship on strength results of cylinders from pavement, appurtenant construction, ancillary concrete, or structural masonry units incorporated into the work and using those same mixes.

### **D (Vacant)**

### **E Payment**

No additional payment will be made by the department for maturity testing.

sef-502-005 (20170310)

## **51. Concrete Masonry Structures.**

### **A Description**

#### **A.1 General**

Work under this item applies to cast in place concrete for structures. Conform to standard specs 501, 502, 504, 701, 710 and 715 and as modified in this special provision. Apply this special provision to all cast in place concrete placed under the following bid items:

502.0100 Concrete Masonry Bridges

#### **A.2 Concrete Masonry Bridges**

Work under the item Concrete Masonry Bridges applies to cast in place concrete for bridge substructures, which includes abutments and piers. Cast in place concrete for bridge superstructures, which includes bridge decks, raised medians, sidewalks, and parapets, is covered under the special provision item HPC Masonry Structures.

### **B (Vacant)**

## **C Construction**

*Replace standard spec 501.3.8.2 with the following:*

The contractor is responsible for the quality of the concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions taken to control concrete temperature if the concrete temperature at the point of placement exceeds 80 F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

If the concrete temperature at the point of placement exceeds 90 F, do not place concrete under the following bid items:

Concrete Masonry Bridges

Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80 F. If project information is not available, obtain information from similar mixes placed for other nearby work.

Any additive or action taken to control the temperature of the Concrete Masonry to within the limits of this special provision, excluding the addition of ice to the concrete mix, is considered incidental to the work and will not be measured or paid for separately.

*Add the following to standard spec 501.3 as subsection ten:*

### **501.3.10 Slip Forming**

Do not place concrete by the slip-form method for any item covered by this special provision.

## **D (Vacant)**

## **E (Vacant)**

sef-504-005 (20180104)

## **52. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.**

### **A Description**

This special provision describes furnishing and placing stainless steel reinforcing bars and associated stainless steel bar couplers.

Conform to standard spec 505 as modified in this special provision.

### **B Materials**

#### **B.1 General**

Furnish stainless steel reinforcing bars conforming to ASTM A955 and to one of the following Unified Numbering System (UNS) designations: S31653, S31803, S32205, or S32304. Supply grade 60 bars, all of the same UNS designation. Conform to the chemical composition specified for the given UNS designation in ASTM A276 table 1.

Supply bars that are free of dirt, mill scale, oil, and debris by pickling to a bright or uniform light finish. The department may reject bars displaying rust/oxidation, questionable blemishes, or lack of a bright or uniform pickled surface.

Furnish chairs or continuous supports made of stainless steel or recycled plastic to support high-strength stainless bar steel reinforcement subject to the plastic chair restriction stated in standard spec 505.3.4(1).

Furnish couplers made from one of the UNS alloys allowed for bar steel.

Furnish tie wire made from one of the UNS alloys allowed for bar steel or from an engineer-approved plastic or nonmetallic material. Ensure that stainless steel tie wire is dead soft annealed.

#### **B.2 Fabrication**

Before fabrication, supply test results from an independent testing agency certifying that the reinforcement meets the requirements of Annex A1 of ASTM A955.

Bend bars conforming to standard spec 505.3.2 and according to ASTM A955. Bend and cut bars using equipment thoroughly cleaned or otherwise modified to prevent contamination from carbon steel or other contaminants. Use tools dedicated solely to working with stainless steel.

### **B.3 Control of Material**

Identify reinforcement bars delivered to the project site with tags bearing the identification symbols used in the plans. Include the UNS designation, heat treat condition, heat number, grade corresponding to minimum yield strength level, and sufficient documentation to track each bar bundle to a mill test report.

Provide samples for department testing and acceptance according to CMM 8-50 Exhibit 1 requirements for concrete masonry reinforcement for uncoated bar steel.

Provide mill test reports for the project that do the following:

1. Verify that sampling and testing procedures and test results conform to ASTM A955, ASTM A276 table 1, and these contract requirements.
2. Include a chemical analysis with the UNS designation, heat lot identification, and the source of the metal.
3. Include tensile strength, yield strength, and elongation tests results conforming to ASTM A955 for each size furnished.
4. Certify that the bars have been pickled to a bright or uniform light finish.

## **C Construction**

### **C.1 General**

Ship, handle, store, and place the stainless steel reinforcing as follows:

1. Separate from regular reinforcement during shipping. Pad points of contact with steel chains or banding, or secure with non-metallic straps.
2. Store on wooden cribbing separated from regular reinforcement. Cover with tarpaulins if stored outside.
3. Handle with non-metallic slings.
4. Do not flame cut or weld. Protect from contamination when cutting, grinding, or welding other steel products above or near the stainless steel during construction.
5. Place on plastic or stainless steel bar chairs. If placing stainless steel chairs on steel beams, use chairs with plastic-coated feet.
6. Tie with stainless steel wire or an engineer-approved plastic or nonmetallic material.

Do not tie stainless steel reinforcing bars to, or allow contact with, uncoated reinforcing bars or galvanized steel. Maintain at least 1 inch clearance between stainless steel bars or dowels and uncoated or galvanized steel. Where 1 inch clearance is not possible, sleeve bars with a continuous polyethylene or nylon tube at least 1/8 inch thick extending at least 1 inch in each direction and bind with nylon or polypropylene cable ties. Sleeves are not required between stainless steel bars and shear studs. Stainless steel bars can be in direct contact with undamaged epoxy-coated bars.

Cut flush with the top flange or remove uncoated fasteners, anchors, lifting loops, or other protrusions into a bridge deck before casting the deck on prestressed concrete beams.

### **C.2 Splices**

Splice as the plans show. Provide stainless steel couplers conforming to the minimum capacity, certification, proof testing, and written approval requirements of standard spec 550.3.3.4. The contractor may substitute stainless steel couplers for lap splices the plans show if the engineer approves in writing.

If increasing or altering the number or type of bar splices the plans show, provide revised plan sheets to the engineer showing the reinforcement layout, type, length, and location of revised bar splices and revised bar lengths. Obtain engineer approval for the location of new lap splices or substitution of mechanical bar couplers before fabrication. Ensure that new lap splices are at least as long as those the plans show.

## **D Measurement**

The department will measure Bar Steel Reinforcement HS Stainless Structures by the pound, acceptably completed, computed from the nominal weights of corresponding sizes for carbon steel deformed bars in AASHTO M31 regardless of stainless steel alloy provided. The department will not measure extra material used if the contractor alters the reinforcement layout as allowed under C.2, extra material for splices or couplers the plans do not show, or the weight of devices used to support or fasten the steel in position.

The department will measure the Bar Couplers Stainless bid items as each individual coupler, 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
505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB

Payment for Bar Steel Reinforcement HS Stainless Structures is full compensation for furnishing and placing stainless steel reinforcing bars, including supports. Where the plans specify bar couplers, the department will pay for the length of bars as detailed with no deduction or increase for installation of the coupler.

Payment for the Bar Couplers Stainless bid items is full compensation for providing couplers; including bar steel that is part of the coupler and not detailed in the plan; for threading reinforcing bars; for installing and coating the splice; and for supplying and testing 3 couplers.

stp-505-005 (20190618)

### **53. Removing Bearings, B-40-350, Item 506.7050.S.011; Removing Bearings B-40-351, Item 506.7050.S.012.**

#### **A Description**

This special provision describes raising the girders and removing the existing bearings, as the plans show.

#### **B (Vacant)**

#### **C Construction**

Raise the structure's girders and remove the existing bearings as the plans show

Obtain prior approval from the engineer for the method of jacking the girders and of supporting them as required.

#### **D Measurement**

The department will measure Removing Bearings B-40-350 and B-40-351 by the unit for each bearing removed, 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
506.7050.S.011	Removing Bearings B-40-350	EACH
506.7050.S.012	Removing Bearings B-40-351	EACH

Payment is full compensation for raising the bridge girders; and for removing the old bearings.

Cost of furnishing and installing the bearings will be paid for under separate bid items.

stp-506-035 (20130615)

### **54. Sawing Pavement Deck Preparation Areas, Item 509.0310.S.**

#### **A Description**

This special provision describes sawing around deteriorated areas requiring deck repairs under the Preparation Decks bid items on decks receiving asphalt or polymer overlays and for deck repairs that will not receive an overlay.

#### **B (Vacant)**

#### **C Construction**

The department will sound and mark areas of deteriorated concrete that require deck preparation. The engineer may identify and mark additional areas as the work is being performed.

Wet cut a minimum of 1 inch deep and at least 2 inches outside of the marked areas. Bound each marked area by providing cuts aligned parallel and perpendicular to the deck centerline.

Remove sawing sludge after completing each area. Do not allow sludge or resulting residue to enter a live lane of traffic, storm sewer, stream, lake, reservoir, marsh, or wetland. Dispose of sludge at an acceptable material disposal site located off the project limits or, if the engineer allows, within the project limits.

#### **D Measurement**

The department will measure Sawing Pavement Deck Preparation Areas by the linear foot, acceptably completed, measured as the total linear feet of bounding cuts.

The department will not measure for payment over-cuts or cuts made beyond what is required to bound engineer-marked deterioration limits.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
509.0310.S	Sawing Pavement Deck Preparation Areas	LF

Payment is full compensation for making all saw cuts; and for debris disposal.

stp-509-070 (20180628)

### **55. Concrete Masonry Deck Repair, Item 509.2100.S.**

#### **A Description**

This special provision describes providing concrete masonry on the sawed deck preparation areas of the concrete bridge deck and in full depth deck, curb, and joint repair areas. Conform to standard spec 502 and standard spec 509.

#### **B Materials**

##### **B.1 Neat Cement**

Furnish a neat cement bonding grout. Mix the neat cement in a water-cement ratio approximately equal to 5 gallons of water per 94 pounds of cement.

##### **B.2 Concrete**

Furnish grade C or E concrete conforming to standard spec 501 for deck preparation, full-depth deck repair, curb repair and joint repair areas except as follows:

1. The contractor may increase slump of grade E concrete to 3 inches.
2. The contractor may use ready-mixed concrete.

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

#### **C Construction**

##### **C.1 Neat Cement**

Immediately before placing the concrete deck patching, coat the prepared surfaces with a neat cement mixture. Ensure the prepared concrete surfaces are moist without any standing water before coating with the neat cement mixture. Brush the neat cement mixture over the prepared concrete surfaces to ensure that all parts receive an even coating, and do not allow excess neat cement to collect in pockets. Apply the neat cement at a rate that ensures the cement does not dry out before being covered with the new concrete.

##### **C.2 Placing Concrete**

Place concrete conforming to standard spec 509. As determined by the engineer, consolidate smaller areas by internal vibration, strike them off, and finish the areas with hand floats to produce plane surfaces that conform to the grade and elevation of the adjoining surfaces. Give all deck patching areas a final hand float finish.

##### **C.3 Curing Concrete**

Cure the concrete masonry deck patching conforming to standard spec 502.2.6(1).

## **D Measurement**

The department will measure Concrete Masonry Deck Repair by the cubic yard, acceptably completed.

The department will measure concrete used in deck preparation areas and in full depth deck, curb, and joint repair as part of the Concrete Masonry Deck Repair bid item.

The department will not measure wasted concrete.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
509.2100.S	Concrete Masonry Deck Repair	CY

Payment is full compensation for furnishing, hauling, preparing, placing, finishing, curing, and protecting all materials.

stp-509-060 (20210708)

## **56. Epoxy Crack Sealing, Item 509.9020.S.**

### **A Description**

This special provision describes sealing cracks in concrete structures, as the plan details show.

### **B Materials**

Furnish a material that is specifically designed for concrete crack sealing. Fill vertical cracks with a non-sag sealant.

Furnish a penetrating epoxy sealant manufactured by Sika, Adhesive Engineering, Technical Sealants, Dayton Superior, or equal. Before using, obtain the engineer's approval for the epoxy system which is proposed to seal the cracks.

### **C Construction**

Before sealing, clean the cracks by chipping and by using high-pressure air.

After all of the cleaning is completed, inject epoxy sealant into the cracks to be sealed. Seal the cracks using the penetrating epoxy sealant as recommended by the sealant manufacturer.

### **D Measurement**

The department will measure Epoxy Crack Sealing in length by the linear foot of crack, acceptably sealed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9020.S	Epoxy Crack Sealing	LF

Payment is full compensation for cleaning the cracks; and for furnishing and placing the epoxy sealant.

stp-509-020 (20240703)

## **57. Structure Repainting General.**

### **A General**

#### **A.1 Inspection**

On all structures in this contract, notify the engineer of any missing or broken bolts or nuts, any missing or broken rivets, or of any cracks or flaws in the steel members while cleaning or painting.

#### **A.2 Date Painted**

At the completion of all painting work, stencil in black paint or contrasting color paint the date of painting the bridge. The numbers shall be 3 inches (75 mm) in height and shall show the month and year in which the

painting was completed: e.g., 11-95 (November 1995). On each bridge painted, stencil the date at two locations. On truss bridges, stencil the date on the cover plates of end posts near and above the top of the railings at the oncoming traffic end. On steel girder bridges, stencil the date on the inside of the outside stringers at the abutments. The date on grade separation bridges shall be readable when going under the structure or at some equally visible surface near the ends of the bridge, as designated by the engineer.

### **A.3 Graffiti Removal**

Remove any graffiti on concrete abutments, piers, pier caps, parapet railings, slope paving or any other location at the direction of the engineer. Use a brush sandblast to remove graffiti.

The above work will not be measured and paid for separately but will be considered incidental to other items in the contract.

### **B (Vacant)**

### **C Construction**

#### **C.1 Repainting Methods**

Do not perform blasting, cleaning and painting on days of high winds. Prevailing winds in excess of 15 mph (25 km/hr) shall be considered high winds.

Place the final field coat of paint on the exterior of the exterior beams as a continuous painting operation. Stop at splices, vertical stiffeners or other appropriate locations so that lap marks are not evident or noticeable.

Completely clean and remove spent abrasive and other waste materials resulting from the contractor's operation from bridge deck surfaces, gutter lines, drains, curbs, bridge seats, pier caps, slope paving, roadway below, and all structural members and assemblies.

#### **C.2 Inspection**

*Add the following to standard spec 105.9:*

Furnish, erect and move scaffolding and other equipment to allow the inspector to closely observe all affected surfaces. The scaffolding, with appropriate safety devices, shall meet the approval of the engineer.

stp-517-005 (20150630)

## **58. Preparation and Coating of Top Flanges B-40-346, Item 517.0901.S.009; Preparation and Coating of Top Flanges B-40-347, Item 517.0901.S.010; Preparation and Coating of Top Flanges B-40-365, Item 517.0901.S.013; Preparation and Coating of Top Flanges B-40-366, Item 517.0901.S.014.**

### **A Description**

This special provision describes thoroughly cleaning and coating the top surface and edges of the top flanges, removing loose paint, rust, mill scale, dirt, oil, grease, or other foreign substances until the specified finish is obtained.

### **B (Vacant)**

### **C Construction**

For top flanges and edges that have no paint on them and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, clean the top surface and edges of the top flanges and paint them with one coat of an approved zinc rich primer. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

For top flanges and edges that have paint on them and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, clean all areas of rust and loose paint on the top surface and edges of the top flanges. Wash the top surface and edges of the top flanges and paint them with one coat of an approved zinc-rich primer according to paint manufacture's recommendations. If flash rusting occurs before the application of the primer, stop painting application, remove the flash rusting and paint cleaned surface. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.



Where plans call for the cleaning of other painted structural steel including hanger assemblies, bearings, field splices, and connections, clean areas of loose paint and rust according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, or and according to paint manufacture's cleaning recommendations. Sound paint need not be removed with the exception of an area 12 inch on either side of hanger assembly centerlines. Clean this area to base metal according to the paint manufacture's cleaning recommendations and paint them one coat of an approved zinc-rich primer according to paint manufacture's recommendations. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

For areas of exposed steel members that are to be imbedded in new concrete and according to the department's Pre-Qualified Paint Systems for Structure Overcoating Cleaning and Priming, thoroughly clean the surface area of exposed steel members that are to be imbedded in the new concrete and solvent wash and paint one coat of an approved zinc rich primer according to paint manufacture's recommendations to these areas. Paint for Solvent Cleaning for Overcoat-minimum Cleaning (SP-1) is not allowed.

According to the approved project specific hazardous material containment plan, furnish and erect tarpaulins or other materials to collect all of the spent paint containing material resulting from blasting or hand and power tool cleaning and coating. Minimize dust during all clean-up activities. Collect and store waste material at the end of each work day or more often if needed. Store waste materials in the hazardous waste containers provided. Lock and secure all waste containers at the end of each work day. Cover containers at all times except when adding or removing waste material. Store the containers in an accessible and secured area, not located in a storm water runoff course, flood plain or exposed to standing water. Transportation and disposal of such waste material will be the responsibility of the department.

Damage to existing painted surfaces as a result of construction operations, shall be restored to the approval of the engineer at the contractor's expense.

#### **D Measurement**

The department will measure Preparation and Coating of Top Flanges (Structure #) as a single unit for each structure, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
517.0901.S.009	Preparation and Coating of Top Flanges B-40-346	EACH
517.0901.S.010	Preparation and Coating of Top Flanges B-40-347	EACH
517.0901.S.013	Preparation and Coating of Top Flanges B-40-365	EACH
517.0901.S.014	Preparation and Coating of Top Flanges B-40-366	EACH

Payment is full compensation for preparing and cleaning the designated surfaces; and for furnishing and applying the coating.

stp-517-010 (20210708)

### **59. Structure Repainting Recycled Abrasive B-40-248, Item 517.1801.S.007; Structure Repainting Recycled Abrasive B-40-249, Item 517.1801.S.008; Structure Repainting Recycled Abrasive B-40-346, Item 517.1801.S.009; Structure Repainting Recycled Abrasive B-40-347, Item 517.1801.S.010; Structure Repainting Recycled Abrasive B-40-369, Item 517.1801.S.015.**

#### **A Description**

This special provision describes surface preparation and painting of the metal surfaces according to the manufacturer's recommendations as modified in this special provision.

#### **A.1 Areas to be Cleaned and Painted**

All structural metal surfaces of:

1. Structure B-40-248 13,900 SF.
2. Structure B-40-249 13,900 SF.

3. Structure B-40-346 13,600 SF.
4. Structure B-40-347 11,900 SF.
5. Structure B-40-369 11,700 SF.

Areas are approximate and given for informational purposes only.

## **B Materials**

### **B.1 Coating System**

Furnish a complete coating system from the department's approved list for "Structure Repainting Recycle Abrasive Structure". The color for the finish coating material shall match the color number the plans show according to Federal Standard Number 595. Supply the engineer with the product data sheets for approval before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, and the minimum drying time between coats.

The color of the primer must be such that a definite contrast between it and the color of the blasted steel is readily apparent. There shall be a color contrast between all subsequent coats for the paint system selected. Submit color samples of the primer and all coats to the engineer for approval before any application of paint.

## **C Construction**

### **C.1 Surface Preparation**

Before abrasive blasting, grind the accessible edges on the bottom flange of the main girders to a radius of 1/16" (+1/16") or a 1/16" (+1/16") chamfer. Ensure all edges are smooth. Solvent clean all surfaces to be coated according to SSPC-SP1.

All metal surfaces must be blast cleaned according to SSPC-SP10 and verified before painting.

Upon completion of surface preparation, test representative surfaces which shall include locations in each span, both on edge and interior girders, for the presence of residual chloride. Perform Surface Contamination Tests (SCAT) according to the manufacturer's recommendations. The tests must be witnessed by the engineer. If chlorides are detected at levels greater than  $1.6 \times 10^{-6}$  oz/in<sup>2</sup> (7ug/cm<sup>2</sup>), continue to clean the affected areas until results are below the specified limit. Submit anticipated testing frequencies and chloride remediation methods to the Engineer for review and approval.

Apply the prime coat the same day that the metal surfaces receive the No. 10 blast or re-blast before application. Cleaned surfaces shall be of the specified condition immediately before paint application. If rust bloom occurs before applying the primer, stop the painting operation in the area of the rust bloom and re-blast and clean the area to SSPC SP-10 before applying the primer.

The steel grit and any associated equipment brought to the site and used for blast cleaning shall be clean. Remove immediately dirty grit or equipment brought to the site at no expense to the department. Furnish an abrasive that has a gradation such that it will produce a uniform surface profile between 1 to 3 mils on the steel surface, as measured according to ISO 8503-5.

The abrasive blasting and recovery system shall be a completely integrated self-contained system for abrasive blasting and recovery. It shall be an open blast and recovery system that will allow no emissions from the recovery operation. The recovery equipment shall be such that the amount of contaminants in the clean recycled steel grit shall be less than 1 percent by weight as per SSPC AB-2.

Remove by grinding all fins, tears, slivers, and burred or sharp edges that are present on any steel member, or that appear during the blasting operation, and re-blast the area to give a 1 to 3 mils surface profile.

Remove all spent material and paint residue from steel surfaces with a good commercial grade vacuum cleaner equipped with a brush-type cleaning tool, and test cleanliness according to ASTM D4285. The airline used for surface preparation shall have an in-line water trap and the air shall be free of oil and water as it leaves the airline.

Take care to protect freshly coated surfaces from subsequent blast cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool, or if visible rust occurs, re-blast to a near white condition. Clean and re-prime the brushed or blast cleaned surfaces according to this specification.

### **C.2 Coating Application**

Apply paint according to the manufacturer's recommendations in a neat workmanlike manner. Paint application shall normally be by airless spray or inaccessible areas by brush, roller or other methods approved by the engineer.

The engineer may allow the use of conventional spray equipment after satisfactory demonstration by the contractor of the proper application technique and handling of that equipment.

Mix the paint or coatings according to the manufacturer's directions to a smooth lump-free consistency. Keep paint thoroughly mixed during the painting application.

After the inspector approves the entire cleaned surface to be coated, apply a prime coat uniformly to the entire surface. Either before or after applying the prime coat, brush or spray a stripe coat of primer on all flange edges, plate edges, bolt heads, nuts, and washers. Apply succeeding coats as the product data sheet shows.

Remove all dry spray by vacuuming, wiping, or sanding if necessary.

If the application of the coating at the required thickness in one coat produces runs, bubbles, or sags; apply a "mist-coating" in multiple passes of the spray gun; separate the passes by several minutes. Where excessive coating thickness produces "mud-cracking", remove such coating back to soundly bonded coating and re-coat the area to the required thickness.

The resultant paint film shall be smooth and uniform, without skips or areas of excessive paint according to SSPC PA1.

The coating is supplied for normal use without thinning. If in cool weather it is necessary to thin the coating for proper application, thin according to the manufacturer's recommendations.

During surface preparation and coating application the ambient and steel temperature shall be between 39 degrees F and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature. (This requires the steel to be dry and free of any condensation or ice regardless of the actual temperature of the steel.) The relative humidity shall not exceed 85%. The manufacturer's ambient condition requirements must be followed if they are more stringent.

Paint thickness shall be within the requirements for a three coat paint system listed in the department's approved list for Structure Repainting Recycle Abrasive Structure and the paint system being used.

Time to recoat shall be according to the manufacturer's recommendations.

The dry film thickness will be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement according to SSPC-PA 2. Dry film thickness in each area measured will be based on an average of three gage readings, after calibration of the gage to account for surface profile of the bare steel as a result of surface preparation.

### **C.3 Quality Control**

#### **C.3.1 Quality Control Plan**

Submit a Quality Control Plan to the Engineer for review and acceptance 14 days prior to the preconstruction conference.

The quality control plan shall include the following:

Contractor/Personnel Qualifications. Steel bridge painting contractors shall be SSPC-QP1 and SSPC-QP2 accredited, or currently enrolled in the SSPC-QP7, Painting Contractor Introductory Program, Category 2. Provide Contractor qualifications and the names and qualifications/experience/training/certifications of the personnel managing and implementing the Quality Control program and conducting the quality control tests.

Quality Control (QC) Program. The QC Program shall identify the following; the instrumentation that will be used, a schedule of required measurements and observations, procedures for correcting unacceptable work, and procedures for improving surface preparation and painting quality as a result of quality control findings. The program shall incorporate at a minimum, a report of daily QC Inspections.

Inspection Access Plan. The inspection access plan for use by Contractor QC personnel for ongoing inspections and by the Engineer during Quality Assurance (QA) observations.

Surface Preparation/Painting Plan. The surface preparation/painting plan shall include the methods of surface preparation and type of equipment to be utilized for washing, hand/power tool cleaning, removal of rust, mill scale, paint or foreign matter, abrasive blast or water jetting, and remediation of chloride. If detergents, additives, or inhibitors are incorporated into the water, the Contractor shall include the names of the materials and Safety Data Sheets (SDS). The Contractor shall identify the solvents proposed for solvent cleaning together with SDS.

The plan shall also include the methods of coating application and equipment to be utilized.

Identify inspection hold points. At minimum include the following hold points:

Completion of Surface Preparation

Surface conditions prior to application of each coat

Post Coating Application

Development of punch list.

Final Inspection

**Abrasives.** Abrasives to be used for abrasive blast cleaning, including SDS. For expendable abrasives, the Contractor shall provide certification from the abrasive supplier that the abrasive meets the requirements of SSPC-AB1. For steel grit abrasives, the certification shall indicate that the abrasive meets the requirements of SSPC-AB3.

**Protective Coverings.** Plan for containing or controlling paint debris (droplets, spills, overspray, etc.), including any tarpaulins or protective coverings proposed for use. For submittal requirements involving the containment used to remove lead paint, the Contractor shall refer to Special Provision article for Negative Pressure Containment and Collection of Waste Materials, Item 517.4501.S.

### **C.3.2 Contractor Qualifications.**

The personnel managing the Contractor's QC Program shall possess a minimum classification of Society of Protective Coatings (SSPC) BCI certified, National Association of Corrosion Engineers (NACE) Coating Inspector Level 2 - Certified, and shall provide evidence of successful inspection of 3 bridge projects of similar or greater complexity and scope that have been completed in the last 2 years. Copies of the certification and experience shall be provided. References for experience shall be provided and shall include the name, address, and telephone number of a contact person employed by the bridge owner.

The personnel performing the QC tests shall be trained in coatings inspection and the use of the testing instruments. Documentation of training shall be provided. The Contractor shall not replace the QC personnel assigned to the project without advance notice to the Engineer, and acceptance of the replacement(s), by the Engineer.

### **C.3.3 Quality Control (QC) Inspections.**

The Contractor shall perform first line, in process QC inspections. The Contractor shall implement the submitted and accepted QC Program to ensure that the work accomplished complies with these specifications. The designated Quality Control inspector shall be onsite full time during any operations that affect the quality of the coating system (e.g., surface preparation and chloride remediation, coating mixing and application, and evaluations between coats and upon project completion). Completed daily inspection reports shall be turned into the Engineer before work resumes the following day. The Engineer or designated representative will sign the report. The signature is an acknowledgment that the report has been received, but should not be construed as an agreement that any of the information documented therein is accurate.

Contractor QC inspections and daily inspection reporting shall include, but not be limited to the following:

1. Suitability of protective coverings and the means employed to control project debris and paint spills, overspray, etc.
2. Ambient conditions (temperature, substrate surface temperature, relative humidity, dewpoint, wind)
3. Surface preparation (solvent cleaning, pressure washing including chalk tests, hand/power tool or abrasive blast cleaning, etc.)
4. Chloride remediation
5. Coating application (specified materials, mixing, thinning, and wet/dry film thickness)
6. Recoat times and cleanliness between coats
7. Coating continuity and coverage (freedom from runs, sags, overspray, dryspray, pinholes, shadow-through, skips, misses, etc.)

The QC personnel shall not perform hands on surface preparation or painting activities. Painters shall perform wet film thickness measurements, with QC personnel conducting random spot checks of the wet film.

The Contractor shall supply all necessary equipment with current calibration certifications to perform the QC inspections. Equipment shall include the following at a minimum:

1. Sling psychrometer or digital psychrometer for the measurement of dew point and relative humidity, together with all necessary weather bureau tables or psychrometric charts. In the event of a conflict between readings with the sling psychrometer and the digital psychrometer, the readings with the sling psychrometer shall prevail.
2. Surface temperature thermometer
3. SSPC Visual Standards VIS 1, Guide and Reference Photographs for Steel Surfaces Prepared by Dry Abrasive Blast Cleaning; SSPC-VIS 3, Visual Standard for Power and Hand-Tool Cleaned Steel; SSPC-VIS 4, Guide and Reference Photographs for Steel Prepared by Water Jetting, and/or SSPC-VIS 5, Guide and Reference Photographs for Steel Prepared by Wet Abrasive Blast Cleaning, as applicable.
4. Test equipment for determining abrasive cleanliness (oil content and water-soluble contaminants) according to SSPC abrasive specifications AB1, AB2, and AB3.
5. Commercially available putty knife of a minimum thickness of 40 mils (1mm) and a width between 1 and 3 in. (25 and 75 mm). Note that the putty knife is only required for projects in which the existing coating is being feathered and tested with a dull putty knife.
6. Testex Press-O-Film Replica Tape and Micrometer compliant with Method C of ASTM D4417, Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel, or digital profile depth micrometer compliant with ASTM D4417, Method B. In the event of a conflict between measurements with the two instruments on abrasive blast cleaned steel, the results with the Testex Tape shall prevail. Note that for measuring the profile of steel power tool cleaned to SSPC-SP15, Commercial Grade Power Tool Cleaning, the digital profile depth micrometer shall be used.
7. Bresle Cell Kits or CHLOR\*TEST kits for chloride determinations, or equivalent
8. Wet Film Thickness Gage
9. Blotter paper for compressed air cleanliness checks
10. Type 2 Electronic Dry Film Thickness Gage per SSPC - PA2, Procedure for Determining Conformance to Dry Coating Thickness Requirements
11. Standards for verifying the accuracy of the dry film thickness gage
12. Light meter for measuring light intensity during paint removal, painting, and inspection activities
13. All applicable ASTM and SSPC Standards used for the work

The accuracy of the instruments shall be verified by the Contractor's personnel according to the equipment manufacturer's recommendations and the Contractor's QC Program. All inspection equipment shall be made available to the Engineer for QA observations on an as needed basis.

#### **C.3.4 Hold Point Notification.**

Unless other arrangements are made at the project site, provide the Engineer with a minimum 4-hour notification before a Hold Point inspection will be reached. If the 4-hour notification is provided and the Work is ready for inspection at that time, the Engineer will conduct the necessary observations. If the Work is not ready at the appointed time, unless other arrangements are made, an additional 4-hour notification is required. Permission to proceed beyond a Hold Point without a QA inspection will be granted solely at the discretion of the Engineer, and only on a case-by-case basis.

#### **C.3.5 Quality Assurance (QA) Observations.**

The Engineer will conduct QA observations of any or all phases of the work. The presence or activity of Engineer observations in no way relieves the Contractor of the responsibility to provide all necessary daily QC inspections of his/her own and to comply with all requirements of this Specification.

The Engineer has the right to reject any work that was performed without adequate provision for QA observations.

#### **D Measurement**

The department will measure Structure Repainting Recycled Abrasive (Structure #) as a single unit for each structure, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1801.S.007	Structure Repainting Recycled Abrasive B-40-248	EACH
517.1801.S.008	Structure Repainting Recycled Abrasive B-40-249	EACH
517.1801.S.009	Structure Repainting Recycled Abrasive B-40-346	EACH
517.1801.S.010	Structure Repainting Recycled Abrasive B-40-347	EACH
517.1801.S.015	Structure Repainting Recycled Abrasive B-40-369	EACH

Payment is full compensation for preparing and cleaning the designated surfaces; furnishing and applying the paint; and for providing the listed equipment.

SER-517-050 (20230120)

## 60. Structure Repainting Recycled Abrasive B-40-365, Item 517.1801.S.013; Structure Repainting Recycled Abrasive B-40-366, Item 517.1801.S.014.

### A Description

This special provision describes surface preparation and painting of the metal surfaces according to the manufacturer's recommendations as modified in this special provision.

#### A.1 Areas to be Cleaned and Painted

All structural metal surfaces outside of the UPRR 25-foot horizontal clearance offset from track centerline.

1. Structure B-40-365 8,500 SF.
2. Structure B-40-366 7,500 SF.

Areas are approximate and given for informational purposes only.

### B Materials

#### B.1 Coating System

Furnish a complete coating system from the department's approved list for "Structure Repainting Recycle Abrasive Structure". The color for the finish coating material shall match the color number the plans show according to Federal Standard Number 595. Supply the engineer with the product data sheets for approval before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, and the minimum drying time between coats.

The color of the primer must be such that a definite contrast between it and the color of the blasted steel is readily apparent. There shall be a color contrast between all subsequent coats for the paint system selected. Submit color samples of the primer and all coats to the engineer for approval before any application of paint.

### C Construction

#### C.1 Surface Preparation

Before abrasive blasting, grind the accessible edges on the bottom flange of the main girders to a radius of 1/16" (+1/16") or a 1/16" (+1/16") chamfer. Ensure all edges are smooth. Solvent clean all surfaces to be coated according to SSPC-SP1.

All metal surfaces must be blast cleaned according to SSPC-SP10 and verified before painting.

Upon completion of surface preparation, test representative surfaces which shall include locations in each span, both on edge and interior girders, for the presence of residual chloride. Perform Surface Contamination Tests (SCAT) according to the manufacturer's recommendations. The tests must be witnessed by the engineer. If chlorides are detected at levels greater than  $1.6 \times 10^{-6}$  oz/in<sup>2</sup> (7ug/cm<sup>2</sup>), continue to clean the affected areas until results are below the specified limit. Submit anticipated testing frequencies and chloride remediation methods to the Engineer for review and approval.

Apply the prime coat the same day that the metal surfaces receive the No. 10 blast or re-blast before application. Cleaned surfaces shall be of the specified condition immediately before paint application. If rust bloom occurs before applying the primer, stop the painting operation in the area of the rust bloom and re-blast and clean the area to SSPC SP-10 before applying the primer.

The steel grit and any associated equipment brought to the site and used for blast cleaning shall be clean. Remove immediately dirty grit or equipment brought to the site at no expense to the department. Furnish an abrasive that has a gradation such that it will produce a uniform surface profile between 1 to 3 mils on the steel surface, as measured according to ISO 8503-5.

The abrasive blasting and recovery system shall be a completely integrated self-contained system for abrasive blasting and recovery. It shall be an open blast and recovery system that will allow no emissions from the recovery operation. The recovery equipment shall be such that the amount of contaminants in the clean recycled steel grit shall be less than 1 percent by weight as per SSPC AB-2.

Remove by grinding all fins, tears, slivers, and burred or sharp edges that are present on any steel member, or that appear during the blasting operation, and re-blast the area to give a 1 to 3 mils surface profile.

Remove all spent material and paint residue from steel surfaces with a good commercial grade vacuum cleaner equipped with a brush-type cleaning tool, and test cleanliness according to ASTM D4285. The airline used for surface preparation shall have an in-line water trap and the air shall be free of oil and water as it leaves the airline.

Take care to protect freshly coated surfaces from subsequent blast cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool, or if visible rust occurs, re-blast to a near white condition. Clean and re-prime the brushed or blast cleaned surfaces according to this specification.

## **C.2 Coating Application**

Apply paint according to the manufacturer's recommendations in a neat workmanlike manner. Paint application shall normally be by airless spray or inaccessible areas by brush, roller or other methods approved by the engineer.

The engineer may allow the use of conventional spray equipment after satisfactory demonstration by the contractor of the proper application technique and handling of that equipment.

Mix the paint or coatings according to the manufacturer's directions to a smooth lump-free consistency. Keep paint thoroughly mixed during the painting application.

After the inspector approves the entire cleaned surface to be coated, apply a prime coat uniformly to the entire surface. Either before or after applying the prime coat, brush or spray a stripe coat of primer on all flange edges, plate edges, bolt heads, nuts, and washers. Apply succeeding coats as the product data sheet shows.

Remove all dry spray by vacuuming, wiping, or sanding if necessary.

If the application of the coating at the required thickness in one coat produces runs, bubbles, or sags; apply a "mist-coating" in multiple passes of the spray gun; separate the passes by several minutes. Where excessive coating thickness produces "mud-cracking", remove such coating back to soundly bonded coating and re-coat the area to the required thickness.

The resultant paint film shall be smooth and uniform, without skips or areas of excessive paint according to SSPC PA1.

The coating is supplied for normal use without thinning. If in cool weather it is necessary to thin the coating for proper application, thin according to the manufacturer's recommendations.

During surface preparation and coating application the ambient and steel temperature shall be between 39 degrees F and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature. (This requires the steel to be dry and free of any condensation or ice regardless of the actual temperature of the steel.) The relative humidity shall not exceed 85%. The manufacturer's ambient condition requirements must be followed if they are more stringent.

Paint thickness shall be within the requirements for a three coat paint system listed in the department's approved list for Structure Repainting Recycle Abrasive Structure and the paint system being used.

Time to recoat shall be according to the manufacturer's recommendations.

The dry film thickness will be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement according to SSPC-PA 2. Dry film thickness in each area measured will be based on an average of three gage readings, after calibration of the gage to account for surface profile of the bare steel as a result of surface preparation.

## **C.3 Quality Control**

### **C.3.1 Quality Control Plan**

Submit a Quality Control Plan to the Engineer for review and acceptance 14 days prior to the preconstruction conference.

The quality control plan shall include the following:

**Contractor/Personnel Qualifications.** Steel bridge painting contractors shall be SSPC-QP1 and SSPC-QP2 accredited, or currently enrolled in the SSPC-QP7, Painting Contractor Introductory Program, Category 2. Provide Contractor qualifications and the names and qualifications/experience/training/certifications of the personnel managing and implementing the Quality Control program and conducting the quality control tests.

**Quality Control (QC) Program.** The QC Program shall identify the following; the instrumentation that will be used, a schedule of required measurements and observations, procedures for correcting unacceptable work, and procedures for improving surface preparation and painting quality as a result of quality control findings. The program shall incorporate at a minimum, a report of daily QC Inspections.

**Inspection Access Plan.** The inspection access plan for use by Contractor QC personnel for ongoing inspections and by the Engineer during Quality Assurance (QA) observations.

**Surface Preparation/Painting Plan.** The surface preparation/painting plan shall include the methods of surface preparation and type of equipment to be utilized for washing, hand/power tool cleaning, removal of rust, mill scale, paint or foreign matter, abrasive blast or water jetting, and remediation of chloride. If detergents, additives, or inhibitors are incorporated into the water, the Contractor shall include the names of the materials and Safety Data Sheets (SDS). The Contractor shall identify the solvents proposed for solvent cleaning together with SDS.

The plan shall also include the methods of coating application and equipment to be utilized.

Identify inspection hold points. At minimum include the following hold points:

Completion of Surface Preparation

Surface conditions prior to application of each coat

Post Coating Application

Development of punch list.

Final Inspection

**Abrasives.** Abrasives to be used for abrasive blast cleaning, including SDS. For expendable abrasives, the Contractor shall provide certification from the abrasive supplier that the abrasive meets the requirements of SSPC-AB1. For steel grit abrasives, the certification shall indicate that the abrasive meets the requirements of SSPC-AB3.

**Protective Coverings.** Plan for containing or controlling paint debris (droplets, spills, overspray, etc.), including any tarpaulins or protective coverings proposed for use. For submittal requirements involving the containment used to remove lead paint, the Contractor shall refer to Special Provision article for Negative Pressure Containment and Collection of Waste Materials, Item 517.4501.S.

### **C.3.2 Contractor Qualifications.**

The personnel managing the Contractor's QC Program shall possess a minimum classification of Society of Protective Coatings (SSPC) BCI certified, National Association of Corrosion Engineers (NACE) Coating Inspector Level 2 - Certified, and shall provide evidence of successful inspection of 3 bridge projects of similar or greater complexity and scope that have been completed in the last 2 years. Copies of the certification and experience shall be provided. References for experience shall be provided and shall include the name, address, and telephone number of a contact person employed by the bridge owner.

The personnel performing the QC tests shall be trained in coatings inspection and the use of the testing instruments. Documentation of training shall be provided. The Contractor shall not replace the QC personnel assigned to the project without advance notice to the Engineer, and acceptance of the replacement(s), by the Engineer.

### **C.3.3 Quality Control (QC) Inspections.**

The Contractor shall perform first line, in process QC inspections. The Contractor shall implement the submitted and accepted QC Program to ensure that the work accomplished complies with these specifications. The designated Quality Control inspector shall be onsite full time during any operations that affect the quality of the coating system (e.g., surface preparation and chloride remediation, coating



mixing and application, and evaluations between coats and upon project completion). Completed daily inspection reports shall be turned into the Engineer before work resumes the following day. The Engineer or designated representative will sign the report. The signature is an acknowledgment that the report has been received, but should not be construed as an agreement that any of the information documented therein is accurate.

Contractor QC inspections and daily inspection reporting shall include, but not be limited to the following:

1. Suitability of protective coverings and the means employed to control project debris and paint spills, overspray, etc.
2. Ambient conditions (temperature, substrate surface temperature, relative humidity, dewpoint, wind)
3. Surface preparation (solvent cleaning, pressure washing including chalk tests, hand/power tool or abrasive blast cleaning, etc.)
4. Chloride remediation
5. Coating application (specified materials, mixing, thinning, and wet/dry film thickness)
6. Recoat times and cleanliness between coats
7. Coating continuity and coverage (freedom from runs, sags, overspray, dryspray, pinholes, shadow-through, skips, misses, etc.)

The QC personnel shall not perform hands on surface preparation or painting activities. Painters shall perform wet film thickness measurements, with QC personnel conducting random spot checks of the wet film.

The Contractor shall supply all necessary equipment with current calibration certifications to perform the QC inspections. Equipment shall include the following at a minimum:

1. Sling psychrometer or digital psychrometer for the measurement of dew point and relative humidity, together with all necessary weather bureau tables or psychrometric charts. In the event of a conflict between readings with the sling psychrometer and the digital psychrometer, the readings with the sling psychrometer shall prevail.
2. Surface temperature thermometer
3. SSPC Visual Standards VIS 1, Guide and Reference Photographs for Steel Surfaces Prepared by Dry Abrasive Blast Cleaning; SSPC-VIS 3, Visual Standard for Power and Hand-Tool Cleaned Steel; SSPC-VIS 4, Guide and Reference Photographs for Steel Prepared by Water Jetting, and/or SSPC-VIS 5, Guide and Reference Photographs for Steel Prepared by Wet Abrasive Blast Cleaning, as applicable.
4. Test equipment for determining abrasive cleanliness (oil content and water-soluble contaminants) according to SSPC abrasive specifications AB1, AB2, and AB3.
5. Commercially available putty knife of a minimum thickness of 40 mils (1mm) and a width between 1 and 3 in. (25 and 75 mm). Note that the putty knife is only required for projects in which the existing coating is being feathered and tested with a dull putty knife.
6. Testex Press-O-Film Replica Tape and Micrometer compliant with Method C of ASTM D4417, Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel, or digital profile depth micrometer compliant with ASTM D4417, Method B. In the event of a conflict between measurements with the two instruments on abrasive blast cleaned steel, the results with the Testex Tape shall prevail. Note that for measuring the profile of steel power tool cleaned to SSPC-SP15, Commercial Grade Power Tool Cleaning, the digital profile depth micrometer shall be used.
7. Bresle Cell Kits or CHLOR\*TEST kits for chloride determinations, or equivalent
8. Wet Film Thickness Gage
9. Blotter paper for compressed air cleanliness checks
10. Type 2 Electronic Dry Film Thickness Gage per SSPC - PA2, Procedure for Determining Conformance to Dry Coating Thickness Requirements
11. Standards for verifying the accuracy of the dry film thickness gage
12. Light meter for measuring light intensity during paint removal, painting, and inspection activities

### 13. All applicable ASTM and SSPC Standards used for the work

The accuracy of the instruments shall be verified by the Contractor's personnel according to the equipment manufacturer's recommendations and the Contractor's QC Program. All inspection equipment shall be made available to the Engineer for QA observations on an as needed basis.

#### **C.3.4 Hold Point Notification**

Unless other arrangements are made at the project site, provide the Engineer with a minimum 4-hour notification before a Hold Point inspection will be reached. If the 4-hour notification is provided and the Work is ready for inspection at that time, the Engineer will conduct the necessary observations. If the Work is not ready at the appointed time, unless other arrangements are made, an additional 4-hour notification is required. Permission to proceed beyond a Hold Point without a QA inspection will be granted solely at the discretion of the Engineer, and only on a case-by-case basis.

#### **C.3.5 Quality Assurance (QA) Observations**

The Engineer will conduct QA observations of any or all phases of the work. The presence or activity of Engineer observations in no way relieves the Contractor of the responsibility to provide all necessary daily QC inspections of his/her own and to comply with all requirements of this Specification.

The Engineer has the right to reject any work that was performed without adequate provision for QA observations.

#### **D Measurement**

The department will measure Structure Repainting Recycled Abrasive (Structure #) as a single unit for each structure, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1801.S.013	Structure Repainting Recycled Abrasive B-40-365	EACH
517.1801.S.014	Structure Repainting Recycled Abrasive B-40-366	EACH

Payment is full compensation for preparing and cleaning the designated surfaces; furnishing and applying the paint; and for providing the listed equipment.

SER-517-050 (20230120)

### **61. Structure Overcoating Cleaning and Priming B-40-365, Item 517.3001.S.013; Structure Overcoating Cleaning and Priming B-40-366, Item 517.3001.S.014.**

#### **A Description**

This special provision describes cleaning and painting with two or three coats of paint the metal surfaces.

#### **A.1 Areas to be Cleaned and Painted**

Structure B-40-365

1. Two Coat Area: 0 SF with SP 1 cleaning.
2. Three Coat Area:  
0 SF with SP 2 cleaning.  
0 SF with SP 3 cleaning.  
0 SF with SP 11 cleaning.  
4,300 SF with SP 15 cleaning.  
4,300 SF total three-coat area.

Structure B-40-366

1. Two Coat Area: 0 SF with SP 1 cleaning.
2. Three Coat Area:  
0 SF with SP 2 cleaning.

0 SF with SP 3 cleaning.  
0 SF with SP 11 cleaning.  
5,500 SF with SP 15 cleaning.  
5,500 SF total three-coat area.

## **B Materials**

Furnish an epoxy coating system from the department's APL for Paint- structure maintenance.

## **C Construction**

### **C.1 Surface Preparation**

Before overcoating or power tool cleaning, solvent clean all surfaces to be coated according to SSPC-SP1. A SSPC-SP 15 power Tool Cleaning according to Steel Structures Painting Council Specification 15 will be required on all metal surfaces to be painted with a three-coat system. Prime the same day, or re-clean before application, all metal surfaces receiving a No. 15 cleaning. All power tools used for No. 15 cleaning of the steel superstructure must be vacuum shrouded.

Remove all abrasive or paint residue from steel surfaces with a High Efficiency Particulate Abatement (HEPA-VAC) vacuum cleaner equipped with a brush-type cleaning tool, or by double blowing. If the double blowing method is used, vacuum the exposed top surfaces of all structural steel, including flanges, longitudinal stiffeners, splices, plates, and hangers, after the double blowing operations are completed. The air line used for blowing the steel clean shall have an inline water trap and the air shall be free of oil and water as it leaves the air line.

Take care to protect freshly coated surfaces from subsequent cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool. Clean and re-prime the brushed surfaces within the time recommended by the manufacturer.

### **C.2 Painting**

Paint by applying two or three coats of an approved coating system as specified herein to the surfaces as described in A.1 from the department's approved products list.

### **C.3 Coating Application**

Apply paint in a neat, workmanlike manner. The resultant paint film shall be smooth and uniform without skips or areas of excessive paint. Apply coating according to the manufacturer's recommendations.

Before applying the prime coat, coat with primer all edges, rivet and bolt heads, nuts and washers by using either a brush, roller, or spray application.

Dry Film Thickness per coat shall be a minimum of 3-mil. The dry film thickness shall be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement according to SSPC-PA 2.

During surface preparation and coating application, the ambient and steel temperature shall be between 39 and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature, and the relative humidity shall not exceed 85%.

## **D Measurement**

The department will measure Structure Overcoating Cleaning and Priming (Structure #) as a single unit for each structure, acceptably completed.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
517.3001.S.013	Structure Overcoating Cleaning and Priming B-40-365	EACH
517.3001.S.014	Structure Overcoating Cleaning and Priming B-40-366	EACH

Payment is full compensation for preparing and cleaning the designated surfaces; and for furnishing and applying the paint.

stp-517-036 (20210708)

## **62. Structure Overcoating Cleaning and Priming B-40-369, Item 517.3001.S.015.**

### **A Description**

This special provision describes cleaning and painting with two or three coats of paint the metal surfaces.

#### **A.1 Areas to be Cleaned and Painted**

Structure B-40-369

1. Two Coat Area: 0 SF with SP 1 cleaning.
2. Three Coat Area:
  - 0 SF with SP 2 cleaning.
  - 300 SF with SP 3 cleaning.
  - 0 SF with SP 11 cleaning.
  - 0 SF with SP 15 cleaning.
  - 300 SF total three-coat area.

### **B Materials**

Furnish an epoxy coating system from the department's APL for Paint- structure maintenance.

### **C Construction**

#### **C.1 Surface Preparation**

Before overcoating or power tool cleaning, solvent clean all surfaces to be coated according to SSPC-SP1. A SSPC-SP 3 power Tool Cleaning according to Steel Structures Painting Council Specification 3 will be required on all metal surfaces to be painted with a three-coat system. Prime the same day, or re-clean before application, all metal surfaces receiving a No. 3 cleaning.

Remove all abrasive or paint residue from steel surfaces with a High Efficiency Particulate Abatement (HEPA-VAC) vacuum cleaner equipped with a brush-type cleaning tool, or by double blowing. If the double blowing method is used, vacuum the exposed top surfaces of all structural steel, including flanges, longitudinal stiffeners, splices, plates, and hangers, after the double blowing operations are completed. The air line used for blowing the steel clean shall have an inline water trap and the air shall be free of oil and water as it leaves the air line.

Take care to protect freshly coated surfaces from subsequent cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool. Clean and re-prime the brushed surfaces within the time recommended by the manufacturer.

#### **C.2 Painting**

Paint by applying two or three coats of an approved coating system as specified herein to the surfaces as described in A.1 from the department's approved products list.

#### **C.3 Coating Application**

Apply paint in a neat, workmanlike manner. The resultant paint film shall be smooth and uniform without skips or areas of excessive paint. Apply coating according to the manufacturer's recommendations.

Before applying the prime coat, coat with primer all edges, rivet and bolt heads, nuts and washers by using either a brush, roller, or spray application.

Dry Film Thickness per coat shall be a minimum of 3-mil. The dry film thickness shall be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement according to SSPC-PA 2.

During surface preparation and coating application, the ambient and steel temperature shall be between 39 and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature, and the relative humidity shall not exceed 85%.

### **D Measurement**

The department will measure Structure Overcoating Cleaning and Priming (Structure #) as a single unit for each structure, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.3001.S	Structure Overcoating Cleaning and Priming B-40-369	EACH

Payment is full compensation for preparing and cleaning the designated surfaces; and for furnishing and applying the paint.

stp-517-036 (20210708)

## 63. Containment and Collection of Waste Materials B-40-365, Item 517.4001.S.013; Containment and Collection of Waste Materials B-40-366, Item 517.4001.S.014; Containment and Collection of Waste Materials B-40-369, Item 517.4001.S.015.

### A Description

This special provision describes furnishing and erecting tarpaulins to contain, collect and store the spent material from surface preparation of steel surfaces, collecting such spent material, and labeling and storing the spent material in waste containers.

### B Materials

Provide 5-gallon lidded plastic containers for containing the spent material.

### C Construction

Erect tarpaulins or other materials to collect all of the spent material from power tool cleaning. Consider and treat all spent material as hazardous waste.

Collect and store all waste material collected by this operation at the bridge site for disposal. Collect and store all waste materials at the end of each workday or more often if needed. Store materials in 5-gallon lidded plastic containers.

Label each container with the date the first waste was placed in the container and the words "Hazardous Waste – EPA Waste Code D008." Lock and secure all containers at the end of each workday. Keep the containers covered at all times except to add or remove waste material. Store the containers in an accessible and secured area, not located in a storm water runoff course, flood plain or exposed to standing water.

Collect the spent debris by vacuuming, shoveling, sweeping, or by channeling it directly to disposal containers. The enclosure shall be thoroughly cleaned at the end of each work day.

### D Measurement

The department will measure Containment and Collection of Waste Materials (Structure) as a single unit for each structure, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.4001.S.013	Containment and Collection of Waste Materials B-40-365	EACH
517.4001.S.014	Containment and Collection of Waste Materials B-40-366	EACH
517.4001.S.015	Containment and Collection of Waste Materials B-40-369	EACH

Payment is full compensation for designing, erecting, operating, maintaining and disassembling the containment devices; collecting, labeling and storing spent materials in appropriate containers.

stp-517-037 (20230113)

64. **Negative Pressure Containment and Collection of Waste Materials, B-40-248, Item 517.4501.S.007;**  
**Negative Pressure Containment and Collection of Waste Materials B-40-249, Item 517.4501.S.008;**  
**Negative Pressure Containment and Collection of Waste Materials B-40-346, Item 517.4501.S.009;**  
**Negative Pressure Containment and Collection of Waste Materials B-40-347, Item 517.4501.S.010;**  
**Negative Pressure Containment and Collection of Waste Materials B-40-365, Item 517.4501.S.013;**  
**Negative Pressure Containment and Collection of Waste Materials B-40-366, Item 517.4501.S.014;**  
**Negative Pressure Containment and Collection of Waste Materials B-40-369, Item 517.4501.S.015.**

**A Description**

This special provision describes providing a dust collector to maintain a negative air pressure in the enclosure; furnishing and erecting enclosures as required to contain, collect and store waste material resulting from the preparation of steel surfaces for painting, and repainting, including collection of such waste material, and labeling and storing waste material in approved hazardous waste containers.

**B (Vacant)**

**C Construction**

Erect an enclosure to completely enclose (surround) the blasting operations. The ground, slope paving, or roadway cannot be used as the bottom of the enclosure unless covered by approved containment materials. So that there are no visible emissions to the air or ground or water, design, erect, operate, maintain and disassemble the enclosures in such a manner to effectively contain and collect dust and waste materials resulting from surface preparation and paint over spray. Suspend all enclosures over water from the structure or as approved by the engineer.

Construct the enclosure of flexible materials such as tarpaulins or of rigid materials such as plywood, or of a combination of flexible and rigid materials and meet SSPC Guide 6 requirements with Level 1 emissions. Systems manufactured and provided by Eagle Industries, Detroit Tarps, or equal, are preferred. The tarpaulins shall be a non-permeable material, either as part of the tarp system or have a separate non-permeable lining. Maintain all materials free of tears, cuts or holes. The vertical sides of the enclosure shall extend from the bottom of the deck down to the level of the covered work platform or covered barge where used for structures over water and shall be fastened securely to those levels to prevent the wind from lifting them. Bulkheads are required between beams to enclose the blasting area as approved by the engineer. Where bulkheads are required, construct them of plywood and properly seal them. To prevent spent materials and paint over spray from escaping the enclosed area, overlap and fasten together all seams. Place groundcovers under all equipment before operations or as approved by the engineer.

To allow proper cleaning, inspection of structures or equipment, and painting, provide safe adequate artificial lighting in areas where natural light is inadequate.

Provide a dust collector so that there are no visible emissions outside of the enclosure and so that a negative air pressure inside the enclosure is maintained. The dust collector shall be sized to maintain the minimum air flow based on the cross-sectional area of the enclosure.

A combination of positive air input and negative air pressure may be needed to maintain the minimum airflow within the enclosure.

Filter all air exhausted from the enclosure to create a negative pressure within the enclosure so as to remove all hazardous and other particulate matter.

After all debris has been removed and all painting has been approved in the containment area is complete, remove containment according to SSPC Guide 6.

As a safety factor for structures over water, provide for scum control. Provide a plan for corrective measures to mitigate scum forming and list the procedures, labor and equipment needed to assure compliance. Effectively contain the scum that forms on the water and does not sink in place from moving upstream or downstream by the use of floating boom devices.

If in the use of floating boom devices, the scum tends to collect at the devices, contain, collect, store the scum, and do not allow it to travel upstream or downstream beyond the devices. Remove the scum at least once a day or more often if needed.

Collect and store at the bridge site for disposal all waste material or scum collected by this operation, or any that may have fallen onto the ground tarps. Collect and store all waste material and scum at the end of each workday or more often if needed. Storage shall be in provided hazardous waste containers. Label each container as it is filled, using the labels provided by the Hazardous Waste Disposal contractor. Check the label and ensure that the project ID, bridge number and EPA ID match the structure. Fill in the generation date when the first material is placed in the container. Secure all containers at the end of each workday. Keep the containers covered at all times except to add or remove waste material. Store the containers in an accessible and secured area, not located in a storm water runoff course, flood plain, or exposed to standing water.

In a separate operation, recover the recyclable abrasive for future application, and collect the paint and/or corrosion particles for disposal.

#### **D Measurement**

The department will measure Negative Pressure Containment and Collection of Waste Materials (Structure) as a single unit for each structure, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
517.4501.S.007	Negative Pressure Containment and Collection of Waste Materials B-40-248	EACH
517.4501.S.008	Negative Pressure Containment and Collection of Waste Materials B-40-249	EACH
517.4501.S.009	Negative Pressure Containment and Collection of Waste Materials B-40-346	EACH
517.4501.S.010	Negative Pressure Containment and Collection of Waste Materials B-40-347	EACH
517.4501.S.013	Negative Pressure Containment and Collection of Waste Materials B-40-365	EACH
517.4501.S.014	Negative Pressure Containment and Collection of Waste Materials B-40-366	EACH
517.4501.S.015	Negative Pressure Containment and Collection of Waste Materials B-40-369	EACH

Payment is full compensation for designing, erecting, operating, maintaining, and disassembling the containment devices; providing negative pressure exhaust ventilation; collecting, labeling, and for storing spent materials in provided hazardous waste containers.

stp-517-065 (20230113)

### **65. Labeling and Disposal of Waste Material.**

The EPA ID number for Structure B-40-248 is WIR000050021.

The EPA ID number for Structure B-40-249 is WIR000050039.

The EPA ID number for Structure pair B-40-346/347 is WIR000182832.

The EPA ID number for Structure pair B-40-365/366 is WIR000050047.

The EPA ID number for Structure B-40-369 is WIR000049528.

The state has an exclusive mandatory use contract with a private waste management contractor to transport and dispose of hazardous waste.

The state's waste management contractor shall furnish and deliver appropriate hazardous waste containers and site-specific labels to each bridge site. The provided containers shall be placed at pre-selected drop-off and pick-up points at each bridge site, and these locations shall be determined at the preconstruction conference. The custody of the containers and labels shall be the responsibility of the painting contractor while they are at the job site.

Fill out form DT 1231, <https://wisconsindot.gov/Documents/formdocs/dt1231.docx> and email it to the waste management contractor, the region environmental coordinator, and the DOT Hazmat unit mailbox ([dothazmatunit@dot.wi.gov](mailto:dothazmatunit@dot.wi.gov)) a minimum of 10 working days in advance to request container drop-off or pickup. Using the form, provide the waste management contractor with the project ID, structure number, EPA ID, and the agreed-upon location for container staging. Contact information for the waste management contractor is located on the WisDOT Internet site at:

Report all reportable spills and discharges according to the contingency plan.

Labels are site-specific. Check the labels to ensure that the project ID, structure number, and EPA ID match the structure generating the waste. Apply a label to each drum when it is opened for the first time. Fill in the date on the label the first day material is accumulated in the drum. The following page is an example of a properly filled-in label.

During paint removal operations, continuously monitor and notify the project inspector of the status of waste generation and quantity stored so that timely disposal can be arranged.

stp-517-055 (20230113)

HAZARDOUS WASTE	
WW-5257580999-001-01-0	
<b>STORAGE LABEL</b>	
RQ, HAZARDOUS WASTE, SOLID, n.o.s., (LEAD), 9, NA3077, III, (D008)	
Enter the date that waste materials were first placed into the container	
EPA CODE: E/D008	STATE: S
WIP#: 391498	
WIP DESC: BRIDGE SAND WITH LEAD	
DATE ACCUMULATED: 07/01/2005	
HAZARDOUS WASTE – FEDERAL LAW PROHIBITS IMPROPER DISPOSAL IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY.	
WISC DOT BRIDGE # B-29-53/54	
I-94 OVER CTH H	
PROJECT ID # 5882-03-70	
CAMP DOUGLAS, WI 54618	(608) 963-0871
GENERATOR EPA ID WIR000121103	

Project ID Number on label must match the Project Number assigned by the WIDOT

Bridge Number and Address on label must match specific bridge from which waste was generated.

EPA ID Number on label is specific to the bridge from which the waste is generated.



**66. Portable Decontamination Facility, Item 517.6001.S.**

**A Description**

This special provision describes furnishing and maintaining weekly, or more often if needed, a single unit portable decontamination facility.

**B Materials**

Supply and operate all equipment according to OSHA.

Supply adequate heating equipment with the necessary fuel to maintain a minimum temperature of 68° F in the facility.

The portable decontamination facility shall consist of a separate "Dirty Room", "Shower Room" and "Clean Room". The facility shall be constructed so as to permit use by either sex. The facility shall have adequate ventilation.

The "Dirty Room" shall have appropriately marked containers for disposable garments, clothing that requires laundering, worker shoes, and any other related equipment. Each container shall be lined with poly bags for transporting clothing, or for disposal. Benches shall be provided for personnel.

The "Shower Room" shall include self-contained individual showering stalls that are stable and well secured to the facility. Provide showers with a continuous supply of potable hot and cold water. The wastewater must be retained for filtration, treatment, and/or for proper disposal.

The "Clean Room" shall be equipped with secure storage facilities for street clothes and separate storage facilities for protective clothing. The lockers shall be sized to store clothing, valuables and other personal belongings for each worker. Benches shall be provided for personnel.

Supply a separate hand wash facility, either attached to the decontamination facility or outside the containment.

**C Construction**

Properly contain, store, and dispose of the wastewater.

**D Measurement**

The department will measure Portable Decontamination Facility by each individual unit, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
517.6001.S	Portable Decontamination Facility	EACH

Payment is full compensation for furnishing and maintaining a portable decontamination facility.

stp-517-060 (20230113)

**67. Concrete Barrier.**

*Add the following to standard spec 603.5.2(3):*

The department will pay separately for associated work as follows:

- 42-Inch single slope concrete barrier end anchors, under Concrete Barrier Type S42 End Anchor, Item SPV.0060.001.

**68. Slope Paving Repair Crushed Aggregate, Item 604.9010.S.**

**A Description**

This special provision describes providing crushed aggregate slope paving where erosion has occurred.

Conform to standard spec 604 as modified in this special provision.

1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

**B Materials**

Furnish materials conforming to standard spec 604.2.

**C Construction**

*Replace paragraph (1) of standard spec 604.3.2 with the following:*

- (1) Place the crushed aggregate on the prepared foundation in areas where erosion has occurred. Shape and consolidate it using mechanical or hand methods to provide a stable, even and uniform surface.

**D Measurement**

The department will measure Slope Paving Repair Crushed Aggregate by the cubic 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
604.9010.S	Slope Paving Repair Crushed Aggregate	CY

Payment is full compensation for all excavating and backfilling required to prepare the foundation; disposing of surplus materials; providing, handling, placing, and consolidating the crushed aggregate; providing, handling, heating, and for applying the asphaltic material.

stp-604-010 (20100709)

**69. Reseal Crushed Aggregate Slope Paving, Item 604.9015.S.****A Description**

This special provision describes sealing existing crushed aggregate slope paving as the engineer directs and conforming to standard spec 604 as modified in this special provision.

**B Materials**

Furnish materials conforming to standard spec 604.2.

**C Construction**

Clean all debris from the surface of the slope paving before applying asphalt. Apply sufficient asphalt so that it penetrates to seal the top 2 inches of aggregate; where existing asphalt is closer to the surface of the aggregate, apply less asphalt.

**D Measurement**

The department will measure Reseal Crushed Aggregate Slope Paving in area by the square yard of slope paving, acceptably resealed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
604.9015.S	Reseal Crushed Aggregate Slope Paving	SY

Payment is full compensation for cleaning the surface; furnishing and applying the asphalt.

stp-604-015 (20100709)

**70. Catch Basins, Manholes, and Inlets.**

*Supplement standard spec 611.3.1 with the following:*

Use a Grade "A" concrete for final adjustment of manhole cover. Provide a butyl rubber gasket or butyl rubber rope for joints of precast reinforced concrete manhole sections. Butyl Rubber gasket joint used for manholes conforms to 8.41.6 of the Standard Specification for Sewer and Water Construction in Wisconsin, latest Edition. Provide non-rocking covers for all drainage structures subject to traffic loading.

Submit shop drawings for all drainage structures. For structures where WisDOT standard detail drawings are not available, provide shop drawings prepared, verified and stamped by a professional engineer currently registered in the State of Wisconsin. Submit one electronic copy of shop drawings in portable document format for engineer's review two weeks before fabrication. Show clearly on shop drawings information for all pipe connections to the structure. The contractor is responsible for all errors of detailing and fabrication. The omission from the shop drawings of any pipe connection shall not relieve contractor of the responsibility of providing such materials, even though the shop drawings may have been reviewed and accepted by the engineer.

*Supplement standard spec 611.3.2 with the following:*

Conform to storm sewer structural concrete collar detail for storm sewer pipes to structure connections as the plans show.

*Supplement standard spec 611.3.3 with the following:*

Use monolithic concrete shimming as the plan shows for final adjustment of drainage structures located within the concrete pavement, concrete shoulders, concrete curb and gutter and concrete barrier wall.

*Supplement standard spec 611.3.7 with the following:*

Construct height adjustments of 4-inches or more with concrete grade rings. Never use grade rings less than 2-inches thick.

*Replace standard spec 611.5.2 (1) with the following:*

Payment for Catch Basins, Manholes, and Inlets bid items is full compensation for providing all submittals; materials, including all masonry, and concrete bricks, for Grade "A" concrete adjustments and monolithic concrete shimming; adjusting rings; conduit and sewer connections, steps, and other fittings; for providing and installing butyl rubber joints; for furnishing backfill, backfilling; all excavating, disposing of surplus material, and for cleaning out and restoring the work site; except that the department will pay for covers, including frames, grates and lids separately.

## **71. 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)

## **72. Removing and Installing Guardrail and Energy Absorbing Terminals.**

This special provision describes maintaining the work site during removing and installing guardrail, type 2 terminals, thrie beam, and energy absorbing terminals conforming to standard specs 204 and 614 and as follows.

Perform removal and installation at each location in one continuous operation. Removal and installation of guardrail, type 2 terminals, thrie beam, and energy absorbing terminal shall be completed within 72 hours.

Appropriate traffic control measures must be in place during the removal and installation as approved by the engineer.

Blunt guardrail ends shall not be left unprotected at any time.

SER-614-003 (20180109)

## **73. Fence Track Clearance, Item 616.0800.S.**

### **A Description**

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

### **B Materials**

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

Provide fence fabric that meets the following requirements:

<b>Color:</b>	International Orange (UV stabilized)
<b>Roll Height:</b>	4 feet
<b>Mesh Opening:</b>	1 inch min to 3 inch max
<b>Resin/Construction:</b>	High density polyethylene diamond mesh
<b>Service Temperature:</b>	-60° F to 200° F (ASTM D648)
<b>Tensile Yield:</b>	Avg. 2000 lbs per 4 ft width (ASTM D638)
<b>Ultimate Yield:</b>	Avg. 2900 lbs per 4 ft width (ASTM D638)
<b>Elongation at Break (%):</b>	Greater than 100% (ASTM D638)
<b>Chemical Resistance:</b>	Inert to most chemicals and acids

### **C Construction**

#### **C.1 Track Clearance Fences**

Erect track clearance fences before construction work 16 feet from the centerline of the track and on both sides of the track running continuously from the points located 50 feet beyond the edges of overpass structures.

Before driving posts, arrange with the railroad company and utility owners to have any buried signal cable, fiber optic lines or other underground facilities located and marked where the fence is to be placed. Place the posts to avoid underground facilities.

Drive posts into the ground 12 to 18 inches, and space posts at 7.0 feet. Secure the fence at each post with a minimum of three wire ties. Weave tension wire through the top row of strands to provide a top stringer to prevent sagging.

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

Where buried facilities or subsurface conditions do not permit driving posts, support posts by some other means that will provide stability comparable to driven posts.

### **D Measurement**

The department will measure Fence Track Clearance in length by the linear feet along the base of the fence, center to center of posts.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0800.S	Fence Track Clearance	LF

Payment is full compensation for underground facility locating and marking services by the railroad and utility owners; furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition at all times; and for removing and disposing of fence and posts at the completion of the project.

stp-616-050 (20050502)

## 74. Covering Signs.

*Replace standard spec 643.2.3.3(2) with the following:*

- (2) Ensure that covers are flat black, blank, and opaque.

*Add the following to standard spec 643.3.4.1 as paragraph four:*

- (4) If multiple messages on a single sign are required to be covered, minimize the number of holes created by covering the sign with a single rectangular shaped covering. Multiple coverings on a single sign is only permissible where necessary to avoid covering necessary content or as directed by the engineer. Submit sign covering plans to the engineer for single signs requiring multiple coverings 3 days before performing work. Obtain engineer approval before covering signs. Remove sign coverings before placing fixed messages signs unless otherwise directed by the engineer.

sef-643-005 (20180104)

## 75. Traffic Control.

Supplement standard spec 643.3.1 with the following:

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

Do not park or store equipment, contractor's and personal vehicles or construction materials within the clear zone or on any roadway carrying traffic during working and non-working hours except at locations and periods of time approved by the engineer.

Do not permit construction or personnel equipment or vehicles to directly cross the live traffic lanes of the freeway. Yield to all through traffic at all locations. Equip all vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders, except when parked behind barrier wall. Do not park personal vehicles within the access control limits of the freeway. Do not cross live traffic lanes of the freeway with equipment or vehicles.

Obtain prior approval from the engineer for the locations of egress or ingress for construction vehicles to prosecute the work.

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

Ensure that Flagging operations conform to standard spec 104.6.1.(4) and chapter 6E of the WMUTCD.

Replace standard spec 643.3.1.(7) with the following:

Provide equipment, forces, and materials to promptly restore any traffic control devices or pavement markings damaged or disturbed within 2 hours of being contacted.

SER-643-001 (20170808)

## **76. Work Zone Ingress - Egress.**

Any initial set-up and/or changes to the Work Zone Ingress – Egress construction detail in the plan or location(s) should be submitted a minimum of 10 working days before use and are subject to approval by the engineer and the Southeast Region Work Zone Engineer.

ser-643-005 (20180131)

## **77. Dynamic Late Merge System, Item 643.1100.S.**

### **A Description**

This special provision describes providing, repositioning, operating, maintaining, monitoring, calibrating, testing and removing a dynamic late merge system (DLMS) capable of measuring vehicular speeds at downstream sections of the roadway and activating the system.

### **B Materials**

Provide DLMS components and software that is National Transportation Communications for ITS Protocol (NCTIP) compliant.

#### **B.1 Portable Changeable Message Signs (PCMS)**

Provide PCMS conforming to standard spec 643. Ensure each PCMS is integrated with a modem and other equipment (e.g., automated system manager) mounted on it, and acts as a single device for communicating with similarly integrated devices and displaying real-time traffic conditions.

#### **B.2 Portable Traffic Sensors (PTS)**

Provide PTS that are nonintrusive and capable of capturing vehicle speed in miles per hour. Integrate each sensor with a modem to communicate with the automated system manager (ASM).

#### **B.3 Static Traffic Control Signs with Temporary Flashing Beacons (FBS)**

Provide static traffic control signs with temporary flashing beacon signs conforming to standard spec 658.2(2) for Traffic Signal Faces. Ensure each FBS is integrated with a modem and other equipment (e.g., automated system manager) mounted on it, and acts as a single device for communicating with similarly integrated devices and displaying real-time traffic conditions.

#### **B.4 Automated System Manager (ASM)**

Furnish ASM from department's approved products list that assesses current traffic data captured by the PTS, determines the appropriate merging strategy based upon predetermined speed thresholds, and communicates appropriate messages to the motorists through the PCMS and FBS.

#### **B.5 System Communications**

Ensure DLMS communications meet the following requirements:

1. Perform required configuration of the DLMS communication system automatically during system initialization.
2. Communication between the server and any individual PCMS, FBS or PTS are independent through the full range of deployed locations, and do not rely upon communications with any other PCMS, FBS or PTS.
3. Incorporate an error detection/correction mechanism into the DLMS communication system to ensure the integrity of all traffic condition data and motorist information messages.

#### **B.6 System Acceptance**

Submit vendor verification to the engineer and Bureau of Traffic Operations ([DOTBTOWorkzone@dot.wi.gov](mailto:DOTBTOWorkzone@dot.wi.gov)) 14 calendar days before the pre-construction meeting that the system will adequately perform the functions specified in this special provision.

Provide contact information for a designated representative responsible for monitoring the performance of the system and for making modifications to the operational settings as the engineer directs.

Provide all testing and calibration equipment.

### **C Construction**

## **C.1 General**

Install and reposition DLMS per plan or as the engineer directs. Provide plan to the engineer and Bureau of Traffic Operations ([DOTBTOworkzone@dot.wi.gov](mailto:DOTBTOworkzone@dot.wi.gov)) 14 calendar days before the pre-construction meeting.

PTS may be mounted on PCMS, FBS, arrow board, or other trailer devices.

Install PTS at the following locations:

1. Place first PTS within the lane closure taper.
2. Place second PTS one half-mile upstream of the lane closure taper.
3. Place third PTS 5,700 feet upstream of the lane closure taper.
4. Place fourth PTS 2 miles upstream of lane closure taper, if applicable.
5. Place any additional sensors even distances (in miles) upstream of the fourth PTS or as directed by the engineer.

Install the PCMS at the following locations, delineated by 5 drums:

1. Place first PCMS (PCMS #3) 200 feet upstream of the lane closure taper, offset to ensure downstream arrow board can be seen.
2. Place second PCMS (PCMS #2) approximately 3,100 feet upstream of the lane closure taper.
3. Place third PCMS (PCMS #1) 1 mile upstream of last FBS.

Install the FBS at the following locations, delineated by 5 drums:

1. Place first FBS (FBS #1) 5,700 feet upstream of the lane closure taper.
2. Place second FBS 2 miles upstream of the lane closure taper.
3. Place third FBS 3 miles upstream of the lane closure taper.
4. Place any additional FBS even distances (in miles) upstream of the third FBS or as directed by the engineer.

If there are more than two lanes or specified in the plans, place FBS and third PCMS (PCMS #1) on both sides of the roadway.

Number the devices in sequential order so they are visible from the shoulder with 6-inch white high reflective sheeting.

Provide technical personnel for all system calibration, operation, maintenance, and timely on-call support services.

Promptly correct the system within 2 hours of becoming aware of a deficiency in the operation or individual part of the system.

Maintain the DLMS for the duration of the project or as identified in the plans. Ensure the system operates continuously (24 hours, 7 days a week) in the automated mode throughout the duration of the project.

Remove the system upon project completion.

## **C.2 Reports**

Provide an electronic copy of a weekly summary report via email to the engineer. Ensure the report includes, at a minimum, the average speed per sensor, time in congestive state per sensor and number of triggers per day.

## **C.3 Meetings**

Attend mandatory pre-construction meetings with the department. Attend additional meetings as deemed necessary by the department. These meetings may be held in person or via teleconference, as scheduled by the department.

## **C.4 Programming**

### **C.4.1 General**

Program the DLMS to ensure that the following general operations are performed:

1. Provide a password protected login to the ASM, website and all other databases.
2. Automatic setting of the PCMS message sequences and FBS to reflect current traffic flow status updated every 60 seconds for a congestion message. Ensure to remove a congestion message when 180 seconds

of average traffic speeds above the current level are observed, or utilize a customized frequency as determined by the engineer.

3. The DLMS operates as a unit where the PCMS activate at the same time for the same scenario.
  - PCMS #1, PCMS #2 and PCMS #3 shall all activate at the same time based on traffic speeds at the PTS one half mile upstream of the lane closure taper and at the PTS within the lane closure taper.
4. The ASM ensures that messages sent to the connected PCMS are synchronized so that all the messages on all the PCMS are for the same traffic conditions.
5. The FBS activate based on pre-determined speed thresholds from the next downstream sensor.
  - FBS #1 shall activate based on traffic speeds at the PTS within the lane closure taper or PTS one half mile upstream of the lane closure.
  - All other FBS in the DLMS shall activate based on traffic speeds at the next downstream PTS (e.g. FBS #2 should use PTS at/near FBS #1, FBS #3 should use PTS at/near FBS #2).
6. Provide real-time data from the ASM to a website with a full color mapping feature and refresh every 60 seconds. Make data on website available to the department at all times for the duration of the work zone activity. Ensure website includes at a minimum:
  - Vehicle speeds
  - PCMS messaging
  - FBS triggers
  - Device locations
7. Archive all traffic data and PCMS messages in a Microsoft Excel format with date and time stamps.
8. Configure the website to quantify system failures, which includes communication disruption between any devices in the system configuration, PCMS malfunctioning, FBS malfunctioning, PTS malfunction, loss of power, low battery, etc.
9. Provide default and advisory messages automatically based on traffic conditions.
10. Ensure the system autonomously restarts in case of any power failure.
11. Provide the department access to manually override PCMS messages for a user-specified duration, after which automatic operation will resume display of messages appropriate to the prevailing traffic conditions. Document all override messages.

#### **C.4.2 System Operation Strategy**

Arrange for the vendor/manufacturer to coordinate system operation, detection, trends/thresholds, and messaging parameters with the engineer.

The sequences that are a minimum requirement, but can be adjusted at the discretion of the engineer, are as follows:

##### **Free Flow:**

If the current PTS-measured speed with the lane closure taper or at one half mile from the lane closure taper is at or above 40 mph, display no lane use messages, and therefore allow traffic to resume typical early merge operation. PCMS #1 and PCMS #2 shall display nothing except for lighting the four corners (flashing caution mode) to show that it is on. PCMS #3 shall display a flashing arrow (flashing arrow merge mode) following applicable arrow board standards.

##### **Congestion:**

If the current PTS-measured speed near the lane closure tape is at or below 39 mph, the following two-phase messages shall be displayed on the upstream PMCS as shown below:

- Point of merge (PCMS #3):

FRAME 1	FRAME 2
MERGE HERE	TAKE TURNS



- Intermediate PCMS (PCMS #2):

FRAME 1	FRAME 2
STAY IN LANE	DO NOT MERGE

- PCMS located beyond estimated maximum queue length for two-lane configuration (PCMS #1):

FRAME 1	FRAME 2
STOPPED TRAFFIC AHEAD	USE BOTH LANES

- PCMS located beyond estimated maximum queue length for three-lane configuration on both sides of the roadway (PCMS #1):

FRAME 1	FRAME 2
STOPPED TRAFFIC AHEAD	USE ALL LANES

FBS #1 shall flash if the current PTS-measured speed within the lane closure taper or at one half mile upstream of the lane closure taper is at or below 39 mph. All other FBS shall flash if the current PTS-measured speed at/near the next downstream PTS is at or below 39 mph.

### C.5 Calibration and Testing

At the beginning of the project perform a successful field test and calibration at the DLMS location to verify the system is detecting accurate vehicle speeds, and accurately relaying the information to the ASM, PCMS and FBS.

Send email of successful calibration and testing to the engineer.

### D Measurement

The department will measure Dynamic Late Merge System by the day, acceptably completed, measured as each complete system per roadway.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.1100.S	Dynamic Late Merge System	DAY

Payment is full compensation for providing, repositioning, operating, maintaining, monitoring, calibrating, testing, and removing the complete system consisting of PCMS, FBS, PTS, ASM, and system communications.

Failure to correct a deficiency to the PCMS, FBS, PTS, or ASM within 2 hours after notification from the engineer or the department will result in a one-day deduction of the measured quantity for each day in which the deficiency is not corrected.

Failure to correct the website within 2 hours after notification from the engineer will result in a 10% reduction of the day quantity for each day the website is down.

The engineer will have sole discretion to assess the deductions for an improperly working DLMS.

stp-643-040 (20250108)

## 78. Portable Automated Real-Time Traffic Queue Warning System, Item 643.1200.S.

### A Description

This special provision describes providing, repositioning, operating, maintaining, monitoring, calibrating, testing, and removing a portable automated real-time traffic queue warning system (QWS) capable of

1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

measuring vehicular speeds at downstream sections of a roadway, and displaying the speed information on portable changeable message signs (PCMS) at upstream locations.

## **B Materials**

Provide QWS components and software that is National Transportation Communications for ITS Protocol (NTCIP) compliant.

### **B.1 Portable Changeable Message Signs (PCMS)**

Provide PCMS conforming to standard spec 643. Ensure each PCMS is integrated with a modem and other equipment (e.g., automated system manager) mounted on it, and acts as a single “device” for communicating with similarly integrated “devices” and displaying real-time traffic condition information.

### **B.2 Portable Traffic Sensors (PTS)**

Provide PTS that are nonintrusive and capable of capturing vehicle speed in miles per hour (mph). Integrate each sensor with a modem to communicate with the automated system manager (ASM).

### **B.3 Automated System Manager (ASM)**

Furnish ASM from department’s approved products list that assesses current traffic data captured by the system PTS and communicates appropriate messages to the motorists through PCMS based on predetermined speed thresholds and messages.

### **B.4 System Communications**

Ensure QWS communications meet the following requirements:

1. Perform required configuration of the QWS’s communication system automatically during system initialization.
2. Communication between the server and any individual PCMS or PTS are independent through the full range of deployed locations, and do not rely upon communications with any other PCMS or PTS.
3. Incorporate an error detection/correction mechanism into the QWS communication system to ensure the integrity of all traffic condition data and motorist information messages.

### **B.5 System Acceptance**

Submit vendor verification to the engineer and Bureau of Traffic Operations ([DOTBTOWorkzone@dot.wi.gov](mailto:DOTBTOWorkzone@dot.wi.gov)) 14 calendar days before the pre-construction meeting that the system will adequately perform the functions specified in this special provision.

Provide contact information for a designated representative responsible for monitoring the performance of the system and for making modifications to the operational settings as the engineer directs.

Provide all testing and calibration equipment.

## **C Construction**

### **C.1 General**

Install and reposition Portable Automated Real-Time Queue Warning System per plan or as the engineer directs. Provide plan to the engineer and Bureau of Traffic Operations ([DOTBTOWorkzone@dot.wi.gov](mailto:DOTBTOWorkzone@dot.wi.gov)) 14 calendar days before the pre-construction meeting.

PTS may be mounted on PCMS, arrow board or other trailer devices.

Install PTS at the following locations:

1. Place first PTS within the lane closure taper.
2. Place second PTS 5,700 feet upstream of the lane closure taper.
3. Place third PTS 2 miles upstream of the lane closure taper, if applicable.
4. Place any additional sensors even distances (in miles) upstream of the third PTS or as directed by the Engineer.

Install the PCMS at the following locations, delineated by 5 drums:

1. Place first PCMS (PCMS #2) 5,700 feet upstream of the lane closure taper.
2. Place second PCMS 2 miles upstream of the lane closure taper.
3. Place third PCMS 3 miles upstream of the lane closure taper.

4. Place any additional PCMS even distances (in miles) upstream of the third PCMS or as directed by the Engineer.

If there are more than 2 lanes or specified in the plans, place PCMS on both sides of the roadway.

Number the devices in sequential order so they are visible from the shoulder with 6-inch white high reflective sheeting.

Provide technical personnel for all system calibration, operation, maintenance, and timely on-call support services.

Promptly correct the system within 2 hours of becoming aware of a deficiency in the operation or individual part of the system.

Maintain the QWS for the duration of the project. Ensure the system operates continuously (24 hours, 7 days a week) in the automated mode throughout the duration of the project.

Remove the system upon project completion.

## **C.2 Reports**

Provide an electronic copy of a weekly summary report of all data via email to the engineer. Ensure the report includes, at a minimum, the average speed per sensor, time in congestive state per sensor and number of triggers per day.

## **C.3 Meetings**

Attend mandatory pre-construction meetings with the department. Attend additional meetings as deemed necessary by the department. These meetings may be held in person or via teleconference, as scheduled by the department.

## **C.4 Programming**

### **C.4.1 General**

Program the QWS to ensure that the following general operations are performed:

1. Provide a password protected login to the ASM, website and all other databases.
2. Automatic setting of the PCMS message sequences to reflect current traffic flow status updated every 60 seconds for a congestion message. Ensure to remove a congestion message when 180 seconds of average traffic speeds above the current level are observed, or utilize a customized frequency as determined by the engineer.
3. The PCMS activate based on pre-determined speed thresholds.
  - PCMS #2 shall activate based on traffic speeds at the PTS within the lane closure tape.
  - All other PCMS in the QWS shall activate based on traffic speeds at the next downstream PTS, typically 1 mile downstream or based on traffic speeds at the two next downstream PTS.
3. Provide real-time data from the ASM to a website with a full color mapping feature and refresh every 60 seconds. Make data on website available to the department staff at all times for the duration of the work zone activity. Ensure website includes:
  - Vehicle speeds
  - PCMS messaging
  - Device locations
4. Archive all traffic data and PCMS messages in a Microsoft Excel format with date and time stamps.
5. Configure the website to quantify system failures which includes communication disruption between any devices in the system configuration, PCMS malfunctioning, PTS malfunction, loss of power, low battery, etc.
6. Automatically generate and send an email alert any time a user specified queue is detected by the system.
7. Provide default and advisory messages automatically based on traffic conditions.
8. Ensure the system autonomously restarts in case of any power failure.
9. Provide the department access to manually override PCMS messages for a user-specified duration, after which automatic operation will resume display of messages appropriate to the prevailing traffic conditions. Document all override messages.

## C.4.2 System Operation Strategy

Arrange for the vendor/manufacturer to coordinate system operation, detection, trends/thresholds, and messaging parameters with the engineer.

The sequences below are a minimum requirement and can be adjusted by the engineer at their discretion.

### Free Flow:

If the current speed on a roadway section is at or above 40 mph, the upstream PCMS shall display nothing except for lighting the four corners (flashing caution mode) to show that it is on.

### Slow Traffic:

If the current speed on any downstream section of the roadway is between the 39 mph and 20 mph (for example, 35 mph), the following two-phase messages will be displayed on the upstream PCMS as shown below:

EVENT	FRAME 1	FRAME 2
Speeds 20 mph to 39 mph	SLOW TRAFFIC AHEAD	PREPARE TO STOP

### Stopped Traffic:

If the current speed on a roadway section of the roadway drops below 20 mph, the following two-phase messages will be displayed on the upstream PCMS as shown below:

EVENT	FRAME 1	FRAME 2
Speeds 0 mph to 19 mph	TRAFFIC STOPPED AHEAD	EXPECT DELAYS

## C.5 Calibration and Testing

At the beginning of the project perform a successful field test and calibration at the QWS location to verify the system is detecting accurate vehicle speeds, and accurately relaying the information to the ASM and the PCMS.

Send email of successful calibration and testing to the engineer.

## D Measurement

The department will measure Portable Automated Real-Time Traffic Queue Warning System by the day, acceptably completed, measured as each complete system per roadway.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.1200.S	Portable Automated Real-Time Traffic Queue Warning System	DAY

Payment is full compensation for providing, repositioning, operating, maintaining, monitoring, calibrating, testing, and removing the complete system consisting of PCMS, PTS, ASM, and system communications.

Failure to correct a deficiency to the PCMS, PTS, or ASM within 2 hours after notification from the engineer or the department will result in a one-day deduction of the measured quantity for each day in which the deficiency is not corrected.

Failure to correct the website within 2 hours after notification from the engineer will result in a 10% reduction of the day quantity for each day the website is down.

The engineer will have sole discretion to assess the deductions for an improperly working QWS.

stp-643-045 (20250108)

## 79. Temporary Audible Message Devices, Item 644.1900.S.

### A Description

This special provision describes providing, maintaining, and removing temporary audible message devices. These devices are used on temporary pedestrian facilities to guide individuals with sight disabilities.

### B Materials

Furnish temporary audible message devices from the approved products lists.

### C Construction

Provide and maintain temporary audible message device. Maintain and repair devices within two hours of being notified by the project engineer of an issue.

Contractors record messages as approved by the engineer.

Mount temporary audible message devices on drums, temporary sign supports, or other locations approved by the engineer. Locate motion detection areas that will be effective in activating the device to operate properly. Avoid locating motion detection areas that will cause activation by trees, traffic, or other known regular activity.

Move and adjust devices after disruptions by the work or the public.

Maintain devices in a working condition and replace batteries as needed. Replace any devices that are not working properly within 2 hours of being notified of an issue.

Use tamper-proof hardware for mounting.

### D Measurement

The department will measure temporary audible message devices by the day, 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
644.1900.S	Temporary Audible Message Device	DAY

Payment is full compensation for providing, maintaining, and removing temporary audible message device.

The department will not pay for devices that are inoperable.

stp-644-190 (20250108)

## 80. Temporary Pavement Marking.

*Add the following to standard spec 649.3:*

- (1) On pavements not scheduled for removal under this project, remove markings using air blasting, water blasting, or a combination of thereof. Do not use grinding.

## 81. Lighting.

### A General

*Add the following to standard specification sections 651, 652, 653, 654, 655, 656, 657 and 659.*

All the work necessary to comply with revisions to standards specs mentioned as hereinafter provided shall be incidental to associated pay items or to the project including coordination, materials, and labor. No additional payment shall be made to the Contractor.

*Add the following to standard specification subsection 651.2:*

Materials indicated to be returned to the Department shall be hauled to one of the following two locations:

1. State Electrical Shop at 935 South 60th street, West Allis, as directed by Miss. Bree Johns-Konkol, (414) 266-1170.

2. Milwaukee County Grounds, 10191 West Watertown Plank Road, Wauwatosa, as directed by Mr. Pat Stoetzel, (414) 750-5306.

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

*Add the following to standard specification subsection 651.3.1:*

Any circuit that the Contractor does not personally tag out at the disconnect shall be considered live, and will be subject to being activated by another person with no notice to the Contractor. Make tagouts with manufactured tags, and endorse them with the date and the name of the Contractor. Clear tagouts at the end of the workday. The Department does not employ a load dispatcher and has no intent to do so. Each electrical worker is responsible for their own protection from automatic switching and from switching by others.

The plans show required disconnections of existing lighting circuits, most in the form of abandoning existing underground conductors in place. The Contractor may need to mobilize several times per each existing lighting distribution center. The Contractor is expected to account for these costs in the various paid items for removals and installations.

Replace all existing slotted junction box cover screws with stainless hex head cover screws at each location where it is required to open the cover of an existing lighting junction box.

*Add the following to standard specification subsection 651.5:*

Work to disconnect and connect conductors will be incidental to the paid measurement of footage.

Work to disconnect and connect electrical system, splice through, or to connect conductors are incidental to the installation or removal of the freeway lighting pay items included in this contract.

The Department will not measure and pay conductors or conduits that have been abandoned in place or removed for scrap unless covered in the contract bid items. The Department will allow, at the Contractor's discretion, for the salvaging of conductors to be abandoned.

*Add the following to standard specification subsection 652.3.1:*

Install minimum 3-inch diameter PVC conduit elbows in a ground mounted concrete bases to accommodate Cable in Duct (CID) type cable.

*Add the following to standard specification subsection 652.3.1.2:*

Furnish and install an UL-listed liquid tight flexible metallic conduit transition wherever a conduit exits from below grade.

Furnish a UL-listed fitting appropriate for the purpose at each transition from one type of conduit to another type. Couplings will not be individually measured for payment.

*Add the following to standard specification subsection 652.3.1.4:*

Support conductors at the top of the vertical raceway or as close as practical if the vertical rise exceeds 40-feet. Provide additional supports as shown; in no case shall the distance between supports exceed that shown in Table 300.19(A) of the Wisconsin State Electric Code.

*Add the following to standard specification subsection 653.3(1):*

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

*Add the following to standard specification subsection 655.3.1:*

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

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

*Add the following to standard specification subsection 655.3.7(4):*

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

*Add the following to standard specification subsection 657.2:*

Non-breakaway poles (mounted on structures, concrete bases or behind noise wall barriers without transformer base), as well as at stems of sign bridges containing electrical wires are to be double nutted

and Contractor shall install galvanized rat screen enclosing the bottom of pole area; extra nuts and screen are incidental.

*Add the following to standard specification subsections 657.3.1 and 657.3.5:*

Corrosion protection measures described in subsections 657.3.1 and 657.3.5 of the standard specifications are invoked for breakaway transformer bases and aluminum light poles. The Contractor shall avoid contact of dissimilar metals in erecting the pole on its foundation and/or breakaway device. Any concern of trapped moisture or potential corrosion cell shall be resolved to the satisfaction of the Engineer.

**Manufacturer's Warranty for LED luminaires:** The manufacturer shall warrant to the Department that each complete luminaire (consisting of the housing, optical assembly, LED drivers, surge protection and wiring) will be free from defects in material and workmanship for five (5) years from the date that the luminaire are put into service. Luminaires shall be installed within one year of manufacture.

If any luminaires fail to meet the above warranty, the Department shall provide the manufacturer with a written notice of any defect within thirty (30) days after discovery of the defect. The manufacturer shall provide all materials, luminaires, replacement component parts, labor and all incidentals necessary to restore the luminaire to a fully operational, installed condition.

**Submittal Requirements for LED luminaires:** Considering the rapid advancement in LED technology, the overall project construction and duration of construction, within 10 calendar days after contract execution, the Contractor is responsible to coordinate the lead time for LED luminaires purchase and installation schedule for LED luminaires with the Engineer and the Department's Lighting Engineer, Eric Perea, at [eric.perea@dot.wi.gov](mailto:eric.perea@dot.wi.gov) or (262) 574-5422 prior to order LED luminaires. The LED luminaires purchasing may be done during later stage of construction as directed by the Department which shall not delay the construction.

*Add the following to standard specification subsection 659.3:*

Provide and install / replace Plaques Light Pole on all poles located in the median at a mounting height of 6-inch above the highest adjacent safety barrier or obstruction.

High mast tower luminaires shall be LED.

*Add the following to standard specification 659.3.1:*

Contractor shall be responsible to provide adequate temporary roadway lighting during all the construction stages not shown on the temporary lighting plans, but which are necessitated by field conditions or by any construction phasing changes. Installation of temporary lighting not shown on temporary lighting plans shall be paid according to appropriate pay items included in this contract. Contractor shall be responsible to submit a redline markup plans for any additional temporary lighting to the Engineer for approval prior to installation.

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*Add the following to standard specification 659.3.2:*

Fuses shall conform to pertinent requirements of section 659.3.2 of the standard specifications except 659.3.2(2) replace 'fast acting fuses' with 'time delay fuses.'

## **82. General Requirements for Electrical Work.**

*Replace section 651.3.3 (3) of the standard specifications with the following:*

(3) Request a signal inspection of the completed signal installation to the project engineer at least five working days prior to the time of the requested inspection. Notify the department's Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The department's Region Electrical personnel will perform the inspection. In the event of deficiencies, request a re-inspection when the work is corrected. The engineer will not authorize turn-on until the contractor corrects all deficiencies.

### 83. Electrical Conduit.

*Replace section 652. 5 (2) of the standard specifications with the following:*

- (2) Payment for Conduit Rigid Metallic, Conduit Rigid Nonmetallic, Conduit Reinforced Thermosetting Resin, and Conduit Special bid items is full compensation for providing the conduit, conduit bodies, and fittings; for providing all conduit hangers, clips, attachments, and fittings used to support conduit on structures; for pull wires or ropes; for expansion fittings and caps; for making necessary connections into existing pull boxes; for excavating, bedding, and backfilling, including any sand, concrete, or other required materials; for disposing of surplus materials; and for making inspections.

*Replace section 652.5 (5) of the standard specifications with the following:*

- (5) Payment for Conduit Loop Detector is full compensation for providing all materials, including conduit, compacted backfill, surface sealer if required, pull wire if required, condulets, conduit fittings, and for making necessary connections into existing pull boxes.

### 84. Install Conduit Into Existing Item, Item 652.0700.S.

#### A Description

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

#### B Materials

Use conduits, as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the standard spec.

#### C Construction

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

#### D Measurement

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

#### E Payment

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

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

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

stp-652-070 (20230629)

### 85. Intelligent Transportation Systems (ITS) – Control of Materials.

#### Standard spec 106.2 – Supply Source and Quality

*Add the following to standard spec 106.2:*

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



Department-Furnished Items
50-Foot CCTV Camera Poles (and Anchor Bolts)
CCTV Cameras

Pick-up small department-furnished equipment, such as communications devices, cameras, and controllers, from the department's Traffic Management Center (TMC), 433 W. St. Paul Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact the Statewide ITS Engineer, Dean Beekman at (414) 227-2154 to coordinate pick-up of equipment.

Pick up cabinets and solar power systems, including batteries, at the department's TMC equipment storage facility at 633 W. Wisconsin Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact Dean Beekman to coordinate pick-up of equipment.

Large department-furnished equipment, such as camera poles and dynamic message signs will be delivered by the supplier to a contractor-controlled site identified by the contractor. Delivery will not necessarily be in a "just in time" manner. Store the equipment until field installation.

Within two weeks of Notice to Proceed, contact the engineer and Dean Beekman. Provide the address and contact information for the contractor-controlled location for delivery and the desired delivery schedule for the large state-furnished materials.

Transportation of the equipment between the electric shop and the field or interim locations are the responsibility of the contractor.

### **Standard spec 106.3 – Approval of Materials**

*Add the following to standard spec 106.3:*

#### **Design/Shop Drawings**

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

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

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

1. Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
2. Mounting LED warning signs to the sign structure.
3. Mounting detail for dynamic message signs.
4. Any contractor-designed structure or foundation.

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

stp-670-005 (20230629)

## **86. Intelligent Transportation Systems - General Requirements.**

### **A Description**

#### **A.1 General**

This special provision describes providing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as the plans show.

Unusual aspects of this project include:

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

## **A.2 Surge Protection**

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

## **B Materials**

### **B.1 General**

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

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

### **B.2 Outdoor Equipment**

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

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

### **B.3 Custom Equipment**

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

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

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

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

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

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

#### **B.4 Environmental Conditions**

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

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

#### **B.5 Patch Cables and Wiring**

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

#### **B.6 Surge Protection**

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

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

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

#### **C Construction**

### **C.1 Thread Protection**

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

### **C.2 Cable Installation**

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

### **C.3 Wiring**

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

Permanently label and key connectors to preclude improper connection. Obtain prior engineer approval for labeling methods before use.

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

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

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

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

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

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

### **C.4 System Operations**

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

### **C.5 Surge Protection**

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

### **D Measurement**

The department will not measure the work performed under this special provision.

### **E Payment**

The department will pay for the work performed under this special provision under the contract ITS bid items.

stp-670-010 (20230629)

**87. Removing 50-Foot Camera Pole, Item 677.9051.S;  
Removing 80-Foot Camera Pole, Item 677.9081.S.**

**A Description**

This special provision describes removing existing camera poles and all equipment mounted on them.

**B (Vacant)**

**C Construction**

The contractor may request a meeting with the engineer to assess the condition and operability of equipment mounted on the pole before beginning work removing the pole. Any damage or improper operation not noted at the meeting, or before the contractor starting work on the removal, will be assumed to be the fault of the contractor; repair or replace the equipment. Store the equipment for pick up by department representatives.

Disconnect all cables, wiring and equipment that are mounted on or in the poles, and remove the pole from the concrete footing. The department will pick up any antennae, cameras, or other equipment mounted on the pole; contact maintenance staff at (414) 227-2166 at the department's Statewide Traffic Operations Center, when the material is ready to be picked up. Properly dispose of the pole, conduit, cabling, and wiring away from the project site.

**D Measurement**

The department will measure Removing (Height) Camera Pole by the unit, acceptably removed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
677.9051.S	Removing 50-Foot Camera Pole	EACH
677.9081.S	Removing 80-Foot Camera Pole	EACH

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

stp-677-901 (20230629)

**88. Electrical Service Meter Breaker Pedestal IH 41 SB Off Ramp/N 115th St & CTH PP.**

*Append standard spec 656.2.3 with the following:*

- (2) The department will be responsible for the electrical service installation request for all project facilities.
- (3) Electrical utility company service installation and energy cost will be billed to and paid for by the maintaining authority.
- (4) Install the cabinet base and meter breaker pedestal first, so the electrical utility company can install the service lateral. Install a 3" conduit from the point of service from the utility to the meter breaker pedestal. Finish grade the service trench, replace topsoil that is lost or contaminated with other materials, fertilize, seed, and mulch all areas that are disturbed by the electrical utility company.

*Append standard spec 656.5 with the following:*

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

**89. Signal Housings.**

*Replace 658.2(4) of the standard specifications with the following:*

- (4) For pedestrian signal faces: furnish polycarbonate resin housings, doors, and visors. Use yellow, Federal Standard 595 - FS13538, housings and dull black door faces and visors. For 16-inch heads, mount a z-crate visor and gasket to the door with stainless steel tabs. Drill the housing for top and bottom pipe mounting with the ability to rotate 270 degrees on the poly mounting brackets.

## **90. Pedestrian Push Buttons.**

*Replace 658.2(5) of the standard specifications with the following:*

(5) For pedestrian push buttons: furnish freeze-proof ADA compliant pedestrian push buttons made by a department-approved manufacturer. The contractor shall place a Size 1, Type H reflective (R10-3EL, R, D) sign sticker (per state sign plate), message series – B directly above each push button. Include a directional arrow or arrows on the sign as the plans show.

## **91. Traffic Signal Faces & Pedestrian Signal Face 16-Inch.**

*Append standard spec 658.3 with the following:*

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

## **92. Lamp, Ballast, LED, Switch Disposal by Contractor, Item 659.5000.S.**

### **A Description**

This special provision describes the detachment and packaging of lamps, ballasts, LEDs, and mercury containing switches (e.g., overhead roadway lighting, underdeck bridge, wall packs, pedestrian signals, traffic control stop lights and warning flashers, fluorescent bulbs, and thermostats) removed under this contract for disposal as hazardous materials.

For Lamp, Ballast, LED, Switch Disposal by Contractor, coordinate removal from the work site by the department's hazardous waste disposal vendor. Disposal will be billed to the department by the hazardous waste disposal vendor.

### **B Materials**

#### **B.1 Disposal by Contractor**

Items removed under this contract will be considered the property of the department for waste generator identification. The contractor is responsible for coordinating with the department's hazardous waste vendor for disposal:

<https://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrcs/environment/hazwaste-contacts.pdf>

#### **B.2 Disposal by Department (Vacant)**

### **C Construction**

#### **C.1 Removal**

Arrange for the de-energizing of luminaires after receiving approval from the engineer that the existing luminaires can be removed. Do not remove luminaires that cannot be replaced with proposed LED units and operational within the same workday. The new LED units need to be operational prior to sunset of the same workday.

Detach and remove luminaires and lamps from the existing traffic signal poles or respective structure. Avoid breaking fixtures whenever possible.

Lamps, ballasts, LED, and switches will become property of the department, and will be disposed of in an environmentally sound manner.

#### **C.2 Packaging of Hazardous Materials**

Provide a secure, level location removed from the travelled way for storage of the material for disposal.

Pack intact fixtures in the packaging of the new lamps used to replace them, or packaging affording the equivalent protection. Place in full, closed stackable cartons.

Pile cartons no more than four high if palletized and secure cartons with shrink wrap to prevent shifting or falling of the loads. Clearly mark each pallet with the words "Universal Waste Lamps" or "Universal Waste Ballasts", the date, and the number of fixtures on each pallet.

Pack broken fixtures into (min.) 6 mil thick plastic bags and place inside sturdy cardboard boxes or the equivalent. Mark the outer packaging with the term "Broken Fixtures/Lamps", the date and the number of broken fixtures clearly marked on the box.

The hazardous waste vendor will not accept fixtures improperly packaged. The vendor will reject any fixtures not removed as part of a contract pay item or otherwise required under this contract.

Pack ballasts and mercury containing switches in appropriate containers.

### **C.3 Disposal by Contractor**

Complete the lamp and ballast inventory (<https://wisconsin.gov/Documents/doing-business/consultants/cns/it-rsrcs/environment/dotlampballastinventory.dotx>) and contact the hazardous waste vendor to coordinate pickup and disposal at a location specified by the contractor. Consolidate all pallets and boxes from one project at a single location. Contact the hazardous waste vendor to set up an appointment for pickup. The hazardous waste vendor requires a minimum of one week advance notice to schedule pickup.

### **C.4 Disposal by Department (Vacant)**

#### **D Measurement**

The department will measure Lamp, Ballast, LED, Switch Disposal by Contractor as each individual unit removed and received by the hazardous waste vendor, properly packaged and acceptably completed, matching the total number of units provided on the inventory form. The department will not measure broken fixtures that exceed a total of 10 percent of all fixtures to be disposed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH

Payment for Lamp, Ballast, LED, Switch Disposal by Contractor is full compensation for detachment, handling, packaging, labeling and scheduling disposal with the hazardous waste vendor; and scrapping and disposal of all other materials.

## **93. Temporary Traffic Signal for Intersections IH 41 SB Off Ramp/N 115th St & CTH PP, Item 661.0201.301.**

*Replace 661.2.1(1) of the standard specifications with the following:*

- (1) Furnish control cabinet and control equipment. The Department will supply a CCTV Camera. The Department will supply, maintain, and install a signal controller, cellular modem, and ethernet switch to establish remote communication to the signal controller. The cabinet must be equipped with a 6-circuit Isotel independent of the GFI receptacles. Provide a cabinet with a Corbin #2 door lock and an access door that allows placing the controller in emergency flash. Provide keys to the access door to the engineer and law enforcement agencies as required. Also provide a manual control accessible by the police. Test traffic signal control cabinets before installation. The Department will provide the signal controller with the initial traffic signal timing, and the Department will be responsible for all subsequent signal timing changes.

*Replace 661.2.1(3) of the standard specifications with the following:*

- (3) Use existing underground electric service and meter breaker pedestal for the operation of the Temporary Traffic Signal at the intersection of IH 41 SB Off Ramp/N 115th St & CTH PP. The Department will pay for all installation and Energy Costs associated with the operation of the Temporary Traffic Signals.

Furnish and install a generator to operate the temporary traffic signals for the times required to switch the existing permanent traffic signal over to the temporary traffic signal and for the time required to switch the temporary traffic signal back over to the permanent traffic signal. The Department will pay for generators separately.

Contact the local electrical utility at least four days prior to making the switch from the Temporary Traffic Signal to the new Permanent Traffic Signal.

*Append 661.2.1 of the standard specifications with the following:*

- (6) Control equipment or controller equipment is defined as anything inside the control cabinet excluding the department furnished signal controller, cellular modem, and ethernet switch.

*Replace 661.3.1(2) of the standard specifications with the following:*

- (2) Request a signal inspection of the completed temporary traffic signal installation to the engineer at least five working days prior to the time of the requested inspection. Notify the SE Region Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The SE Region electrical personnel will perform the inspection.

*Append 661.3.1.4 of the standard specifications with the following:*

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

*Replace 661.3.2.6(2) of the standard specifications with the following:*

- (2) Upon acceptance of new signal and completion of work, the department will switch control of the intersection over to the permanent cabinet installation. Remove signal cable and wires, wood poles, wood posts, CCTV Camera, control cabinet, control equipment, and incidental materials. The department will remove the controller, ethernet switch, and cellular modem.

*Replace 661.3.2.7(2) of the standard specifications with the following:*

- (2) Respond within one hour of notification to provide corrective action to any emergency such as but not limited to knockdowns, signal cable problems, and controller equipment failures. If equipment becomes damaged or faulty beyond repair, replace it within one working day. In order to fulfill this requirement, maintain, in stock, sufficient materials and equipment to provide repairs. Replace the traffic signal control equipment including the cabinet and cabinet accessories within 4 hours. If the outcome of the response identifies damage to the department furnished signal controller, notify the Traffic Management Center at (800) 375-7302 who will then dispatch the SE Region Electrical Field Unit.

*Replace 661.5(2) of the standard specifications with the following:*

- (2) Payment for the Temporary Traffic Signals for Intersections bid item is full compensation for providing, maintaining, and repairing the complete temporary installation; and for removal. Payment also includes the following:
  1. Furnishing and installing replacement equipment.
  2. The cost of delivery and pick-up of the cabinet assemblies.

Payment is full compensation for drilling holes; furnishing and installing all materials, including bricks, and coarse aggregate; for excavation, bedding, and backfilling, including any sand or other required materials; furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; for making inspections; for cleaning up and properly disposing of waste.

## **94. Cameras.**

*Replace standard spec 677.3(7) with the following:*

- (7) For temporary traffic signal camera installations, provide camera cables on the temporary traffic signal span wire as the plans show. Provide continuous cable runs without splices between the camera assembly and the camera controller assembly.



## 95. Communication Systems.

*Replace standard spec 678.2.1(1) with the following:*

- (1) The department will furnish fiber optic cable pigtail, splice enclosure, termination panels, ethernet switches, and SFP's.

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

*Replace standard spec 678.5(6) with the following:*

- (6) Payment for Install Ethernet Switches is full compensation for transporting and installing the devices; for cables and connectors; and connecting the devices.

## 96. Backfill Slurry, Item SPV.0035.001.

### A Description

This special provision describes furnishing and placing backfill slurry for, but not limited to, removing and abandoning utility pipes and structures, installation of storm sewer, sanitary sewer, and water pipes and structures, and exposing existing utility items as shown on the plans. Conform to 209 of the standard specs except as follows.

### B Materials

Replace 209.2.2 of the standard spec with the following:

- (1) Use well graded fine and coarse aggregate conforming to the standard combined aggregate gradation specified in table 501-4. Weigh aggregates at a batch plant suitable for batching concrete masonry. Mix and deliver to the project site using a truck mixer. Add enough water meeting the requirements of 501.2.6 of the standard specs to enable the mixture to flow readily.
- (2) Backfill Slurry is considered a class III concrete mix. Follow the procedure in 716.2.2 of the standard spec for mix design certification and submittal.

### C Construction

Replace 209.3 of the standard specs with the following:

Prior to placement of backfill slurry provide for positive drainage of the area to be backfilled. Discharge from the truck in a manner to prevent segregation. Consolidation or compaction effort will not be required.

Twelve hours shall elapse before paving over the backfill.

### D Measurement

Replace 209.4 of the standard spec with the following:

The department will measure Backfill Slurry in volume by the cubic yard of material placed acceptably completed. Such volume shall be computed from actual measurements of the dimensions of the area to be backfilled. In irregular or inaccessible areas, the engineer may allow volume to be determined by other appropriate methods.

### 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.0035.001	Backfill Slurry	CY

Payment is full compensation conforming to 209.5.(2) and 209.5.(5) of the standard specs.

## 97. HPC Masonry Structures, Item SPV.0035.200.

### A Description

This special provision describes specialized material and construction requirements for high-performance concrete used in bridge structures. Conform to standard spec 501, 502 and 509, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement, Cast-in-Place Barrier and Structures.

### B Materials

#### 501.2.7.3 Coarse Aggregates

*Replace the entire text of 501.2.7.3.1 with the following:*

##### 501.2.7.3.1 General

- (1) Provide coarse aggregates from a department-approved source. Use an approved source listed on the APL or follow the source approval process specified in standard spec 106.3.4.2. In addition to the requirements of standard spec 106.3.4.2, perform tests for LA wear, sodium sulfate soundness, freeze-thaw soundness and lightweight pieces at least once per calendar year when producing coarse aggregates for use in high-performance concrete mixes.
- (2) Use clean, hard, durable crushed limestone or crushed gravel free of excess flat and elongated pieces, lightweight particles, frozen lumps, vegetation, deleterious substances or adherent coatings considered injurious.
- (3) Use virgin aggregates only.
- (4) Contact the engineer a minimum of 4 weeks prior to pouring to collect a sample of the aggregates proposed for the project. The engineer will obtain the sample, or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.
- (5) The department test results will be used for aggregate acceptance.
- (6) The department will randomly sample coarse aggregate for lightweight pieces testing at least once per 10,000 cubic yards during placement of concrete masonry structures.

##### 501.2.7.3.2 Physical Properties

*Replace 501.2.7.3.2.1 paragraph one with the following:*

- (1) Furnish coarse aggregates approved for use in concrete masonry structures and conforming to the following:

Aggregate Quality Test	Test Method	Maximum Percent by Weight
LA Wear (100 and 500 revolutions) <sup>[1]</sup>	AASHTO T96 WTM	35
Sodium Sulfate Soundness (R-4, 5 cycles) <sup>[1]</sup>	AASHTO T104 WTM	6
Freeze-Thaw Soundness <sup>[1]</sup>	AASHTO T103 WTM	12
Lightweight Pieces <sup>[1] [2]</sup>	AASHTO T113 WTM	2.0

<sup>[1]</sup> Coarse aggregate sizes used in the Portland Cement Concrete mixture design (DT2221 Concrete Mixture Design – Optimized Aggregate Gradation) will be tested individually and the results weighted by the blend percentage listed in the mix design. Do not consider fine aggregate percentage as part of the weighted result.

<sup>[2]</sup> Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

##### 501.2.7.3.3 Deleterious Substances

*Replace 501.2.7.3.3 paragraph one with the following:*

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

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

\* The total amount of coal, clay lumps, shale, and other deleterious substances must not exceed 3.0 percent by weight.

<sup>[1]</sup> According to ASTM D4791 WTM

### **501.2.8 Concrete Curing Materials**

*Replace entire text with the following:*

- (1) Furnish burlap conforming to AASHTO M 182, class 1, 2, 3 or 4.

### **C Construction**

#### **501.3.2.4.3.3 Extended Delivery Time**

*Delete 501.3.2.4.3.3 paragraph one.*

### **501.3.5 Ready-Mixed Concrete**

#### **501.3.5.1 General**

*Replace 501.3.5.1 paragraph one with the following:*

- (1) Use central-mixed concrete as defined in standard spec 501.3.5.1(2) for all work performed under this special provision.

#### **501.3.5.2 Delivery**

*Replace 501.3.5.2 paragraph three with the following:*

- (3) Deliver and completely discharge all concrete within one hour beginning when adding water to the cement, or when adding cement to the aggregates. A decrease in air temperature below 60 F or the use of department-approved retarders does not increase the discharge time.

#### **501.3.7.1 Slump**

*Replace the entire text with the following:*

- (1) Use a 2-inch to 4-inch slump  
(2) Perform slump tests for concrete according to AASHTO T119 WTM.

### **501.3.8.2 Hot Weather Concreting**

#### **501.3.8.2.1 General**

*Replace the entire text 501.3.8.2.1 (1) and (2) with the following:*

- (1) The contractor is responsible for the quality of concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions to control concrete temperature if the concrete temperature at the point of placement exceeds 80 F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.
- (2) If the concrete temperature at the point of placement exceeds 80 F, do not place concrete for items covered in this special provision.
- (3) The department will pay per bid item Ice Hot Weather Concreting for the quantity of ice required to reach a target concrete temperature of 75 F if the following conditions are met:

1. The un-iced concrete temperature exceeds 80 F.

2. The contractor has performed the actions outlined in the contractor's accepted temperature control plan.
  3. The contractor elects to use ice.
- (4) Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80 F. If project information is not available, the contractor should obtain information from similar mixes placed for other nearby work.

#### **501.3.8.2.2 Bridge Decks**

*Replace the entire text with the following:*

- (1) Do not place concrete for bridge decks when the air temperature is above 80 F.
- (2) For concrete placed in bridge decks, submit a written evaporation control plan at each pre-pour meeting. In that plan, outline the actions to maintain concrete surface evaporation at or below 0.15 pounds per square foot per hour. Do not place concrete for bridge decks without the engineer's written acceptance of that evaporation control plan. If the engineer accepts an evaporation control plan calling for ice, the department will pay per bid item Ice Hot Weather Concreting for that ice. Perform the work as outlined in the evaporation control plan.
- (3) If predicting a concrete surface moisture evaporation rate exceeding 0.15 pounds per square foot per hour, do not place concrete for bridge decks.
- (4) Provide evaporation rate predictions to the engineer 24 hours before each bridge deck pour.
- (5) Compute the evaporation rate from the predicted ambient conditions at the time and place of the pour using the nomograph, or computerized equivalent, specified in [CMM 525](#), figure 1 or using a computerized equivalent. Use weather information from the nearest National Weather Service station. The engineer will use this information to determine if the pour will proceed as scheduled.
- (6) At least 8 hours before each pour, the engineer will inform the contractor in writing whether to proceed with the pour as scheduled. If the actual computed evaporation rate during the pour exceeds 0.15 pounds per square foot per hour, at the engineer's discretion, the contractor may be allowed to implement immediate corrective action and complete the pour.

#### **502.3.5.4 Superstructures**

*Delete 502.3.5.4 paragraph five.*

#### **502.3.7.8 Floors**

*Replace 502.3.7.8 paragraph five with the following:*

- (5) Set the rails or tracks that the finish machine rides on, to the required elevation; and ensure they adjust to allow for settlement under load. Support the rails or tracks outside the limits of the finished riding surface. Do not support rails or tracks on the tops of girders, or within the finished riding surface, without the engineer's written permission.

*Delete 502.3.7.8 paragraph thirteen, fourteen, and fifteen. Add the following to 501.3.7.8:*

- (19) Do not place bridge deck concrete more than 10 feet ahead of the finishing machine. If there is a delay of more than 10 minutes during the placement of a bridge deck, cover all concrete (unfinished and finished) with wet burlap to protect the concrete from evaporation until placement operations resume.
- (20) Keep hand finishing, except for the edge of deck, to a minimum. Equip the finishing machine with a pan behind the screed. Apply micro texture using a broom or turf drag following the use of a 10-foot straight edge. Only finish by hand as necessary to close up finished concrete. Begin wet curing the deck within a timeframe acceptable to the engineer following the micro texture.
- (21) For bridge decks with a design speed of 40 mph or greater, provide longitudinal grooving according to the provision included in this contract.
- (23) Provide lighting as necessary to safely perform the required work and facilitate inspection during nighttime hours. Ensure that lighting does not interfere with or impede traffic on open roadways and does not cause glare, shine or directly face the eyes of oncoming drivers. After initial setup, drive through and observe the lighted work area from each direction on the main roadway. Adjust lighting alignment if lighting causes glare, shine or directly faces the eyes of oncoming drivers.

#### **502.3.8 Curing**

### **502.3.8.1 General**

*Replace 502.3.8.1 (1) with the following:*

- (1) Maintain adequate moisture throughout the concrete mass to support hydration for at least 14 days.

### **502.3.8.2 Curing Requirements**

#### **502.3.8.2.1 General**

*Replace entire text of 502.3.8.2.1 with the following:*

- (1) Wet-cure the concrete for bridge decks, structural approach slabs, sidewalks on bridges and raised medians on bridges for 14 days by use of a soaker hose system, or other engineer-approved methods. Cover the finished surface of bridge decks and overlays with one layer of wetted burlap or wetted cotton mats within 10 minutes after the finishing machine has passed. Apply the burlap/cotton gently to minimize marking of the fresh concrete. Keep the first layer of burlap/cotton continuously wet until the bridge deck or overlay is sufficiently hard to apply a second layer of wetted burlap/cotton. Immediately after applying the second layer of burlap/cotton, continue to keep the deck wet until placing and activating the soaker hose system. Throughout the remainder of the curing period, keep the burlap/cotton continuously wet with soaker hoses hooked up to a continuous water source. Inspect the burlap/cotton twice daily to ensure the entire surface is moist. If necessary, alter the soaker hose system as needed to ensure the entire surface is covered and stays moist. After 48 hours from the time of completion of the bridge deck or overlay pour, the soaker hose system and burlap/cotton may be covered with polyethylene sheeting. Provide a continuous flow of water through the soaker hose system for the entire curing period.
- (2) Do not uncover any portion of the deck at any time for any reason during the first 7 days of the curing period.
- (3) Set up and test the fogging system before each bridge deck, structural approach slab, bridge mounted sidewalk or bridge mounted raised median pour. Keep the fogging system set up and operational during the pour.

#### **502.3.8.2.3 Decks**

*Delete the entire text.*

#### **502.3.8.2.4 Parapets**

*Replace the entire text with the following:*

- (1) Cure the inside and outside concrete faces and tops of railings or parapets by covering with wetted burlap immediately after form removal and surface finish application. Keep the burlap thoroughly wet for at least 7 days; or by covering for the same period with thoroughly wet polyethylene-coated burlap conforming to standard spec 501.2.8.
- (2) Secure coverings along all edges to prevent moisture loss.

### **502.3.9 Cold Weather Protection**

#### **502.3.9.6 Bridge Decks**

*Replace the entire text of 502.3.9.6 with the following:*

- (1) Protect concrete in bridge decks as specified for structural masonry, and except for parapets and similar pours, according to the following requirements:
  1. Do not place concrete for bridge decks or other superstructure elements when the National Weather Service forecast for the construction area predicts temperatures to fall below 32 F within 24 hours, unless the engineer specifically allows or requires in writing.
  2. Protect the underside of the deck, including the girders, for bridge deck pours by housing and heating when the National Weather Service forecast predicts temperatures to fall below 32 F during the cold weather protection period. Maintain a minimum temperature of 40 F in the enclosed area under the deck for the entire 14-day curing period.

### **D (Vacant)**

## **E Payment**

### **502.5.1 General**

*Replace 502.5.1 paragraph one with the following:*

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.0200	HPC Masonry Structures	CY

Lighting for nighttime bridge deck placement is included.

### **710.5 Sampling and Testing**

*Supplement 710.5 with the following:*

#### **710.5.8 Chloride Penetration Resistance**

- (1) For each new or changed mix design, measure chloride penetration resistance according to AASHTO T277 at a frequency of 1 test per 3 months (quarterly) of production.
- (2) Strip permeability samples from molds and wet cure according to AASHTO T277 Accelerated Moist Curing. Upon completion of the curing process, obtain one sample from each cylinder and test according to AASHTO T277.
- (3) Ensure that the initial accepted mix designs meet the chloride penetration resistance limit of 1500 coulombs based on AASHTO T277. Quarterly chloride resistance test results exceeding 1500 coulombs, the department will require adjustment of the concrete mix going forward to improve the chloride penetration resistance.

#### **715.2.2 Class I Concrete Mixes**

##### **715.2.2.2 Structures**

*Supplement 715.2.2.2 with the following:*

- (5) Provide a mix design using optimized aggregate gradation and a cementitious content within the range of 470 to 540 pounds per cubic yard. For all superstructure and substructure concrete, unless the engineer approves otherwise in writing, concrete mixtures must use an IL, IP, IS, or IT blended cement.
- (6) In addition to the standard spec mix design laboratory trial batching for structures, include the results of the following tests:
1. AASHTO T119 Slump of Hydraulic Cement Concrete.
  2. AASHTO T277 Rapid Determination of the Chloride Permeability of Concrete, using the modified curing procedure according to 710.5.8 in this special provision.
- (7) Provide concrete with a 28-day compressive strength that equals or exceeds the following:
- If the contract specifies  $f'_c$ , then  $f'_c$ .
  - If the contract does not specify  $f'_c$ , then 4000 psi.
- (8) Provide concrete with a maximum chloride penetration resistance of 1500 coulombs at 28-days.

## **98. HMA Pavement Percent Within Limits (PWL) QMP, Core Only Project; Incentive Density PWL HMA Pavement, Item SPV.0055.001; Incentive Air Voids HMA Pavement SPV.0055.002.**

### **A Description**

This special provision describes percent within limits (PWL) pay determination, providing and maintaining a contractor Quality Control (QC) Program, department Quality Verification (QV) Program, required sampling and testing, dispute resolution, corrective action, pavement density, and payment for HMA pavements. Pay is determined by statistical analysis performed on contractor and department test results conducted according to the Quality Management Program (QMP) as specified in standard spec 460, except as modified below.

## B Materials

Conform to the requirements of standard specs 450, 455, and 460 except where superseded by this special provision. The department will allow only one mix design for each HMA mixture type per layer required for the contract, unless approved by the engineer. The use of more than one mix design for each HMA pavement layer will require the contractor to construct a new test strip in accordance with HMA Pavement Percent Within Limits (PWL) QMP Test Strip Volumetrics article at no additional cost to the department. The HMA Pavement Percent Within Limits (PWL) QMP Test Strip Density article will not be added to the Core Only Projects. The contractor may correlate gauges by taking up to 10 additional cores (non-production) at any location during the project. The department will not correlate any gauges.

*Replace standard spec 460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater with the following:*

### **460.2.8.2.1.3.1 Contracts under Percent within Limits**

(1) Furnish and maintain a laboratory at the plant site fully equipped for performing contractor QC testing. Have the laboratory on-site and operational before beginning mixture production.

(2) Obtain random samples and perform tests according to this special provision and further defined in Appendix A: *Test Methods & Sampling for HMA PWL QMP Projects*. Obtain HMA mixture samples from trucks at the plant. For the subplot in which a QV sample is collected, discard the QC sample and test a split of the QV sample.

(3) Perform sampling from the truck box according to WTM R97 and four-part splitting of HMA samples according to WTM R47. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield four splits for all random sampling per subplot. All QC samples shall provide the following: QC, QV, Retained, and Extra. The contractor shall take possession of the QC and Extra split samples intended for QC testing. The department will observe the splitting and take possession of the QV and Retained split samples intended for QV testing. Additional sampling details are found in Appendix A. Label samples according to WTM R97.

(4) The contractor shall test the QC split sample using the test methods identified below at a frequency greater than or equal to that indicated. The Extra split sample shall be tested only when the Gmm and/or Gmb replicate tolerances are exceeded according to WTM T166 section 13.1.4 and WTM T209 section 14.1.1. When testing the Extra split sample, only the results from the test from which the tolerances were exceeded may replace the results from the QC split sample. The Rule of Retained according to CMM 836.1.2 applies.

- Blended aggregate gradations in accordance with WTM T30.
- Asphalt content (AC) in percent.

Determine AC using one of the following methods:

- AC by ignition oven according to WTM T308. If the department is using an ignition oven to determine AC, conform to WTP H-003. If the department is not using an ignition oven to determine AC, IOCFs must still be reverified for any of the reasons listed in WTP H-003 Table 2 and conform to WTP H-003 section 3.
- AC by chemical extraction according to AASHTO T164 Method A or B.
- AC by automated extraction according to WTM D8159.
- Bulk specific gravity (Gmb) of the compacted mixture according to WTM T166.
- Maximum specific gravity (Gmm) according to WTM T209.
- Air voids ( $V_a$ ) by calculation according to WTM T269.
- Voids in Mineral Aggregate (VMA) by calculation according to WTM R35 section 9.2.

(5) Lot size shall consist of 3,750 tons with sublots of 750 tons. Test each design mixture at a frequency of 1 test per 750 tons of mixture type produced and placed as part of the contract. Add a random sample for any fraction of 750 tons at the end of production for a specific mixture design. Partial lots with less than three subplot tests will be included into the previous lot for data analysis and pay adjustment. Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.

(6) Conduct field tensile strength ratio tests according to WTM T283 on each qualifying mixture in accordance with CMM 836.6.14. Test each full 50,000-ton production increment, or fraction of an increment, after the first 5,000 tons of production. Perform required increment testing in the first week of

production of that increment. If field tensile strength ratio values are below the spec limit, notify the engineer. The engineer and contractor will jointly determine a corrective action.

*Delete standard spec 460.2.8.2.1.5 and 460.2.8.2.1.6.*

*Replace standard spec 460.2.8.2.1.7 Corrective Action with the following:*

#### **460.2.8.2.1.7 Corrective Action**

<sup>(1)</sup> Material must conform to the following action and acceptance limits based on individual QC and QV test results (tolerances relative to the JMF used on the PWL Test Strip):

ITEM	ACTION LIMITS	ACCEPTANCE LIMITS
Percent passing given sieve:		
37.5-mm	+/- 8.0	
25.0-mm	+/- 8.0	
19.0-mm	+/- 7.5	
12.5-mm	+/- 7.5	
9.5-mm	+/- 7.5	
2.36-mm	+/- 7.0	
75-μm	+/- 3.0	
AC in percent	-0.3	-0.5
Va		- 1.5 & +2.0
VMA in percent <sup>[1]</sup>	- 0.5	-1.0

<sup>[1]</sup> VMA limits based on minimum requirement for mix design nominal maximum aggregate size in table 460-1.

<sup>(2)</sup> QV samples will be tested for Gmm, Gmb, and AC. Air voids and VMA will then be calculated using these test results.

<sup>(3)</sup> Notify the engineer if any individual test result falls outside the action limits, investigate the cause and take corrective action to return to within action limits. If two consecutive test results fall outside the action limits, stop production. Production may not resume until approved by the engineer. Additional QV samples may be collected upon resuming production, at the discretion of the engineer.

<sup>(4)</sup> For any additional non-random tests outside the random number testing conducted for volumetrics, the data collected will not be entered into PWL calculations. Additional QV tests must meet acceptance limits or be subject to production stop. If the department's non-random test does not conform to the acceptance limits, the retained sample will be tested by the BTS lab. If the BTS results also do not meet the acceptance limits, the material will be considered unacceptable as described in (5) below.

<sup>(5)</sup> Remove and replace unacceptable material at no additional expense to the department. Unacceptable material is defined as any individual QC or QV tests results outside the acceptance limits or a PWL value < 50. For AC in percent, unacceptable material is defined as any individual QV test result outside of the acceptance limit. The engineer may allow such material to remain in place with a price reduction. The department will pay for such HMA Pavement allowed to remain in place at 50 percent of the contract unit price.

*Replace standard spec 460.2.8.3.1.2 Personnel Requirements with the following:*

#### **460.2.8.3.1.2 Personnel Requirements**

<sup>(1)</sup> The department will provide at least one HTCP-certified Transportation Materials Sampling (TMS) Technician, to observe QV sampling of HMA mixtures.

<sup>(2)</sup> Under departmental observation, a contractor TMS technician shall collect and split samples.

<sup>(3)</sup> A department HTCP-certified Hot Mix Asphalt, Technician I, Production Tester (HMA-IPT) technician will ensure that all sampling is performed correctly and conduct testing, analyze test results, and report resulting data.



(4) The department will make an organizational chart available to the contractor before mixture production begins. The organizational chart will include names, telephone numbers, and current certifications of all QV testing personnel. The department will update the chart with appropriate changes, as they become effective.

*Replace standard spec 460.2.8.3.1.4 Department Verification Testing Requirements with the following:*

#### **460.2.8.3.1.4 Department Verification Testing Requirements**

(1) HTCP-certified department personnel will obtain QV random samples by directly supervising HTCP-certified contractor personnel sampling from trucks at the plant. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield four splits for all random sampling per subplot. All QV samples shall furnish the following: QC, QV, Retained, and Extra. The department will observe the splitting and take possession of the QV, Retained, and Extra split samples intended for QV testing. The department will take possession of retained samples accumulated to date each day QV samples are collected. The department will retain samples until surpassing the analysis window of up to 5 lots, as defined in 460.2.8.3.1.7(2) of this special provision. Additional sampling details are found in Appendix A.

(2) The department will verify product quality using the test methods specified here in 460.2.8.3.1.4(3). The department will identify test methods before construction starts and use only those methods during production of that material unless the engineer and contractor mutually agree otherwise.

(3) The department will test the QV split sample using the test methods identified below at the frequency indicated. The Extra split sample will be tested only when the Gmm and/or Gmb replicate tolerances are exceeded according to WTM T166 section 13.1.4 and WTM T209 section 14.1.1. When testing the Extra split sample, only the results from the test from which the tolerances were exceeded may replace the results from the QV split sample. The Rule of Retained according to CMM 836.1.2 applies. In the event that both the department and contractor's replicate tolerances are exceeded, perform dispute resolution according to 460.2.8.3.1.7(2).

- Bulk specific gravity (Gmb) of the compacted mixture according to WTM T166.
- Maximum specific gravity (Gmm) according to WTM T209.
- Air voids (Va) by calculation according to WTM T269.
- Voids in Mineral Aggregate (VMA) by calculation according to WTM R35 section 9.2.
- Asphalt Content (AC) in percent determined by ignition oven method according to WTM T308 and conforming to WTP H-003, chemical extraction according to AASHTO T164 Method A or B, or automated extraction according to WTM D8159.

(4) The department will randomly test each design mixture at the minimum frequency of one test for each lot.

*Delete standard spec 460.2.8.3.1.6.*

*Replace standard spec 460.2.8.3.1.7 Dispute Resolution with the following:*

#### **460.2.8.3.1.7 Data Analysis for Volumetrics**

(1) Analysis of test data for pay determination will be contingent upon QC and QV test results. Statistical analysis will be conducted on Gmm and Gmb test results for calculation of Va. If either Gmm or Gmb analysis results in non-comparable data as described in 460.2.8.3.1.7(2), subsequent testing will be performed for both parameters as detailed in the following paragraph.

(2) The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. Additional comparisons incorporating the first 3 lots of data will be performed following completion of the 4<sup>th</sup> and 5<sup>th</sup> lots (i.e., lots 1-3, 1-4, and 1-5). A rolling window of 5 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-6, then lots 3-7, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value of 0.025. If the F- and t-tests report comparable data, the QC and QV data sets are determined to be statistically similar and QC data will be used to calculate the Va used in PWL and pay adjustment calculations. If the F- and t-tests result in non-comparable data, proceed to the *dispute resolution* steps found below. Note: if both QC and QV Va PWL result in a pay adjustment of 102% or greater, dispute resolution testing will not be conducted. Dispute resolution via further investigation is as follows:

[1] The Retained portion of the split from the lot in the analysis window with a QV test result furthest from the QV mean (not necessarily the subplot identifying that variances or means do not compare) will be referee tested for Gmm, Gmb, and Asphalt Content by the bureau's AASHTO accredited laboratory and certified personnel. All previous lots within the analysis window are subject to referee testing and regional lab testing as deemed necessary. Referee test results will replace the QV data of the subplot(s).

[2] Statistical analysis will be conducted with referee test results replacing QV results.

- i. If the F- and t-tests indicate variances and means compare, no further testing is required for the lot and QC data will be used for PWL and pay factor/adjustment calculations.
- ii. If the F- and t-tests indicate non-comparable variances or means, the Retained portion of the random QC sample will be tested for Gmm, Gmb, and Asphalt Content by the department's regional lab for the remaining 4 sublots of the lot which the F- and t- tests indicate non-comparable datasets. The department's regional lab and the referee test results will be used for PWL and pay factor/adjustment calculations. Upon the second instance of non-comparable variance or means and for every instance thereafter, the department will assess a pay reduction for the additional testing of the remaining 4 sublots at \$2,000/lot under the HMA Regional Lab Testing administrative item.

[3] The contractor may choose to dispute the regional test results on a lot basis within 7 days after receiving results from the region. In this event, the retained portion of each subplot will be referee tested by the department's AASHTO accredited laboratory and certified personnel. The referee Gmm and Gmb test results will supersede the regional lab results for the disputed lot.

- i. If referee testing results in an increased calculated pay factor, the department will pay for the cost of the additional referee testing.
- ii. If referee testing of a disputed lot results in an equal or lower calculated pay factor, the department will assess a pay reduction for the additional referee testing at \$2,000/lot under the Referee Testing administrative item.

(3) The department will notify the contractor of the referee test results within 3 working days after receipt of the samples by the department's AASHTO accredited laboratory. The intent is to provide referee test results within 7 calendar days from completion of the lot.

(4) The department will determine mixture conformance and acceptability by analyzing referee test results, reviewing mixture data, and inspecting the completed pavement, this special provision, and accompanying Appendix A.

(5) Unacceptable material (i.e., resulting in a PWL value less than 50 or individual QC or QV test results not meeting the Acceptance Requirements of 460.2.8.2.1.7 as modified herein) will be referee tested by the bureau's AASHTO accredited laboratory and certified personnel and those test results used for analysis. Such material may be subject to remove and replace, at the discretion of the engineer. If the engineer allows the material to remain in place, it will be paid at 50% of the HMA Pavement contract unit price. Replacement or pay adjustment will be conducted on a subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material will replace the original data for the subplot. Any remove and replace shall be performed at no additional cost to the department. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test will be conducted and under such circumstances will be entered into the [HMA PWL Production spreadsheet](#) for data analysis and pay determination.] The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

*Delete standard spec 460.2.8.3.1.8 Corrective Action.*

## **C Construction**

*Replace standard spec 460.3.3.2 Pavement Density Determination with the following:*

### **460.3.3.2 Pavement Density Determination by Cores**

(1) For mainline pavement, determine density with cores. Full width passing lanes, turn lanes, or auxiliary lanes must be 1,500 lane feet or greater to be eligible for PWL density. Shoulder and appurtenance density will be by cores and average lot (daily) densities must conform to standard spec Table 460-3 or

else be subject to disincentives according to 460.5.2.2(5) herein. No density incentive will be applied to shoulders or appurtenances.

(2) The engineer will determine the target maximum density using department procedures described in WTM T355 and CMM 815. The engineer will determine density as soon as practicable after compaction and before placement of subsequent layers or before opening to traffic.

(3) A lot is defined as 7,500 lane feet with sublots of 1,500 lane feet (excluding shoulder, even if paved integrally) and placed within a single layer for each location and target maximum density category indicated in table 460-3. A partial quantity less than 750 lane feet will be included with the previous subplot. Partial lots with less than three sublots will be included in the previous lot for data analysis/acceptance and pay, by the engineer.

(4) Under the direct observation of the engineer, cut 100 or 150 mm (4 or 6 inch) diameter cores from the pavement according to WTM R67 at one random location, determined by the engineer, per subplot. Each core will represent the entire length and width of the subplot. Cores will be cut by the next day, except if the next day is not a working day, then they shall be cut within 48 hours after placement. Fill core holes according to WTM R67 section 5.8 and obtain engineer approval before opening to traffic. Prepare cores and determine density according to WTM T166. Dry cores after testing according WTM R79. The department will label cores, transport cores to testing facilities, witness testing, store dried cores, and provide subsequent verification testing.

(5) If a core is damaged at the time of coring, immediately take a replacement core 1 foot ahead of the existing testing location in the direction of traffic at the same offset as the damaged core. If a core is damaged during transport, record it as damaged and notify the engineer immediately.

(6) Do not re-roll compacted mixtures with deficient density test results. Do not operate continuously below the specified minimum density. Stop production, identify the source of the problem, and make corrections to produce work meeting the specification requirements.

*Replace standard spec 460.3.3.3 Waiving Density Testing with Acceptance of Density Data with the following:*

#### **460.3.3.3 Analysis of Density Data**

(1) As random density locations are paved, the core data will be recorded in the HMA PWL Production Spreadsheet for analysis in chronological order. Each lot will contain core density data from a single HMA mixture type placed over a specific underlying material.

(2) The department reserves the right to verify the density of any core and the department's result may be used for PWL and pay adjustment calculations, at the discretion of the engineer.

(3) The department will determine mixture density conformance and acceptability by analyzing test results, reviewing mixture data, and inspecting the completed pavement according to standard spec, this special provision, and accompanying Appendix A.

(4) Upon the completion of each lot, core data will be used by the department for PWL and pay adjustment calculation.

(5) Density resulting in a PWL value less than 50 or not meeting the requirements of 460.3.3.1 (any individual density test result falling more than 3.0 percent below the minimum required target maximum density as specified in standard spec Table 460-3) is unacceptable and may be subject to remove and replace at no additional cost to the department, at the discretion of the engineer.

- i. Replacement is conducted on a subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material will replace the original data for the subplot.
- ii. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test must be conducted and under such circumstances will be entered into the data analysis and pay determination.]
- iii. If the engineer allows such material to remain in place, it will be paid for at 50% of the HMA Pavement contract unit price. The extent of unacceptable material will be addressed as specified in CMM 815.11. The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

## D Measurement

The department will measure the HMA Pavement bid items acceptably completed by the ton as specified in standard spec 450.4 and as follows in standard spec 460.5 as modified in this special provision.

## E Payment

Replace standard spec 460.5.2 HMA Pavement with the following:

### 460.5.2 HMA Pavement

#### 460.5.2.1 General

(1) Payment for HMA Pavement Type LT, MT, and HT mixes is full compensation for providing HMA mixture designs; for preparing foundation; for furnishing, preparing, hauling, mixing, placing, and compacting mixture; for HMA PWL QMP testing and aggregate source testing; for warm mix asphalt additives or processes; for stabilizer, hydrated lime and liquid antistripping agent, if required; and for all materials including asphaltic materials.

(2) If provided for in the plan quantities, the department will pay for a leveling layer, placed to correct irregularities in an existing paved surface before overlaying, under the pertinent paving bid item. Absent a plan quantity, the department will pay for a leveling layer as extra work.

#### 460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL

(1) Pay adjustments will be calculated using 65 dollars per ton of HMA pavement. The [HMA PWL Production Spreadsheet](#), including data, will be made available to the contractor by the department as soon as practicable upon completion of each lot. The department will pay for measured quantities of mix based on this price multiplied by the following pay adjustment calculated in accordance with the [HMA PWL Production Spreadsheet](#):

#### PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY

PERCENT WITHIN LIMITS (PWL)	PAYMENT FACTOR, PF (percent of \$65/ton)
≥ 90 to 100	PF = ((PWL – 90) * 0.4) + 100
≥ 50 to < 90	(PWL * 0.5) + 55
<50	50% <sup>[1]</sup>

where PF is calculated per air voids and density, denoted PF<sub>air voids</sub> & PF<sub>density</sub>.

<sup>[1]</sup> Any material resulting in PWL value less than 50 shall be removed and replaced unless the engineer allows such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

(2) For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density shall be in accordance with standard spec Table 460-3.

(3) Pay adjustment will be determined on a lot basis and will be computed as shown in the following equation.

$$\text{Pay Adjustment} = (\text{PF} - 100) / 100 \times (\text{WP}) \times (\text{tonnage}) \times (\$65/\text{ton})^*$$

\*Note: If the Pay Factor = 50%, the contract unit price will be used in lieu of \$65/ton and the weighted percentage (WP) will equal 1.0. The following weighted percentage (WP) values will be used for the corresponding parameter:

Parameter	WP
Air Voids	0.5
Density	0.5

(4) Individual Pay Factors for each air voids (PF<sub>air voids</sub>) and density (PF<sub>density</sub>) will be determined. PF<sub>air voids</sub> will be multiplied by the total tonnage placed (i.e., from truck tickets), and PF<sub>density</sub> will be multiplied by the

calculated tonnage used to pave the mainline only (i.e., traffic lanes excluding shoulder) as determined in accordance with Appendix A.

(5) Pay adjustment for shoulders and appurtenances accepted by department testing will be determined on a lot basis. If the lot density is less than the specified minimum in table 460-3, the department will reduce pay based on the contract unit price for the HMA pavement bid item for that lot as follows:

**DISINCENTIVE PAY REDUCTION FOR HMA PAVEMENT DENSITY**

PERCENT LOT DENSITY BELOW SPECIFIED MINIMUM	PAYMENT FACTOR (percent of contract price)
From 0.5 to 1.0 inclusive	98
From 1.1 to 1.5 inclusive	95
From 1.6 to 2.0 inclusive	91
From 2.1 to 2.5 inclusive	85
From 2.6 to 3.0 inclusive	70
More than 3.0 <sup>[1]</sup>	—

<sup>[1]</sup> Remove and replace the lot with a mixture at the specified density. When acceptably replaced, the department will pay for the replaced work at the contract unit price. Alternatively, the engineer may allow the nonconforming material to remain in place with a 50 percent payment factor.

(6) The department will pay incentive for air voids and density under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0055.001	Incentive Density PWL HMA Pavement	DOL
SPV.0055.002	Incentive Air Voids HMA Pavement	DOL

(7) The department will administer disincentives under the Disincentive Density HMA Pavement and the Disincentive Air Voids HMA Pavement administrative items.

(8) The department will administer a disincentive under the Disincentive HMA Binder Content administrative item for each individual QV test result indicating asphalt binder content below the Action Limit in 460.2.8.2.1.7 presented herein. The department will adjust pay per subplot of mix at 65 dollars per ton of HMA pavement multiplied by the following pay adjustment calculated according to the [HMA PWL Production Spreadsheet](#):

<u>AC Binder Relative to JMF</u>	<u>Pay Adjustment / Sublot</u>
-0.4% to -0.5%	75% <sup>[1]</sup>
More than -0.5%	50% <sup>[1] [2]</sup>

<sup>[1]</sup> Any material resulting in an asphalt binder content more than 0.3% below the JMF AC content will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction according to WTM D8159.

<sup>[2]</sup> Any material resulting in an asphalt binder content more than 0.5% below the JMF AC content shall be removed and replaced unless the engineer allows such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

Note: PWL value determination is further detailed in the *PWL Production Spreadsheet Instructions* located in the *Project Info and Instructions* tab of the [HMA PWL Production spreadsheet](#).

## 99. Appendix A, Core Only Project. Test Methods & Sampling for HMA PWL QMP Projects.

The following procedures are included with the HMA Pavement Percent Within Limits (PWL) Quality Management Program (QMP) special provision:

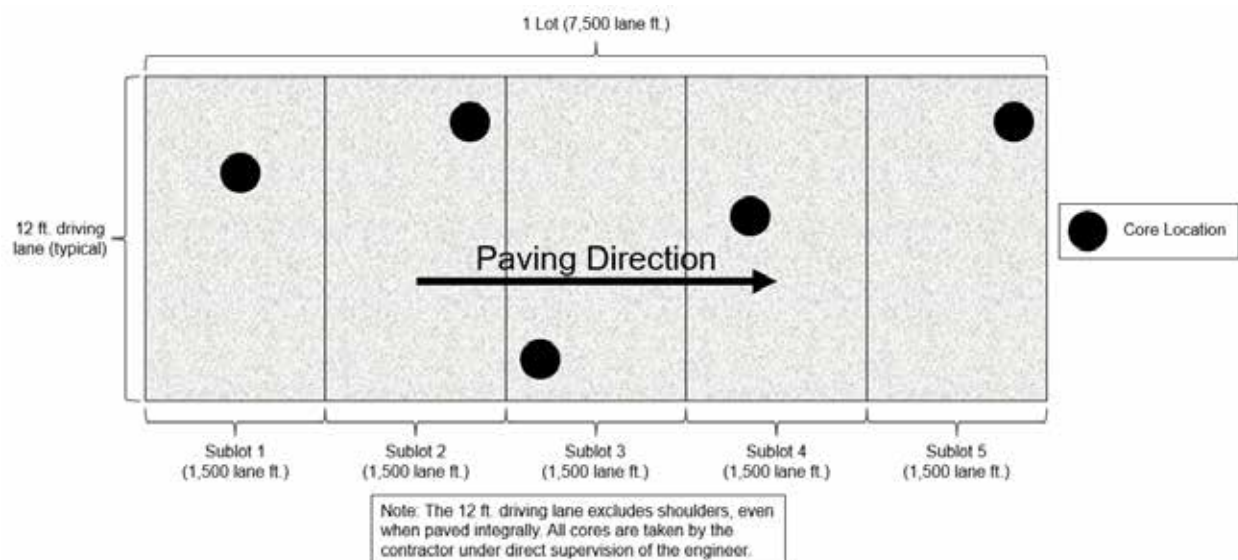
- WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production
- Sampling for WisDOT HMA PWL QMP
- Calculation of PWL Mainline Tonnage Example

### **WisDOT Test Method for HMA PWL QMP Density Determination for Main Production**

For mainline density determination, typical subplot lengths are 1,500 lane feet and lots typically consist of 5 sublots. Partial lots with less than three sublots remaining at the end of the project will be included in the previous lot, by the engineer. The PWL Density measurements do not include the shoulder and other appurtenances. Such areas are tested by the department and are not eligible for density incentive but are subject to disincentive according to 460.5.2.2(5) of the HMA PWL QMP STSP.

#### **Determination by Cores**

For mainline density determination by cores, collect one core per subplot. Each core location is determined by the engineer using random numbers and represents the entire length and width of the subplot. The contractor is responsible for all work related to coring and filling of the core holes according to WTM R67. Each core is tested for density according to WTM T166 by the contractor and witnessed by a department representative. The department must always maintain custody of the cores during collection, transportation, and testing. Figure 5 shows an example coring layout for a 12-foot-wide lane.



**Figure 5: Example core density locations for traffic lanes**

### **Sampling for WisDOT HMA PWL QMP Production**

Sampling of HMA mix for QC, QV, Retained, and Extra split samples shall conform to WTM R97 and WTM R47.

#### **Sampling Hot Mix Asphalt**

At the beginning of the contract, the contractor determines the anticipated tonnage to be produced. The frequency of sampling is 1 per 750 tons (subplot) for QC and Retained Samples and 1 per 3,750 tons (lot or 5 sublots) for QV as defined by the HMA PWL QMP STSP. A test sample is obtained randomly from each subplot. Each random sample shall be collected at the plant according to WTM R97. The contractor must submit the random numbers for all mix sampling to the department before production begins.

### Example 1

Expected production for a contract is 12,400 tons. The number of required samples is determined based on this expected production (per HMA PWL QMP SPV) and is determined by the random sample calculation.

Sample 1 – from 50 to 750 tons  
Sample 2 – from 751 to 1500 tons  
Sample 3 – from 1501 to 2250 tons  
Sample 4 – from 2251 to 3000 tons  
Sample X – .....  
Sample 16 – from 11,251 to 12,000 tons  
Sample 17 – from 12,001 to 12,400 tons

The approximate location of each sample within the prescribed sublots is determined by selecting random numbers using WTM D3665. The random numbers selected are used in determining when a sample is to be taken and will be multiplied by the subplot tonnage. This number will then be added to the final tonnage of the previous subplot to yield the approximate cumulative tonnage of when each sample is to be taken.

To allow for plant start-up variability, the procedure calls for the first random sample to be taken at 50 tons or greater per production day (not intended to be taken in the first two truckloads). Random samples calculated for 0-50 ton should be taken in the next truck (51-75 ton).

This procedure is to be used for any number of samples per contract.

If the production is less than the final randomly generated sample tonnage, then the random sample is to be collected from the remaining portion of that subplot of production. If the randomly generated sample is calculated to be within the first 0-50 tons of the subsequent day of production, it should be taken in the next truck. Add a random sample for any fraction of 750 tons at the end of the contract. Lot size will consist of 3,750 tons with sublots of 750 tons. Partial lots with less than three subplot tests will be included into the previous lot, by the engineer.

It's intended that the plant operator is not advised ahead of time when samples are to be taken.

If belt samples are used during troubleshooting, the blended aggregate will be obtained when the mixture production tonnage reaches approximately the sample tonnage. For plants with storage silos, this could be up to 60 minutes in advance of the mixture sample that's taken when the required tonnage is shipped from the plant.

QC, QV, Retained, and Extra split samples shall be collected for all test strip and production mixture testing using a four-part splitting procedure according to WTM R47.

### **Calculation of PWL Mainline Tonnage Example**

A mill and overlay project is being constructed with a 12-foot traffic lane and an integrally paved 3-foot shoulder. The layer thickness is 2 inches for the full width of paving. Calculate the tonnage in each subplot eligible for density incentive or disincentive.

**Solution:**

$$\frac{1500 \text{ ft} \times 12 \text{ ft}}{9 \text{ sf/sy}} \times \frac{2 \text{ in} \times 112 \text{ lb/sy/in}}{2000 \text{ lb/ton}} = 224 \text{ tons}$$

## **100. Concrete Barrier Type S42 End Anchor, Item SPV.0060.001.**

### **A Description**

This special provision describes constructing end anchorages for single slope concrete barrier conforming to standard spec 603, details shown in the plans and as provided in this special provision.

**B (Vacant)****C Construction**

Construct the Concrete Barrier S42 to present a smooth, uniform appearance in its final position conforming to the horizontal and vertical lines the plans show or ordered by the engineer, and free of lumps, sags or other irregularities.

**D Measurement**

The department will measure Concrete Barrier S42 End Anchor as each individual end anchor 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.0060.001	Concrete Barrier Type S42 End Anchor	EACH

Payment is full compensation for providing the barrier end anchor; for excavating and backfilling; for disposing of excess material; and for restoring the grade.

**101. Concrete Barrier Transition Type M1, Item SPV.0060.002;  
Concrete Barrier Transition Type M2, Item SPV.0060.003;  
Concrete Barrier Transition Type M3, Item SPV.0060.004**

**A Description**

This special provision describes constructing Concrete Barrier Transition (Type) according to standard spec 603, details shown in the plans, and in this special provision.

**B (Vacant)****C Construction**

Construct the Concrete Barrier Transition (Type) to present a smooth, uniform appearance in its final position conforming to the horizontal and vertical lines the plans show or ordered by the engineer, and free of lumps, sags or other irregularities.

**D Measurement**

The department will measure Concrete Barrier Transition (Type) by each individual unit, acceptably placed according to the contract.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.002	Concrete Barrier Transition Type M1	EACH
SPV.0060.003	Concrete Barrier Transition Type M2	EACH
SPV.0060.004	Concrete Barrier Transition Type M3	EACH

Payment is full compensation for furnishing all materials, forming, placing, finishing, and curing of barrier transitions.

**102. Mobilizations Emergency Pavement Repair, Item SPV.0060.005.**

**A Description**

This special provision describes furnishing and mobilizing personnel, equipment, traffic control, and materials to the project site to repair the existing pavement for emergencies as the engineer directs. An emergency is a sudden occurrence of a serious and urgent nature, beyond normal maintenance of the existing pavement.

**B (Vacant)**



## **C Construction**

Mobilize with sufficient personnel, equipment, traffic control, materials, and incidentals on the jobsite within 4 hours of the engineer's written order to repair the existing pavement on an emergency basis.

## **D Measurement**

The department will measure Mobilizations Emergency Pavement Repair as each individual mobilization acceptably completed. The department will not include delivering and installing pavement repair or maintenance materials provided for in specific contract bid items. All traffic control items used for each Mobilization will be considered incidental to the Mobilization.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.005	Mobilizations Emergency Pavement Repair	EACH

Payment is full compensation for the staged moving of personnel, moving equipment, setting up and removing traffic control, traffic control materials, and moving materials. The department will pay separately for delivery and installation of pavement repair materials under the other bid items in this contract. The department will not pay separately for traffic control items and materials even though they may be included in other bid items in this contract and will consider them incidental to each Mobilization.

sef-999-025 (20170310)

## **103. Storm Sewer Pipe Reinforced Concrete Special Tee Fitting, Item SPV.0060.006.**

### **A Description**

This special provision describes providing a Storm Sewer Pipe Reinforced Concrete special tee fitting. The tee fitting comprises of a Storm Sewer Pipe Reinforced Concrete Class II 12-Inch Pipe (branch) that connects to a Storm Sewer Pipe Reinforced Concrete Class II 18-Inch Pipe (base) at a 90° angle.

### **B Materials**

Furnish Storm Sewer Pipe Reinforced Concrete Class II 12-Inch and 18-Inch that conform to standard spec 608.

### **C Construction**

The construction of Storm Sewer Pipe Reinforced Concrete Class II 12-Inch and 18-Inch shall conform to standard spec 608. The special fitting shall be fabricated in a plan listed under precast concrete fabricators on the APL. The length of the 12-Inch branch pipe shall be of sufficient length to permit making a proper joint when it connects to the 18-Inch base pipe. The branch pipe shall terminate in a bell.

### **D Measurement**

The department will measure Storm Sewer Pipe Reinforced Concrete Special Fitting by each unit acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.006	Storm Sewer Pipe Reinforced Concrete Special Tee Fitting	EACH

Payment is full compensation for providing the Storm Sewer Pipe Reinforced Concrete Class II 12-Inch (branch) and the section of Storm Sewer Pipe Reinforced Concrete Class II 18-Inch (base) that contains the fitting; for fabricating the tee fitting between these two pipes; for excavating, except for rock excavation; for providing and removing sheeting and shoring; for constructing the foundation; for backfilling; for cleaning out; and for restoring the site.

**104. Beehive Grate on 12-Inch Pipe Bell, Item SPV.0060.007.**

**A Description**

This special provision describes providing and installing a beehive type grate appropriate for installation on the bell of a Storm Sewer Pipe Reinforced Concrete Class II 12-Inch.

**B Materials**

Furnish a beehive type grate appropriate for direct installation on the bell of a Storm Sewer Pipe Reinforced Concrete Class II 12-Inch, conforming to standard specs 611.

**C Construction**

Install the grates and pipe conforming to standard spec 611.

Seal joint per the manufacturer's recommendation with a butyl rubber seal conforming to ASTM C990 or an external sealing band conforming to ASTM C877.

**D Measurement**

The department will measure Beehive Grate in Pipe Bell as each individual unit acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.007	Beehive Grate on 12-Inch Pipe Bell	EACH

Payment is full compensation for removing and salvaging the existing grates; and for providing the new grates and other required materials and for installing each grate. Old grates removed remain the municipality's property.

**105. Utility Line Opening (ULO), Item SPV.0060.009.**

**A Description**

This special provision describes excavating to uncover utilities/infrastructure for the purpose of determining location and elevation and potential conflicts with proposed work as shown on the plans or as directed by the engineer.

**B (Vacant)**

**C Construction**

Comply with s.182.0175 (2), Stats., with respect to precautions to be taken to avoid and prevent damage to utility facilities.

All ULO shall be approved by the engineer. Notify the utility field engineers or their agents of this work a minimum of 3 days prior to the work so they may be present when the work is completed. Notify the infrastructure/utility owner or their agents 3 working days in advance so that they may be present when excavation work commences.

Perform the excavation in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

Perform the utility line at least 10 days in advance of proposed construction to allow any conflicts to be resolved with minimal disruption. Allow the engineer a minimum of 3 working days after ULO information is received to review and respond with potential design inquiries.

Backfill the excavation with suitable backfill, thoroughly compact, replace pavement over utility line opening trenches which are within the staged traffic area as directed by the engineer. Replace pavement and open to traffic within 24 hours of the excavation.

**D Measurement**

The department will measure ULO by each individual unit, acceptably completed.

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. ULO include a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.009	Utility Line Opening (ULO)	EACH

Payment is full compensation for the excavation required to expose the utility line; backfilling with engineer approved material; compacting the backfill material; restoring the site; cleanup, and maintenance of ULO location during construction.

Existing pavement, concrete curb and gutter, and sidewalk removals necessary to facilitate utility line openings are not considered part of or paid for under ULO but are considered separate and measured and paid for separately as removal items. Granular backfill, pavement replacement material, concrete curb, gutter, and sidewalk items will also be considered separate from ULO and will be measured and paid for separately.

SER-107-013

## **106. Field Facilities Office Space, Item SPV.0060.010.**

### **A Description**

This special provision describes furnishing, equipping, and maintaining a field office as required in the contract at engineer-approved locations conforming to standard spec 642 and as follows.

### **B Materials**

Provide Field Facilities Office Space conforming to standard spec 642.2.1 except delete paragraphs (1), (8), and (10).

*Replace standard spec 642.2.1(4) with the following:*

Provide and maintain suitable interior sanitary facilities conforming to State and local health requirements, in clean and good working condition, and stock with sanitary supplies for the duration of the contract. Furnish office space in an existing office building or existing building converted to office space with a minimum of 1200 square feet. The facility shall have no fee parking with a minimum parking for 15 cars. The space shall include a meeting room with a minimum of 350 square feet. The exterior door(s) shall have locks in good working order and keys provided for all field staff. The office space shall be located within 2 miles of the construction project.

Equip the office as specified in standard spec 642.2.2.1 except delete paragraph (1), (4), and (5) and add the following:

1. 5 suitable office desks with drawers and locks.
2. 5 ergonomically correct office chairs in working condition with at a minimum: 5-legged base with casters, seat adjustable from 15 to 22 inches from the floor with a seamless waterfall, rounded, front edge, and high backrest with no arms or adjustable arms.
3. 4 six foot folding tables.
4. 1 ten foot folding table.
5. 5 two-drawer file cabinets.
6. 3 four-shelf bookcases.
7. 20 folding chairs.

Provide and maintain a Windows 10 compliant multi-function device with the following capabilities:

1. Copy, print, and scan capabilities that accommodate 8 1/2" x 11" and 11" x 17" paper.
2. Color and black & white.
3. 1,200 sheet standard paper capacity.
4. 1200 x 1200 dpi print resolution.
5. 45 pages per minute print speed.
6. 1200 dpi scan resolution.
7. 150 images per minute scan speed.
8. Scan modes: E-mail, folder, USB, FTP.

Replenish paper, toner cartridges, and other supplies before fully expended. Ensure that the department staff can connect to the device either directly or through the field office wireless network.

Provide for the professional cleaning of the field office during regular business hours twice monthly. Provide clearly marked recycling and waste receptacles within the field office, and separate recycling and waste dumpsters near the

field office. Cover outdoor containers to keep out rain, snow, and wind-driven debris. Provide regularly scheduled recycling and waste pick-up.

**C Construction**

Conform to standard spec 642.3 except delete paragraph (2).

**D Measurement**

The department will measure the Field Facilities Office Space as each office 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
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SPV.0060.010	Field Facilities Office Space	EACH
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Payment is full compensation for providing, equipping, securing, and maintaining the facility; for parking, for telecommunications equipment, installation, and service fees; and for providing bottled water, utilities, fuel, ventilation, and toilet facilities as required, either independently or jointly with the field laboratory, for the time specified in 642.3.

The department will pay for the cost of telecommunications usage fees incurred by department staff.

SER-642-002 (20240112)

**107. Traffic Control Close-Open Freeway Ramp, Item SPV.0060.011.**

**A Description**

This special provision describes closing and re-opening a freeway entrance ramp and associated auxiliary lane.

**B (Vacant)**

**C Construction**

Install or reposition traffic control devices required for closing a freeway entrance ramp and adjacent auxiliary lanes. Remove or return traffic control devices to their previous configuration when the closure is no longer required.

**D Measurement**

The department will measure Traffic Control Close-Open Freeway Ramp by each individual ramp closure 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
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SPV.0060.011	Traffic Control Close-Open Freeway Ramp	EACH
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Payment is full compensation for daily surveillance; preparing and submitting the daily surveillance report with hourly metered tickets; mobilization; sweeping; and disposing of materials. Traffic Control devices will be paid separately.

sef-643-001 (20180627)

**108. Traffic Control Local Road Lane Closures, Item SPV.0060.012.**

**A Description**

This special provision describes closing and reopening a local road lane or lanes, including full closure conforming to standard spec 643, the plans, and as directed by the engineer.

**B (Vacant)**

**C Construction**

Install or reposition traffic control devices required for closing a local road or lanes of a local road. Remove or return traffic control devices to their previous configuration when the closure is no longer required.

**D Measurement**

The department will measure Traffic Control Local Road Lane Closures by each individual closure acceptably completed. The department will not measure the closure of a local road not deemed necessary by the engineer.

**E Payment**

Traffic Control devices are paid separately.

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

ITEM NUMBER	DESCRIPTION	UNIT
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SPV.0060.012	Traffic Control Local Road Lane Closures	EACH
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Payment is full compensation for closing and re-opening a local road lane or lanes.

sef-643-035 (20171004)

**109. Traffic Control Full Freeway Closure, Item SPV. 0060.013.****A Description**

This special provision describes closing and re-opening a freeway or expressway.

**B (Vacant)****C Construction**

Install or reposition traffic control devices required for a full freeway closure. Remove or return traffic control devices to their previous configuration when the full closure is no longer required.

**D Measurement**

The department will measure Traffic Control Full Freeway Closure by each individual freeway closure that is set up and later removed in each traffic direction 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
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SPV. 0060.013	Traffic Control Full Freeway Closure	EACH
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Payment is full compensation for closing, and re-opening the freeway. Traffic Control devices will be paid separately.

sef-643-003 (20180627)

**110. Reconnect Storm Sewer, Item SPV.0060.016.****A Description**

This special provision describes surveying existing storm sewer pipes/structures, removing existing structure, and connecting proposed storm sewer pipe/structures to existing storm sewer pipe/structures or proposed pipe/structures.

**B Materials**

Use concrete masonry for concrete collar conforming to standard spec 520.2.4.

Furnish storm sewer pipe in accordance to Section 608.2

**C Construction**

*Add the following to standard spec 650.3.2:*

Perform survey on existing storm sewer as the plans show prior to ordering pipes/structures. Clean sediment and debris from existing structures prior to survey. Record all storm sewer invert/rim elevations and submit a hard copy to the engineer within 24 hours or as requested by the engineer. Obtain engineer's approval before performing all survey on existing storm sewer to construct the work under this contract.

Remove existing concrete collars, pipe seals or end walls constructed under previous projects or in earlier stages of this project as necessary to reconnect storm sewer. Ensure that positive drainage is achieved when connecting proposed pipe to existing structures or storm sewer. Salvage any structurally sound pipe that requires removal if prior approval is granted by the engineer. Make all necessary connections using the appropriate coupling, concrete collar, or by means approved by the engineer.

**D Measurement**

The department will measure Reconnect Storm Sewer as each location as specified in the plans 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.0060.016	Reconnect Storm Sewer	EACH

Payment is full compensation for performing all work; survey of existing storm sewer, removing seals, end walls and concrete collars, removing all existing storm structures, providing all materials, coring, couplings, concrete collars. Any additional pipe or materials required to reconnect the storm sewer shall be considered incidental to this bid item.

### **111. Emergency Inlet Repair, Item SPV.0060.018.**

#### **A Description**

This special provision describes furnishing and mobilizing personnel, equipment, traffic control, labor, and materials to the project site to repair the existing and proposed mainline inlets for emergencies as the engineer directs. An emergency is a sudden occurrence of a serious and urgent nature, beyond normal maintenance of the inlets.

#### **B (Vacant)**

#### **C Construction**

Mobilize with sufficient personnel, equipment, traffic control, materials, and incidentals on the jobsite within 4 hours of the engineer's written order to repair the inlets on an emergency basis.

#### **D Measurement**

The department will measure Emergency Inlet Repair as each individual inlet acceptably completed. The department will not include delivering and installing pavement repair or maintenance materials provided for in specific contract bid items. All traffic control items used for each Repair will be considered incidental to the Repair.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.018	Emergency Inlet Repair	EACH

Payment is full compensation for the staged moving of personnel, moving equipment, setting up and removing traffic control, traffic control materials, and moving materials. And also full compensation for reconstructing or adjusting the inlet; barrier removal, replaced, or temporary thrie beam connectors; and sawing. The department will not pay separately for items and materials even though they may be included in other bid items in this contract and will consider them incidental to each inlet repair.

### **112. Emergency Response to Traffic Involving Concrete Barrier Temporary, Item SPV.0060.019.**

#### **A Description**

This special provision describes providing prompt response to an emergency repair request for damaged and/or dislodged temporary concrete barrier installed under this project that is damaged or displaced due to a vehicular collision during the time this contract is in effect.

#### **B (Vacant)**

#### **C Construction**

The contractor shall provide staff, equipment, and material to the incident site within one hour of receiving a repair request from the responding agency. The contractor shall consult with the department's representative on potential repair or replacement options to restore the temporary concrete barrier to proper working condition. Staff and equipment deployed shall be capable of completing the needed repairs as quickly as possible once repair work is started. Repair work shall be completed off the traveled way to the maximum extent allowable. The contractor shall provide a time log of when the repair request

was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating and completing repair efforts) shall be submitted to the engineer at the pre-construction meeting. This person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on the site of an incident with appropriate staff and equipment within one hour of receiving a repair request, the department will assess the contractor \$500 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted on-hour response time.

Increments of 15 minutes or less will be assess as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

For contractor owned temporary barrier, repair work shall be completed according to standard spec 603 and 643, and as directed by the engineer. For temporary barrier left in place from a previous project, repair work is covered under article Maintain and Remove Concrete Barrier Temporary Precast of these special provisions.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

#### **D Measurement**

The department will measure Emergency Response to Traffic Involving Concrete Barrier Temporary as each individual response, 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.0060.019	Emergency Response to Traffic Involving Concrete Barrier Temporary	EACH

Payment is full compensation for providing prompt response to an emergency repair request for damage and/or dislodged temporary concrete barrier located within the project limits.

The cost of providing the appropriate level of on-call staff for 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

### **113. Emergency Response to Traffic Involving Crash Cushion, Item SPV.0060.020.**

#### **A Description**

This special provision describes providing prompt response to an emergency repair request involving a damaged crash cushion installed under this project that is damaged or displaced due to a vehicular collision during the time this contract is in effect.

#### **B (Vacant)**

#### **C Construction**

The contractor shall provide staff, equipment, and material to the incident site within one hour of receiving a repair request from the responding agency. The contractor shall consult with the department's representative on potential repair or replacement options to restore the temporary concrete barrier to proper working condition. Staff and equipment deployed shall be capable of completing the needed repairs as quickly as possible once repair work is started. Repair work shall be completed off the traveled way to the maximum extent allowable. The contractor shall provide a time log of when the repair request was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating and completing repair efforts) shall be submitted to the engineer at the pre-construction meeting. This

person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on the site of an incident with appropriate staff and equipment within one hour of receiving a repair request, the department will assess the contractor \$500 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted on-hour response time.

Increments of 15 minutes or less will be assessed as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

Repair work shall be completed according to standard spec 614, and as directed by the engineer. Once repair work has been started, work shall continue until completion. Repair work shall be completed off the traveled way to the maximum extent allowable.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

#### **D Measurement**

The department will measure Emergency Response to Traffic Involving Crash Cushion as each individual response, 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.0060.020	Emergency Response to Traffic Involving Crash Cushion	EACH

Payment is full compensation for providing prompt response to an emergency repair request for damaged crash cushion device located within the project limits.

The cost of providing the appropriate level of on-call staff for 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

### **114. Survey Project 1100-21-70, Item SPV.0060.021; Survey Project 1100-21-71, Item SPV.0060.022.**

#### **A Description**

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

The department will not perform any construction staking for this contract. Obtain engineer's approval before performing all survey required to lay out and construct the work under this contract.

*Replace standard spec 650.1 with the following:*

This section describes the contractor-performed construction staking required under individual contract bid items to establish the horizontal and vertical position for all aspects of construction including:

- storm sewer
- subgrade
- base
- curb
- gutter
- curb and gutter
- curb ramps
- pipe culverts
- drainage structures
- structure layout
- bridges



- noise barriers
- all retaining wall layout
- pavement
- pavement markings (temporary and permanent)
- barriers (temporary and permanent)
- overhead signs
- freeway and local street lighting
- electrical installations
- supplemental control
- slope stakes
- ponds
- traffic signals
- ITS
- FTMS
- parking lots
- paths
- utilities
- conduit
- landscaping elements
- traffic control items
- fencing

## **B (Vacant)**

## **C Construction**

*Add the following to standard spec 650.3.1 (5):*

Confirm with engineer before using global positioning methods to establish the following:

1. Structure layout horizontal or vertical locations.
2. Concrete pavement vertical locations.
3. Curb, gutter, and curb and gutter vertical locations.
4. Concrete barrier vertical locations.
5. Storm Sewer layout horizontal or vertical locations, including structure centers, offsets, access openings, rim and invert elevations.

*Replace standard spec 650.3.1(6) with the following:*

- (6) Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. This includes:

- Raw data files
- Digital stakeout reports
- Control check reports
- Supplemental control files (along with method used to establish coordinates and elevation)
- Calibration report

Make the survey notes and computations available to the engineer within 24 hours as the work progresses unless a longer period is approved by the engineer

*Replace standard spec 650.3.3.1 with the following:*

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

*Replace standard spec 650.3.3.4.1 with the following:*

The department will provide the contractor staking packet as described in the Construction and Materials Manual (CMM) 7.10. At any time after the contract is awarded, the available survey and design information may be requested. The department will provide that information within 5 business days of

receiving the contractor's request. The department incurs no additional liability beyond that specified in standard spec 105.6 or standard spec 650 by having provided this additional information.

*Add the following to standard spec 650.3.3.3.6.2 as paragraph four:*

Record all subgrade elevation checks and submit a hard copy to the engineer within 24 hours or as requested by the engineer.

*Add the following to standard spec 650.3 as subsections 650.3.15 and 650.3.16:*

#### **650.3.15 Water Main**

Record all elevation data for the casing, grade breaks, water main pipe, bends, fittings, and all information necessary to accurately record the construction document. Submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe, valves and bends to within 0.10 feet horizontal and establish the elevations to within 0.10 feet vertical.

Set construction stakes at all water main valves, fittings and bends and at maximum interval of 50 feet for water main piping.

Provide the as-built xyz coordinates and elevations, in the project horizontal and vertical datum, of all bends, fittings, valves and tie in locations for the as-built plan. Also provide the locations of the casing ends, the elevation of the top of casing.

#### **650.3.16 Sanitary Sewer**

Record all elevation data for pipe inverts, outside drops, bends, fittings, casings and other information necessary to accurately record the construction document. Submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe inverts, drops to within 0.02 feet horizontally and to within 0.01 feet vertically. Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe inverts, drops to within 0.02 feet horizontally and to within 0.01 feet vertically.

Provide the as-built xyz coordinates and elevations, in the project horizontal and vertical datum, of all tie in locations for the as-built plan. Also provide the locations of the casing ends, the elevation of the top of casing and the size and material of all pipes.

### **D Measurement**

*Replace standard spec 650.4 with the following:*

- (1) The department will measure Survey Project (Project ID) as a single unit, acceptably completed.

### **E Payment**

*Replace standard spec 650.5 with the following:*

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0021	Survey Project 1100-21-70	EACH
SPV.0060.0022	Survey Project 1100-21-71	EACH

Payment is full compensation for performing all survey work required to lay out and construct all work under this contract and for adjusting stakes to ensure compatibility with existing field conditions. The department will not make final payment for this item until the contractor submits all survey notes and computations used to establish the required lines and grades to the engineer within 24 hours of completing this work. Re-staking due to construction disturbance and knock-outs will be performed at no additional cost to the department.

**115. Marking Median Inlets Epoxy 6-Inch, SPV.0060.025.**

**A Description**

This special provision describes marking median inlet location on concrete barrier wall with epoxy marking conforming to standard spec 646, as the plans show, and as follows.

**B Materials**

Furnish epoxy pavement marking materials conforming of standard spec 646.2.

**C Construction**

Apply a 6-inch wide by 24-inch long yellow epoxy line to the concrete barrier wall centered over the median storm sewer inlet. Begin the line at the top of the barrier wall. Apply epoxy marking conforming to standard spec 646.3.

**D Measurement**

The department will measure Marking Median Inlets Epoxy 6-Inch by each marking, 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.0060.025	Marking Median Inlets Epoxy 6-Inch	EACH

Payment is full compensation for providing marking.

**116. Concrete Barrier Type S56 End Anchor, Item SPV.0060.027.**

**A Description**

This special provision describes constructing end anchorages for single slope concrete barrier conforming to standard spec 603, details shown in the plans and as provided in this special provision.

**B (Vacant)**

**C Construction**

Construct the Concrete Barrier S56 to present a smooth, uniform appearance in its final position conforming to the horizontal and vertical lines the plans show or ordered by the engineer, and free of lumps, sags or other irregularities.

**D Measurement**

The department will measure Concrete Barrier S56 End Anchor as each individual end anchor 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.0060.027	Concrete Barrier Type S56 End Anchor	EACH

Payment is full compensation for providing the barrier end anchor; for excavating and backfilling; for disposing of excess material; and for restoring the grade.

**117. Ground Rod, Item SPV.0060.050.**

**A Description**

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

**B Materials**

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

### **C Construction**

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

### **D Measurement**

The department will measure Ground Rod by the unit, acceptably installed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.50	Ground Rod	EACH

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

## **118. Loop Detector Splice, Item SPV.0060.051.**

### **A Description**

This special provision describes furnishing and installing a loop detector splice kit to splice new loop detectors to existing loop detector lead in cable.

### **B Materials**

Use cast-in-place splice kits from an approved manufacturer.

### **C Construction**

Install the splice capsule conforming to the manufacturer's instructions and according to the requirements in Chapter 655 of the standard specifications.

### **D Measurement**

The department will measure Loop Detector Splice by the unit completely installed in accordance with the contract.

### **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.0060.51	Loop Detector Splice	EACH

Payment is full compensation for furnishing and installing the required splice kits.

## **119. Removing Lighting Poles, Item SPV.0060.100.**

### **A Description**

This special provision describes the removing lighting poles as shown on the plans, in accordance to the pertinent provisions of standard spec 204, and hereinafter provided.

### **B Materials**

All removed material shall become the property of the contractor and be disposed of the project site.

### **C Construction**

Remove lighting poles consisting of pole, wires, breakaway device, and associated hardware and appurtenances.

No removal work will be permitted without approval from the Engineer. Removal shall start as soon as the temporary lighting or permanent lighting, as applicable, is placed in approved operation. An inspection and approval by the Engineer will take place before any associated proposed permanent or temporary lighting is approved for operation.

## **D Measurement**

The Department will measure Removing Lighting Poles by each individual unit removed.

## **E Payment**

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.100	Removing Lighting Poles	EACH
SER-204.15 (20171021)		

## **120. Removing Luminaire Arms, Item SPV.0060.101.**

### **A Description**

This special provision describes removing existing luminaire arms from light poles as the plans show, conforming to standard spec 204, and as follows.

### **B Material**

Removed luminaire arms become the property of the contractor. Properly dispose of all material off the project site.

### **C Construction**

No removal work will be permitted without approval from the Engineer. Removal shall start as soon as the temporary lighting or permanent lighting, as applicable, is placed in approved operation. An inspection and approval by the Engineer will take place before any associated proposed permanent or temporary lighting is approved for operation.

### **D Measurement**

The department will measure Removing Luminaire Arms by each individual unit removed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.101	Removing Luminaire Arms	EACH

Payment is full compensation for removing luminaire arms; removal and disposal of material; and for labor, tools, equipment, and incidentals necessary to complete the work.

## **121. Temporary Wood Pole 60-FT, Item SPV.0060.102..**

### **A Description**

The work under this item consists of furnishing and installing wood poles and other incidental items as required and as shown on the plans. All work shall be in accordance with section 651 of the standard specifications. Remove and dispose of temporary wood poles, 60 FT as a part of this item.

### **B Materials**

Wood poles shall be Class 4 or larger with a 60-foot minimum overall length. The poles shall be western red cedar in accordance with ANSI standards 05.1. All poles shall be shaved the entire length.

Wood poles used for freeway lighting shall be pressure treated with a 5 percent pentachlorophenol mixture with a minimum of 8 pounds per cubic foot net retention of the oil-borne preservative.

### **C Construction**

This work shall be in accordance with the pertinent provisions of subsection 661.3.1.1 of the standard specifications, and as shown on the plans. As necessary, install #6 AWG grounding wire exothermically bonded to a 5/8-inch by 8-foot copper clad grounding electrode, cable guard, NEMA 3R junction box at 10ft above grade level for splice, and incidentals as necessary.

#### **D Measurement**

The department will measure Temporary Wood Poles 60-FT by each individual item 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.0060.102	Temporary Wood Poles 60-FT	EACH

Payment is full compensation for furnishing and installing a wood pole; all excavation and backfill; removal and disposal of all temporary wood poles 60 FT and for furnishing all labor, equipment, tools, and incidentals necessary to complete the work.

### **122. Concrete Bases Type B, Item SPV.0060.103.**

#### **A Description**

This special provision describes a concrete light pole base as shown on the plans and details.

#### **B Materials**

Furnish materials that are in accordance to the pertinent requirements of section 654.2.1 of the standard specifications.

#### **C Construction**

Under the Concrete Bases bid item, construct concrete foundations, including necessary hardware as shown on plans and details.

Conform to Section 654.3 of standard specifications.

#### **D Measurement**

The Department will measure Concrete Bases bid item as each individual base acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.103	Concrete Bases Type B	EACH

Payment will be based on Section 654.5(2) of the standard specifications.

### **123. Lighting System Integrator 1100-21-70, Item SPV.0060.104; Lighting System Integrator 1100-21-71, Item SPV.0060.105.**

#### **A Description**

This special provision describes coordinating lighting with various parties; record keeping, and documentation. Where the Department is responsible for freeway lighting operation, maintenance, or utility locates on existing systems or systems overlapping project boundaries, the contractor's freeway lighting integrator will serve as the contractor's liaison to the Department's electrical operations unit.

#### **B Personnel Qualifications**

Assign personnel experienced in underground utility construction and Department lighting specifications and practices.

#### **C Construction**

At any one time during the project, the contractor shall assign one individual person as the freeway lighting integrator.

The freeway lighting integrator shall:

1. Familiarize himself with the location and nature of existing lighting circuits. This familiarity shall include the extent of any lighting system that overlaps project limits.

2. Maintain a file of applicable permits or licenses issued to the contractor and convey copies to the Engineer.
3. Keep with him at all times a contact list of affected lighting personnel.
4. Maintain a record of tagouts and the clearance of tagouts.
5. Interface with Department electrical personnel to determine how contract limits might affect maintenance or operation of existing systems.
6. Maintain ongoing contact with the Department's Diggers' Hotline Coordinator to ensure that each of the two persons knows that all requested utility locates are marked in the field by the appropriate party. The intent here is to assure coordination. This special provision does not transfer additional utility locating responsibilities to the contractor, beyond those responsibilities already assigned to him by other provisions of the contract.
7. Inform the Department of any lighting outages, including outside the project limits where a lighting system crosses the project boundary.
8. Maintain in any format real-time records of existing, removed, and new lighting facilities. Include utility service extensions. Additional required records will include temporary connections and their ultimate removal.
9. Maintain records of tests, including: "meg" tests, amperage draw per circuit leg, voltage reading at the disconnect, and voltage reading at the furthest pole per circuit leg. Convey these records at time of acceptance or partial acceptance.
10. At the time of acceptance or partial acceptance, convey as-built drawings in both the following formats: plan redlines and .dgn electronic. Include utility service extensions.
11. Secure copies of operator's manuals, tear sheets, etc. as may be provided by manufacturers of some lighting materials and convey a minimum of three sets to the Department.
12. Work with the Engineer to notify Department electrical personnel of acceptance or partial acceptance.
13. Perform related duties as may be needed to ensure continuity of freeway lighting during construction, and orderly transfer upon completion.

#### **D Measurement**

The Department will measure Lighting System Integrator Project 1100-21-70 and Project 1100-21-71 by each individual project for all services acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.104	Lighting System Integrator 1100-21-70	EACH
SPV.0060.105	Lighting System Integrator 1100-21-71	EACH

Payment will be full compensation for providing specified expertise, assistance and documents, and personnel costs.

SER-670.1 (20170407)

### **124. Lighting System Survey 1100-21-70, Item SPV.0060.106; Lighting System Survey 1100-21-71, Item SPV.0060.107.**

#### **A Description**

This special provision describes performing a lighting system survey as-built for IH 41 (Silver Spring Drive to Good Hope Road interchange) mainline, as shown on the plans, and hereinafter provided.

#### **B Vacant**

#### **C Construction**

Locate and survey all the lighting units, pull boxes, and control cabinets to sub-meter accuracy. Maintain neat, orderly, and complete survey notes. The survey shall be performed in NAD 83, Wisconsin County Coordinate System (WCCS), and Milwaukee County Coordinates. The data shall be delivered in a comma delimited text file with metadata including datum, county, and date the survey was performed. Data for

each point shall have a point number, northing, easting, and point description including pole, pull box, or cabinet number.

#### **D Measurement**

The department will measure Lighting System Survey Project 1100-21-70 and Lighting System Survey Project 1100-21-71 for all lighting units, pull boxes, and control cabinets by each individual project, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.106	Lighting System Survey 1100-21-70	EACH
SPV.0060.107	Lighting System Survey 1100-21-71	EACH

Payment will be full compensation for locating and surveying all the lighting units, pull boxes, and control cabinets and for delivery of the comma delimited data file and all survey notes.

### **125. Maintenance of Lighting Systems 1100-21-70, Item SPV.0060.108; Maintenance of Lighting Systems 1100-21-71, Item SPV.0060.109.**

#### **A Description**

Maintain existing and proposed lighting system beginning on the date that the contractor's activities (electrical or otherwise) at the job site begin. Take responsibility for the proper operation and maintenance of all existing and proposed lighting systems which are part of, or which may be affected by, the work until final acceptance or as otherwise determined by the engineer.

Before performing any excavation, removal, or installation work (electrical or otherwise) at the site, initiate a request for a maintenance transfer and preconstruction inspection, as specified elsewhere herein, to be held in the presence of the engineer and a representative of the party or parties responsible for maintenance of any lighting systems which may be affected by the work. Make the request for the maintenance preconstruction inspection no less than seven calendar days prior to the desired inspection date.

Existing lighting systems, when depicted on the plans, are intended only to indicate the general equipment installation of the systems involved and shall not be construed as an exact representation of the field conditions. Visit the site to confirm and ascertain the exact condition of the electrical equipment and systems to be maintained. Condition issues found during contractor assessment can be discussed and addressed by contacting the SE Region Lighting Engineer (Eric Perea) prior to maintenance responsibility being transferred to the contractor.

#### **B (Vacant)**

#### **C Construction**

##### **C.1 Existing Lighting Systems**

Existing lighting systems are defined as any lighting system or part of a lighting system in service prior to this contract. The contract drawings indicate the general extent of any existing lighting. Ascertain the extent of effort required for compliance with these specifications; failure to do so will not be justification for extra payment or reduced responsibilities. Clear and replace any knockdowns or damage caused to the existing lighting system, regardless of who causes the damage. Maintain existing lighting system as follows:

**Partial Maintenance:** Only maintain the affected circuits if the number of circuits affected by the contract is equal to or less than 40% of the total number of circuits in a given controller and the controller is not part of the contract work unless otherwise indicated. Ensure engineer approval to isolate the affected circuits by means of in-line waterproof fuse holders as specified elsewhere.

**Full Maintenance:** Maintain the entire controller and all associated circuits if the number of circuits affected by the contract is greater than 40% of the total number of circuits in a given controller, or if the controller is modified in any way under the contract work.



## C.2 Proposed Lighting Systems

Proposed lighting systems are any temporary or final lighting systems or part of a lighting system to be constructed under this contract.

Maintain all items installed under this contract, including, but not be limited to, any equipment failures or malfunctions as well as equipment damage either by the motoring public, contractor operations, or other means.

Excluding damage due to contractor operations, the contractor will be reimbursed for replaced equipment, materials only, if the invoice paid for the individual piece of equipment is greater than \$500. The cost of maintaining equipment installed under this contract, labor, mobilization, tools, and incidentals along with repairs due to contractor operations are incidental to this bid item.

## C.3 Maintenance Operations

Maintain lighting units (including sign lighting), cable runs, and lighting controls. In the case of a pole knockdown or sign light damage caused by normal vehicular traffic, promptly clear the lighting unit and circuit discontinuity and restore the system to service. Reinstall the lighting unit (if salvageable) or install a new one.

Provide weekly night-time patrol of the lighting system, with patrol reports filed immediately with the engineer and copied to the region lighting coordinator with deficiencies corrected within 24 hours of the patrol. Present patrol reports on standard forms as designated by the engineer. Uncorrected deficiencies may be designated by the engineer as necessitating emergency repairs as described elsewhere herein.

Perform corrective action on specific lighting system equipment according to the following chart. The chart lists the maximum response, service restoration, and permanent repair time (or based on material availability).

Incident or Problem	Service Response Time	Service Restoration Time	Permanent Repair Time
Control cabinet out	1 hour	4 hours	7 Calendar days
Hanging mast arm	1 hour to clear	n/a	7 Calendar days
Motorist caused damage or leaning light pole 10 degrees or more	1 hour to clear	4 hours	7 Calendar days
Circuit out – Needs to reset breaker	1 hour	4 hours	n/a
Circuit out – Cable trouble	1 hour	24 hours	21 Calendar days
Outage of 3 or more successive lights	1 hour	4 hours	n/a
Outage of 75% of lights on one tower	1 hour	4 hours	n/a
Outage of light nearest RR crossing approach, Islands, and gores	1 hour	4 hours	n/a
Outage (single or multiple) found on night outage survey	n/a	n/a	7 Calendar days

## C.4 Lighting

1. **Serve Response Time:** The amount of time from the initial notification to the contractor until a patrolman physically arrives at the location.
2. **Service Restoration Time:** The amount of time from the initial notification to the contractor until the time the system is fully operational again. (In cases of motorist-caused damage, the undamaged portions of the system are operational.)
3. **Permanent Repair Time:** The amount of time from initial notification to the contractor until the time permanent repairs are made if the contractor was required to make temporary repairs to meet the service restoration requirement.

Failure to provide this service will result in liquidated damages of \$500 per day per occurrence. In addition, the department reserves the right to assign any work not completed within this timeframe to the State Electrical Engineering and Electronics Unit. Reimburse all costs associated to repair this uncompleted work. Failure to pay these costs to the State Electrical Engineering and Electronics Unit within one month after the incident will result in additional liquidated damages of \$500 per month per occurrence. Unpaid bills will be deducted from the cost of the contract. Repeated failures and/or a gross failure of maintenance shall result in the State's Electrical Engineering and Electronics Unit being directed to correct all deficiencies and the resulting costs deducted from any monies owed the contractor.

## C.5 Operation of Lighting

Maintain operational lighting every night, dusk to dawn. Do not operate duplicate lighting systems (such as temporary lighting and proposed new lighting) simultaneously. Do not keep lighting systems in operation during long daytime periods. Ensure that the lighting system is fully operational and approved by the engineer prior to submitting a pay request. Failure to do so will be grounds for denying the pay request.

### D Measurement

The department will measure Maintenance of Lighting Systems Project 1100-21-70 and Maintenance of Lighting Systems Project 1100-21-71 by each individual project, per contract, 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.0060.108	Maintenance of Lighting Systems Project 1100-21-70	EACH
SPV.0060.109	Maintenance of Lighting Systems Project 1100-21-71	EACH

Payment is full compensation for Maintenance of Lighting Systems, both existing and proposed, weekly night-time patrol of the lighting system, mobilization, and filed patrol reports. No payment will be considered for damage or repairs due to contractor operations.

## 126. Embedded Galvanic Anodes, Item SPV.0060.200.

### A Description

This special provision describes furnishing and installing embedded galvanic anodes in concrete.

### B Materials

Furnish pre-manufactured galvanic anodes designed for cathodic protection when embedded in concrete and tied to steel reinforcing. The core of the anode shall consist of a minimum of 1.3 ounces of electrolytic zinc in compliance with ASTM B418 Type II, cast around a pair of steel tie wires and encased in a cementitious shell with a minimum pH of 14. The anodes shall have one side that is less than 1-1/2 inches in height.

Submit the product information to the engineer for approval. Supply a certification of compliance to the engineer a minimum of two weeks before starting work. Deliver, store, and handle all materials according to the manufacturer's instructions.

### C Construction

#### C.1 Concrete Repair

Repair the concrete and prepare the exposed reinforcing steel conforming to standard spec 509.

#### C.2 Galvanic Anode Installation

**C.2.1** Install embedded galvanic anodes conforming to the manufacturer's recommendations.

**C.2.2** Attach galvanic anodes to existing reinforcement along the perimeter of the repair at spacing as specified on the plans. Space anodes no further than 24 inches apart.

**C.2.3** Provide 3/4-inch clearance between anodes and substrate.

**C.2.4** Secure the galvanic anodes as close as possible to the patch edge using the anode tie wires. Tighten the tie wires to allow no free movement.

If the anode is to be tied onto a single bar, or if less than 1-1/2 inch of concrete cover is expected, place anode beneath the uncoated bar and secure to reinforcing steel.

If 1-1/2 inch concrete cover will exist over the anode, the anode may be placed at the intersection between two bars and secured to each bar.

### **C.3 Electrical Continuity**

Confirm electrical connection between anode tie wire and uncoated reinforcing steel with a multi-meter. The maximum DC resistance shall be 1 Ohm. Confirm electrical continuity of the exposed uncoated reinforcing steel within the repair area. Steel reinforcement shall be considered continuous when the DC resistance is 1 Ohm or less. If necessary, establish the electrical continuity with uncoated steel tie wire.

### **C.4 Inspection**

Obtain Engineer's verification of proper installation of the galvanic anodes prior to placement of the concrete.

### **D Measurement**

The department will measure Embedded Galvanic Anodes as each individual anode acceptably 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.0060.200	Embedded Galvanic Anodes	EACH

Payment is full compensation for furnishing and for properly installing anodes.

Concrete repair work, and concrete for that work, will be paid for separately.

## **127. Cleaning and Sealing Concrete Girder Ends, Item SPV.0060.201.**

### **A Description**

This special provision describes the removing of any loose, delaminated, or deteriorated concrete from the end 5 feet of concrete girders; cleaning any exposed bar steel reinforcement or steel prestressing strands; applying an organic zinc rich primer and top coat to areas of cleaned, exposed steel; and applying a non-pigmented epoxy where shown on the plans, and as directed by the engineer.

### **B Materials**

#### **B.1 Non-Pigmented Epoxy**

Furnish a non-pigmented epoxy conforming to AASHTO M-235 Type III, Grade 2, Class B or C.

#### **B.2 Coating System**

Furnish primary organic zinc rich layer and intermediate layer paint from the department's approved product list for structure overcoating cleaning and priming.

### **C Construction**

#### **C.1 Surface Preparation**

Use construction methods according to standard spec 203 and 517, and as hereinafter provided:

1. Take necessary precautions while removing deteriorated concrete to preclude damage to the remaining sound concrete and preserve all existing reinforcing steel and prestressing strands. Clean, realign, and retie existing reinforcing steel, as the engineer considers necessary.
2. Clean all exposed bar steel reinforcement and steel prestressing strands to remove all rust and corrosion prior to painting. Provide Near-White Blast Cleaning (SSPC-SP10 or SSPC-SP11) level of cleanliness to the engineer's satisfaction.

#### **C.2 Coating Application**

Apply organic zinc rich primer and intermediate paint coat in a neat, workmanlike manner, and according to the manufacturer's instructions and recommendations at locations shown on the plans and as directed by the engineer. Paint application shall be by brush. The color of the primer shall be such that a definite contrast between it and the color of the blasted steel is readily apparent. The color of the paint's top coat shall be concrete gray.

### **C.3 Epoxy Application**

Coat exposed strand ends, girder ends, and all non-bonding surfaces within the surface preparation and coating application extents shown on the plans and as directed by the engineer with a non-pigmented epoxy. The epoxy shall be applied after zinc rich primer and intermediate paint coat are fully dry.

#### **D Measurement**

The department will measure Cleaning and Sealing Concrete Girder Ends as each individual unit acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.201	Cleaning and Sealing Concrete Girder Ends	EACH

Payment is full compensation for removing loose, delaminated, or deteriorated concrete; preparing and cleaning exposed steel; furnishing and applying paint to exposed steel surfaces; furnishing and applying epoxy; cleaning up; and containing, collecting, and disposal of all waste materials.

## **128. Vegetation Removal B-40-365, Item SPV.0060.202; Vegetation Removal B-40-366, Item SPV.0060.203.**

#### **A Description**

This special provision describes providing removing and disposing of vegetation within slope paving limits and along ditch lines adjacent to bridge piers.

#### **B (Vacant)**

#### **C Construction**

##### **C.1 Vegetation Removal**

Remove all vegetation within existing slope paving limits. Remove vegetation alongside existing bridge piers and restore any ditch lines to grade to ensure proper drainage. Additional removal of vegetation interfering with the structure to be as directed by the engineer.

Perform vegetation removal work per section 201.3 of the standard specifications, except as modified herein.

#### **D Measurement**

The department will measure Vegetation Removal (Structure #) as a complete unit for each structure acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.202	Vegetation Removal B-40-365	EACH
SPV.0060.203	Vegetation Removal B-40-366	EACH

Payment is full compensation for all vegetation removal required under this section and performed within the removal limits defined under this section and identified on the plans; handling, hauling, piling, burning, burying, trimming, chipping, wound treatment, re-handling, and disposing of waste and debris.

## **129. Heat Straightening of Damaged Girders, Item SPV.0060.250.**

#### **A Description**

This special provision describes heat straightening portions of bent or damaged girders which are left in place, back to their original shape. Straighten the girders back into their original position and shape within the tolerances listed below or as necessary to mate the existing and new work.

## **B Materials**

### **Vacant**

## **C Construction**

### **C.1 Contractor Qualifications**

The contractor's personnel performing the heat straightening shall have at least 5 years of experience in conducting heat-straightening repairs to primary structural members of in-service damaged steel structures. During the immediately preceding three-year period, the personnel shall have conducted at least three successful heat-straightening projects. The contractor's personnel performing NDT testing shall have at least 5 years of experience in inspection and repairs of structural steel.

A minimum of 15 working days prior to the pre-construction meeting, submit to the engineer for approval a report documenting the experience of the personnel and the projects worked on including the date, location, bridge owner, number and type of members straightened, and duration of each project, along with contact names, current phone numbers and e-mail addresses. Include relevant information, experience and qualifications of the firm completing NDT testing for acceptance by the department.

### **C.2 Existing Paint Removal**

Remove existing paint according to SSPC-SP15 Commercial Grade Power Tool Cleaning or equal. Remove all existing paint, mill scale, and rust within the heat affected zone except that up to 33% staining from rust and mill scale is permitted to remain. Remove paint as necessary to perform inspections and straightening work and to the engineer's satisfaction. Feather the edges of remaining old paint so that the repainted surface has a reasonably smooth appearance.

### **C.3 Grinding Flange Edges**

Round all damaged/impacted exposed corners of main members as necessary to achieve a 1/16-inch radius or equivalent flat surface at a 45-degree angle. Grind edges at all locations of planned work to prevent edge cracking during the straightening work and to the engineer's satisfaction.

### **C.4 Damage Inspection**

Visually inspect all areas of damage, suspected damage, yield lines and zones of plastic bending. Also inspect all secondary members and connections between main and secondary members that potentially distributed forces causing damage. Perform this work with inspected surfaces being within approximately 24 inches from the inspector. Use access equipment, illumination, and nondestructive testing as necessary to identify, measure and document the location and details of: buckling; crimps; misalignment; twists; tears; burrs; damaged edges; punched holes; pull out of secondary members; cracks or other physical distress. Remove existing paint and test using magnetic particle testing all areas of detected and suspected hairline cracking according to the procedures and techniques for dry powder magnetic particle examination using the yoke method, ASTM E709, Practices for Magnetic Particle Examination.

### **C.5 Straightening Work Plan**

Use field data from the damage inspection to develop a straightening work plan. The work plan should include documentation of the Contractor's means and methods including: jacking or bracing plans; surface preparation methods; calculation and control of allowable jacking and pulling forces; heating methods and shapes; heating equipment; and temperature indicating devices. Submit the work plan to the engineer a minimum of 5 days prior to beginning heat straightening.

### **C.6 Straightening Damaged Members**

Perform straightening using methods which will not permanently damage the metal's material properties. Heat members using: controlled jacking, pulling or restraining forces; specified heating patterns; and controlled temperatures that result in controlled shrinkage to straighten the member. Do not heat members then use large jacks or pullers which mechanically hot work the material. Mechanical hot working permanently damages the metal's material properties. Prior to straightening a damaged compression member, install adequate bracing to support loads and prevent buckling.

### **C.7 Restraints or Preloads**

Apply jacking, pulling or restraining forces to the damaged member in the direction that tends to straighten the member. Position jacks, pullers, or restraining forces such that heat straightening shrinkage will relieve the force during the cooling cycle. Do not allow jacks, pullers or restraining forces to subject any part of the structure to unit stresses that exceed 50 percent of the material's nominal yield ( $F_y$ ) at ambient temperature. Provide pressure gages or load cells to control jacks, pullers or restraining forces.

Secure jacks, pullers or retraining forces so they do not dislodge during cooling. Apply jacks, pullers or restraining forces prior to heating. Do not apply additional jacking, pulling or restraining forces after beginning the application of heat. Do not apply the next cycle of jacking, pulling or restraining forces until the steel has cooled below 250 °F.

### C.8 Application of Heat

Heat opposite faces of a plate or rolled shape concurrently when the material thickness equals or exceeds 1-1/4 inch. When heating thick plates, it may be necessary to interrupt heating for periods of less than one minute to allow the heat to soak into the flange and avoid surface over-heating. Perform heating using single and multi-orifice (rosebud) heating torches sized according to the following table. Manipulate the torches to avoid overheating. Heat using propane, natural gas, or acetylene unless other methods are accepted by the engineer.

Limits on Torch Tip Size		
Steel Thickness	Orifice type	Orifice Size
less than 1/4inch ( 6mm)	Single	3
3/8 inches (9.5mm)	Single	4
1/2 inch (13mm)	Single	5
5/8 inch (16mm)	Single	7
3/4 inch(19mm)	Single	8
1 inch (25mm)	Single or Rosebud	8 single, 3 rosebud
1 1/4 inch (32mm)	Single or Rosebud: on both sides*	8 single, 3 rosebud
2 inch (51mm)	Single or Rosebud: on both sides*	8 single, 4 rosebud
3 inch (76mm) or greater	Rosebud: on both* sides	5

\* - Heat applied concurrently to both sides

### C.9 Shape of Heating Patterns

Perform heating using four basic heating patterns: Strip, Line, Spot or “V”.

### C.10 Temperature Control

Control heat so the internal temperature of the steel does not exceed 1200 °F. The internal temperature of the steel is the surface temperature approximately five seconds after passage of the torch. Control the application of heating so it is confined inside the limits of the four basic heating patterns. Bring the steel within the pattern to the desired temperature as rapidly as possible without overheating.

Control the application of heat by checking the internal temperature of the steel by frequent use of appropriate temperature range indicating crayons or an infrared, non-contact thermometer. The department will require investigative testing for damage to the metal's material properties for any procedure which causes the internal temperature of the steel to exceed the specified maximum heating temperature. Provide the inspector with access to infrared thermometers or heat-indicating crayons as necessary to document and verify compliance with the temperature restrictions as stated in these specifications.

Do not accelerate cooling with water, water mist or other cooling accelerants. After the steel surface temperature is less than 600 °F (315 °C) cooling may be accelerated with dry compressed air. After completing a planned set of heat patterns along the member, do not apply additional heat until the entire member has cooled below 250 °F and the straightening movement has been verified.

### C.11 Tolerances

Do not measure dimensional tolerances for final acceptance until all heating and welding operations are completed and the member has cooled to 160 °F or less.

Girder straightness: The difference between the original as-built position and the final repair position when measured from a string line stretched along the member shall conform to the minimum tolerances as stated in the table below:

**Tolerances for Heat Straightening Repair.**

Member Type	Minimum Tolerance <sup>1,2</sup>	
	English (in)	SI (mm)
Beams, Truss members, or Columns	overall	13 mm over 6 meters
	at impact point	19 mm over 6 meters
Local Web Deviations	d/100 but not less than 1/4-in	d/100 but not less than 6 mm
Local Flange Deviations	b/100 but not less than 1/4-in	b/100 but not less than 6 mm

<sup>1</sup> Units of member depth, d, and flange width, b, are inches and millimeters, respectively, for English and SI units

<sup>2</sup> Tolerances for curved or cambered members should account for the original shape of the member.

**C.12 Final Inspection**

Perform a final arms-length inspection of all surfaces that were repaired or heated. Perform the inspection after the work is complete and cooled to 160 °F or less. Perform non- destructive testing at locations of detected or suspected hairline cracking as part of this inspection. Test these areas using magnetic particle testing. Immediately notify the engineer of any cracking found.

**D Measurement**

The department will measure Heat Straightening of Damaged Girders as a single unit acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.250	Heat Straightening of Damaged Girders	EACH

Payment is full compensation for heat straightening portions of bent or damaged girders and diaphragm members to the original tolerances as specified; inspecting all suspected areas of cracking by visual and non-destructive testing (NDT); providing temperature-indicating devices to the inspector.

**130. Re-epoxy Bearing Anchor Bolt, Item SPV.0060.260.**

**A Description**

This special provision describes re-setting existing anchor bolts at steel bearings at locations noted in the plans and as determined by the engineer.

**B Materials**

Furnish epoxy conforming to standard spec 416.2.2.

Furnish new anchor bolt nuts conforming to standard spec 506.5 and 506.2.8.

### **C Construction**

Completely remove expansion bolt nuts at designated locations. Pull out the existing anchor bolts and clean without damaging the galvanized coating. Clean the hole. Reinstall existing anchor bolts per standard spec 506.3.30(4). Install new anchor bolt nuts. Existing anchor bolt nuts may be reused per the approval of the engineer.

### **D Measurement**

The department will measure Re-epoxy Bearing Anchor Bolt as each individual anchor bolt 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.0060.260	Re-epoxy Bearing Anchor Bolt	EACH

Payment is full compensation for removals, cleaning existing components to remain, furnishing materials, and re-installing anchor bolts and nuts.

## **131. Bearing Anchor Bolt Nut Adjustment, Item SPV.0060.261.**

### **A Description**

This special provision describes tightening existing or replacing anchor bolt nuts at existing steel bearings at locations noted in the plans and as determined by the engineer.

### **B Materials**

Furnish new anchor bolt nuts conforming to standard spec 506.5 and 506.2.8.

### **C Construction**

Tighten existing anchor bolt nuts. Replace missing anchor bolt nuts or replace existing nuts as directed by the engineer.

### **D Measurement**

The department will measure Bearing Anchor Bolt Nut Adjustment as each individual anchor bolt 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.0060.261	Bearing Anchor Bolt Nut Adjustment	EACH

Payment is full compensation for cleaning existing components to remain and furnishing and installing new anchor bolt nuts.

## **132. Install Poles Type 9, Item SPV.0060.301; Install Poles Type 9-Special, Item SPV.0060.302; Install Monotube Arms 20-FT, Item SPV.0060.303; Install Monotube Arms 30-FT, Item SPV.0060.304; Install Monotube Arms 35-FT-Special, Item SPV.0060.305.**

### **A Description**

This special provision describes installing state furnished materials conforming to standard spec 657, details shown in the plans, and as modified in this special provision.

### **B Materials**

The department will furnish the monotube poles, monotube arms and luminaire arms.



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

### **C Construction**

Perform work in accordance with sections 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 of the standard specifications except as specified below.

### **D Measurement**

The department will measure Install [Equipment] at the contract unit price 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.0060.301	Install Poles Type 9	EACH
SPV.0060.302	Install Poles Type 9-Special	EACH
SPV.0060.303	Install Monotube Arms 20-FT	EACH
SPV.0060.304	Install Monotube Arms 30-FT	EACH
SPV.0060.305	Install Monotube Arms 35-FT-Special	EACH

Payment is full compensation for installing all materials, including all associated hardware, fittings, mounting devices, and attachments necessary to completely install the pole and arms.

## **133. Transport & Install State Furn Traffic Signal Cabinet IH 41 SB Off Ramp/N 115th St & CTH PP, Item SPV.0060.306.**

### **A Description**

This special provision describes the transporting and installing of department furnished materials for traffic signals as the plans show and as follows.

### **B Materials**

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

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

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

### **C Construction**

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

Request a signal inspection of the completed signal installation to the project engineer at least five (5) working days prior to the time of the requested inspection. The departments' Region Electrical personnel will perform the inspection.

### **D Measurement**

The department will measure Trnspt & Install State Furn Traffic Signal Cabinet [Location] as each individual unit, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.306	Trnspt & Install State Furn Traffic Signal Cabinet IH 41 SB Off Ramp/N 115th St & CTH PP	EACH

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

**134. Transport Traffic Signal Materials IH 41 SB Off Ramp/N 115th St & CTH PP, Item SPV.0060.307.**

**A Description**

This special provision describes the transporting of department furnished monotube poles and monotube arms.

**B Materials**

Transport materials furnished by the department including: Monotube poles and monotube arms.

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

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

**C Construction**

Perform work in accordance with sections 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 of the standard specifications.

**D Measurement**

The department will measure Trnspt Traffic Signal Materials [Location] as each individual unit, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.307	Trnspt Traffic Signal Materials IH 41 SB Off Ramp/N 115th St & CTH PP	EACH

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

**135. Temporary Non-Intrusive Vehicle Detection System for Intersections, Item SPV.0060.308.**

**A Description**

This work shall consist of furnishing, installing, maintaining and placing into operation a temporary non-intrusive vehicle detection system (NIVDS) as shown on the plans, and as directed by the engineer in the field.

**B Materials**

This specification sets forth the minimum requirements for a system that detects vehicles on a roadway and provides detection outputs to a traffic signal controller. The materials shall also include all brackets, mounting hardware, cable, terminations, interface panels, and all other incidentals for the installation of the non-intrusive vehicle detection equipment. This equipment shall meet the NEMA environmental, power and surge ratings as set forth in NEMA TS2 specifications.

All detection equipment, components, and terminations supplied under this item shall be fully compatible with the temporary traffic signal controller for the project. The system architecture shall fully support Ethernet networking of system components. All required interface equipment needed for transmitting and receiving data shall be provided with the NIVDS.

The NIVDS shall provide flexible detection zone placement anywhere and at any orientation. Preferred detector configurations shall be detection zones placed across lanes of traffic for optimal count accuracy,

detection zones placed parallel to lanes of traffic for optimal presence detection accuracy of moving or stopped vehicles. Detection zones shall be able to be overlapped for optimal road coverage.

### **C Construction**

The temporary NIVDS shall be installed by supplier factory-certified installers and as recommended by the supplier and documented in installation materials provided by the supplier.

In the event, at installation or turn on date, a noticeable obstruction is present in line with the detection zone(s), the contractor **shall** be obligated to advise the engineer before setting the zone.

The non-intrusive vehicle detection system, as shown in the traffic signal construction plans, **shall** be complete, in place, tested, and in full operation during each stage of construction.

Maintain all temporary vehicle detection zones as the plans show or as the engineer directs. The temporary vehicle detection zones shall be set near the vicinity and with approximate distance from the stop bar as shown on the plans. Check temporary vehicle detection zones every other week and at the opening of each stage of temporary traffic signal operation to ensure that they are working properly and aimed properly. Periodic adjustment of the detection zones and/or moving of the temporary vehicle detection sensors may be required due to changes in traffic control, staging, or other construction operations.

Ensure the non-intrusive vehicle detection system stays in clean working order. Periodic cleaning of the equipment may be required due to dirt and dust build-up.

### **D Payment**

The department will measure Temporary Vehicular Video Detection System for Intersections (Location) as each individual unit, acceptably completed.

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.308	Temporary Non-Intrusive Vehicle Detection System for Intersections	EACH

Payment is full compensation for furnishing and installing the temporary non-intrusive vehicle detection system, including cabling, mounting brackets, mounting hardware, terminations, interface panels, testing and set up; for periodic checking and resetting of detection zones; for periodic cleaning for dirt and dust build-up; and for removing all equipment at the completion of the project.

## **136. Transport and Install S-F FO Cable Pigtail 8-CT IH 41 SB Off Ramp/N 115th St & CTH PP, Item SPV.0060.309.**

### **A Description**

This special provision describes the transporting and installing of fiber optic cable pigtail 8-ct in traffic signal cabinets.

### **B Materials**

The department will furnish the pre-terminated fiber optic patch panel. The material will be provided with the traffic signal cabinet. The patch panel will have a pre-terminated fiber optic cable pigtail. Provide all patch panel attachment hardware.

### **C Construction**

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

### **D Measurement**

The department will measure Trnsprt and Install S-F FO Cable Pigtail 8-CT [Location] as each individual unit, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.309	Trnsprt and Install S-F FO Cable Pigtail 8-CT IH 41 SB Off Ramp/N 115th : & CTH PP	EACH

Payment is full compensation for transporting and installing pre-terminated patch panels; furnishing and installing attachment hardware; and cleaning up and disposing of waste.

### 137. Tension Anchor Rod, Item SPV.0060.450.

#### A Description

This special provision describes re-tensioning loose anchor rod nuts as shown on the plans, and as hereinafter provided.

#### B Materials

Furnish materials that are in accordance with the pertinent provisions of section 531 and 532 of the standard specifications and as shown in the plans.

#### C Construction

Use construction methods that are in accordance with the pertinent provisions of section 531 and 532 of the standard specifications and as shown in the plans. This work will consist of re-tensioning all loose anchor rod nuts as specified in the plans. The contractor shall follow the re-tensioning procedure outlined herein:

1. The contractor shall verify the grade of the anchor rod. If an anchor rod grade cannot be verified, the Department shall be contacted for direction. Note that A36 rods have different tensioning requirements.
2. The contractor shall field verify the size and number of nuts required to be replaced. Note that if one or more are found to be loose at a foundation, all are required to be re-tensioned.
3. Remove all jam nuts<sup>1</sup>.
4. The contractor shall furnish flat washers and heavy hex nuts conforming to Section 531.2.2. Existing jam nuts<sup>1</sup> may be reused.
5. Remove rodent screen<sup>1</sup>.
6. Remove and dispose of the grout pad<sup>1</sup> in accordance to standard spec 509.3.4.
7. Tighten all nuts that are loose to snug tight (leveling and top nut). Reference the Department's Form DT2321 for snug tight torque values.
8. Contact the department for direction of the top nut is not fully snugged or cannot be turned.
9. Once all nuts are snug, remove one top nut at a time<sup>2</sup> and follow the remaining procedure. Top nuts, flat washers, and locking washers (if applicable) shall be discarded, the leveling nuts shall remain, and jam nuts<sup>1</sup> may be reused.
10. Remove rust and dirt, from anchor rod and base plate with a wire wheel or brush.
11. Apply one light coat of fast drying zinc rich primer or spray-on cold galvanized (if rust is present) to the full length of the anchor bolt and at damaged base plates. Repair of any damaged galvanized coating is incidental to the re-tensioning process.
12. Apply wax-based lubricant to the anchor rod and nut.
13. Install top nut to snug tight. Reference the Department's form DT2321 for snug tight torque values.
14. Repeat steps 3 thru 12 in this specification until all washers and nuts have been replaced.
15. Tension the anchor rod nuts. Follow the Department's Form DT2321 procedure steps 5 thru 7 and record the tensioning process.
16. Clean, lubricate and install jam nut<sup>1</sup> per step 8 of Form DT2321.

17. Apply two coats of zinc rich primer to any damaged areas of the structure base plates and used jam nuts.
18. Reinstall the rodent screen<sup>1</sup>.
19. Complete Form DT2321 for each structure and submit to structure inspector for transmittal to Bureau of Structures and inclusion in HSIS.

Note<sup>1</sup> – Only for structures that have jam nuts, grout, or rodent screens.

Note<sup>2</sup> – If it is a cantilever structure with a connection which has 6 or less anchors, the truss or mast arm shall be supported by a crane during re-tensioning. In lieu of a supporting crane, the contractor may instead submit a structural analysis of the structure addressing proposed constructability which ensure the stability and safety of workers and the traveling public. Analysis computation and support document shall be signed, sealed, and dated by a professional engineer licensed in Wisconsin, and shall be submitted to the project engineer and BOS for permanent record.

All work for this item, including site clean-up, shall be completed in one shift.

#### **D Measurement**

The department will measure Tension Anchor Rod as each individual base plate location acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.450	Tension Anchor Rod	EACH

Payment is full compensation for tensioning loose anchor rod nuts; for removing and properly disposing of existing materials being replaced; for furnishing all materials and miscellaneous items to complete the repair; for fabricating, handling, transporting, and erecting.

### **138. Remove Debris, Item SPV.0060.451.**

#### **A Description**

This special provision describes removing debris, brush, and vegetation on the structure and within 10 feet of the foundations, as shown on the plans, and as hereinafter provided.

#### **B (Vacant)**

#### **C Construction**

Remove brush and vegetation of it in accordance with section 202 of the standard specifications. Grade the area around the foundation to drain, if required, in accordance with section 213 of the standard specification.

Remove and properly dispose of all debris at the truss connections and elements. Ensure that the connections and truss elements are free of all debris.

#### **D Measurement**

The department will measure Remove Debris as each location acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.451	Remove Debris	EACH

Payment is full compensation for removing and disposing of the debris, brush and vegetation; grading to the foundation; and restoration

### 139. Remove Catwalk, Item SPV.0060.452.

#### A Description

This special provision describes removing an existing catwalk from a sign structure as shown on the plans, and as hereinafter provided.

#### B (Vacant)

#### C Construction

Remove and dispose of all portions of the existing catwalk and catwalk connections and L-brackets according to standard spec 204. If L-brackets supporting catwalk are supporting and attached to sign panels, the vertical portion is to remain in place. In this case, cut the vertical portion of the L-bracket at the bottom of the sign panel and remove all parts that extend below the panel.

Exercise care when removing the existing catwalk so the existing sign structure truss is not damaged. Any damage to the sign truss due to the removal operations shall be repaired by the contractor at the contractor's expense.

#### D Measurement

The department will measure Remove Catwalk as each catwalk that is acceptably removed according to the contract.

#### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.452	Remove Catwalk	EACH

Payment is full compensation for removing and disposing of the catwalk; and for repairing damage to the existing sign truss.

### 140. Tension Structural Bolt, Item SPV.0060.450

#### A Description

This special provision describes replacing splice, post-to-truss, truss gusset, post to mast arm and any other tensioned structural connection high strength bolt as shown on the plans, and as hereinafter provided.

#### B Materials

Furnish materials that are in accordance with section 532.2 and as shown in the plans.

#### C Construction

Use construction methods that are in accordance with the pertinent provisions of standard spec 532.6, 657 and as shown in the plans. The contractor shall follow the re-tensioning procedure outlined herein:

1. Each bolt to be tensioned shall be replaced with a new bolt. The new bolt installed will follow the below procedure.
2. The contractor shall field verify the size and number of bolts, nuts, flat washers, and DTI washers at each structure to be replaced. Note that since the DTI's are to be utilized, the number of washers may change, and the lengths of the bolts may need to be increased.
3. Lock washers shall **not** be used in connections. Washers are **not** to be placed between faying surfaces. If present, lock washers and washers between faying surfaces must be removed and discarded. Beveled washer may be required if connected plates are not parallel.
4. The contractor shall furnish bolts, flat washers, heavy hex nuts, shims, and DTI's conforming to standard spec 532.
5. Perform the pre-installation test in accordance to the department's form DT2322.
6. Tighten all nuts that are loose to snug tight. Note that this is to be done for stability purposes<sup>1</sup>

7. Once all nuts are snug, remove one and only one bolt at a time<sup>2</sup> and follow the remaining procedure. Existing bolts, nuts washers, and shims shall be discarded.
8. Install the new bolt to snug tight.
9. Repeat steps 7 and 8 until all bolts have been replaced. Ensure there are no gaps in the faying surface after all bolts have been replaced. If gaps are present, see note 1 below, otherwise contact the Bureau of Structures.
10. Follow the department's Form DT2322 installation procedure for tensioning of the replacement bolts.
11. Complete Form DT2322 for each structure and submit to the regional ancillary structure engineer for transmittal to BOS and inclusion in HSIS.

Note<sup>1</sup> - If a shim must be added to a full span splice connection, note the existing gap before the bolts are removed, support the truss/chord with a crane, and remove all bolts at the same time. Insert the appropriate number of stainless-steel shims and install new bolts. Tensioned bolts conforming to DT2322.

Note<sup>2</sup> - If it is a cantilever structure, a connection which has 6 or less bolts, or a noted gap between the faying surfaces, the truss or mast arm shall be supported by a crane during bolt replacement.

All work under this item, including site cleanup, shall be completed within one shift.

#### **D Measurement**

The department will measure Tension Structural Bolt as each individual bolt, acceptably completed

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.453	Tension Structural Bolt	EACH

Payment is full compensation for replacing all necessary splice, post-to-truss, truss gusset, post to mast arm and any other tensioned structural connection high strength bolts; for removing and properly disposing of existing materials being replaced; for furnishing all materials and miscellaneous items to complete the repair.

### **141. Vertical Sign Support, Item SPV.0060.454**

#### **A Description**

This special provision describes moving or replacing the damaged, missing or incorrectly placed support brackets as shown on the plans, and as hereinafter provided.

#### **B Materials**

For missing or damaged brackets, furnish Aluminum I Beams (I5 X 3.7) & U-bolts for each sign for overhead signs support according to standard spec 637, WisDOT Sign Plates A4-7A and A4-7B and as shown in the plans. The number of I-Beams and U-bolts shall be as shown on the plans or the minimum of the WisDOT Sign Plates A4-7A and A4-7B.

#### **C Construction**

Take down the existing sign panel and remove the existing support bracket and properly dispose of the bracket assembly. Use construction methods that are according to standard specs 637 and 532 and as shown in the plans. Provide torque requirement and other installation instructions to the Region. All bolts, nuts, washers, or miscellaneous items required to replace the damaged or deteriorated sign bracket with I-Beams per sign will be considered incidental to this item. If an existing sign is to be re-installed, the installation of the sign is incidental to Vertical Sign Support.

If an existing vertical I Beam support is to be moved, discard existing U-Bolts and sign connection clips and replace with new hardware, I Beam may be reused if not damaged. Sign panel may remain in place as I Beam is moved to new location if there are 2 or more, I Beams that will remain in place during the repair.

#### **D Measurement**

The department will measure Replace Type II Sign Support Connection (w/ Aluminum I Beam and U-Bolt) as each individual I-beam assembly acceptably 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.0060.454	Vertical Sign Support	EACH

Payment is full compensation for replacing sign type II sign support bracket with new aluminum I Beams and U-bolts; for removing and properly disposing of existing materials being replaced; for furnishing all materials and miscellaneous items to complete the repair; for handling, transporting, and erecting.

### **142. Replace Junction Box Cover, Item SPV.0060.455.**

#### **A Description**

This special provision describes replacing missing electrical junction box covers as shown on the plans, and as hereinafter provided.

#### **B Materials**

Furnish materials that are in accordance with the pertinent provisions of sections 653 of the standard specifications and as shown in the plans. Field verification will be required for proper sizing of the junction box covers.

#### **C Construction**

Use construction methods that are in accordance with the pertinent provisions of section 653 of the standard specifications and as shown in the plans. This work will consist of providing and placing missing junction box covers and all hardware necessary to complete the work.

#### **D Measurement**

The department will measure Replace Junction Box Cover by each unit, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.455	Replace Junction Box Cover	EACH

Payment is full compensation for replacing junction box covers; for removing and properly disposing of existing materials being replaced; for furnishing all materials and miscellaneous items to complete the repair; for fabricating, handling, transporting, and erecting.

### **143. Conduit Plug, Item SPV.0060.456**

#### **A Description**

This special provision describes replacing missing conduit plugs as shown on the plans, and as hereinafter provided.

#### **B Materials**

Furnish materials that are in accordance with section 652 of the standard specifications and as shown in the plans.

#### **C Construction**

Use construction methods that are in accordance with section 652 of the standard specifications and as shown in the plans.



Field verify the size of the conduit plug required. Lubricate the conduit plug threads with an approved anti-seize compound.

#### **D Measurement**

The department will measure Install Conduit Plug as each individual conduit plug acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.456	Conduit Plug	EACH

Payment is full compensation for field verifying existing conditions; for furnishing and installing the new conduit plug, including anti-seize compound.

### **144. Pavement Cleanup Project 1100-21-71, Item SPV.0075.001**

#### **A Description**

This special provision describes cleanup of dust and debris from pavements within and adjacent to the job site. Pavement Cleanup includes surveillance and reporting of all active haul routes.

#### **B Materials**

##### **B.1 Pavement Cleanup**

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

Use 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 in this special provision or approved by the engineer.

#### **C Construction**

##### **C.1 Surveillance**

Provide daily surveillance of active haul routes to identify if material is being tracked from the jobsite. Document the condition of the roads and all sweeping recommendations in a daily report. Submit reports to the engineer daily, including hourly metered tickets for that day's sweeping activities.

##### **C.2 Pavement Cleanup**

Keep all pavements, sidewalks, driveways, curb lanes and gutters within the project boundaries, free of dust and debris generated from all activity under the contract. Keep all pavements, sidewalks, driveways, curb lanes, and gutters adjacent to the project free of dust and debris that are caused by land disturbing, dust generating activities, as defined in the contractor's Dust Control Implementation Plan (DCIP).

Provide routine sweeping of all pavements, sidewalks, driveways, curb lanes and gutters on local-street active haul routes as defined in the DCIP or as directed by the engineer. Include the following roadways for routine sweeping:

- IH 41 (NB & SB)
- Service Ramps
- Mill Road
- And all other roadways approved by the department

In addition to routine sweeping, conduct sweepings as the engineer directs or approves, to eliminate 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. Coordinate with engineer to determine deadlines for responding to emergency sweeping requests and cleaning up spillage and material tracked to/from the project.

Skid steers with mechanical power brooms may only be used on sidewalks and driveways whose pavements will not support the weight of a street sweeper, unless otherwise approved by the engineer. Do not dry sweep. Ensure all broomed equipment used for sweeping has a functioning water bar.

## D Measurement

The department will measure Pavement Cleanup (Project 1100-01-77) by the hour acceptably completed.

Tickets shall include:

- Date
- Company
- Operator name
- Equipment make/model
- Routes swept
- Total hours.

Total hours shall be to the nearest 0.25 hour that work under this item was performed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0075.001	Pavement Cleanup Project 1100-01-77	HR

Payment is full compensation for daily surveillance; preparing and submitting the daily surveillance report with hourly metered tickets; mobilization; sweeping; and disposing of materials.

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## 145. Native Pollinator Seeding Mixture No. 90A, Item SPV.0085.001.

### A Description

This special provision describes preparing seed beds and furnishing and sowing the required seed on areas identified in the plan set.

Conform to standard spec 630 except as modified in this special provision.

### B Materials

Conform to standard spec 630.2 and follow guidance for seed mixture 70/70a. Use Table 1 for seed mixture 90A composition.

PLS for seeding mixture 90A must be packaged separately by species and clearly labeled with the vendor's name, species common and botanical names, gross weight, percent PLS, year of harvest and any specialized treatments that have been applied to ensure or enhance germination.

**Table 1 – Native Pollinator Seed mix 90A**

Nomenclature		Purity & Germination minimum %	Seed Metrics				
			Oz/Acre	% Mix by Oz/Acre	lbs/Acre	lbs/1,000 square feet	Seeds/oz
Scientific Name	Common Name						
<b>Grasses and Sedges</b>							
<i>Andropogon gerardii</i>	Big Bluestem	PLS	8.00	4.68	0.50	0.011	10,000
<i>Bouteloua curtipendula</i>	Side oats Grama	PLS	32.00	18.72	2.00	0.046	6,000
<i>Carex bicknellii</i>	Bicknell's Oval Sedge	PLS	1.50	0.88	0.09	0.002	17,000
<i>Carex brevior</i>	Fescue Sedge	PLS	2.00	1.17	0.13	0.003	29,000
<i>Carex molesta</i>	Field Oval Sedge	PLS	1.75	1.02	0.11	0.003	25,000
<i>Elymus canadensis</i>	Canada Wild Rye	PLS	30.00	17.55	1.88	0.043	5,200

<i>Elymus virginicus</i>	Virginia Wild Rye	PLS	8.00	4.68	0.50	0.011	4,200
<i>Panicum virgatum</i>	Switch Grass	PLS	1.00	0.58	0.06	0.001	14,000
<i>Schizachyrium scoparium</i>	Little Bluestem	PLS	32.00	18.72	2.00	0.046	15,000
<i>Sorghastrum nutans</i>	Indian Grass	PLS	8.00	4.68	0.50	0.011	12,000
<i>Sporobolus heterolepis</i>	Prairie Dropseed	PLS	3.00	1.75	0.19	0.004	16,000
<b>Alternate Grasses and Sedges</b>							
<i>Calamagrostis canadensis</i>	Blue Joint Grass	PLS					280,000
<i>Carex scoparia</i>	Lance-fruited Oval Sedge	PLS					84,000
<i>Muhlenbergia mexicana</i>	Leafy Satin Grass	PLS					175,000
<i>Spartina pectinata</i>	Prairie Cord Grass	PLS					6,600
<b>Forbs</b>							
<i>Asclepias syriaca</i>	Common Milkweed	PLS	3.00	1.75	0.19	0.004	4,000
<i>Astragalus canadensis</i>	Canadian Milk Vetch	PLS	1.00	0.58	0.06	0.001	17,000
<i>Dalea purpurea</i>	Purple Prairie Clover	PLS	4.00	2.34	0.25	0.006	15,000
<i>Desmodium illinoense</i>	Illinois Tick Trefoil	PLS	1.50	0.88	0.09	0.002	4,300
<i>Echinacea pallida</i>	Pale Purple Coneflower	PLS	2.00	1.17	0.13	0.003	5,200
<i>Eryngium yuccifolium</i>	Rattlesnake Master	PLS	2.00	1.17	0.13	0.003	7,500
<i>Heliopsis helianthoides</i>	False Sunflower	PLS	3.00	1.75	0.19	0.004	6,300
<i>Heuchera richardsonii</i>	Prairie Alumroot	PLS	0.20	0.12	0.01	0.000	700,000
<i>Monarda fistulosa</i>	Wild Bergamot	PLS	1.50	0.88	0.09	0.002	70,000
<i>Penstemon digitalis</i>	Foxglove Beardtongue	PLS	2.00	1.17	0.13	0.003	130,000
<i>Pycnanthemum virginianum</i>	Mountain Mint	PLS	0.75	0.44	0.05	0.001	220,000
<i>Ratibida pinnata</i>	Yellow Coneflower	PLS	3.00	1.75	0.19	0.004	30,000
<i>Rudbeckia hirta</i>	Black-eyed Susan	PLS	4.00	2.34	0.25	0.006	92,000
<i>Rudbeckia subtomentosa</i>	Sweet Black-eyed Susan	PLS	1.50	0.88	0.09	0.002	43,000
<i>Silphium integrifolium</i>	Rosinweed	PLS	2.00	1.17	0.13	0.003	1,200
<i>Silphium laciniatum</i>	Compass Plant	PLS	2.00	1.17	0.13	0.003	660
<i>Solidago rigida</i>	Stiff Goldenrod	PLS	2.50	1.46	0.16	0.004	41,000
<i>Symphyotrichum laeve</i>	Smooth Blue Aster	PLS	1.00	0.58	0.06	0.001	55,000
<i>Symphyotrichum novae-angliae</i>	New England Aster	PLS	1.00	0.58	0.06	0.001	66,000
<i>Tradescantia ohimensis</i>	Ohio Spiderwort	PLS	2.00	1.17	0.13	0.003	8,000
<i>Verbena stricta</i>	Hoary Vervain	PLS	1.50	0.88	0.09	0.002	28,000
<i>Veronicastrum virginicum</i>	Culver's Root	PLS	0.25	0.15	0.02	0.000	800,000

<i>Zizia aurea</i>	Golden Alexanders	PLS	2.00	1.17	0.13	0.003	11,000
<b>Alternate Forbs<sup>3</sup></b>							
<i>Geum aleppicum</i>	Yellow Aven	PLS					20,000
<i>Parthenium integrifolium</i>	Wild Quinine	PLS					7,000
<i>Rudbeckia triloba</i>	Brown-eyed Susan	PLS					34,000
<i>Silphium terebinthinaceum</i>	Prairie Dock	PLS					1,000
<i>Solidago speciosa</i>	Showy Goldenrod	PLS					95,000
<i>Symphyotrichum oolantangiense</i>	Sky Blue Aster	PLS					80,000
<i>Verbena hastata</i>	Blue Vervain	PLS					93,000
<i>Vernonia fasciculata</i>	Common Ironweed	PLS					24,000

### Diversity and Density Metrics

Plant Type	Species Richness	Purity & Germination minimum %	Oz/Acre	% Mix by Oz/Acre	lbs/Acre	lbs/1,000 square feet	Seeds/oz
Grasses and Sedges	11		127.25	74.44	7.95	0.183	
Forbs	23		43.70	25.56	2.73	0.063	
<b>Totals</b>	<b>34</b>		<b>170.95</b>	<b>100.00</b>	<b>10.68</b>	<b>0.245</b>	

<sup>1</sup>Seed mix is designed for 1.0 acre.

<sup>2</sup>Alternate species are provided below each section (graminoids and forbs). Wisconsin blooming periods are defined as Spring (April-May), Summer (June-August), and Fall (September-October).

<sup>3</sup>The contractor may, if the engineer approves, substitute an alternate for a required species that is not available using the same percentage as specified for the required species. Use a different alternate for each unavailable required species. Provide documentation showing that a required forb is not available before using an alternate.

If seeding bare soil with native seed mixture 90A, include the nurse crop as follows. Do not seed native seed mixtures between June 15 and October 15 unless the engineer allows.

Install nurse crop with permanent native seed mix. Select appropriate seed combinations from table below based on timing of installation. Annual rye will be installed with common oats or winter wheat. Nurse crop is not suitable for areas with standing water.

**Table 2 – Nurse Crop**

Scientific Name	Common Name	Installation Rate	
		(lbs/acre)	(lbs/1000 sq. ft.)
Spring seeding before June 15			
<i>Avena sativa</i>	Common Oats	35	0.8
<i>Lolium multiflorum</i>	Annual Rye <sup>1</sup>	5	0.12
When the engineer allows between June 15 and October 15			
<i>Avena sativa</i>	Common Oats	35	0.8
<i>Lolium multiflorum</i>	Annual Rye <sup>1</sup>	5	0.12
Fall seeding after October 15 and dormant seeding			
<i>Triticum aestivum</i>	Winter Wheat <sup>2</sup>	45	1

<i>Lolium multiflorum</i>	Annual Rye <sup>1</sup>	5	0.12
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<sup>1</sup>Spring (April-May) and late summer (August-early September) preferred for annual rye but may be established in summer or a dormant seeding as seed will overwinter.

<sup>2</sup>August-September preferred for winter wheat but may be used as dormant seeding as seed will overwinter and germinate in the spring.

## C Construction

Conform to standard spec 630.3 following guidance for seed mixture 70/70a.

Seeding will not be allowed between June 15 and October 15. There will be no exceptions.

Sow seeds at a rate of 0.245 pounds per 1000 square feet.

## D Measurement

The department will measure the Seeding bid items by the equivalent pound acceptably completed, measured based on net weights of seed shipments or weighed on department-approved scales the contractor furnishes. The department will deduct quantities wasted or not actually incorporated in the work according to the contract. The department will determine the equivalent pounds of seed furnished and applied by dividing the actual pounds of seed applied by the sum of the unadjusted and adjusted percentages, determined as specified in 630.3.5, of the various species in the seed mixture sown.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0085.001	Seeding Mixture No. 90A	LB

Payment is full compensation for providing, handling, and storing seed; for providing the required culture and inoculating seed as specified; and for preparing the seed bed, sowing, covering, and firming the seed.

## 146. Glare Screens Temporary, Item SPV.0090.001.

### A Description

This special provision describes furnishing, installing, maintaining, and removing a modular paddle glare guard system on concrete barrier temporary precast at the indicated locations in accordance to the plans and standard specifications, as directed by the engineer and as hereinafter provided.

### B Materials

Utilize modular glare guard units consisting of vertical blades, bases, and a horizontal base rail. Utilize paddle devices a minimum of 24-inches in height and constructed of durable, impact resistant, non-warping flexible materials.

Utilize modular units with cumulative nominal length equal to the length of the temporary barrier on which they are installed so that the joint between the barrier sections shall not be spanned by any one unit. Units shall not alter the design of the concrete barrier.

Design the relative connection strengths between various components of the assembly to minimize the potential impact and debris hazard to approaching traffic and to simplify repairs. Fabricate the modular units in a manner to allow replacement of individual blades while the modular unit remains in place.

The blade, base and rail shall be made of high impact materials with sufficient strength to withstand three impacts from a horizontal steel bar traveling at 40 mph and impacting at mid-height of the blade. After three impacts, there shall be no evidence of cracking, splitting, delaminating or separation from the system.

Provide a paddle glare guard from a manufacturer below or an approved equal:

Manufacturer	Address
Safe-Hit Corporation	2405 IH 35 West, New Braunfels, Texas, 78130
Carsonite International	2900 Lockhead Way, Carson City, Nevada, 89701
Flexstake Incorporated	2150 Andrea Lane, Fort Myers, Florida, 33912

### C Construction

Attach the base rail to the top of the concrete barrier temporary precast by a mechanical or adhesive system with a minimum pullout and shear of 3000 psi. All mounting hardware shall be as specified by the manufacturer.

### D Measurement

The department will measure Glare Screens Temporary by the linear foot of paddle glare guard acceptably completed.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Glare Screens Temporary	LF

Payment is full compensation for furnishing, installing, maintaining and removing the glare screens.

## 147. Temporary Precast Trench Drain, Item SPV.0090.024.

### A Description

This special provision describes providing a temporary precast trench drain systems as the plans show. Conform to standard spec 415 and 611 and as follows.

### B Materials

#### B.1 Documentation

Submit manufacturer's specifications, certifications, and installation instructions for grates, frames, connections, and precast drain channel two weeks before placement for engineer approval.

#### B.2 Frames and Grates

Furnish frames and grates manufactured of ductile iron conforming to ASTM A536 and meets AASHTO HS-25 load ratings for heavy duty high speed traffic. Ensure that frames and grates are one piece anchored into the body of the line drain, except where the plans show removable grates.

For removable grates, provide a repetitive minimum pullout resistance of 340 pounds per foot of length after completion of 1,000 hours of salt spray testing according to ASTM B117. Match removable grates to their frames in pairs before delivery to the worksite. Ensure that grates fit into frames without rocking. Furnish corrosion resistant locking devices for removable grates.

Secure the trench drain system in concrete according to the manufacturers specifications. Use concrete conforming to standard spec 520.2.4.

Furnish concrete curing compounds conforming to standard spec 415.2.4.

#### B.3 Precast Drain Channel

Furnish precast drain channel sections constructed of monolithic polymer concrete. Ensure that the interior surface of the channel is smooth below the level of the frame, grate, and associated connections. Use polymer concrete consisting of aggregate with either polyester resin or vinylester resin. Ensure that the polymer concrete conforms to the following:

Property	ASTM Test Method	VALUE
Compressive Strength	C-579	12,000 psi minimum
Tensile Strength	C-307	1,500 psi minimum
Flexural Strength	C-580	3,000 psi minimum
Moisture Absorption	C-140	5% max

Property	ASTM Test Method	VALUE
Chemical Resistance	C-267	Pass
Freeze Thaw	C-666	1,600 minimum cycles without weight loss

### C Construction

Excavate trench channel to the lines and grades the plans show. Grade and compact the bottom of the trench to provide firm and uniform bearing throughout.

Install the trench drain channel, trench drain joints, and connections according to manufacturers' instructions. Install trench drains to the lines and grades the plans show. Securely join sections of the precast drain channel to prevent separation during backfilling. Connect to existing drainage facilities as the plans show before placing concrete backfill.

Place concrete in channel without floating or shifting the line drain and without concrete segregation. Secure the frames or the line drain wall into the concrete with steel anchoring rods. Ensure that concrete backfill is flush with the adjacent surfaces and with the drain's frame. Texture the surface of the concrete with a broom or burlap to produce a durable, skid-resistant surface.

### D Measurement

The department will measure Temporary Precast Trench Drain by the linear foot, acceptably completed.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.024	Temporary Precast Trench Drain	LF

Payment is full compensation for providing precast trench drain; for excavation; aggregate base materials; for concrete backfill; and for removal/disposing of waste materials and restoring the site.

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## 148. Temporary Overhead Cable Quadruplex 2 AWG, Item SPV.0090.110.

### A Description

This special provision describes the furnishing, installing and connection of overhead cable complete with all splicing, identifications, terminations and guy wires at wood poles.

### B Materials

Overhead cable shall be aluminum conductors according to ASTM B 230 and shall be Class B stranded according to ASTM B 231, and shall conform to the values listed in the table below:

Phase Conductor			Messenger Wire		
Size AWG	Stranding	Avg. Insulation Thickness		Min. Size AWG	Stranding
		mm	mils		
6	7	1.1	45	6	6/1
4	7	1.1	45	4	6/1
2	7	1.5	45	2	6/1

The aerial cable shall be an assembly of insulated aluminum conductors and a steel messenger wire according to ANSI/ICEA S-76-474. The cable assembly may have the messenger wire intertwined with the insulated cables or lashed to the insulated cables by a factory wrap. The cable shall be assembled according to ANSI/ICEA S-76-474.

All cable shall be rated 600 V. The cable shall be rated 105 °C dry and 90 °C wet and shall be suitable for installation in wet and dry locations, and shall be resistant to oils and chemicals, and UV rated. The UL listing mark, cable voltage, insulation type and ratings, as well as the cable size shall all be clearly printed on the cable in a color contrasting with the insulation color. When specified, each cable installed shall be identified with its complete circuit number at each termination, splice, junction box or other location where the wire is accessible.

All electric cables installed shall be color coded. Neutral wires shall be color coded white. Single phase three wire runs of cable shall be color code one black, one red, and one white. Insulated ground wires,

where applicable, shall be green. Color striping of cables will not be acceptable in lieu of the specified color coding means.

The luminaire connections to the aerial cable shall be made with listed parallel tap insulation piercing connectors. The connector shall be rated for 600 V and be listed under UL Standard 486B.

### **C Construction**

Temporary overhead cable as shown on temporary lighting plans will not be needed for final lighting. Contractor shall remove temporary overhead cable. Removal of temporary overhead cable will be incidental to this pay item and it will become property of the Contractor. The bid price shall reflect the salvage value of the temporary overhead cable.

Temporary overhead cable shall be installed such that the any location on cable span shall be minimum 20ft above proposed or existing grade at that location.

Upon written request of the Contractor, the Engineer may permit to reuse removed temporary overhead cable of ampacity equivalent to the specified cable and of a type and condition approved by the Engineer, if possible.

Guy wires shall be installed as necessary per WisDOT standard details for Spanwire Temporary Traffic Signal.

Conform to Section 655.3.5.(9) for ground resistance testing.

### **D Measurement**

The overhead cable and temporary overhead cable will be measured in linear foot in place and will be taken as the length of the messenger wire. Measurement will be made in a straight line between changes in direction and to the centers of light standards and control cabinets. Sag of the aerial cable or vertical cable will not be measured for payment. The rewiring to facilitate relocation of the cable due to staging or other construction requirements will not be measured for payment.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.110	Temporary Overhead Cable Quadruplex 2 AWG	LF

Payment for the overhead cable bid items is full compensation for providing electrical wire; for making all connections; for providing all connectors, including wire nuts, fuses, fuse holders, splices, tape, and insulators, for messenger wire, guy wires and also for the removal of temporary overhead cable.

## **149. Longitudinal Grooving Bridge Deck, Item SPV.0165.200.**

### **A Description**

This special provision describes providing longitudinal deck grooves parallel to the centerline of the roadway prior to opening the bridge to traffic as directed by the engineer.

### **B Materials**

Use a grooving machine containing blades mounted on a multi-blade arbor on a self-propelled machine built for grooving hardened concrete surfaces.

Use a grooving machine with a depth control device that detects variations in the deck surface and adjusts the cutting head height to maintain a specified depth of groove.

Equip the grooving machine with a guide device to control multi-pass alignment.

### **C Construction**

Groove the pavement longitudinally without damaging the concrete deck surface.

Complete a longitudinal grooving operation that results in a uniformly grooved deck surface.

Cut grooves continuously across the deck width to within 18 inches of the barrier rail, curb line, or median divider. If metal floor drains extend more than 18 inches from the barrier rail, curb line, or median divider; all grooves on the bridge deck surface are to end within 6 inches of the floor drain perimeter.



At skewed metal edged expansion joints in the bridge deck surface, end all grooves on the bridge deck surface within 6 inches of the joint leaving no ungrooved surface adjacent to each side of the joint greater than 6 inches in width on the deck side of the expansion joints.

Produce grooves that are continuous across construction joints or other joints in the concrete deck surface less than 1/2-inch wide.

Construct longitudinal grooves with the following criteria:

Width (in)	Depth (in)	Spacing C-C (in)	Width Tolerance (in)	Depth Tolerance (in)	Spacing Tolerance (in)
1/8	3/16	3/4	0 to 1/16	± 1/16	± 1/16

Collect, remove and dispose of solid material residue and liquid waste resulting from grooving operations by vacuuming in a manner satisfactory to the engineer.

#### **D Measurement**

The department will measure Longitudinal Grooving Bridge Deck by the square foot acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.200	Longitudinal Grooving Bridge Deck	SF

Payment for Longitudinal Grooving Bridge Deck is full compensation for providing the required machinery and operators; for grooving, for collecting, removing and properly disposing of all waste materials.

### **150. Wall Concrete Panel Mechanically Stabilized Earth R-40-714, Item SPV.0165.201; Wall Concrete Panel Mechanically Stabilized Earth R-40-715, Item SPV.0165.202.**

#### **A Description**

This special provision describes designing, furnishing materials and erecting a permanent earth retention system in accordance with the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 75 years minimum.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

#### **B Materials**

##### **B.1 Proprietary Wall Systems**

The supplied wall system must be from the department's approved list of Concrete Panel Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid opening date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared in accordance with the

requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: [DOTDLStructuresFabrication@dot.wi.gov](mailto:DOTDLStructuresFabrication@dot.wi.gov).

To be eligible to provide wall facing panels for this project, a precast concrete manufacturing plant must be pre-approved by the Bureau of Technical Services under standard specification 106.3.3.3.1 prior to the bid closing date. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Technical Services at the following email address: [DOTProductSubmittal@wisconsin.gov](mailto:DOTProductSubmittal@wisconsin.gov).

## **B.2 Design Requirements**

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to [105.2](#) with electronic submittal to the fabrication library under [105.2.2](#). Certify that shop drawings conform to quality control standards by submitting department form [DT2329](#) with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the Department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined in accordance with Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls in accordance with the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. Where walls or wall sections intersect with an included angle of 130 degrees or less, a vertical corner element separate from the standard panel face shall abut and interact with the opposing standard panels. The corner element shall have ground reinforcement connected specifically to that panel and shall be designed to preclude lateral spread of the intersecting panels. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf in accordance with Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided on the wall plans.

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass in accordance with AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. The value of the pullout resistance factor,  $F^*$ , used in design calculations shall be obtained

from the AASHTO LRFD Figure 11.10.6.3.2-2 as appropriate to the proposed reinforcement type. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facing shall be designed in accordance with AASHTO LRFD 11.10.2.3. The facing panels shall also be designed to resist compaction stresses that occur during the wall erection. The minimum thickness of the facing panel shall be 5.5 inches. The surface area of a standard single panel cannot exceed 60 square feet. The maximum height of a standard panel shall be 5 feet. The top and bottom panels may exceed 5 foot in height based on site topography subject to the approval by the Structures Design Section. The design of the steel reinforcement within the panels shall be based on one-way bending action. Design the wall panels and joints between panels to accommodate a maximum differential settlement of 1 foot over a 100-foot length with  $\frac{3}{4}$ -inch joint widths, unless the plans indicate other maximum differential settlement requirements.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 31 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 18 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

All soil reinforcement required for the reinforced soil zone shall be connected to the face panels. The reinforcement and the reinforcement/facing connection strength shall be designed to resist maximum factored reinforcement loads in accordance with AASHTO LRFD Section 11.10.6. Facing connection strength shall be defined as the resistance factor times the failure load, or the load at 0.5 inch deformation times 0.9, whichever is less. The nominal long term design strength in steel reinforcement and connections shall be based upon assumed conditions at the end of the design life.

Soil reinforcement shall be prefabricated into single or multiple elements before galvanizing. Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3" shall be maintained between any obstruction and reinforcement, and splicing reinforcement is not allowed.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a leveling pad.

### **B.3 Wall System Components**

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

#### **B.3.1 Wall Facing**

Wall facing shall consist of modular precast concrete face panels produced by a wet cast process. The concrete panels shall have a minimum strength of 4000 psi at 28 days. The concrete for the panels shall be air entrained, with an air content of 6% +/- 1.5%. All materials for the concrete mixture for the panels shall meet the requirements of standard spec 501. The panel edges shall be configured so as to conceal the joints. The detail shall be a shiplap, tongue and groove or other detail adequate to prevent vandalism or ultraviolet light damage to the backside of the wall joint covering. Joint widths between panels shall be uniform and  $\frac{3}{4}$ -inch, unless noted otherwise on the plans. Use full wall height slip joints at points of differential settlement when detailed on the plan. Horizontal joints must be provided with a compressible bearing material to prevent concrete to concrete contact. Panels shall be reinforced using coated high-strength bar steel or welded steel wire fabric conforming to standard spec 505. Welded steel wire fabric shall be epoxy-coated in accordance with ASTM A884 or galvanized in accordance with AASHTO M 111 or ASTM A641. Panel dowels for cast-in-place copings shall be coated high-strength bar steel conforming to standard spec 505. Unless approved by the Bureau of Structures, adhesive anchors are prohibited.

For reinforced cast-in-place concrete cap or coping, use poured Grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast-in-place cap and coping concrete as specified in standard spec 716, Class II Concrete. Use coated high-strength bar steel conforming to standard spec 505.

Provide a minimum of two bearing pads per panel. The allowable bearing stress shall not exceed 900 psi. The bearing pads shall be preformed EPDM rubber conforming to ASTM D2000, Grade 2, Type A, Class A with a Durometer Hardness of 80 +/-5, or high-density polyethylene pads with a minimum density of 0.034 lb/in<sup>3</sup> in accordance with ASTM D1505.

An 18-inch wide geotextile shall be used on the backface of the wall panels to cover all panel joints. The geotextile shall meet the physical requirements stated in standard spec 645.2.4 for Geotextile, Type DF, Schedule B, except that the grab tensile strength shall be a minimum of 180 pounds in both the machine and cross-machine directions. The geotextile shall be attached with a standard construction adhesive suitable for use on concrete surfaces and cold temperatures. The adhesive shall be applied to the panels, not to the geotextile.

### B.3.2 Leveling Pad

Provide an unreinforced cast-in-place concrete leveling pad. Use Grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

The minimum width of the leveling pad shall be 12-inches. The minimum thickness of the leveling pad shall be 6-inches.

### B.3.3 Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Place backfill in a zone extending horizontally from the back face of the wall facing to 1 foot minimum beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material conforming to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0 - 60
No. 200	0 - 15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material shall meet the following requirements.

Test	Method	Value	
		(Galvanized)	(Aluminized Type 2)
pH	AASHTO T-289	5.0-10.0	5.0 – 9.0
Sulfate content	AASHTO T-290	200 ppm max.	
Chloride content	AASHTO T-291	100 ppm max.	
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.	1500 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.	

Angle of Internal Friction	AASHTO T-236 <sup>[1]</sup>	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2.)
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[1] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM D5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. For the additional required testing for every 2000 cubic yards of backfill placement, if the characteristic of the backfill and/or the source has not changed then Angle of Internal Friction tests are not included in the additional required testing. All certified reports of test results shall be less than 6 months old and performed by a certified independent laboratory.

#### **B.3.4 Soil Reinforcement**

All steel portions of the wall system exposed to earth shall be galvanized. All soil reinforcement and attachment devices shall be carefully inspected to ensure they are true size and free from defects that may impair the strength and durability. Soil reinforcement shall be galvanized or aluminized Type 2. Galvanized soil reinforcement shall be in accordance with AASHTO M 111 or ASTM A641. Aluminized soil reinforcement shall be in accordance with ASTM A463 Aluminized Type 2-100, SS, Grade 50, Class 2. Design of galvanized soil reinforcement shall be in accordance to Section 11.10.6.4.2 of the current AASHTO LRFD Specifications. The design life of steel soil reinforcements shall comply with AASHTO LRFD. Aluminized soil reinforcement shall be limited 16 years of steel protection. Aluminized steel shall only be used on soil reinforcement elements and shall not be used on facing connections or any other steel portion of the wall system. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

### **C Construction**

#### **C.1 Excavation and Backfill**

Excavation and preparation of the foundation for the MSE wall and the leveling pad shall be in accordance with standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall panels, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place and compact material beyond the

reinforced soil zone to allow for proper compaction of material within the reinforced zone. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back panels. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the panels.

## **C.2 Compaction**

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the panels. Do not use sheepsfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

## **C.3 Wall Components**

### **C.3.1 General**

Erect panel facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing.

The MSE reinforcement shall lay horizontally on the top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstructions in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

### **C.3.2 Leveling Pad**

Provide an unreinforced cast-in-place concrete leveling pad as shown on the plans. Vertical tolerances shall not exceed 3/4-inch when measured along a 10-foot straight edge. Allow concrete to set at least 12 hours prior to placing wall facing units.

The bottom row of wall facing units shall be horizontal and 100% of the unit surface shall bear on the leveling pad. Rubber or plastic shims may be used to level the wall facing units at the leveling pad. No more than 2 shims (each 3/16-inch thick) shall be used to level the wall facing.

### **C.3.3 Steel Layers**

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

### **C.3.4 Panel Tolerances**

As backfill material is placed behind a panel, maintain the panel in its proper inclined position according to the supplier specifications and as approved by the engineer. The supplier shall specify the back batter so that the final position of the wall is vertical. Vertical tolerances and horizontal alignment tolerances shall not exceed 3/4-inch when measured along a 10-foot straight edge. The maximum allowable offset in any panel joint shall be 3/4-inch. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed 1/2-inch per 10 feet of wall height. Erect the precast face panels to ensure that they are located within 1 inch from the contract plan offset at any location to ensure proper wall location at the top of the wall. Provide a uniform joint width between all adjacent face panels to prevent direct concrete-to-concrete contact. Maintain this width by the use of bearing pads and/or alignment pins. The final joint width shall be within 1/4-inch of the design joint width. Failure to meet this tolerance shall cause the engineer to require the contractor to disassemble and re-erect the affected portions of the wall. In addition, imperfect molding, honeycombing, cracking or severe chipping of panels shall be cause of panel rejection.

## **C.4 Quality Management Program**

### **C.4.1 Quality Control Plan**

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

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

- An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
- The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
- A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
- Descriptions of stockpiling and hauling methods.
- An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
- Location of the QC laboratory, retained sample storage, and other documentation.
- A summary of the locations and calculated quantities to be tested under this provision.
- A proposed sequencing plan of wall construction operations and random test locations.

### **C.4.2 Quality Control Personnel**

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

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

### **C.4.3 Equipment**

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

Furnish nuclear gauges from the department's approved product list at:

<http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to AASHTO T310 and CMM 8-15 for density testing and gauge monitoring methods.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department.

### **C.4.4 Documentation**

- (1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.
- (2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.

- (3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

#### **C.4.5 Quality Control (QC) Testing**

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform one gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

#### **C.4.6 Department Testing**

##### **C.4.6.1 General**

- (1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

##### **C.4.6.2 Quality Verification (QV) Testing**

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.
- (3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.
- (4) The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

##### **C.4.6.3 Independent Assurance (IA)**

- (1) Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
  1. Split sample testing.
  2. Proficiency sample testing.
  3. Witnessing sampling and testing.
  4. Test equipment calibration checks.
  5. Reviewing required worksheets and control charts.
  6. Requesting that testing personnel perform additional sampling and testing.



- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

#### **C.4.6.4 Dispute Resolution**

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

#### **C.5 Geotechnical Information**

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

#### **D Measurement**

The department will measure Wall Concrete Panel Mechanically Stabilized Earth by the square foot acceptably completed. The department will compute the measured quantity from the theoretical pay limits the contract plans show. The department will make no allowance for wall area constructed above or below the theoretical pay limits. All work beyond the theoretical pay limits is incidental to the cost of work. The department will make no allowance for as-built quantities.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.201	Wall Concrete Panel Mechanically Stabilized Earth R-40-714	SF
SPV.0165.202	Wall Concrete Panel Mechanically Stabilized Earth R-40-715	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings, leveling pads, leveling pad steps, and shims; constructing the retaining system and providing temporary drainage; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

The department will pay separately for parapets, traffic barriers, railings, and other items above the wall cap or coping.

### **151. Temporary Wall Wire Faced Mechanically Stabilized Earth, Item SPV.0165.203.**

#### **A Description**

This special provision describes designing, furnishing materials and erecting a permanent earth retention system in accordance to the lines, dimension, elevations and details as shown on the plans and provided in the contract.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control,

inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

## **B Materials**

### **B.1 Proprietary Wall Systems**

The supplied wall system must be from the department's approved list of Temporary Wire Faced Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared in accordance with the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: [DOTDLStructuresFabrication@dot.wi.gov](mailto:DOTDLStructuresFabrication@dot.wi.gov).

### **B.2 Design Requirements**

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design conforms to the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to 105.2 with electronic submittal to the fabrication library under 105.2.2. Certify that shop drawings conform to quality control standards by submitting department form [DT2329](#) with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall conform to the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the Department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined in accordance with Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls in accordance to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load

surcharge of 100 psf in accordance with Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided in the wall plans.

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass in accordance with AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. The value of the pullout resistance factor,  $F^*$ , used in design calculations shall be obtained from the AASHTO LRFD Figure 11.10.6.3.2-2 as appropriate to the proposed reinforcement type. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facings shall be designed in accordance with AASHTO 11.10.2.3. A fine metallic screen and a geotextile shall be used at the front face of the wall to retain the fines of the soil mass.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement shall be the same length from the bottom to the top of the wall. All soil reinforcement layers shall be connected to wire facing panels. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 24 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 12 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

The nominal long term design strength to be used in steel reinforcement and connector design shall consider the corrosion losses and based upon conditions at the end of the design life, as described in Chapter 14 of the WisDOT LRFD Bridge Manual and AASHTO LRFD Section 11.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3" shall be maintained between any obstruction and reinforcement, and splicing steel reinforcement is not allowed.

The minimum embedment of the MSE wall shall be 1 foot 6 inches, or as given on the contract plan. Step the wall to follow the general slope of the ground line. Frost depth shall not be considered.

### **B.3 Wall System Components**

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

#### **B.3.1 Steel Components**

Provide steel reinforcement that meets the following requirements:

- Welded Wire Fabric Soil Reinforcement

Provide shop fabricated welded wire reinforcement from cold drawn steel wire that has a yield stress of 65,000 psi and conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration in accordance to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

- Steel Reinforcing Strips and Tie Strips

As an alternate to welded wire reinforcing mesh, provide steel reinforcing strips or ladder reinforcing strips or equal, hot-rolled from bars, to the required shape and dimensions meeting the requirements of ASTM

A572 Grade 65 minimum. Tie strips shall be shop fabricated of hot-rolled steel meeting the requirements of ASTM A1011 Grade 50.

- Welded Wire Fabric Facing Panels

Provide welded wire fabric that is used to fabricate the facings of the wire-faced wall that has a yield stress of 65,000 psi. All steel shall be shop fabricated of cold drawn steel wire conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration in accordance to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

- Fasteners

High strength bolts meeting the requirements of AASHTO M164 or equivalent.

- Connector Pins and Mat Bars

Connector pins and mat bars fabricated from cold drawn steel wire meeting the requirements of ASTM A82.

- Metallic Screen

Provide a steel metallic screen. The metallic screen should have an approximate opening of 1/4" and be made of 0.025" (minimum) gauge wire.

### **B.3.2 Geosynthetics**

#### **B.3.2.1 Geotextiles**

Geotextile shall be used behind the metallic screen. Use geotextile as recommended by the wall manufacturer. If none is recommended, use Type DF (schedule B) as shown in standard spec 645 or as specified on the contract plans. Deliver in a protective wrap and keep protected from ultraviolet light until incorporated into the work.

#### **B.3.2.2 Geogrids**

Geogrid supplied as reinforcing members shall be manufactured from long chain polymers limited to polypropylene, high-density polyethylene, polyaramid, and polyester. Geogrids shall form a uniform rectangular grid of bonded, formed, or fused polymer tensile strands crossing with a nominal right-angle orientation. The minimum grid aperture shall be 0.5 inch. The geogrid shall maintain dimension stability during handling, placing, and installation. The geogrid shall be insect, rodent, mildew, and rot resistant. The geogrid shall be furnished in a protective wrapping that shall prevent exposure to ultraviolet radiation and damage from shipping or handling. The geogrid shall be kept dry until installed. Each roll shall be clearly marked to identify the material contained.

The wall supplier shall provide the nominal long-term design strength ( $T_{al}$ ) and nominal long-term connection strength,  $T_{alc}$  in accordance with AASHTO LRFD 11.10.6.4. Values for  $RF_{ID}$ ,  $RF_{CR}$ , and  $RF_D$  shall be determined from product specific test results. Even with project-specific test results for temporary walls,  $RF_{ID}$  shall not be less than 1.10,  $RF_{CR}$  shall not be less than 1.20, and  $RF_D$  shall not be less than 1.10.

The Contractor shall provide a manufacturer's certificate that the Tult (MARV) of the supplied geogrid has been determined in accordance with ASTM D4595 or ASTM D6637 as appropriate. Contractor shall also provide block to block and block to reinforcement connection test reports prepared and certified by an independent laboratory. Also provide calculations in accordance with AASHTO LRFD, and using the results of laboratory tests, that the block-geogrid connections shall be capable of resisting 100% of the maximum tension load in the soil reinforcements at any level within the wall, for the design life of the wall system.

### **B.3.3 Backfill**

Furnish and place backfill for wall as shown on the plans and as herein provided.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material that conforms to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0-60
No. 200	0-15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material shall meet the following requirements.

Test	Method	Value
pH	AASHTO T-289	5.0 – 10.0
Sulfate content	AASHTO T-290	200 ppm max.
Chloride content	AASHTO T-291	100 ppm max.
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236[1]	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2)

[1] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM 5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests (except Angle of Internal Friction test), are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. All certified report of these test results shall be less than 6 months old and performed by a certified independent laboratory.

## C Construction

### C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall shall be in accordance to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the bottom of the wall unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store any materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facings, soil reinforcement, or other wall components. At no expense to the department, correct any such

damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back wall facing. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing.

## **C.2 Compaction**

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the wall face. Do not use sheepfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

## **C.3 Wall Components**

### **C.3.1 General**

Erect welded wire facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place remaining courses in vertical or battered positions as shown on the contract plans.

The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstruction in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

When using a temporary wall for four (4) months or more or when the installation of a permanent wall facing will not occur for four (4) months or more after placement of any geotextile material, cover the exposed geotextile material in the wall as quickly as practical, to prevent damage caused by exposure to ultraviolet light.

### **C.3.2 Tolerances**

- The overall vertical tolerance of the wall and the horizontal alignment tolerance shall not exceed 3 inches per 10 feet for permanent installations.
- For battered wire facing, the final deviation from the design batter shall be within  $\pm 1$  inch for each 10 feet of battered wall height.

## **C.4 Quality Management Program**

### **C.4.1 Quality Control Plan**

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

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

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.

2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

#### **C.4.2 Quality Control Personnel**

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

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

#### **C.4.3 Equipment**

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

Furnish nuclear gauges from the department's approved product list at:

<http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to AASHTO T310 and CMM 8-15 for density testing and gauge monitoring methods.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department.

#### **C.4.4 Documentation**

- (1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.
- (2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.
- (3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

#### **C.4.5 Quality Control (QC) Testing**

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.1) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

#### **C.4.6 Department Testing**

##### **C.4.6.1 General**

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

##### **C.4.6.2 Quality Verification (QV) Testing**

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.3.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

(3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

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

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

##### **C.4.6.3 Independent Assurance (IA)**

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

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

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

##### **C.4.6.4 Dispute Resolution**

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data



reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E178 to evaluate potential statistically outlying data.

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

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

## **C.5 Geotechnical Information**

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

## **D Measurement**

The department will measure the Temporary Wall Wire Faced Mechanically Stabilized Earth bid items by the square foot acceptably completed at locations the plans show, measured as the area of exposed face in the plane of the wall from the front face ground line of the wall to the retained grade. Temporary Walls used for staged construction in multiple configurations will be measured once based on the configuration with the largest area of exposed face.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.203	Temporary Wall Wire Faced Mechanically Stabilized Earth	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system, constructing the retaining system including drainage system; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, performing compaction testing; covering geotextile, and for furnishing all tools, labor, equipment, and incidentals necessary to complete the contract work.

Payment limit for all walls is the line of minimum embedment per section B.2. No payment will be made for additional embedment detailed for construction purposes.

Parapets, railings, vehicle barriers and its support, abutment bodies and other items above the wall will be paid for separately. Concrete facings, facing leveling pads or footings, and copings will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price for those items.

## **152. Removing Loose Concrete, Item SPV.0165.204.**

### **A Description**

This special provision describes removing vertical, horizontal and overhead deteriorated concrete on structures as shown on the plans and applying a migrating corrosion inhibitor to areas of exposed steel reinforcing and concrete. This work shall be in accordance to the pertinent parts of section 517 of the standard specifications and the details as shown in the plans.

### **B Materials**

## B.1 General

Furnish a migrating corrosion inhibitor for vertical, horizontal and overhead applications that is in accordance to the pertinent requirements of section 517 of the standard specifications, and with the following typical physical properties:

- Color appearance: clear yellow viscous liquid,
- pH: 9.0 - 9.7 (neat),
- Density: 8.6 – 8.8 lb./gal. (1.03 – 1.05 kg/liter),
- Viscosity (or flow) similar to syrup and higher than water.
- Odor: slight ammonia smell.
- Non-volatile content: 20 – 27%.

Migrating corrosion inhibitor provided in this section shall conform to the requirements for each type and class of concrete required, with the following typical physical properties and requirements:

- a. Organic liquid,
- b. Water-based,
- c. Non-flammable,
- d. Non-vapor barrier,
- e. Non-toxic, oral LD 50 2000 g/kg maximum, or lower,
- f. Protects both anodic and cathodic areas,
- g. Does not contain calcium nitrate,
- h. Non-polluting after flushing or dilution,
- i. Non-harmful to plant life after flushing or dilution,
- j. Approved for potable water applications by NSF Standard 61,
- k. Certified for potable water applications by Underwriters laboratories
- l. Not carcinogenic under occupational Safety and Health Agency, NTP, or IARC,
- m. Seven year minimum usage experience as a migrating corrosion inhibitor,
- n. Confirmed effective by ASTM G – 109
- o. Proven effective as reported by the Strategic Highway Research Program funded by the United States of America, Department of Transportation (DOT), federal government and state DOT's.

## C Construction

### C.1 Preparation

Remove all deteriorated concrete. Sawcutting of edges is not needed. Concrete and adjacent surfaces should be dry, clean, and free of all dirt, oil, grease, efflorescence, sealers, coatings, curing compounds, membranes, rubber tire marks, and asphalt. Clean surface by stream cleaning, water blasting, sandblasting, or shot blasting. Use an air compressor with water and oil trap to ensure the cleaning method does not apply materials intended for removal. Use brush, broom, sweeper, or air compressor on surfaces as final cleaning before application. Use brush, broom, sweeper, or air compressor to chase cracks as final cleaning before application. Do not apply if the ambient temperature near the applied concrete surface is expected to be below freezing water temperature within 12 hours of application.

### C2. Surface Application

Use the corrosion inhibitor for vertical, horizontal or overhead surface applications. Apply the solution by spray (conventional airless or hand pressure spray equipment), roller, squeegee, or paintbrush. Apply a rate of 150 square feet per gallon (3.7 square meters per liter). Minimal dry time is required and is usually minutes after treatment. Use of concrete substrate, such as for traffic, may resume when treatment is dry to touch.

## D Measurement

The department will measure Removing Loose Concrete by the square foot acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.204	Removing Loose Concrete	SF

Payment is full compensation for concrete removal and disposal, cleaning preparation, furnishing, and applying the product.

### 153. Repair Galvanized Coating, Item SPV.0165.450.

#### A Description

This special provision describes providing surface cleaning and painting the galvanized structures at locations specified in the plans, and as hereinafter provided.

#### B Materials

Supply specific product data sheets to the engineer prior to starting work. Materials used shall be according to ASTM A780 and approved by the Engineer prior to being installed.

#### C Construction

Repair all areas that are chipped, corroded, damaged or as otherwise noted by plans or the engineer according to ASTM A780. Thoroughly clean the areas receiving coating before applying the new coating.

#### D Measurement

The department will measure Repair Galvanized Coating by the square foot acceptably completed with a minimum quantity of one (1) square foot at each repair location.

#### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.450	Repair Galvanized Coating	SF

Payment is full compensation for cleaning; for protecting traffic and property; for furnishing all materials and miscellaneous items to complete the replacement; for handling, transporting, and erecting.

### 154. Resin Binder High Friction Surface Treatment, Item SPV.0180.001

#### A Description

This special provision describes providing a high friction surface treatment (HFST) composed of aggregate in a resin binder on HMA or concrete pavements.

#### B Materials

##### B.1 Resin Binder

Supply a two-part thermosetting resin binder which is compatible with the pavement type, bonds to the pavement surface, holds the aggregate firmly in place in a broad range of climates including below-freezing temperatures, and meets the requirements specified in Table 1. Supply a primer if recommended by the resin binder manufacturer.

**Table 1. Resin Binder Properties**

Property	Requirements	Test Method*
Viscosity	7 – 30 poises	ASTM D2556 1-pint specimen
Gel Time	10-minute minimum	AASHTO M 235M/M 235 Type III
Ultimate Tensile Strength	2,000 – 5,000 psi @ 7 days	AASHTO M 235M/M 235 Type III

Property	Requirements	Test Method*
Elongation at Break	30% - 70% @ 7 days	AASHTO M 235M/M 235 Type III
Compressive Strength	≥ 1000 psi @ 3 hrs & ≥ 5000 psi @ 7 days	ASTM C579
Water Absorption	≤ 1.0 % @ 24-hr	AASHTO M 235M/M 235 Type III
Shore D Hardness	60 – 80 @ 7 days	ASTM D2240** Type 1 precision, Type D method
Cure Rate	≤ 3 hours (Dry Through Time)	ASTM D1640 50-55 wet mil thickness**
Adhesive Strength	250 psi @ 24 hours or 100% substrate failure	ASTM D4541**

\* Prepare samples per manufacturer's recommendation; cure two sets of specimens at  $73 \pm 2^{\circ}$  F and at  $50 \pm 2^{\circ}$  F; and test all specimens at  $73 \pm 2^{\circ}$  F

\*\* Conduct testing on applicable pavement type

## B.2 Aggregate

Furnish calcined bauxite aggregate that is fractured or angular in shape; resistant to polishing and crushing; clean and free of surface moisture; free from silt, clay, asphalt, or other organic materials; compatible with the resin binder; and meet the properties and gradation requirements in Tables 2 and 3. Check with resin binder manufacturer for any compatibility requirements or concerns. The calcined bauxite will be delivered to the construction site in clearly labeled packaging; which protects the aggregate from any contaminants on the jobsite and from exposure to rain or other moisture.

**Table 2. Aggregate Properties**

Property	Requirements	Test Method
Moisture Content	≤ 0.2%	AASHTO T 255
Fine Aggregate Angularity	≥ 45%	AASHTO T 304, Method A
LA Wear	≤ 10% loss @ 100 revolutions and ≤ 25% loss @ 500 revolutions	AASHTO T 96
Freeze-Thaw Soundness	≤ 9% loss @ 50, 16, or 25 cycles using Procedure A, B, or C, respectively	AASHTO T 103
Aluminum Oxide	≥ 87%	ASTM C 25

**Table 3. Aggregate Gradation (AASHTO T27)**

Sieve Size	% Passing by Weight
No. 4	100
No. 6	95-100
No. 16	0-5
No. 30	0-1

## B.3 Approval of High Friction Surface Treatment

A minimum of 20 working days before applying HFST, submit product data sheets and specifications from the manufacturer, and a certified test report from an independent laboratory verifying that the resin binder and the calcined bauxite aggregate meet all the requirements specified in Tables 1, 2 and 3. Documents must be dated within three years of project letting date; must be representative of the material used on the project.

If resin binder has not been previously used in Wisconsin, also submit a list of at least five reference projects where the resin binder has been used for similar applications and in locations that have similar climatic conditions as Wisconsin. Supply a description of the projects along with contact information of the facility owner.

If the engineer requests, provide samples of the resin binder and aggregate for department testing before applying HFST.

## **C Construction**

### **C.1. General**

The contractor will provide documentation showing HFST application experience from at least three previous projects completed for WisDOT or other agencies.

Conduct a meeting with the resin binder manufacturer representatives before applying HFST to establish procedures for maintaining optimum working conditions and coordination of the work. Submit recommended application procedures, including quality control practices, to the engineer for approval. Ensure that a resin binder manufacturer representative is on site to provide technical assistance and quality assurance during surface preparation and for application of HFST.

Ensure that the resin binder components maintain their original properties during storage and handling. Store all aggregate in a dry environment and protect from contaminants on the job site.

### **C.2 Pavement Surface Preparation**

#### **C.2.1. Pavement Surface Repair**

Remove visibly unsound or disintegrated areas of the pavement surface as the plans show or the engineer directs.

Check with resin binder manufacturer to ensure that products used for pavement repairs or patches are compatible with the resin HFST. Ensure that any new concrete or repairs are fully cured before placing the HFST. Allow a minimum 30-day curing time after placing new asphalt or concrete pavement before installing the HFST.

#### **C.2.2 Surface Preparation**

Cover and protect utilities, drainage structures, expansion joints on bridge decks, and other structures within or adjacent to the application location to prevent materials from adhering to or entering those structures.

Remove pavement markings that are within the treatment area. Cover existing pavement markings adjacent to the application if they are to remain in place.

Pretreat all joints and cracks, or any portion of cracks, that are greater than ¼ inch wide, with the mixed binder resin system specified herein. Once the binder resin in the pretreated area has galled, the installation may proceed.

Completely remove any grease, oil or other deleterious materials resting on the pavement surface with a mild detergent solution, rinsed with clean potable water, and dried using a hot compressed air lance. Ensure the pavement surface has no curing compound, loosely bonded mortar, pavement marking, or other foreign matter resting on the pavement surface.

Sufficiently clean HMA pavement surface using mechanical sweepers and high-pressure air wash with sufficient oil traps, just before applying HFST. Mechanically sweep all surfaces to remove dirt, loose aggregate, debris, and deleterious material. Vacuum sweep or air wash using a minimum of 180 cfm of clean and dry compressed air, all surfaces to remove all dust, debris, and deleterious material. Maintain air lance perpendicular to the surface and the tip of the air lance within 12 in. of surface.

Clean concrete pavement surface by shot blasting and vacuum sweeping. Shot blast all surfaces to remove all curing compound, loosely bonded mortar, surface carbonation, and deleterious material. After shot blasting, vacuum sweep or air wash, with a minimum of 180 cfm of clean and dry compressed air, all surfaces to remove all dust, debris, and deleterious material. Maintain air lance perpendicular to the surface and the tip of the air lance within 12 in. of the surface.

If the engineer requires additional verification of adequate surface preparation of the pavement, test the bond strength according to ASTM D4541. The surface is acceptable if the tensile bond strength is greater than or equal to 250 psi, or failure is in the substrate. Repeat cleaning, and testing, if needed, until passing test results are obtained or the surface is acceptable to the engineer.

Keep vehicles and unnecessary equipment off the cleaned surface; only allow HFST application equipment on the clean surface. Apply HFST as soon as possible after pavement surface preparations are completed.

### **C.3 Application of the HFST**

Do not apply the HFST if any of the following exists:

- Pavement surface is wet, damp, or has received rainfall in the previous 24 hours.
- Pavement surface is not sufficiently clean.
- Ambient air or pavement surface temperature is below 50o F or below the manufacturer's recommendations
- If the anticipated weather conditions would prevent adequate curing of the HFST.
- Rain is predicted before HFST completion or proper cure is achieved.
- Pavement preparation is inadequate or didn't pass pull-off test.

Close treatment areas to traffic until HFST is completely cured and pavement surface has been vacuum-swept.

Construct HFST to the full width of the existing pavement surface, or as the plans show. Extend the HFST application 2'-3' onto the shoulders if application site is on a curve where no rumble strip exists. If the rumble strip exists, apply HFST only on the main lane not on the shoulder.

Apply a primer to the pavement surface if recommended by the resin binder manufacturer, and according to their application recommendations. Abide by the established quality control practices and adhere to any additional manufacturer recommendations for HFST application.

Blend and mix the resin binder components at the manufacturer's specified ratio using equipment capable of providing the desired results.

Apply the resin binder uniformly over the pavement surface manually or with automated equipment at a uniform thickness of 50-65 mils (25-32 ft<sup>2</sup>/gal). Use enough resin to cover the pavement surface and sufficiently embed half the thickness of the aggregate; do not apply so much that it covers the aggregate and creates a slick surface. Adjust application rate, as needed, based on the pavement surface type, profile, and condition.

If using automated equipment, the binder resin system manufacturer shall approve the use of automated continuous application device with their material. Ensure that the equipment features positive displacement, volumetric metering, and can store, mixing, heating, monitoring, and distributing the binder components at the proper mix ratio. Adjust the pressure and the speed of the equipment to achieve the proper application thickness. Coverage rate is based upon expected variance in the surface profile of the pavement.

Do not contaminate the wet binder or allow the binder material to separate or cure, and impair bonding of the aggregate.

Immediately after applying the resin binder, distribute a sufficient quantity of dry calcined bauxite aggregate to completely cover the resin binder by hand broadcasting or by using a standard chip spreader or equivalent machine. Ensure aggregate is placed within five minutes of the resin binder placement, before it begins to cure. When broadcasting, sprinkle or drop the aggregate onto the resin binder vertically. Do not distribute aggregate in a way that will cause it to roll in the resin binder before coming to a rest; do not push the aggregate into position with a broom or any other hand tool. If using a chip spreader, the machine shall follow closely behind the crew or equipment applying the resin binder. Immediately cover any visible wet or bare spots, or areas with excessive binder, with additional calcined bauxite aggregate before the resin binder begins to set.

Allow the HFST to properly cure, adhering to manufacturer recommendations for minimum cure times at applicable temperatures.

After the HFST is fully cured, remove excess loose surface aggregate by sweeping, blowing, or vacuuming. Do not tear or otherwise damage the surface. Excess calcined bauxite aggregate that is recovered by a vacuum sweeper can be reused if clean, uncontaminated and dry. Remove and replace damaged areas or areas with excess or insufficient aggregate coverage. Uncover pavement markings and repair damages that occur by covering and uncovering markings. Clean expansion joints, utilities, and drainage structures of all debris before opening to traffic.

Additionally, within 3 to 7 days after opening to traffic, the contractor shall vacuum sweep the pavement surface to remove loosened aggregate from the high friction surface area, the shoulders, and any other areas within and immediately adjacent to the HFST site.

#### **D Measurement**

The department will measure Resin Binder High Friction Surface Treatment by the square yard acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.001	Resin Binder High Friction Surface Treatment	SY

Payment for Resin Binder High Friction Surface Treatment is full compensation for testing materials; for surface preparation; for providing the HFST; for cleanup including uncovering and restoration of pavement markings; and for vacuum sweeping and disposing of excess material after the completion and again 3 to 7 days after completion.

The department will pay for pavement repairs, and traffic control separately under other contract bid items or, absent the appropriate bid items, as extra work.

### **155. Removing Concrete Rumble Strips, Item SPV.0180.002.**

#### **A Description**

This special provision describes removing existing rumble strips located in existing concrete shoulder along IH 41, as the plans show, and conforming to the appropriate provisions of standard spec 204, and as modified in this special provision. Fill the milled area with asphaltic surface temporary.

#### **B Materials**

Furnish temporary asphaltic surface conforming to the appropriate provisions of this contract and standard spec 465.

#### **C Construction**

Use Asphaltic Surface Temporary along with this special provision.

Mill the existing rumble strips to a 0.75-inch minimum depth below the lowest corrugation. Clean the milled area before placement of tack coat. Fill the milled area with asphaltic surface temporary to provide a smooth driving surface as directed by the engineer.

#### **D Measurement**

The department will measure Removing Concrete Rumble Strips by the square yard of existing rumble strip, before removal by milling, 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.0180.002	Removing Concrete Rumble Strips	SY

Payment is full compensation for milling existing rumble strips; cleaning and tacking; furnishing, placing and compacting asphaltic surface temporary; and for disposal of all materials.

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### **156. Polyester Polymer Concrete Overlay, Item SPV.0180.200.**

#### **A Description**

This special provision describes furnishing and applying a polyester polymer concrete (PPC) overlay with a high molecular weight methacrylate (HMWM) resin prime coat, to the limits shown on the plans. Minimum thickness of finished overlay thickness to be as shown on plans.

Provisions in standard spec 509 for concrete masonry overlays apply unless otherwise specified herein.

## B Materials

The PPC system shall consist of a polyester resin binder and aggregate, and a compatible primer.

### B.1 Primer

The primer shall be a HMWM resin that is low viscosity, wax free, low odor, and shall meet the following requirements:

Property	Requirements	Test Method
Viscosity <sup>A B</sup>	≤ 25 cps	ASTM D 2196 – Brookfield RVT
Specific Gravity <sup>A B</sup>	≥0.90	ASTM D 1475
Flash Point <sup>B</sup>	≥ 180°F	ASTM D 3278
Tack-free Time <sup>A</sup>	≤ 400 minutes	California Test Method 551
Vapor Pressure <sup>A B</sup>	≤ 0.04-in Hg	ASTM D 323
Volatile Content <sup>B</sup>	< 30%	ASTM D 2369
PCC Saturated Surface Dry Bond Strength <sup>C</sup>	≥ 500 psi (24hrs)	California Test Method 551

<sup>A</sup> Value based on specimens or samples cured or aged and tested at 77°F

<sup>B</sup> Test performed prior to adding the initiator

<sup>C</sup> Value based on specimens or samples stored at 70±1°F

The initiator for the methacrylate shall consist of a metal drier and peroxide. These materials must be stored separately and in a manner which will not allow the materials to contact each other if spilled or if the packaging leaks.

### B.2 Resin

The resin shall be an unsaturated isophthalic polyester-styrene co-polymer with the following properties:

Property	Requirements	Test Method
Viscosity <sup>A B</sup>	75-200 cps	ASTM D 2196 – Brookfield RVT
Specific Gravity <sup>A B</sup>	1.05-1.10	ASTM D 1475
Absorption	≤ 1 percent (24 hr)	ASTM D 570
Tensile Elongation	35-80 percent (7 days)	ASTM D 638
Tensile Strength	≥ 2,500 psi (7 days)	ASTM D 638
Styrene Content <sup>B</sup>	40-50 percent by weight	ASTM D2369
Silane Coupler	> 1 percent by weight of resin	
PCC Saturated Surface Dry Bond Strength <sup>C</sup>	≥ 500 psi (24 hrs)	California Test Method 551
Permeability to Chloride ion	≤ 100 coulombs (28 days)	AASHTO T 277

<sup>A</sup> Values are based on specimens or samples cured or aged and tested at 77°F

<sup>B</sup> Test performed prior to adding initiator

<sup>C</sup> Values are based on specimens or samples cured or aged and tested at 70°F

The silane coupler shall be an organosilane ester, gammamethacryloxypropyltrimethoxysilane. The promoter/hardener shall be compatible with methyl ethyl ketone peroxide and cumene hydroperoxide initiators.



### B.3 Aggregates

For mixing with the polyester polymer resin, furnish natural or synthetic aggregates that have a proven record of performance in applications of this type. Furnish aggregates that are non-polishing; clean; free of surface moisture; fractured or angular in shape; and free from silt, clay, asphalt, or other organic materials. The fine aggregate shall be natural sand. The aggregate gradation shall meet either of the following gradation requirements:

Sieve Size	% Passing by Weight	% Passing by Weight
1/2-in	100	100
3/8-in	100	83-100
No. 4	62-85	65-82
No. 8	45-67	45-64
No. 16	29-50	27-48
No. 30	16-36	12-30
No. 50	5-20	6-17
No. 100	0-7	0-7
No. 200	0-3	0-3

The coarse aggregate shall have a Moh's hardness of 7.0 or greater. The percent wear shall not exceed 50%, and the weighted soundness loss shall not exceed 12% per ASTM C131 and C88, respectively.

Aggregates shall have an absorption not to exceed 1% and the moisture content shall not exceed one half of the aggregate absorption. Aggregates retained on the No. 8 sieve shall have a maximum of 45% crushed particles when tested in accordance with AASHTO Test Method T335.

The finishing sand aggregate shall be commercial quality dry blast sand with an average absorption of no more than 1%. 95% of the sand shall pass the No. 8 sieve and at least 95% shall be retained on the No. 20 sieve.

### B.4 Required Properties of Overlay System

The required properties of the overlay system are listed in the table below:

Property	Requirements <sup>A</sup>	Test Method
Minimum Compressive Strength	2,000 psi (8 hrs)	ASTM C 579
	5,000 psi (24 hrs)	Method B, Modified <sup>B</sup>
Set Time	30-120 minutes	ASTM C 266
Minimum Pull-off Strength	500 psi (24 hrs)	ASTM C1583

<sup>A</sup> Based on samples cured or aged and tested at 75°F

<sup>B</sup> Plastic inserts that will provide 2-in by 2-in cubes shall be placed in the oversized brass molds.

### B.5 Approval of Bridge Deck Polymer Overlay System

A minimum of 15 working days prior to the pre-construction meeting, submit to the engineer for acceptance the product data sheets and specifications from the manufacturer, product history/reference projects report, an overlay placement plan, and a certified materials report from an independent testing laboratory. The engineer may request samples of the primer, resin, and/or aggregate prior to application for the purpose of acceptance testing by the department.

The product history/reference projects report shall consist of a minimum of 5 bridge/roadway locations where the proposed overlay system has been applied in Wisconsin or in locations with similar climate, and on bridges of similar size and scope to the contract project. Include contact names for the facility owner, current phone number and e-mail address, and a brief project description including structure ID's and overlay quantities placed. These projects must have been open to traffic for at least 1 year.

Product data sheets and specifications from the manufacturer consist of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, and any other applicable information.

## **C Construction**

### **C.1 General**

#### **C.1.1 Pre-Installation Conference**

Conduct a pre-installation conference with the manufacturer's representative prior to construction to establish procedures for maintaining optimum working conditions and coordination of work. Furnish the engineer with a copy of the recommended procedures, the manufacturer's instructions, contractor's personnel experience record, and the PPC mix design including the recommended initiator percentages for the expected application temperature.

#### **C.1.2 Contractor Personnel Requirements**

A minimum of 15 days prior to the pre-construction meeting, submit to the engineer for approval the contractor's personnel experience and qualifications successfully placing concrete bridge deck overlays or PPC overlays using similar equipment as specified within this special provision within the last 5 years. Placement of thin polymer overlays does not qualify. Include contact names for the facility owner, current phone number and e-mail address, and a brief project description including structure ID's and overlay quantities placed. The engineer shall contact the Bureau of Structures Chief Structures Design Engineer to verify experience and qualifications.

Experienced personnel are required to be actively present during the overlay application according to the following:

Experience and qualifications of manufacturer's representative: Must be employee of the current company for at least one year in good standing with experience performing a minimum of 10 PPC overlays on bridges of similar size and scope to the contract project in the last 5 years. Scope shall be evaluated by placement temperature, existing deck condition, placement thickness, number of stages, average daily traffic, and any other factors unique to the application. Acceptable project experience must be in current service showing no signs of installation deficiency, major distress, excessive wear, or delamination. A manufacturer's representative familiar with the overlay system installation procedures shall be present at all times during surface preparation and overlay placement to provide quality assurance that the work is being performed properly. This includes, but is not limited to, pre-installation conference, deck preparation, trial overlay, PPC application, and PPC cure.

Experience and qualifications of crew foreman or lead finisher: Must be employee of the current company for at least one year in good standing with experience performing a minimum of 2 PPC overlays to highway bridge decks in the last 5 years. Multiple stages of PPC overlay on one bridge deck will be accepted as one single application.

Experience and qualifications of crew/laborers: All crew members involved with the placement or finishing of the PPC overlay must be an employee of the current company for at least one year in good standing. In addition, laborers finishing the PPC material in place must have at least 2 years of experience finishing concrete. All crew/laborers must participate and fulfill the same role for both the trial and final PPC overlays.

The engineer will accept or reject the contractor's personnel experience record. If the contractor does not provide personnel with the required experience and qualifications, the contractor will not be authorized to proceed with any work until replacement personnel are reviewed and accepted by the engineer. The engineer may suspend work if the contractor substitutes unqualified personnel for accepted personnel during construction.

#### **C.1.3 Material Storage and Safety Plan**

Store resin materials in their original containers in a dry area. Store and handle materials according to the manufacturer's recommendations. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

Safety Plan: Prior to arrival of the product on the job site, provide a product shipping, storage, and use safety plan to detail how the product will be delivered and stored on site in a manner that will not allow the constituent components to come in contact with each other in the event of a spill or container leakage. This plan must also include a description of the safety training workers applying the product have received regarding the product's use, and list any and all safety precautions which must be taken during application of the product.

#### **C.1.4 Trial Overlay**

Place trial overlay(s) on a properly prepared concrete surface within the project limits to determine the initial set time and to demonstrate the effectiveness of the surface preparation, mixing, placing, and finishing equipment and techniques. Each trial overlay shall be the width and thickness of the proposed placement on the bridge and at least 25 ft long. The trial overlay(s) shall be tined in the same manner as the deck overlay. Construct trial overlay(s) in similar weather conditions as those expected during the construction of the deck overlay and at a similar time of day unless directed otherwise by the engineer. Use the same equipment and laborers/operators, including deck preparation equipment, as that which will be used for the deck overlay.

The number of trial applications required shall be as many as necessary to demonstrate the contractor's ability to construct an acceptable overlay and competency to perform the work to the satisfaction of the engineer. If, after two trial applications, the engineer is not satisfied with the trial placements, hold another pre-installation conference, as described in Section C1.1. Do not proceed with deck overlay work prior to receiving the engineer's approval of the trial overlay(s). Conduct all trial overlays in the presence of the engineer. If the trial overlay is placed on the deck surface and found acceptable by the engineer, the contractor may leave trial overlay in place. If the trial overlay is placed on the deck surface and found not acceptable, the material must be removed and replaced at no additional cost.

### **C.2 Deck Preparation**

#### **C.2.1 Deck Repair**

When specified on the plans, remove the entire surface of the bridge deck receiving the new overlay. Remove all asphaltic patches and unsound or disintegrated areas of the concrete decks as the plans show, or as the engineer directs. Work performed to remove and repair the concrete deck will be paid for under other items.

Use deck patching products that are compatible with the overlay system. Patching materials with magnesium phosphate shall not be used. Place patches after surface is prepared via shot blasting and cleaning as described in Section C.2.2 of this specification. Portland cement concrete patches shall be used for joint repairs and full depth deck repairs with a plan area larger than 4 SF, unless approved otherwise by the Bureau of Structures Design Section. If PPC is used to fill deck repair areas, prime the patch area as described in Section C.3.1 of this specification. If rapid-set concrete is used, place patches per the manufacturer's recommendation. If Portland cement concrete is used, place patches per standard spec 509.3.9.1.

Deck patching shall be filled and properly finished prior to overlay placement. Do not place overlay less than 1 hour, or per the manufacturer's recommendation, after placing PPC or rapid-set concrete patches in the repair areas. Do not place overlay less than 28 days after placing Portland cement concrete patches in the repair areas.

#### **C.2.2 Surface Preparation**

Determine an acceptable shotblasting machine operation (size of shot, flow of shot, forward speed, and/or number of passes) that provides a surface a profile meeting CSP 5 according to the International Concrete Repair Institute Technical Guideline No. 03732. Test the tensile bond strength according to ASTM C1583. The surface preparation will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or if there is a failure into the substrate where more than 50% of the core area has failed deeper than 1/4-in. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the engineer or a passing test result is obtained. Test the tensile bond strength of the prepared concrete substrate at a minimum of 2 locations in the first 500 SF and a minimum of 1 location every additional 5000 SF, as determined by the engineer. Perform all tests in the presence of the engineer.

The engineer may consider alternate surface preparation methods per the overlay system manufacturer's recommendations. The engineer must approve the final surface profile and deck cleanliness prior to the contractor placing the PPC overlay.

Prepare the entire deck, or portion of the deck to be overlaid in one placement when staged construction is being employed, using the final accepted adjustments to the shotblasting machine as determined above. Blasting shall remove all dirt, oil, asphalt, rubber, curing compound, paint, carbonation, grease, slurry, membranes, striping, rust, weak surface mortar, laitance, and other foreign or potentially detrimental materials. Thoroughly blast clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours prior to the application

of the primer. Blasted surface shall not be exposed to vehicular or pedestrian traffic other than that required for overlay placement and approved by the Engineer.

Prepare the vertical or nearly vertical concrete surfaces adjacent to the deck a minimum of 2-in above the overlay per SSPC-SP 13 by sand blasting, using wire wheels, or other approved method.

Just prior to overlay placement, clean all dust, debris, and concrete fines from the deck surface including vertical faces of curbs and barrier walls up to a height of 2-in above the overlay with compressed air. The air stream must be free of oil and moisture. Any grease, oil, or other foreign matter that rests on or has absorbed into the concrete shall be removed completely.

Protect drains, expansion joints, access hatches, or other appurtenances on the deck from damage by the shot and sand blasting operations and from material adhering and entering. Tape or form all construction joints to provide a clean straight edge.

### **C.2.3 Transitional Area**

If the plans show, create a transitional area approaching the transverse expansion joints and end of the deck using a diamond grinder or blasting method. Remove concrete to the depth of the overlay thickness adjacent to the joint or end of deck and provide a transition as the plans show.

If the plans show, create a transitional area on the approach pavement. Remove concrete to the depth of the overlay thickness and provide a transition as the plans show. Prepare and place overlay beyond the end of the deck the same width as the deck.

## **C.3 Application of the Overlay System**

Apply the overlay system conforming to the manufacturer's instructions.

Do not apply the overlay system if any of the following is true:

- Ambient air temperature is below or expected to drop below 50°F, or the manufacturer's recommended temperature, within 8 hours
- Deck surface temperature is below 50°F or above 100°F
- Moisture content in the deck exceeds 4.5% when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured in accordance with ASTM D4263.
- Materials component temperatures are below 50°F or above 100°F
- Concrete age is less than 28 days, unless approved by the engineer
- Gel time is 15 minutes or less at predicted high air temperature for the day
- The relative humidity is greater than 85%

### **C.3.1 Application of the Primer**

Apply primer to the deck surface within 5 minutes of mixing at approximately 1 gallon per 100 square feet or the rate specified by the manufacturer. Use a squeegee, roller, broom, low pressure sprayer, etc. to distribute the material uniformly and to completely cover the area receiving the overlay. Remove excess buildup and re-prime any areas that appear dry from absorbing material. Wait a minimum of 15 minutes or as recommended by the manufacturer before placement of the overlay. If the primed surface becomes contaminated, clean and re-prime it.

### **C.3.2 Application of the Overlay**

Perform the handling and mixing of the polymer resin and hardening agent in a safe manner to achieve the desired results according to the manufacturer's instructions. Mix PPC using a plant/mixer calibrated according to the manufacturer's recommendations. Calibrate the plant/mixer in the presence of the engineer.

The polyester concrete shall be placed within 15-120 minutes after the primer has been applied, or per the manufacturer's recommendation.

The polyester concrete shall contain 11-13% polyester resin by weight of dry aggregate; the exact percentage will be determined by the engineer during placement to enable proper finishing and texturing of the overlay surface.

The amount of initiator used in polyester concrete shall be sufficient to produce an initial set time between 30-90 minutes, when the in-place PPC cannot be deformed by pressing with a finger.

If initial set does not occur within 30-90 minutes, the material must be removed and replaced at no additional cost.

Place the PPC before gelling or within 15 minutes of adding the initiator, whichever comes first, or within a more restrictive range if recommended by the manufacturer. Discard any PPC not placed within this time limit at no additional cost.

Consolidate and finish to the required grade and cross-section per standard spec 509. Taper at drains and expansion joints as specified by the manufacturer or as indicated on the plans. Terminating edges of the overlay may require application and finishing by hand trowel. Finishing and texturing equipment shall be fitted with vibrators and tines or other means of consolidating and texturing the polyester concrete to a compaction no less than 97% or as recommended by the manufacturer. A vibratory screed may be used for placement lengths less than 300 ft. A roller type screed is not allowed. If a vibratory screed is used, the surface shall be tested in accordance with standard spec 415.3.10.

If the overlay is placed with a paving machine which incorporates tines, apply the finishing sand immediately after texturing. Otherwise, apply the finishing sand immediately before texturing or as directed by the manufacturer. The finishing sand must be applied before gelling occurs.

The finish sand shall be applied by either mechanical or hand dispersion immediately after strike-off, before gelling occurs. Apply at approximately 15 to 20 lbs per 100 square foot or until saturation as determined by the engineer.

Texture the overlay surface by transverse grooving as soon as the condition of the PPC will permit. Use a steel tined tool or a finned float with a single row of fins. Grooves shall be approximately 3/16-in wide at 3/4-in to 1-in on center with a depth of approximately 1/8-in. Longitudinal grooving is acceptable when steel tines are mounted to the paving machine. Do not tine within 1 ft of gutters. Tining may be performed manually provided that the finish obtained is satisfactory to the engineer.

The completed PPC overlay surface shall be free of any smooth areas and shall be neat in appearance. Any surface defects shall be repaired by the contractor to the satisfaction of the engineer at no additional cost.

Allow material to fully cure to a firm, hard surface before allowing traffic on the overlay. Cure times will vary depending on product and ambient temperature; refer to manufacturer's recommendation. Before opening to traffic, a properly calibrated Schmidt hammer must register a value not less than 25. The overlay shall be protected from moisture while it cures.

Prior to opening to traffic, clean expansion joints and joint seals of all debris and polymer. All working deck joints shall be extended through the overlay and sealed according to plan details. If required by the engineer, a minimum of 3 days following opening to traffic, remove loosened aggregates from the deck, expansion joints, and approach pavement.

If the overlay is not completed within the work period (including if staged construction is used), the polyester polymer overlay edges shall be properly terminated as specified by the manufacturer. Prime the edges of butt joints of the previously placed overlay before placing the next portion of the overlay.

### **C.3.3 Acceptance Testing**

#### **C.3.3.1 Bond Strength**

Between 24 and 48 hours after overlay placement, conduct two tensile bond tests per pour, including in the trial overlay area if placed on the bridge deck, as specified in either ASTM C1583. Drill cores through the overlay and into the existing concrete a minimum of 1/4-in but no more than 1/2-in. A passing test will have a tensile strength greater than 250 psi, or a failure into the substrate where more than 50% of the core area has failed deeper than 1/4-in. Immediately patch test core holes by blowing out with oil- and moisture-free compressed air and filling with PPC per manufacturer's instructions.

#### **C.3.3.2 Smoothness Quality**

The finished surface, when tested with a 10-foot straightedge, shall not vary by more than 1/4-in. Any surface that fails to conform to the above tolerance shall be corrected with a diamond grinder.

### **C.4 Repair of Polyester Polymer Concrete Overlay**

Repair all areas determined by the engineer to be unbonded, uncured, segregated, or damaged at no cost to the Department. Submit repair procedures from the manufacturer to the engineer for approval. Absent manufacturer's repair procedures and with the approval of the engineer, complete repairs as follows: Cut the limits of the area to the top of the concrete; remove the overlay by scarifying, grinding, or

other approved methods; shot blast or sand blast and air blast the concrete surface prior to placement of overlay material; and place the PPC overlay according to C.3.

#### **D Measurement**

The department will measure Polyester Polymer Concrete Overlay bid item in area 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.0180.200	Polyester Polymer Concrete Overlay	SY

Payment for Polyester Polymer Concrete Overlay is full compensation for preparing the surface; for tensile bond testing; for creating the transitional area, for acceptably completing trial overlay(s); providing, hauling, placing, finishing, curing, and protecting the overlay; for cleanup; for sweeping/vacuuming and disposing of excess and waste materials; and for the presences of the manufacturer's representative on the site.

When specified on the plans, the department will pay separately for Cleaning Decks.

### **157. Abutment Seat Cleaning and Sealing, Item SPV.0180.201.**

#### **A Description**

This special provision describes cleaning the top surfaces of concrete abutments and sealing them as the plans show and as the engineer directs.

#### **B Materials**

For bridge seat protection/sealing, coat the tops of abutments with a type of epoxy resin the manufacturer recommends for sealing exterior concrete surfaces, subject to the engineer's approval.

#### **C.1 Blast Cleaning Operation**

Blast clean the top surface of the abutment according to SSPC SP-13 and ASTM D4259 for an abrasive blast cleaning to a surface roughness and finish as the engineer directs. Before abrasive blast cleaning operations are to begin, prepare a representative trial area on the abutment surface, and have the method of blast cleaning approved by the engineer. Provide means of protecting bearings and girders such that their coatings/paint are not removed or damaged during blasting operations.

#### **C.2 Water Cleaning Operation**

After abrasive blast cleaning operations are completed, clean the prepared pier cap surface with water according to ASTM D4258. Remove with this water cleaning all dust and loose material from the top surface of the abutments to be coated with epoxy for bridge seat protection. Provide an adequate drying time of at least 24 hours before coating with epoxy. Remove all loose concrete, dirt, dust, or blast material that remains in the area around the abutment, as the engineer directs.

#### **C.3 Bridge Seat Protection**

After cleaning, apply bridge seat protection epoxy per 502.3.12 of the standard specifications.

#### **D Measurement**

The department will measure Abutment Seat Cleaning and Sealing 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.0180.201	Abutment Seat Cleaning and Sealing	SY

Payment is full compensation for abrasive blast cleaning; for water cleaning; for all additional cleanup of the concrete surfaces and surrounding abutment areas; and for furnishing and applying bridge seat protection.

## 158. Asphaltic Repair, Item SPV.0195.001.

### A Description

This special provision describes repairing areas of existing asphalt pavement with asphaltic mixtures for overlaying with new pavement.

### B Material

Furnish nominal size No. 5 (9.5 mm) aggregate blend graded as specified in 460.2.2.3 and conform to the other material and mixture requirements specified for asphaltic surface in 465. Use tack coat as required under 450.3.2.7.

### C Construction

- (1) Remove areas of existing asphalt pavement, including existing patching or surfacing materials, at locations the plans show or the engineer directs in the field as specified for removing asphaltic surface milling in 204.3.2.2.2. Mill the connecting edges as true and perpendicular as possible, both parallel and perpendicular to the roadway, creating a vertical edge on all sides. Remove the pavement without injury to the remaining pavement. Dispose of removed material as specified in 204.3.1.3.
- (2) As an option for areas of full depth removal, the contractor may remove areas of existing asphalt pavement, including existing patching or surfacing materials, as specified for removing asphaltic surface in 204.3.2.2.1. Saw cut the connecting edges as true and perpendicular as possible, as specified for sawing pavement in 690. Remove the pavement without injury to the remaining pavement. Dispose of removed material as specified in 204.3.1.3.
- (3) Construct as specified for asphaltic surface under 465.3 except as modified here.

Replace standard spec 465.3.1(2) with the following:

- (2) Place using self-propelled pavers. Pave at a constant speed, appropriate for the paver and mixture, that ensures uniform spreading and strike-off with a smooth, dense texture and no tearing or segregation.

Replace standard spec 465.3.1(3) with the following:

- (3) Immediately after placement, compact the mixture to produce a dense smooth surface using ordinary compaction procedures as specified in 450.3.2.6. Unless the engineer directs otherwise, compact each layer to a thickness of 6 inches or less so that the finished surface is 1/16 inch to 1/8 inch above the existing pavement surface.

### D Measurement

The department will measure Asphaltic Repair by the ton acceptably completed as specified for asphaltic pavement in 450.4.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.001.	Asphaltic Repair	TON

- (2) Payment is full compensation for removing old pavement; for preparing the foundation; and for providing and compacting asphaltic mixture including asphaltic binder. Sawing existing asphalt pavement as a contractor option is incidental to the Asphaltic Repair bid item.

- (3) The department will pay separately for tack coat under the Tack Coat bid item as specified in 455.5.

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## **ADDITIONAL SPECIAL PROVISION 1 (ASP 1) HIGHWAY CONSTRUCTION SKILLS TRAINING (HCST) PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS**

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including “pipeline” activities. The core programs include: 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).

The Wisconsin Department of Transportation OJT program was originally established in 1995. Highway Construction Skills Training (HCST) was previously known as Transportation Alliance for New Solutions (TrANS) and underwent a name change in early 2023. HCST is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities, and disadvantaged persons as laborers and apprentices in the highway skilled trades. Candidate preparation and contractor coordination services (OJT Supportive Services) are provided by contracted community-based organizations.

### **I. BASIC CONCEPTS**

Training reimbursements to employing contractors for new placements, rehires or advancement to apprenticeship of Highway Construction Skills Training (HCST) graduates and employing eligible trainees in qualifying trades will be made as follows:

- 1) **On-the-Job Training, Item ASP.1T0G, ASP 1 HCST Graduate.** At the rate of \$5.00 per hour on Federal-aid projects when HCST graduates are initially hired, or seasonally rehired, as unskilled laborers or equivalent.  
Eligibility and Duration: To the employing contractor, for up to 2,000 hours or two years, whichever comes first from the point of initial hire as a HCST placement.  
Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that   18   HCST Graduate(s) be utilized for   17280   hours 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 HCST Program is subsequently entered into an apprenticeship contract in a qualifying trade.  
Eligibility and Duration: To the employing contractor, for the length of time that the HCST graduate is in apprenticeship status.  
Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that   7   HCST Apprentice(s) be utilized for   2800   hours on this contract.
- 3) The maximum duration of reimbursement is two years as a HCST graduate plus time in apprentice status.
- 4) If a HCST 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 Department of Transportation Labor Development Specialist at the phone number listed below.

- 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 HCST 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 HCST 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 HCST 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 HCST 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 page 2 Dated January 2012 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 HCST graduate or a HCST apprentice. The compliance specialists utilize the information on the Certified Payrolls to track the hours accumulated by HCST Graduates and HCST 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. HCST 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. HCST 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 ensure 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 underrepresentation 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-Office of Business Opportunity & Equity Compliance (OBOEC). A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT OBOEC - Labor Development, 141 NW Barstow Street, Suite 411, PO Box 798, Waukesha, WI 53187.

## **VI. PROGRAM CONTACTS**

Marguerite (Maggie) Givings, Labor Development Specialist

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## 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) The Commitment to Subcontract to DBE (Form DT1506 or digital submittal), Attachments A, and Good Faith Effort Documentation (Form DT1202) will be submitted as described in Section 2.
- (2) Any change to DBE Commitments thereafter must follow modification of DBE subcontracting commitment as described in Section 9.
- (3) 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.
- (4) 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) must be submitted at the time of bid (Tuesday) by all prime contractors.
- Attachments A OR quotes from all DBEs included in the Commitment must be submitted at bid (Tuesday) **OR**
- Within one-hour following bid submittal by ALL prime contractors via eSubmit (Tuesday).
- If only DBE quotes were submitted, all remaining signed Attachments A must be submitted within 24-hours of bid closing via eSubmit (Wednesday).
- If the assigned DBE contract goal is not met, Documentation of Good Faith Effort (Form DT1202) and supporting documentation must be submitted within 24-hours of bid closing (Wednesday) via eSubmit. [Instructions for eSubmit.](#)

**\*\*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.**

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.

### 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.

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).

Additional resources for demonstrating and tracking good faith effort can be found on the “Contracting with a DBE” webpage in the [ASP-3 and Good Faith Effort Guidance](#) section.



#### 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://wisconsindot.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) 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.

- (2) 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.
- (3) 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.
- (4) 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?
- (5) 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.
  - i. To ensure that the appropriate credit is assigned, follow the procedure below:
    - a. When DBE suppliers are contracted for bulk supply or commodity purchases, an invoice or bill-of-sale that includes names of the contractor and the DBE supplier should be submitted to the DBE Office via eSubmit (preferred during letting) or the DBE\_Alert email box. The supply/commodity credit may be applied during the federal fiscal year (October- September) in which the purchase was made.
    - b. When the contractor intends to apply the credit to a particular project, submit a copy of the original invoice, documentation of the calculations for supplies/commodities to be used on the project, and an Attachment A. Indicate on the Attachment A:
      - c. This supply/commodity is in the prime's inventory or pre-paid in case of commodities
      - d. The full value of the original invoice submitted to the DBE Office, above in (1)
      - e. The amount of material or product used on this project
      - f. Fuel estimate listed on Attachment A will be recorded as a deduction from the full fuel purchase amount shown on the invoice
  - ii. DBE Office Process (Applies only to bulk purchases)
    - a. Supply/Commodity commitment is received
    - b. Engineer verifies amount listed on invoice and enters the full amount into spreadsheet
    - c. The amount of credit applied for each project is updated on the spreadsheet until the bulk purchase is exhausted
    - d. Engineer informs contractor when full amount of bulk purchase has been applied

**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
- DBE truckers need to be added to the DBE commitment once. If the DBE trucker is on the initial commitment (DT1506/E1506) there is no requirement to submit another Attachment A for that trucker for that contract.

**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.
- d. Offsite Hauling – when DBE truck will haul between a pit and plant or location other than the construction site associated with the commitment
  - (1) Indicate Offsite Hauling on Attachment A
  - (2) Discuss offsite hauling at weekly progress meetings with Project Engineer (PE)
  - (3) PE conducts spot checks of pits/plants to verify DBE truck is hauling and/or verifying hauling log
  - (4) Prime should be prepared to submit haul tickets, plant/pit tickets, timecards, and other pertinent documentation if requested by PE or DBE Office

## 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

A joint venture is an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest. If a DBE performs as a participant in a joint venture, the Department will only credit 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.

## 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.
  - (1) DBE credit may only be awarded to a non-DBE mentor firm for using its own protégé firm for less than one half of its goal on any contract; and
  - (2) Not award DBE credit to a non-DBE mentor firm for using its own protégé firm for more than every other contract performed by the protégé firm.
- c. A DBE protégé firm may be eligible for conditional NAICS code extension for training with the mentor. Request permission from the DBE Office- Certification area.
- d. 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 weeks prior to each Let)

1. Determine DBE subcontractor's interest in quoting
2. 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.
3. Assess their interest and experience in the road construction industry by asking questions such as:
  - Have you competed for other WisDOT contracts? Ratio of competed/to wins
  - Have you performed on any transportation industry contracts (locally or with other states)?
  - What the largest contract you've completed?
  - Have you worked in the industry: apprentice, journeyman, safety, inspection etc.?
  - Does this project fit into your schedule? Are you working on any contracts now?
  - Have you reviewed a copy of the plans? Are you comfortable performing within the scope and quantity considerations of this contract?
  - What region do you work in? Home base?
  - Which line items are you considering?
  - Have you read/are you familiar with WisDOT Standard Specifications? Construction Material Manual?
  - 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 formatting requirement)*

#### DBE Solicitation - [Month] [Day], [Year] WisDOT Bid Letting

Attention all DBEs. [Prime Contractor] is actively seeking your quote for the [Month][Day], [Year] Bid Letting. [Prime Contractor] is considering bidding on the projects listed on page 2 as a prime contractor. Please see page 2 for instructions and the sub-contractable opportunities for each proposal.

**Does [Prime Contractor] accept quotes in areas we might self-perform?** Yes, we do! We support this federal rule and (if needed) we consider areas we might self-perform an opportunity to provide in the field assistance and training if we award your quote.

**Where can DBEs find the plans, specifications & addenda?** Please visit [Prime Contractor's] plan room [LINK] or on WisDOT's Highway Construction Contract Information HCCI website: [Wisconsin Department of Transportation Highway Construction Contract Information \(wisconsindot.gov\)](https://wisconsindot.gov/HighwayConstructionContractInformation). This same website can be checked for the contract status.

**What should your quote include?** All the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should also note items that you are DBE certified to perform, tied items, and any special terms. Please use page 2 as your cover sheet for your quote.

**Do you have a question regarding bonding, credit, insurance, equipment, or supplies/materials?** We welcome all DBE questions! Please call [Prime Contractor] and ask to speak with [Contact]. [Prime Contractor] can provide basic information as well as a referral to a trusted industry partner for insurance and bonding needs.

#### **When are quotes due?**

**[Month] [Day], [Year] at [Time].** We accept quotes via SBN, email, or fax. Please make every effort to have your quotes in by this time or earlier. Quality check your quote so it includes the correct letting date, project ID, proposal number, unit price and extension.

**Who can DBEs contact for questions, information, clarification or for a quote evaluation?** [Project Manager Name] [Phone] [Email]. If you are quoting [Prime Contractor] for the first time, we encourage you to come meet with us in person to discuss the project. Our office hours are 7:30 a.m. – 5:00 p.m. On bid day, we are in the office by 6:30 a.m.

#### **Why partner with [Prime Contractor]?**

DBE partnership is a core part of [Prime Contractor's] mission. Including DBEs at the beginning of each project is essential in the success of each project. We consider DBEs to be important industry partners who bring dedication and knowledge at various stages during construction. We are proud to be an industry leader with our DBE partnership. Your success as a DBE is our success.

**Sample Contractor Solicitation Letter Page 2***(This sample is provided as a guide, not a formatting requirement)*

## REQUEST FOR QUOTE

**[Prime Contractor]****Letting Date: [Month] [Day], [Year]****Project IDs: 1234-56-00 (Proposal #1) & 1234-01-78 (Proposal #6)**

Please check all that apply:

- ☐ Yes, we will be quoting the projects & 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 Contact: \_\_\_\_\_

DBE: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

**Please circle the proposals and items you will be quoting below and contact us with any questions**

<b>Proposal</b>	<b>1</b>	<b>6</b>
<b>County</b>	<b>Dane County</b>	<b>Crawford County</b>
<b>Clearing &amp; Grubbing</b>	<b>X</b>	<b>X</b>
<b>Dump Truck Hauling</b>	<b>X</b>	<b>X</b>
<b>Curb/Gutter/Sidewalk</b>	<b>X</b>	
<b>Erosion Control Items</b>		<b>X</b>
<b>Excavation</b>	<b>X</b>	<b>X</b>
<b>Pavement Marking</b>		<b>X</b>
<b>Traffic Control</b>	<b>X</b>	
<b>Sawing</b>	<b>X</b>	<b>X</b>
<b>QMP, Base</b>		<b>X</b>
<b>Pipe Underdrain</b>	<b>X</b>	
<b>Landscape</b>		<b>X</b>
<b>Beam Guard</b>	<b>X</b>	
<b>Electrical</b>	<b>X</b>	
<b>Signs/Posts/Markers</b>		<b>X</b>
<b>Survey/Staking</b>		<b>X</b>

Again, please make every effort to have your quotes into our office by **time deadline** prior to the letting date.

## Sample Contractor Solicitation Email - Simplified

*(This sample is provided as a guide, not a formatting requirement)*

### ATTENTION DBEs

- [Prime Contractor] specializes in municipal projects in the XX Region(s)
- We have successfully competed for and completed XX WisDOT projects over the past XX years
- Consider [Prime Contractor] your partner on WisDOT Projects

[Prime Contractor] is seeking your subcontractor quote for the XX/XX/20XX WisDOT bid letting on the below projects:

Project	Proposal	County	Region
1234-56-00	2	Dane	SW
1234-01-78	6	Crawford	SW

- Please review the attachments **[attach Solicitation Letter]** and respond with your intent to quote (or not) along with the work items you are interested in performing and respond via fax or email by date. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Please include labor, equipment, material, and related bonding or insurance.
- If you have any questions regarding bonding, credit, insurance, equipment and/or materials/supplies, please feel free to call [Prime Contractor] and ask for [Contact]. **(Include if your company is willing to answer these types of DBE questions)**
- Plans and Specifications can be found: **WisDOT HCCI Website: List webpage where plans are located**
- If you do choose to quote, please make every effort to have your quote into our office by time and date. Make sure the correct letting date, project number, unit price and extension are included in your quote.
- Should you have questions regarding the mentioned project, please call our office at (414) 555-5555 and we will direct you to the correct estimator/project manager.  
Our office hours are 7:30 a.m. - 5:00 p.m.

**Thank you – we look forward to working with your company on this project!**

Prime Contractor  
Project Manager

Direct: 414-555-5555

Cell: 414-555-5556

## Sample Contractor Solicitation Email to **non-DBE** WisDOT Subcontractors - Simplified

*(This sample is provided as a guide, not a formatting requirement)*

### **ATTENTION WisDOT SUBCONTRACTORS**

[Prime Contractor] is considering bidding on the below projects for the XX/XX/20XX WisDOT Bid Letting:

Project	Proposal	County	Region	DBE Goal
1234-56-00	2	Dodge	SW	6.00%
1234-01-78	11	Adams	NC	3.00%
1234-00-99	20	Buffalo	NW	5.00%
1234-00-98	33	Portage	NC	6.00%

The above projects have DBE goals and [Prime Contractor] is committed to DBE inclusion with every project. As such, we are requesting:

- All WisDOT Subcontractors to **solicit and utilize** DBEs in your quotes.
- DBE participation can be achieved through purchasing materials from DBE suppliers, using DBE subcontractors and/or DBE trucking firms or any combination of these.
- If there is an opportunity to untie an item in your quote so a DBE can be utilized, please look for those opportunities as well.
- Your quote will be evaluated based on the amount of DBE participation your company is able to provide when compared to other quotes for the same work.

If you do choose to quote, please make every effort to have your quote into our office by **time and date**. Please submit all quotes to [Email]. Make sure the correct letting date, project number, unit price and extension are included in your quote.

Should you have questions regarding the mentioned project, the Project Manager contact is: [Name] [Phone Number] [Email]

**Thank you for utilizing DBEs who are trusted industry partners with WisDOT projects.**

Prime Contractor  
Project Manager

Direct: 414-555-5555  
Cell: 414-555-5556

## 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 help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs. The DBE will provide free SBN accounts to DBEs when requested. Use [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov) to request an account. **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.

## 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 – Initial Review

DT1202	Examples	Rating	OBOEC Feedback
<b>Solicitation Documentation</b>	<p>Identify all reasonable and available activities performed to solicit the interest of all certified DBEs who have capacity and ability to perform work on the project.</p> <p><i>Such as: Updated solicitation letter and email, timely solicitation, and follow-up, and/or utilized various methods to communicate solicitation (ex: letter, email, publication, posting and/or website)</i></p>		
<b>Selected Work Items Documentation</b>	<p>All work items are broken out into economically feasible units to facilitate DBE participation.</p> <p><i>Such as: Selected work items are specific to each proposal and clearly identified in all solicitation(s)</i></p>		
<b>Documentation of Project Information provided to Interested DBEs</b>	<p>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.</p> <p><i>Such as: Project information is clearly identified in all solicitation(s)</i></p>		
<b>Documentation of Negotiation with Interested DBEs</b>	<p>Provide sufficient evidence demonstrating that good faith negotiations took place during the bid letting.</p> <p><i>Such as: Documented attempts with DBEs or on behalf of DBEs to increase DBE participation</i></p>		
<b>Documentation of Sound Reason for Rejecting DBEs</b>	<p>Provide sufficient evidence demonstrating that DBEs are rejected for sound reasons.</p> <p><i>Such as: Detailed and thoughtful analysis that considers both the percentage and dollar difference when rejecting a DBE including past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, and other tangible factors.</i></p>		
<b>Documentation of Assistance to Interested DBEs- bonding, credit, insurance, equipment, supplies/materials</b>	<p>Documented assistance in both solicitation(s) and outreach to DBEs.</p>		
<b>Documentation of Outreach to Minority, Women, and Community organizations and other DBE Business Development Support</b>	<p>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 participation in activities that support DBE business development.</p> <p><i>Such as: Variety of activities that translate into meaningful DBE participation</i></p>		
<b>Documentation of other GFE activities</b>	<p><i>Such as: Used DT1202 Excel Workbook, Diversity &amp; Inclusion company policy, Mentor-Protégé participant, awarded neutral DBE after bid submission, included company GFE overview/strategy information and/or company website highlights DBE opportunities and participation</i></p>		
<b>Overall Demonstration of GFE</b>			

**GFE EVALUATION RATING LEGEND – PHASE 1 – Initial Review**

Documentation provided by bidder is evaluated and rated on the rubric. Bidders should include activities characterized by the following types of effort:

**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

**GFE EVALUATION – PHASE 2 – Team Review****GFE Team completes:**

- Review of activities included on the rubric
- Review of the intent to award and sound reasoning 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 constitute final GFE determination

**Rating Scale:**

- **GFE Approval:**  
**Bona Fide = 6 or more categories color coded green.**  
Genuine effort characterized by sincere and earnest activities – “Solicitation” and “Sound Reasoning” must be green
- **GFE Approval:**  
**Sufficient = 5 or more categories color coded green or yellow**  
Adequate effort documented with a variety of quality activities – “Solicitation” and “Sound Reasoning” must be green or yellow
- **GFE Denial:**  
**Pro Forma efforts = 4 or less categories color coded green or yellow.** Perfunctory effort characterized by routine or superficial activities

**Green = Exceeds expectations**

**Yellow = Meets expectations**

**Red = Areas in need of attention and/or absence of documentation**

**See OBOEC Rubric Analysis Feedback**

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

<b>GFE RUBRIC ANALYSIS</b>	
OBOEC DECISION	APPROVAL OR DENIAL
Prime Contractor	
Proposal	
Project	
Bid Letting	
DBE Goal Amount	
DBE Goal Amount Achieved	
<b>Bid Analysis</b>	
Goal %	Achieved %
Apparent Low Bidder	%
Bidder B	
Bidder C	
<b>Average of OTHER Bidders (Not including Apparent Low Bidder)</b>	
<b>DBE Quotes Received</b>	
<b>DBE Quotes Awarded</b>	
<b>DBE Quote(s) Rejected</b>	<b>Rejected Quote Analysis</b>
<b>DBE Quote(s) Awarded</b>	<b>Awarded DBE Amount</b>

## **Appendix E**

### **Good Faith Effort Best Practices**

This list is not a set of requirements; it is a list of potential strategies

#### **Primes**

- Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance.
- Participate in speed networking and mosaic exercises as arranged by DBE office.
- Host information sessions not directly associated with a bid letting.
- Participate in a formal mentor protégé or joint venture with a DBE firm.
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Facilitate a small group DBE ‘training session’ clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications, and communication methods.
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Quality of communication, not quantity creates the best results. Contractors should be thorough in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

#### **DBE**

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs.
- Participate on advisory and mega-project committees.
- Sign up to receive the DBE Contracting Update.
- Consider membership in relevant industry or contractor organizations.
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the Department are the only ways to get work.

## **Appendix 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

Wisconsin Department of Transportation

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Proposal # \_\_\_\_\_

County: \_\_\_\_\_

DBE Goal Achieved:	0.00 %
--------------------	--------

[illegible]

**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.  <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.	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:	

# Owned Trucks	# Leased Trucks	# DBE-Owned Leased Trucks	# Non-DBE-Owned Leased Trucks

☐ Off site Hauling

**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: <https://wisconsindot.gov/pages/global-footer/formdocs/default.aspx>

## **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.

### **Acceptance and Final Payment**

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work.

## Additional Special Provision 6 (ASP-6)

### Modifications to the standard specifications

*Make the following revisions to the standard specifications.*

#### **107 Legal Relations and Responsibility to the Public**

Add subsection 107.27 effective with the November 2024 letting.

#### **107.27 Drones or Unmanned Aircraft Systems (UAS)**

##### **107.27.1 Licensing and Compliance**

- (1) Obtain and possess the necessary Federal Aviation Administration (FAA) licenses and certifications to operate drones commercially (<https://www.faa.gov/uas>).
- (2) Comply with all FAA regulations, airspace restrictions, and local laws. Operators of small drones that are less than 55 pounds for work or business must follow all requirements as listed in Title 14, Chapter 1, Subchapter F, Part 107 of the Code of Federal Regulations (14 CFR) and obtain a remote pilot certificate ([https://www.faa.gov/uas/commercial\\_operators](https://www.faa.gov/uas/commercial_operators)).
- (3) Comply with Wisconsin State Statute 942.10. Limit operations to the specific approved purpose and employ reasonable precautions to avoid capturing images of the public except those that are incidental to the project.
- (4) Provide copies of waivers required for specific project conditions to the engineer prior to any flight.

##### **107.27.2 Flight Approval, Safety, and Incident Reporting**

- (1) Submit information in 107.27.2(2) to obtain written drone flight approval from the engineer at least 3 business days prior to operating a drone within the right-of-way. Do not operate a drone within the right-of-way unless approved by the engineer.
- (2) Drone flight application for review and approval must include:
  - UAS pilot information and qualifications, images of certification
  - UAS drone information and FAA tail numbers
  - Max/ Min allowable flight parameters (weather)
  - Specifics of flight mission: capture scope
  - Estimated flight duration
  - Pre-flight checklist
  - Site-specific parameters
  - Notification protocols - Federal/Local/Agency/Owner/Responsible in Charge
  - Confirmation and verification of approved operators and hardware
  - Flight plan map diagram (including launch and landing location)
  - FAA-Airspace flight map classification and confirmation with graphics
  - UAS incident management protocol
- (3) If contractor is requesting multiple types of the same flight, a simplified request can be submitted listing weekly flight plan.
- (4) Safety measures must include but are not limited to:
  - Regular training and updates on drone regulations are required and must be provided upon request.
  - Drones must be operated in accordance with safety guidelines, including maintaining a safe distance from people, structures, vehicles, etc.
  - Conduct a pre-flight safety assessment, considering weather conditions, airspace restrictions, and potential hazards.
  - Emergency procedures (e.g., drone malfunction, loss of control) must be documented and followed.
  - All incidents must be reported to the engineer.
- (5) If the drone has an incident during flight, report the following to the engineer:
  - Incident background and details.
  - FAA (14 CFR 107.9) and NTSB (49 CFR 870) notification protocol.
  - Contractor internal notification protocol.

##### **107.27.3 Insurance Requirements**

- (1) Maintain drone liability insurance with the following limits.
  1. For drones weighing 10 pounds or less, a liability policy with a minimum limit of \$1,000,000.00 is required.



2. For drones weighing more than 10 pounds and less than or equal to 20 pounds, a liability policy with a minimum limit of \$2,000,000.00 is required.
3. For drones weighing more than 20 pounds, notify engineer and department will determine appropriate liability policy coverage levels based on size, use, location, and other risk factors.

## 646 Pavement Markings

### 646.3.2.4 Black Epoxy

Replace paragraph (1) with the following effective with the November 2024 letting.

- (1) Apply black epoxy in a grooved slot directly after the white marking. Apply epoxy at a wet mil thickness of 20. Apply black aggregate at or exceeding 25 pounds per gallon of epoxy. Do not apply glass beads to black epoxy.

## ERRATA

### 204.3.1.3 Salvaging or Disposal of Materials

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (2) Dispose of concrete, stone, brick, and other material not designated for salvage as specified for disposing of materials under 203.3.5.

### 204.3.2.3 Removing Buildings

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (2) Buildings removed and materials resulting from building removal become the contractor's property unless the contract specifies otherwise. Dispose of unclaimed and removed material as specified for disposing of materials in 203.3.5.

### 335.3.2 Rubblizing

Replace paragraph (6) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (6) Remove reinforcing steel exposed at the surface by cutting below the surface and disposing of the steel as specified in 203.3.5. Do not remove unexposed reinforcing steel.

### 335.3.3 Compacting

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (2) Remove loose asphaltic patching material, joint fillers, expansion material, or other similar materials from the compacted surface. Also remove pavement or patches that have a maximum dimension greater than or equal to 6 inches that are either not well seated or projecting more than one inch. Dispose of removed material as specified in 203.3.5.

### 526.3.4 Construction, Backfilling, Inspection and Maintenance

Replace paragraph (3) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (3) Maintain temporary structures and approaches in place until no longer needed. Unless the engineer directs otherwise, completely remove and dispose of as specified in 203.3.5. Contractor-furnished materials remain the contractor's property upon removal.

### 602.3.6 Concrete Rumble Strips

Replace paragraph (5) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (5) At the end of each workday, move equipment and material out of the clear zone and sweep or vacuum the traveled way pavement and shoulder areas. Sweep away or vacuum up milling debris before opening adjacent lanes to traffic. Dispose of waste material as specified in 203.3.5; do not place on the finished shoulder surface.

### 604.2 Materials

Replace paragraph (1) with the following information to remove line and link for crushed aggregate effective with the November 2024 letting. The crushed aggregate gradation information for slope paving is now found in 604.2(3).

- (1) Furnish materials conforming to the following:

Water.....	501.2
Select crushed material.....	312.2
Concrete.....	501
Reinforcement.....	505
Expansion joint filler .....	415.2.3
Asphaltic materials .....	455.2

## **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. DBE firms must enter all payments to DBE and non-DBE firms regardless of tier.
6. 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).
7. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4), (5), and (6), and shall be binding on all first tier subcontractor relationships, all contractors and subcontractors utilizing DBE firms on the project, and all payments from DBE firms.

### **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) for projects with a LET date on or before December 2024 and AASHTOWare Project Civil Rights and Labor (AWP CRL) for projects with a LET date on or after January 2025 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 or AWP CRL. 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 or AWP CRL 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, via the online AWP Knowledge Base, or by telephone. to schedule CRCS specific training. The AWP Knowledge Base is at: <https://awpkb.dot.wi.gov/>
- (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) For firms wishing to export payroll/labor data from their computer system, have their payroll coordinator contact:
  - For CRCS: Paul Ndon at [paul.ndon@dot.wi.gov](mailto:paul.ndon@dot.wi.gov). Information about exporting payroll/labor data. Not every contractor's payroll system can produce 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>
  - For AWP CRL: Contact AWP Support at [awpsupport@dot.wi.gov](mailto:awpsupport@dot.wi.gov). Additional information can be found in the AWP Knowledge Base at <https://awpkb.dot.wi.gov/Content/crl/Payrolls-PrimesAndSubs/PayrollXMLFileCreationProcess.htm>

## REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated 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. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

### 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, United States Code, as required in 23 CFR 633.102(b) (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). 23 CFR 633.102(e).

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. 23 CFR 633.102(e).

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) in accordance with 23 CFR 633.102. 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 solicitation-for-bids or request-for-proposals 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). 23 CFR 633.102(b).

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. 23 CFR 633.102(d).

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. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

### II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A 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 Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), 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 Part 230, Subpart A, 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 (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 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 Part 35 and 29 CFR Part 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. 23 CFR 230.409 (g)(4) & (5).

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, sexual orientation, gender identity, 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 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 or other knowledgeable company official.

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, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure 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. 23 CFR 230.409. 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, sexual orientation, gender identity, 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, sexual orientation, gender identity, 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 thereunder. 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, sexual orientation, gender identity, 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, 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. Assurances Required:**

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient 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 recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

**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 more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, 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, sexual orientation, gender identity, 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), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

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 (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), 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 basic hourly 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. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. 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 must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. 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 classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must 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. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must 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 be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate 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 used 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) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) 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 will be sent by the contracting officer by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov). 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.

(4) 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 will, by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov), refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The 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.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must 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.

d. *Fringe benefits not expressed as an hourly rate.* 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 may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* 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, in accordance with the criteria set forth in § 5.28, 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.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

## 2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and 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.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph



2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its procurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

### 3. Records and certified payrolls (29 CFR 5.5)

*a. Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

*(2) Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

*(3) Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must 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.

*(4) Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

*b. Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

*(2) Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHDL/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

*(3) Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working 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 [29 CFR part 3](#); and

(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(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

*(4) Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, 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, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

#### **4. Apprentices and equal employment opportunity (29 CFR 5.5)**

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform 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 (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must 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, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must 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 this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. 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. 23 CFR 230.111(e)(2). 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 journeyworkers 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 as provided in 29 CFR 5.5.

**6. Subcontracts.** The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 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 as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, 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 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 [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

**11. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

## **V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

Pursuant to 29 CFR 5.5(b), 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 watchpersons 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. 29 CFR 5.5.

**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 and interest from the date of the underpayment. 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 watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)\* 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.

\* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

### 3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, 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 that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

**4. Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

**5. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

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" in paragraph 1 of Section VI 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: (based on longstanding interpretation)

- (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. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), 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. Pursuant to 23 CFR 635.116(c), 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. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

## **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 Part 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. 23 CFR 635.108.

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 Part 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). 29 CFR 1926.10.

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 Part 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 11, 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 (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)**

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

## **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. 2 CFR 180.220 and 1200.220.

### **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. 2 CFR 180.320.

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. 2 CFR 180.325.

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. 2 CFR 180.345 and 180.350.

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, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient 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 recipient or subrecipient 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. 2 CFR 180.330.

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. 2 CFR 180.220 and 180.300.

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. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. 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 System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

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 CFR 180.325.

\* \* \* \* \*

## **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 CFR 180.335;.

(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, 2 CFR 180.800;

(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, 2 CFR 180.700 and 180.800; 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. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

\* \* \* \* \*

## **3. 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). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant 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. 2 CFR 180.365.

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, Subpart I, 180.900 – 180.1020, 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 recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "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 recipient or subrecipient 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. 2 CFR 1200.220 and 1200.332.

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. 2 CFR 180.220 and 1200.220.

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 System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

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. 2 CFR 180.325.

\* \* \* \* \*

#### **4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should 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 Part 20, App. A.

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.

#### **XII. USE OF UNITED STATES-FLAG VESSELS:**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor 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. 46 CFR 381.7.

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 Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.



**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

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).

## 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.

## **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.

## BUY AMERICA PROVISION

Buy America (as documented in [88 FR 57750 \(2 CFR part 184 and 200\)](#) from the Office of Management and Budget: [Federal Register: Guidance for Grants and Agreements](#) ) shall be domestic products and permanently incorporated in this project as classified in the following three categories, and as noted in the Construction and Materials Manual (CMM):

### 1. Iron and Steel

All iron and steel manufacturing and coating processes (from the initial melting stage through the application of coatings) 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 the iron and steel manufacturing and coating processes Buy America 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.

### 2. Manufactured Product

All manufactured products (as defined in CMM 228.5) are covered under a previous waiver from 1983 and are currently exempt from Buy America.

### 3. Construction Material

All construction materials (as defined in [88 FR 57750 \(2 CFR part 184 and 200\)](#) and as referenced in CMM 228.5) must comply with Buy America. All manufacturing process of construction materials must occur in the United States.

[88 FR 55817 \(DOT-OST-2022-0124\)](#) allows a limited waiver of Buy America requirements for de minimis costs and small grants.

- The Total value of the non-compliant products is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project<sup>1</sup>; or
- The total amount of Federal financial assistance applied to the project, through awards or subaward, is below \$500,000<sup>2</sup>

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Buy America provision.

<https://wisconsin.gov/rdwy/cmm/cm-02-28.pdf>

Upon completion of the project, certify to the engineer, in writing using department form DT4567 that all iron and steel, manufactured products, and construction materials conform to this Buy America provision.

Form DT4567 is available at: <https://wisconsin.gov/Documents/formdocs/dt4567.docx>

Attach a list of iron or steel and construction material exemptions and their associated costs to the certification form using the Buy America Exemption Tracking Tool, available at:

<https://wisconsin.gov/hccidocs/contracting-info/buy-america-exemption-tracking-tool.xlsx>

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<sup>1</sup> The de minimis public interest waiver does not apply to iron and steel subject to the requirements of 23 U.S.C. 313 on financial assistance administered by FHWA. The de minimis threshold in 23 CFR 635.410(b)(4) continues to apply for iron and steel.

<sup>2</sup> The small grant portion of the waiver does not apply to iron, steel, and manufactured goods subject to the requirements of 49 U.S.C. 22905(a).

## **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://wisconsindot.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

Superseded General Decision Number: WI20240010

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: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"><li>. Executive Order 14026 generally applies to the contract.</li><li>. The contractor must pay all covered workers at least \$17.75 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 2025.</li></ul>
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"><li>. Executive Order 13658 generally applies to the contract.</li><li>. The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.</li></ul>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

1	02/07/2025
2	02/21/2025
3	05/23/2025

BRWI0001-002 06/03/2024

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPLEAU, AND  
VERNON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.86	27.00

BRWI0002-002 06/01/2024

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 46.60	27.01

BRWI0002-005 06/01/2024

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...	\$ 41.62	27.03

BRWI0003-002 06/01/2024

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.45	27.41

BRWI0004-002 06/01/2024

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 43.21	27.90

BRWI0006-002 06/01/2024

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE,  
ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.33	27.53

BRWI0007-002 06/01/2024

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 39.34	28.15
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BRWI0008-002 06/01/2024		

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 46.16	27.33
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BRWI0011-002 06/01/2024		

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.45	27.41
-----		
BRWI0019-002 06/01/2024		

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN,  
PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.18	27.68
-----		
BRWI0034-002 06/01/2024		

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 40.17	27.32
-----		
* CARP0068-011 05/05/2025		

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.....	\$ 47.57	31.17
PILEDRIVERMAN.....	\$ 47.71	30.98
-----		
CARP0231-002 06/05/2023		

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA  
COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 41.91	29.72
-----		
CARP0310-002 06/03/2024		

ADAMS, ASHLAND, BAYFIELD (Eastern 2/3), FOREST, IRON, JUNEAU,  
LANGLADE, LINCOLN, MARATHON, ONEIDA, PORTAGE, PRICE, SHAWANO

(Western Portion of the County), TAYLOR, VILAS, AND WOOD  
COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
Piledriver.....	\$ 42.44	28.44

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\* CARP0314-001 06/05/2023

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, JEFFERSON,  
LAFAYETTE, RICHLAND, ROCK, SAUK, AND WALWORTH COUNTIES

	Rates	Fringes
Carpenter.....	\$ 38.86	27.06
Piledrivermen.....	\$ 39.43	27.02

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\* CARP0361-004 05/05/2025

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 46.82	31.92

-----  
CARP0731-002 06/03/2024

CALUMET (Eastern Portion of the County), FOND DU LAC (Eastern  
Portion of the County), MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
Piledriver.....	\$ 42.44	28.44

-----  
CARP0955-002 06/03/2024

CALUMET (Western Portion of the County), FOND DU LAC (Western  
Portion of the County), GREEN LAKE, MARQUETTE, OUTAGAMIE,  
WAUPACA, WAUSHARA, AND WINNEBAGO

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIVER.....	\$ 42.44	28.44

-----  
CARP1056-002 06/01/2024

ADAMS, ASHLAND, BARRON, BAYFIELD , BROWN, BUFFALO, BURNETT  
,CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE,  
DOOR, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT,  
GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU,  
KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC,  
MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO,  
ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwy. 29 & 65), POLK (E.  
of Hwy. 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
MILLWRIGHT.....	\$ 42.00	28.85
-----		
CARP1074-002 06/03/2024		

BARRON, BURNETT, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, PEPIN,  
PIERCE (E. of Hwy. 29 & 65), POLK (E. of Hwy. 35, 48 & 65),  
RUSK, SAWYER, ST. CROIX (E. of Hwy. 65), AND WASHBURN

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIVER.....	\$ 42.44	28.44
-----		
CARP1143-002 06/03/2024		

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPLEAU AND  
VERNON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIVER.....	\$ 42.44	28.44
-----		
CARP1146-002 06/03/2024		

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, MENOMINEE, OCONTO,  
AND SHAWANO (Western Portion of the County) COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIVER.....	\$ 42.44	28.44
-----		
CARP2337-009 06/03/2024		

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA

	Rates	Fringes
PILEDRIVERMAN.....	\$ 42.21	34.07
-----		
ELEC0014-002 05/26/2024		

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:.....	\$ 42.73	23.99
-----		
ELEC0014-007 05/26/2024		

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician.....	\$ 30.27	19.11
<p>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).</p>		

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ELEC0127-002 06/01/2023

KENOSHA COUNTY

	Rates	Fringes
Electricians:.....	\$ 46.05	30%+13.15

-----  
ELEC0158-002 06/01/2024

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.....	\$ 40.25	29.75%+11.17

-----  
ELEC0159-003 05/26/2024

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.....	\$ 48.55	25.91

-----  
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 06/02/2024



DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	\$ 46.23	69.19%
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ELEC0388-002 06/01/2024		

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:.....	\$ 40.19	26%+12.45
-----		
ELEC0430-002 06/01/2024		

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	\$ 48.50	26.25
-----		
ELEC0494-005 05/26/2024		

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	\$ 49.48	27.34
-----		
ELEC0494-006 05/26/2024		

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 42.77	24.66
-----		
ELEC0494-013 05/26/2024		

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.....	\$ 36.03	18.87
Technician.....	\$ 36.03	18.87

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 05/26/2024

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:.....	\$ 40.00	22.69

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ELEC0890-003 06/01/2024

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:.....	\$ 43.65	25.95%+12.26

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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 06/01/2024

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 46.37	28.80
Group 2.....	\$ 45.87	28.80
Group 3.....	\$ 44.77	28.80
Group 4.....	\$ 44.51	28.80
Group 5.....	\$ 44.22	28.80
Group 6.....	\$ 38.32	28.80

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.

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC,  
MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO  
COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 43.02	32.32

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor  
Day, Thanksgiving Day & Christmas Day.

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IRON0008-003 06/02/2024

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3),  
WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 44.79	32.32

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor  
Day, Thanksgiving Day & Christmas Day.

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IRON0383-001 06/02/2024

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.....	\$ 42.00	31.93

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IRON0498-005 06/01/2024

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and  
WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 46.59	48.80

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IRON0512-008 04/28/2024

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON,  
PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPLEAU  
COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 44.85	35.22

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IRON0512-021 04/28/2024

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA,

PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 41.19	34.68
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LAB00113-002 06/03/2024		

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 35.61	25.01
Group 2.....	\$ 35.76	25.01
Group 3.....	\$ 35.96	25.01
Group 4.....	\$ 36.11	25.01
Group 5.....	\$ 36.26	25.01
Group 6.....	\$ 32.10	25.01

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 06/03/2024		

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 34.86	25.01
Group 2.....	\$ 34.96	25.01
Group 3.....	\$ 35.01	25.01
Group 4.....	\$ 35.21	25.01
Group 5.....	\$ 35.06	25.01
Group 6.....	\$ 31.95	25.01

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 06/03/2024

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 34.67	25.01
Group 2.....	\$ 34.82	25.01
Group 3.....	\$ 35.02	25.01
Group 4.....	\$ 34.99	25.01
Group 5.....	\$ 35.32	25.01
Group 6.....	\$ 31.81	25.01

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 06/03/2024

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.....	\$ 40.57	19.45
Group 2.....	\$ 40.67	19.45
Group 3.....	\$ 40.72	19.45
Group 4.....	\$ 40.92	19.45
Group 5.....	\$ 40.77	19.45
Group 6.....	\$ 37.20	19.45

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 06/03/2024

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1.....	\$ 40.85	19.45
Group 2.....	\$ 40.95	19.45
Group 3.....	\$ 41.00	19.45
Group 4.....	\$ 41.20	19.45
Group 5.....	\$ 41.05	19.45
Group 6.....	\$ 37.20	19.45

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 05/06/2024

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller.....	\$ 36.16	26.27
Spray, Sandblast, Steel....	\$ 36.76	26.27
Repaint:		
Brush, Roller.....	\$ 34.66	26.27
Spray, Sandblast, Steel....	\$ 35.26	26.27

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PAIN0108-002 06/01/2024

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller.....	\$ 42.04	22.95
Spray & Sandblast.....	\$ 43.04	22.95

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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 06/01/2024

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
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Painters:

Bridge.....	\$ 41.39	24.92
Brush.....	\$ 40.64	24.92
Spray & Sandblast.....	\$ 41.39	24.92

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PAIN0802-002 06/01/2024

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND,  
ROCK, AND SAUK COUNTIES

	Rates	Fringes
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PAINTER

Brush.....	\$ 36.35	20.87
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PREMIUM PAY:

Structural Steel, Spray, Bridges = \$1.00 additional per  
hour.

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PAIN0802-003 06/01/2024

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
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PAINTER.....	\$ 36.35	20.87
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PAIN0934-001 06/01/2024

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
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Painters:

Brush.....	\$ 38.67	26.32
Spray.....	\$ 39.67	26.32
Structural Steel.....	\$ 38.82	26.32

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PAIN1011-002 06/02/2024

FLORENCE COUNTY

	Rates	Fringes
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Painters:.....	\$ 29.95	15.89
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PLAS0599-002 06/01/2024

	Rates	Fringes
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CEMENT MASON/CONCRETE FINISHER

Area A.....	\$ 47.17	30.35
Area B.....	\$ 41.62	26.34
Area C.....	\$ 42.74	25.91
Area D.....	\$ 43.16	25.49
Area E.....	\$ 42.25	26.39
Area F.....	\$ 38.98	29.67

## AREA DESCRIPTIONS

AREA A: ASHLAND, BURNETT, BAYFIELD, DOUGLAS, IRON, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA B: ADAMS, BARRON, BROWN, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, 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 C: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE, MONROE, PEPIN, PIERCE, RICHLAND, TREMPLEAU, AND VERNON COUNTIES

AREA D: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA E: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA F: KENOSHA AND RACINE COUNTIES

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TEAM0039-001 06/01/2024

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles.....	\$ 37.57	27.41
3 or more Axles; Euclids, Dumpton & Articulated, Truck Mechanic.....	\$ 37.72	27.41

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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 <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

#### Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

#### Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

#### Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date

for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

#### State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

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#### WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to [davisbaconinfo@dol.gov](mailto:davisbaconinfo@dol.gov) or by mail to:

Branch of Wage Surveys  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to [BCWD-Office@dol.gov](mailto:BCWD-Office@dol.gov) or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to [dba.reconsideration@dol.gov](mailto:dba.reconsideration@dol.gov) or by mail 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 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.

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END OF GENERAL DECISION"

## **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

Page 1 of 30

Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

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	108.4400 CPM Progress Schedule	1.000 EACH	_____.	_____.
0004	203.0220 Removing Structure (structure) 001. B-40-349	1.000 EACH	_____.	_____.
0006	203.0220 Removing Structure (structure) 002. B-40-348	1.000 EACH	_____.	_____.
0008	203.0220 Removing Structure (structure) 009. B-40-346	1.000 EACH	_____.	_____.
0010	203.0220 Removing Structure (structure) 010. B-40-347	1.000 EACH	_____.	_____.
0012	203.0220 Removing Structure (structure) 013. B-40-365	1.000 EACH	_____.	_____.
0014	203.0220 Removing Structure (structure) 014. Removing Structure B-40-366	1.000 EACH	_____.	_____.
0016	203.0330 Debris Containment (structure) 013. B-40-365	1.000 EACH	_____.	_____.
0018	203.0330 Debris Containment (structure) 014. Debris Containment B-40-366	1.000 EACH	_____.	_____.
0020	204.0100 Removing Concrete Pavement	11,045.000 SY	_____.	_____.
0022	204.0109.S Removing Concrete Surface Partial Depth	58,375.000 SF	_____.	_____.
0024	204.0120 Removing Asphaltic Surface Milling	107,864.000 SY	_____.	_____.
0026	204.0150 Removing Curb & Gutter	2,291.000 LF	_____.	_____.
0028	204.0155 Removing Concrete Sidewalk	140.000 SY	_____.	_____.



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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0030	204.0157 Removing Concrete Barrier	6,391.000 LF	_____.	_____.
0032	204.0165 Removing Guardrail	3,871.000 LF	_____.	_____.
0034	204.0170 Removing Fence	1,581.000 LF	_____.	_____.
0036	204.0175 Removing Concrete Slope Paving	309.000 SY	_____.	_____.
0038	204.0195 Removing Concrete Bases	17.000 EACH	_____.	_____.
0040	204.0220 Removing Inlets	11.000 EACH	_____.	_____.
0042	204.0245 Removing Storm Sewer (size) 001. 12-Inch	362.000 LF	_____.	_____.
0044	204.0246 Removing Ancillary Structure (structure) 001. S-40-240	1.000 EACH	_____.	_____.
0046	204.9060.S Removing (item description) 001. Apron Endwall	4.000 EACH	_____.	_____.
0048	204.9060.S Removing (item description) 301. Remove Traffic Signals IH 41 SB Off Ramp/N115th St & CTH PP	1.000 EACH	_____.	_____.
0050	204.9060.S Removing (item description) 302. Remove Loop Detector Wire & Lead-In Cable IH 41 SB OFF/N 115th St & CTH PP	1.000 EACH	_____.	_____.
0052	205.0100 Excavation Common	9,500.000 CY	_____.	_____.
0054	206.1001 Excavation for Structures Bridges (structure) 009. B-40-346	1.000 EACH	_____.	_____.





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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0056	206.1001 Excavation for Structures Bridges (structure) 010. B-40-347	1.000 EACH	_____.	_____.
0058	206.1001 Excavation for Structures Bridges (structure) 013. Excavation for Structures Bridges B-40-365	1.000 EACH	_____.	_____.
0060	206.1001 Excavation for Structures Bridges (structure) 014. B-40-366	1.000 EACH	_____.	_____.
0062	206.3001 Excavation for Structures Retaining Walls (structure) 001. R-40-714	1.000 EACH	_____.	_____.
0064	206.3001 Excavation for Structures Retaining Walls (structure) 004. R-40-715	1.000 EACH	_____.	_____.
0066	208.0100 Borrow	7,813.000 CY	_____.	_____.
0068	209.1100 Backfill Granular Grade 1	1,794.000 CY	_____.	_____.
0070	210.1100 Backfill Structure Type A	66.000 CY	_____.	_____.
0072	210.1500 Backfill Structure Type A	1,628.000 TON	_____.	_____.
0074	211.0101 Prepare Foundation for Asphaltic Paving (project) 001. 1100-21-70	1.000 EACH	_____.	_____.
0076	211.0101 Prepare Foundation for Asphaltic Paving (project) 002. 1100-21-71	1.000 EACH	_____.	_____.
0078	213.0100 Finishing Roadway (project) 001. 1100-20-77	1.000 EACH	_____.	_____.
0080	213.0100 Finishing Roadway (project) 002. 1100-21-70	1.000 EACH	_____.	_____.



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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
0082	213.0100 Finishing Roadway (project) 003. 1100-21-71	1.000 EACH	_____.	_____.
0084	305.0110 Base Aggregate Dense 3/4-Inch	594.000 TON	_____.	_____.
0086	305.0120 Base Aggregate Dense 1 1/4-Inch	9,261.000 TON	_____.	_____.
0088	310.0110 Base Aggregate Open-Graded	86.000 TON	_____.	_____.
0090	312.0110 Select Crushed Material	12,118.000 TON	_____.	_____.
0092	390.0100 Removing Pavement for Base Patching	8,818.000 CY	_____.	_____.
0094	390.0405 Base Patching Concrete SHES	8,818.000 CY	_____.	_____.
0096	415.0060 Concrete Pavement 6-Inch	34.000 SY	_____.	_____.
0098	415.0080 Concrete Pavement 8-Inch	76.000 SY	_____.	_____.
0100	415.0090 Concrete Pavement 9-Inch	9,679.000 SY	_____.	_____.
0102	415.0410 Concrete Pavement Approach Slab	472.000 SY	_____.	_____.
0104	415.1080 Concrete Pavement HES 8-Inch	418.000 SY	_____.	_____.
0106	415.1410 Concrete Pavement Approach Slab HES	1,006.000 SY	_____.	_____.
0108	416.0610 Drilled Tie Bars	4,629.000 EACH	_____.	_____.
0110	416.0620 Drilled Dowel Bars	10,061.000 EACH	_____.	_____.
0112	416.1715 Concrete Pavement Repair SHES	414.000 SY	_____.	_____.



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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
0114	416.1725 Concrete Pavement Replacement SHES	4,540.000 SY	_____.	_____.
0116	420.1000 Continuous Diamond Grinding Concrete Pavement	29,802.000 SY	_____.	_____.
0118	450.4000 HMA Cold Weather Paving	183.000 TON	_____.	_____.
0120	455.0605 Tack Coat	14,555.000 GAL	_____.	_____.
0122	460.0115.S HMA Pavement Test Strip Volumetrics	1.000 EACH	_____.	_____.
0124	460.0120.S HMA Pavement Test Strip Density	1.000 EACH	_____.	_____.
0126	460.2000 Incentive Density HMA Pavement	10,221.000 DOL	1.00000	10,221.00
0128	460.2007 Incentive Density HMA Pavement Longitudinal Joints	8,863.000 DOL	1.00000	8,863.00
0130	460.7423 HMA Pavement 3 HT 58-28 H	15,787.000 TON	_____.	_____.
0132	460.8625 HMA Pavement 5 SMA 58-28 V	10,696.000 TON	_____.	_____.
0134	460.9000.S Material Transfer Vehicle	1.000 EACH	_____.	_____.
0136	465.0105 Asphaltic Surface	440.000 TON	_____.	_____.
0138	465.0125 Asphaltic Surface Temporary	2,199.000 TON	_____.	_____.
0140	495.1000.S Cold Patch	5.000 TON	_____.	_____.
0142	501.1000.S Ice Hot Weather Concreting	9,440.000 LB	_____.	_____.



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CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0144	502.0100 Concrete Masonry Bridges	573.000 CY	_____.	_____.
0146	502.3101 Expansion Device	433.000 LF	_____.	_____.
0148	502.3200 Protective Surface Treatment	2,413.000 SY	_____.	_____.
0150	502.3205 Pigmented Surface Sealer Reseal	1,272.000 SY	_____.	_____.
0152	502.3210 Pigmented Surface Sealer	340.000 SY	_____.	_____.
0154	502.4205 Adhesive Anchors No. 5 Bar	761.000 EACH	_____.	_____.
0156	503.0155 Prestressed Girder Type I 54W-Inch	1,442.000 LF	_____.	_____.
0158	505.0400 Bar Steel Reinforcement HS Structures	19,590.000 LB	_____.	_____.
0160	505.0600 Bar Steel Reinforcement HS Coated Structures	208,210.000 LB	_____.	_____.
0162	505.0800.S Bar Steel Reinforcement HS Stainless Structures	4,480.000 LB	_____.	_____.
0164	505.0904 Bar Couplers No. 4	8.000 EACH	_____.	_____.
0166	505.0905 Bar Couplers No. 5	54.000 EACH	_____.	_____.
0168	505.0906 Bar Couplers No. 6	38.000 EACH	_____.	_____.
0170	506.0105 Structural Steel Carbon	80.000 LB	_____.	_____.
0172	506.0605 Structural Steel HS	890.000 LB	_____.	_____.



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CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0174	506.2605 Bearing Pads Elastomeric Non-Laminated	28.000 EACH	_____.	_____.
0176	506.2610 Bearing Pads Elastomeric Laminated	19.000 EACH	_____.	_____.
0178	506.4000 Steel Diaphragms (structure) 001. B-40-1022	12.000 EACH	_____.	_____.
0180	506.4000 Steel Diaphragms (structure) 002. B-40-1023	12.000 EACH	_____.	_____.
0182	506.7050.S Removing Bearings (structure) 011. B-40-350	9.000 EACH	_____.	_____.
0184	506.7050.S Removing Bearings (structure) 012. B-40-351	10.000 EACH	_____.	_____.
0186	509.0301 Preparation Decks Type 1	11.000 SY	_____.	_____.
0188	509.0302 Preparation Decks Type 2	9.000 SY	_____.	_____.
0190	509.0310.S Sawing Pavement Deck Preparation Areas	122.000 LF	_____.	_____.
0192	509.0500 Cleaning Decks	7,697.000 SY	_____.	_____.
0194	509.1000 Joint Repair	277.000 SY	_____.	_____.
0196	509.1500 Concrete Surface Repair	371.000 SF	_____.	_____.
0198	509.2000 Full-Depth Deck Repair	2.000 SY	_____.	_____.
0200	509.2100.S Concrete Masonry Deck Repair	30.000 CY	_____.	_____.



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CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0202	509.9020.S Epoxy Crack Sealing	114.000 LF	_____.	_____.
0204	511.1100 Temporary Shoring	499.000 SF	_____.	_____.
0206	511.1200 Temporary Shoring (structure) 001. B-40-1022	2,070.000 SF	_____.	_____.
0208	511.1200 Temporary Shoring (structure) 013. B-40-365	60.000 SF	_____.	_____.
0210	511.1200 Temporary Shoring (structure) 014. Temporary Shoring B-40-366	60.000 SF	_____.	_____.
0212	513.2001 Railing Pipe	554.000 LF	_____.	_____.
0214	516.0500 Rubberized Membrane Waterproofing	121.000 SY	_____.	_____.
0216	517.0601 Painting Epoxy System (structure) 015.Painting Epoxy System B-40-369	1.000 EACH	_____.	_____.
0218	517.0901.S Preparation and Coating of Top Flanges (structure) 009. B-40-346	1.000 EACH	_____.	_____.
0220	517.0901.S Preparation and Coating of Top Flanges (structure) 010. B-40-347	1.000 EACH	_____.	_____.
0222	517.0901.S Preparation and Coating of Top Flanges (structure) 013. B-40-365	1.000 EACH	_____.	_____.
0224	517.0901.S Preparation and Coating of Top Flanges (structure) 014. B-40-366	1.000 EACH	_____.	_____.
0226	517.1801.S Structure Repainting Recycled Abrasive (structure) 007. B-40-248	1.000 EACH	_____.	_____.



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CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0228	517.1801.S Structure Repainting Recycled Abrasive (structure) 008. B-40-249	1.000 EACH	_____.	_____.
0230	517.1801.S Structure Repainting Recycled Abrasive (structure) 009. B-40-346	1.000 EACH	_____.	_____.
0232	517.1801.S Structure Repainting Recycled Abrasive (structure) 010. B-40-347	1.000 EACH	_____.	_____.
0234	517.1801.S Structure Repainting Recycled Abrasive (structure) 013. B-40-365	1.000 EACH	_____.	_____.
0236	517.1801.S Structure Repainting Recycled Abrasive (structure) 014. B-40-366	1.000 EACH	_____.	_____.
0238	517.1801.S Structure Repainting Recycled Abrasive (structure) 015. B-40-369	1.000 EACH	_____.	_____.
0240	517.3001.S Structure Overcoating Cleaning and Priming (structure) 013. B-40-365	1.000 EACH	_____.	_____.
0242	517.3001.S Structure Overcoating Cleaning and Priming (structure) 014. B-40-366	1.000 EACH	_____.	_____.
0244	517.3001.S Structure Overcoating Cleaning and Priming (structure) 015. B-40-369	1.000 EACH	_____.	_____.
0246	517.4001.S Containment and Collection of Waste Materials (structure) 013. B-40-365	1.000 EACH	_____.	_____.
0248	517.4001.S Containment and Collection of Waste Materials (structure) 014. B-40-366	1.000 EACH	_____.	_____.
0250	517.4001.S Containment and Collection of Waste Materials (structure) 015. B-40-369	1.000 EACH	_____.	_____.



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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
0252	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 007. B-40-248	1.000 EACH	_____.	_____.
0254	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 008. B-40-249	1.000 EACH	_____.	_____.
0256	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 009. B-40-346	1.000 EACH	_____.	_____.
0258	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 010. B-40-347	1.000 EACH	_____.	_____.
0260	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 013. B-40-365	1.000 EACH	_____.	_____.
0262	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 014. B-40-366	1.000 EACH	_____.	_____.
0264	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 015. B-40-369	1.000 EACH	_____.	_____.
0266	517.6001.S Portable Decontamination Facility	7.000 EACH	_____.	_____.
0268	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	4.000 EACH	_____.	_____.
0270	531.1100 Concrete Masonry Ancillary Structures Type NS	34.000 CY	_____.	_____.
0272	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	3,988.000 LB	_____.	_____.





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CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0274	531.1160 Steel Reinforcement HS Coated Ancillary Structures Type NS	890.000 LB	_____.	_____.
0276	531.2024 Drilling Shaft 24-Inch	141.000 LF	_____.	_____.
0278	531.2030 Drilling Shaft 30-Inch	30.000 LF	_____.	_____.
0280	531.2036 Drilling Shaft 36-Inch	20.000 LF	_____.	_____.
0282	531.4050 Foundation Camera Pole 50-FT	2.000 EACH	_____.	_____.
0284	532.5020 Butterfly 2-Chord NS (structure) 001. S-40-3063	1.000 EACH	_____.	_____.
0286	550.0500 Pile Points	48.000 EACH	_____.	_____.
0288	550.1140 Piling Steel HP 14-Inch X 73 Lb	3,360.000 LF	_____.	_____.
0290	601.0331 Concrete Curb & Gutter 31-Inch	297.000 LF	_____.	_____.
0292	601.0409 Concrete Curb & Gutter 30-Inch Type A	310.000 LF	_____.	_____.
0294	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	431.000 LF	_____.	_____.
0296	601.0590 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	2,089.000 LF	_____.	_____.
0298	601.0600 Concrete Curb Pedestrian	36.000 LF	_____.	_____.
0300	602.0410 Concrete Sidewalk 5-Inch	2,742.000 SF	_____.	_____.
0302	602.0505 Curb Ramp Detectable Warning Field Yellow	183.000 SF	_____.	_____.



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CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0304	602.0815 Concrete Driveway 7-Inch	58.000 SY	_____.	_____.
0306	603.0105 Concrete Barrier Single-Faced 32-Inch	1,115.000 LF	_____.	_____.
0308	603.1142 Concrete Barrier Type S42	5,132.000 LF	_____.	_____.
0310	603.1456 Concrete Barrier Type S56C	281.000 LF	_____.	_____.
0312	603.3113 Concrete Barrier Transition Type NJ32SF to S36	1.000 EACH	_____.	_____.
0314	603.3211 Concrete Barrier Transition Type F32SF to S32	4.000 EACH	_____.	_____.
0316	603.3535 Concrete Barrier Transition Type S36 to S42	5.000 EACH	_____.	_____.
0318	603.8000 Concrete Barrier Temporary Precast Delivered	29,580.000 LF	_____.	_____.
0320	603.8125 Concrete Barrier Temporary Precast Installed	29,580.000 LF	_____.	_____.
0322	603.8500 Anchoring Concrete Barrier Temporary Precast	12,215.000 LF	_____.	_____.
0324	604.0400 Slope Paving Concrete	426.000 SY	_____.	_____.
0326	604.0500 Slope Paving Crushed Aggregate	304.000 SY	_____.	_____.
0328	604.9010.S Slope Paving Repair Crushed Aggregate	24.000 CY	_____.	_____.
0330	604.9015.S Reseal Crushed Aggregate Slope Paving	1,731.000 SY	_____.	_____.



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CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0332	606.0200 Riprap Medium	39.000 CY	_____.	_____.
0334	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	16.000 LF	_____.	_____.
0336	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	747.000 LF	_____.	_____.
0338	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	10.000 LF	_____.	_____.
0340	611.0535 Manhole Covers Type J-Special	9.000 EACH	_____.	_____.
0342	611.0610 Inlet Covers Type BW	56.000 EACH	_____.	_____.
0344	611.0624 Inlet Covers Type H	2.000 EACH	_____.	_____.
0346	611.0642 Inlet Covers Type MS	1.000 EACH	_____.	_____.
0348	611.0654 Inlet Covers Type V	14.000 EACH	_____.	_____.
0350	611.2004 Manholes 4-FT Diameter	9.000 EACH	_____.	_____.
0352	611.3004 Inlets 4-FT Diameter	56.000 EACH	_____.	_____.
0354	611.3225 Inlets 2x2.5-FT	14.000 EACH	_____.	_____.
0356	611.3230 Inlets 2x3-FT	2.000 EACH	_____.	_____.
0358	611.3901 Inlets Median 1 Grate	1.000 EACH	_____.	_____.
0360	611.8115 Adjusting Inlet Covers	4.000 EACH	_____.	_____.



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CONTRACT ITEMS

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0362	611.8120.S Cover Plates Temporary	7.000 EACH	_____.	_____.
0364	612.0106 Pipe Underdrain 6-Inch	2,823.000 LF	_____.	_____.
0366	612.0206 Pipe Underdrain Unperforated 6-Inch	185.000 LF	_____.	_____.
0368	612.0406 Pipe Underdrain Wrapped 6-Inch	1,044.000 LF	_____.	_____.
0370	614.0397 Guardrail Mow Strip Emulsified Asphalt	294.000 SY	_____.	_____.
0372	614.0905 Crash Cushions Temporary	23.000 EACH	_____.	_____.
0374	614.2300 MGS Guardrail 3	2,381.000 LF	_____.	_____.
0376	614.2320 MGS Guardrail 3 QS	94.000 LF	_____.	_____.
0378	614.2330 MGS Guardrail 3 K	1,289.000 LF	_____.	_____.
0380	614.2500 MGS Thrie Beam Transition	512.400 LF	_____.	_____.
0382	614.2610 MGS Guardrail Terminal EAT	12.000 EACH	_____.	_____.
0384	614.2620 MGS Guardrail Terminal Type 2	3.000 EACH	_____.	_____.
0386	616.0206 Fence Chain Link 6-FT	1,589.000 LF	_____.	_____.
0388	616.0329 Gates Chain Link (width) 001. 12-FT	1.000 EACH	_____.	_____.
0390	616.0800.S Fence Track Clearance	540.000 LF	_____.	_____.
0392	618.0100 Maintenance and Repair of Haul Roads (project) 001. 1100-20-77	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
0394	618.0100 Maintenance and Repair of Haul Roads (project) 002. 1100-21-70	1.000 EACH	_____.	_____.
0396	618.0100 Maintenance and Repair of Haul Roads (project) 003. 1100-21-71	1.000 EACH	_____.	_____.
0398	619.1000 Mobilization	1.000 EACH	_____.	_____.
0400	623.0200 Dust Control Surface Treatment	8,774.000 SY	_____.	_____.
0402	624.0100 Water	61.000 MGAL	_____.	_____.
0404	625.0100 Topsoil	9,317.000 SY	_____.	_____.
0406	625.0500 Salvaged Topsoil	5,053.000 SY	_____.	_____.
0408	627.0200 Mulching	3,286.000 SY	_____.	_____.
0410	628.1504 Silt Fence	8,061.000 LF	_____.	_____.
0412	628.1520 Silt Fence Maintenance	8,061.000 LF	_____.	_____.
0414	628.1905 Mobilizations Erosion Control	46.000 EACH	_____.	_____.
0416	628.1910 Mobilizations Emergency Erosion Control	27.000 EACH	_____.	_____.
0418	628.2002 Erosion Mat Class I Type A	11,097.000 SY	_____.	_____.
0420	628.2004 Erosion Mat Class I Type B	210.000 SY	_____.	_____.
0422	628.2023 Erosion Mat Class II Type B	12.000 SY	_____.	_____.



## Proposal Schedule of Items

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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0424	628.7005 Inlet Protection Type A	15.000 EACH	_____.	_____.
0426	628.7015 Inlet Protection Type C	16.000 EACH	_____.	_____.
0428	628.7020 Inlet Protection Type D	210.000 EACH	_____.	_____.
0430	628.7504 Temporary Ditch Checks	360.000 LF	_____.	_____.
0432	628.7560 Tracking Pads	9.000 EACH	_____.	_____.
0434	629.0210 Fertilizer Type B	5.300 CWT	_____.	_____.
0436	630.0140 Seeding Mixture No. 40	10.000 LB	_____.	_____.
0438	630.0170 Seeding Mixture No. 70	52.000 LB	_____.	_____.
0440	630.0200 Seeding Temporary	6.000 LB	_____.	_____.
0442	630.0500 Seed Water	273.500 MGAL	_____.	_____.
0444	631.1000 Sod Lawn	114.000 SY	_____.	_____.
0446	633.1000 Delineators Barrier Wall	6.000 EACH	_____.	_____.
0448	634.0618 Posts Wood 4x6-Inch X 18-FT	48.000 EACH	_____.	_____.
0450	634.0622 Posts Wood 4x6-Inch X 22-FT	55.000 EACH	_____.	_____.
0452	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	3.000 EACH	_____.	_____.
0454	635.0200 Sign Supports Structural Steel HS	13,000.000 LB	_____.	_____.



## Proposal Schedule of Items

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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0456	635.0300 Sign Supports Replacing Base Connection Bolts	4.000 EACH	_____.	_____.
0458	637.1220 Signs Type I Reflective SH	4,152.000 SF	_____.	_____.
0460	637.2210 Signs Type II Reflective H	1,236.630 SF	_____.	_____.
0462	637.2215 Signs Type II Reflective H Folding	92.220 SF	_____.	_____.
0464	637.2230 Signs Type II Reflective F	486.500 SF	_____.	_____.
0466	638.2101 Moving Signs Type I	2.000 EACH	_____.	_____.
0468	638.2102 Moving Signs Type II	15.000 EACH	_____.	_____.
0470	638.2601 Removing Signs Type I	29.000 EACH	_____.	_____.
0472	638.2602 Removing Signs Type II	129.000 EACH	_____.	_____.
0474	638.3000 Removing Small Sign Supports	97.000 EACH	_____.	_____.
0476	638.3100 Removing Structural Steel Sign Supports	22.000 EACH	_____.	_____.
0478	643.0300 Traffic Control Drums	200,663.000 DAY	_____.	_____.
0480	643.0420 Traffic Control Barricades Type III	5,793.000 DAY	_____.	_____.
0482	643.0705 Traffic Control Warning Lights Type A	11,586.000 DAY	_____.	_____.
0484	643.0715 Traffic Control Warning Lights Type C	41,228.000 DAY	_____.	_____.
0486	643.0800 Traffic Control Arrow Boards	1,583.000 DAY	_____.	_____.



## Proposal Schedule of Items

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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0488	643.0900 Traffic Control Signs	52,484.000 DAY	_____.	_____.
0490	643.0910 Traffic Control Covering Signs Type I	30.000 EACH	_____.	_____.
0492	643.0920 Traffic Control Covering Signs Type II	12.000 EACH	_____.	_____.
0494	643.1000 Traffic Control Signs Fixed Message	1,429.000 SF	_____.	_____.
0496	643.1050 Traffic Control Signs PCMS	170.000 DAY	_____.	_____.
0498	643.1100.S Dynamic Lane Merge System	498.000 DAY	_____.	_____.
0500	643.1200.S Portable Automated Real-Time Traffic Queue Warning System	153.000 DAY	_____.	_____.
0502	643.3105 Temporary Marking Line Paint 4-Inch	6,994.000 LF	_____.	_____.
0504	643.3150 Temporary Marking Line Removable Tape 4-Inch	250.000 LF	_____.	_____.
0506	643.3165 Temporary Marking Line Paint 6-Inch	287,106.000 LF	_____.	_____.
0508	643.3205 Temporary Marking Line Paint 8-Inch	830.000 LF	_____.	_____.
0510	643.3265 Temporary Marking Line Paint 10-Inch	6,499.000 LF	_____.	_____.
0512	643.3760 Temporary Marking Raised Pavement Marker Type I	237.000 EACH	_____.	_____.
0514	643.3850 Temporary Marking Stop Line Removable Tape 18-Inch	182.000 LF	_____.	_____.
0516	643.4100 Traffic Control Interim Lane Closure	30.000 EACH	_____.	_____.





## Proposal Schedule of Items

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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0518	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0520	644.1810 Temporary Pedestrian Barricade	664.000 LF	_____.	_____.
0522	644.1900.S Temporary Audible Message Devices	248.000 DAY	_____.	_____.
0524	645.0111 Geotextile Type DF Schedule A	1,181.000 SY	_____.	_____.
0526	645.0120 Geotextile Type HR	6.000 SY	_____.	_____.
0528	646.1020 Marking Line Epoxy 4-Inch	8,016.000 LF	_____.	_____.
0530	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	2,184.000 LF	_____.	_____.
0532	646.2025 Marking Line Grooved Black Epoxy 6-Inch	12,643.000 LF	_____.	_____.
0534	646.2040 Marking Line Grooved Wet Ref Epoxy 6-Inch	75,001.000 LF	_____.	_____.
0536	646.2050 Marking Line Grooved Permanent Tape 6-Inch	12,643.000 LF	_____.	_____.
0538	646.3020 Marking Line Epoxy 8-Inch	980.000 LF	_____.	_____.
0540	646.3040 Marking Line Grooved Wet Ref Epoxy 8-Inch	480.000 LF	_____.	_____.
0542	646.4025 Marking Line Grooved Black Epoxy 10-Inch	2,202.000 LF	_____.	_____.
0544	646.4040 Marking Line Grooved Wet Ref Epoxy 10-Inch	15,926.000 LF	_____.	_____.



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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0546	646.4050 Marking Line Grooved Permanent Tape 10-Inch	18,845.000 LF	_____.	_____.
0548	646.5020 Marking Arrow Epoxy	37.000 EACH	_____.	_____.
0550	646.5120 Marking Word Epoxy	13.000 EACH	_____.	_____.
0552	646.5220 Marking Symbol Epoxy	25.000 EACH	_____.	_____.
0554	646.6120 Marking Stop Line Epoxy 18-Inch	700.000 LF	_____.	_____.
0556	646.6220 Marking Yield Line Epoxy 18-Inch	52.000 EACH	_____.	_____.
0558	646.6464 Cold Weather Marking Epoxy 4-Inch	6,421.000 LF	_____.	_____.
0560	646.6466 Cold Weather Marking Epoxy 6-Inch	87,590.000 LF	_____.	_____.
0562	646.6470 Cold Weather Marking Epoxy 10-Inch	15,926.000 LF	_____.	_____.
0564	646.7120 Marking Diagonal Epoxy 12-Inch	4,926.000 LF	_____.	_____.
0566	646.7220 Marking Chevron Epoxy 24-Inch	1,253.000 LF	_____.	_____.
0568	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	823.000 LF	_____.	_____.
0570	646.8220 Marking Island Nose Epoxy	6.000 EACH	_____.	_____.
0572	646.9000 Marking Removal Line 4-Inch	150.000 LF	_____.	_____.
0574	646.9055 Marking Removal Line Grooved Contrast Permanent Tape 4-Inch	45.000 LF	_____.	_____.



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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0576	646.9155 Marking Removal Line Grooved Contrast Permanent Tape 8-Inch	1,239.000 LF	_____.	_____.
0578	652.0125 Conduit Rigid Metallic 2-Inch	18.000 LF	_____.	_____.
0580	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	1,530.000 LF	_____.	_____.
0582	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	588.000 LF	_____.	_____.
0584	652.0615 Conduit Special 3-Inch	788.000 LF	_____.	_____.
0586	652.0700.S Install Conduit into Existing Item	10.000 EACH	_____.	_____.
0588	652.0800 Conduit Loop Detector	1,618.000 LF	_____.	_____.
0590	653.0135 Pull Boxes Steel 24x36-Inch	8.000 EACH	_____.	_____.
0592	653.0140 Pull Boxes Steel 24x42-Inch	15.000 EACH	_____.	_____.
0594	653.0905 Removing Pull Boxes	16.000 EACH	_____.	_____.
0596	654.0101 Concrete Bases Type 1	6.000 EACH	_____.	_____.
0598	654.0110 Concrete Bases Type 10	2.000 EACH	_____.	_____.
0600	654.0120 Concrete Bases Type 10-Special	1.000 EACH	_____.	_____.
0602	654.0217 Concrete Control Cabinet Bases Type 9 Special	1.000 EACH	_____.	_____.
0604	655.0144 Cable In Duct 4-4 AWG	3,936.000 LF	_____.	_____.



## Proposal Schedule of Items

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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0606	655.0146 Cable In Duct 4-6 AWG	4,243.000 LF	_____.	_____.
0608	655.0148 Cable In Duct 4-8 AWG	1,254.000 LF	_____.	_____.
0610	655.0230 Cable Traffic Signal 5-14 AWG	511.000 LF	_____.	_____.
0612	655.0240 Cable Traffic Signal 7-14 AWG	153.000 LF	_____.	_____.
0614	655.0260 Cable Traffic Signal 12-14 AWG	1,705.000 LF	_____.	_____.
0616	655.0510 Electrical Wire Traffic Signals 12 AWG	427.000 LF	_____.	_____.
0618	655.0515 Electrical Wire Traffic Signals 10 AWG	1,664.000 LF	_____.	_____.
0620	655.0610 Electrical Wire Lighting 12 AWG	2,784.000 LF	_____.	_____.
0622	655.0625 Electrical Wire Lighting 6 AWG	124.000 LF	_____.	_____.
0624	655.0700 Loop Detector Lead In Cable	5,559.000 LF	_____.	_____.
0626	655.0800 Loop Detector Wire	6,478.000 LF	_____.	_____.
0628	656.0201 Electrical Service Meter Breaker Pedestal (location) 301.IH 41 SB Off Ramp/N 115th St & CTH PP	1.000 EACH	_____.	_____.
0630	657.0100 Pedestal Bases	6.000 EACH	_____.	_____.
0632	657.0375 Poles Type A	8.000 EACH	_____.	_____.
0634	657.0420 Traffic Signal Standards Aluminum 13-FT	3.000 EACH	_____.	_____.



## Proposal Schedule of Items

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Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0636	657.0425 Traffic Signal Standards Aluminum 15-FT	3.000 EACH	_____.	_____.
0638	657.0620 Luminaire Arms Single Member 6-Inch Clamp 4-FT	16.000 EACH	_____.	_____.
0640	657.0640 Luminaire Arms Single Member 6-Inch Clamp 15-FT	22.000 EACH	_____.	_____.
0642	658.0173 Traffic Signal Face 3S 12-Inch	12.000 EACH	_____.	_____.
0644	658.0174 Traffic Signal Face 4S 12-Inch	3.000 EACH	_____.	_____.
0646	658.0416 Pedestrian Signal Face 16-Inch	4.000 EACH	_____.	_____.
0648	658.0500 Pedestrian Push Buttons	5.000 EACH	_____.	_____.
0650	658.5070 Signal Mounting Hardware (location) 301. IH 41 SB OFF RAMP/N115TH ST & CTH PP	1.000 EACH	_____.	_____.
0652	659.1130 Luminaires Utility LED D	38.000 EACH	_____.	_____.
0654	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor	30.000 EACH	_____.	_____.
0656	661.0201 Temporary Traffic Signals for Intersections (location) 301. IH 41 SB OFF RAMP/N115TH ST & CTH PP	1.000 EACH	_____.	_____.
0658	661.0300 Generators	2.000 DAY	_____.	_____.
0660	670.0101 Field System Integrator	1.000 EACH	_____.	_____.
0662	670.0201 ITS Documentation	1.000 EACH	_____.	_____.



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Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0664	674.0300 Remove Cable	385.000 LF	_____.	_____.
0666	677.0150 Install Camera Pole 50-FT	2.000 EACH	_____.	_____.
0668	677.0200 Install Camera Assembly	3.000 EACH	_____.	_____.
0670	677.9051.S Removing 50-FT Camera Pole	2.000 EACH	_____.	_____.
0672	677.9200.S Removing CCTV Camera	2.000 EACH	_____.	_____.
0674	678.0200 Fiber Optic Splice Enclosure	1.000 EACH	_____.	_____.
0676	678.0300 Fiber Optic Splice	4.000 EACH	_____.	_____.
0678	678.0501 Communication System Testing	1.000 EACH	_____.	_____.
0680	678.0600 Install Ethernet Switches	1.000 EACH	_____.	_____.
0682	690.0150 Sawing Asphalt	102.000 LF	_____.	_____.
0684	690.0250 Sawing Concrete	61,680.000 LF	_____.	_____.
0686	715.0502 Incentive Strength Concrete Structures	9,566.000 DOL	1.00000	9,566.00
0688	715.0603 Incentive Strength Concrete Barrier	3,264.000 DOL	1.00000	3,264.00
0690	715.0720 Incentive Compressive Strength Concrete Pavement	3,269.000 DOL	1.00000	3,269.00
0692	740.0440 Incentive IRI Ride	23,723.000 DOL	1.00000	23,723.00
0694	801.0117 Railroad Flagging Reimbursement	17,250.000 DOL	1.00000	17,250.00



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Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0696	999.2000.S Installing and Maintaining Bird Deterrent System (station) 001. STA 398+50 SB	1.000 EACH	_____.	_____.
0698	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	2,800.000 HRS	5.00000	14,000.00
0700	ASP.1T0G On-the-Job Training Graduate at \$5.00/HR	17,280.000 HRS	5.00000	86,400.00
0702	SPV.0035 Special 001. Backfill Slurry	100.000 CY	_____.	_____.
0704	SPV.0035 Special 200. HPC Masonry Structures	932.000 CY	_____.	_____.
0706	SPV.0055 Special 001. Incentive Density HMA Pavement	14,169.000 DOL	1.00000	14,169.00
0708	SPV.0055 Special 002. Incentive Air Voids HMA Pavement	14,851.000 DOL	1.00000	14,851.00
0710	SPV.0060 Special 001. Concrete Barrier Type S42 End Anchor	4.000 EACH	_____.	_____.
0712	SPV.0060 Special 002. Concrete Barrier Transition Type M1	4.000 EACH	_____.	_____.
0714	SPV.0060 Special 003. Concrete Barrier Transition Type M2	2.000 EACH	_____.	_____.
0716	SPV.0060 Special 004. Concrete Barrier Transition Type M3	2.000 EACH	_____.	_____.
0718	SPV.0060 Special 005. Mobilizations Emergency Pavement Repair	8.000 EACH	_____.	_____.
0720	SPV.0060 Special 006. Storm Sewer Pipe Reinforced Concrete Special Tee Fitting	1.000 EACH	_____.	_____.



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Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0722	SPV.0060 Special 007. Beehive Grate on 12-Inch Pipe Bell	1.000 EACH	_____.	_____.
0724	SPV.0060 Special 009. Utility Line Opening	21.000 EACH	_____.	_____.
0726	SPV.0060 Special 010. Field Facilities Office Space	1.000 EACH	_____.	_____.
0728	SPV.0060 Special 011. Traffic Control Close-Open Freeway Ramp	7.000 EACH	_____.	_____.
0730	SPV.0060 Special 012. Traffic Control Local Road Lane Closures	3.000 EACH	_____.	_____.
0732	SPV.0060 Special 013. Traffic Control Full Freeway Closure	3.000 EACH	_____.	_____.
0734	SPV.0060 Special 016. Reconnect Storm Sewer	67.000 EACH	_____.	_____.
0736	SPV.0060 Special 018. Emergency Inlet Repair	5.000 EACH	_____.	_____.
0738	SPV.0060 Special 019. Emergency Response to Traffic Involving Concrete Barrier Temporary	5.000 EACH	_____.	_____.
0740	SPV.0060 Special 020. Emergency Response to Traffic Involving Crash Cushion	5.000 EACH	_____.	_____.
0742	SPV.0060 Special 021. Survey Project 1100-21-70	1.000 EACH	_____.	_____.
0744	SPV.0060 Special 022. Survey Project 1100-21-71	1.000 EACH	_____.	_____.
0746	SPV.0060 Special 025. Marking Median Inlet Epoxy 6-inch	95.000 EACH	_____.	_____.
0748	SPV.0060 Special 027. Concrete Barrier Type S56 End Anchor	4.000 EACH	_____.	_____.





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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
0750	SPV.0060 Special 050. Ground Rod	2.000 EACH	_____.	_____.
0752	SPV.0060 Special 051. Loop Detector Splice	6.000 EACH	_____.	_____.
0754	SPV.0060 Special 100. Removing Light Poles	8.000 EACH	_____.	_____.
0756	SPV.0060 Special 101. Removing Luminaire Arms	16.000 EACH	_____.	_____.
0758	SPV.0060 Special 102. Temporary Wood Pole 60-FT	38.000 EACH	_____.	_____.
0760	SPV.0060 Special 103. Concrete Bases Type B	14.000 EACH	_____.	_____.
0762	SPV.0060 Special 104. Lighting System Integrator 1100-21-70	1.000 EACH	_____.	_____.
0764	SPV.0060 Special 105. Lighting System Integrator 1100-21-71	1.000 EACH	_____.	_____.
0766	SPV.0060 Special 106. Lighting System Survey 1100-21-70	1.000 EACH	_____.	_____.
0768	SPV.0060 Special 107. Lighting System Survey 1100-21-71	1.000 EACH	_____.	_____.
0770	SPV.0060 Special 108. Maintenance of Lighting Systems 1100-21-70	1.000 EACH	_____.	_____.
0772	SPV.0060 Special 109. Maintenance of Lighting System 1100-21-71	1.000 EACH	_____.	_____.
0774	SPV.0060 Special 200. Embedded Galvanic Anodes	341.000 EACH	_____.	_____.
0776	SPV.0060 Special 201. Cleaning and Sealing Concrete Girder Ends	19.000 EACH	_____.	_____.



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Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0778	SPV.0060 Special 202. Vegetation Removal B-40-365	1.000 EACH	_____.	_____.
0780	SPV.0060 Special 203. Vegetation Removal B-40-366	1.000 EACH	_____.	_____.
0782	SPV.0060 Special 250. Heat Straightening of Damaged Girders	1.000 EACH	_____.	_____.
0784	SPV.0060 Special 260. Re-epoxy Bearing Anchor Bolt	50.000 EACH	_____.	_____.
0786	SPV.0060 Special 261. Bearing Anchor Bolt Nut Adjustment	3.000 EACH	_____.	_____.
0788	SPV.0060 Special 301. Install Poles Type 9	2.000 EACH	_____.	_____.
0790	SPV.0060 Special 302. Install Poles Type 9-Special	1.000 EACH	_____.	_____.
0792	SPV.0060 Special 303. Install Monotube Arms 20-FT	1.000 EACH	_____.	_____.
0794	SPV.0060 Special 304. Install Monotube Arms 30-FT	1.000 EACH	_____.	_____.
0796	SPV.0060 Special 305. Install Monotube Arms 35-FT-Special	1.000 EACH	_____.	_____.
0798	SPV.0060 Special 306. Trsnpt & Inst State Furn Traff Signal Cab IH 41SB Off /N 115th St & CTH PP	1.000 EACH	_____.	_____.
0800	SPV.0060 Special 307. Trsnpt Traffic Signal Materials IH 41SB Off /N 115th St & CTH PP	1.000 EACH	_____.	_____.



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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
0802	SPV.0060 Special 308. Temporary Non-Intrusive Vehicle Detection System for Intersections	1.000 EACH	_____.	_____.
0804	SPV.0060 Special 309. Trsnpt & Inst S-F FO Cable Pigtail IH 41SB Off /N 115th St & CTH PP	1.000 EACH	_____.	_____.
0806	SPV.0060 Special 450. Tension Anchor Rod	40.000 EACH	_____.	_____.
0808	SPV.0060 Special 451. Remove Debris	2.000 EACH	_____.	_____.
0810	SPV.0060 Special 452. Remove Catwalk	4.000 EACH	_____.	_____.
0812	SPV.0060 Special 453. Tension Structural Bolt	8.000 EACH	_____.	_____.
0814	SPV.0060 Special 454. Vertical Sign Support	2.000 EACH	_____.	_____.
0816	SPV.0060 Special 455. Replace Junction Box Cover	1.000 EACH	_____.	_____.
0818	SPV.0060 Special 456. Conduit Plug	1.000 EACH	_____.	_____.
0820	SPV.0075 Special 001. Pavement Cleanup Project 1100-21-71	100.000 HRS	_____.	_____.
0822	SPV.0085 Special 001. Seeding Mixture No. 90A	64.000 LB	_____.	_____.
0824	SPV.0090 Special 001. Glare Screen Temporary	12,154.000 LF	_____.	_____.
0826	SPV.0090 Special 024. Temporary Precast Trench Drain	1,157.000 LF	_____.	_____.
0828	SPV.0090 Special 110. Temporary Overhead Cable Quadruplex 2 AWG	12,503.000 LF	_____.	_____.



## Proposal Schedule of Items

Page 30 of 30

Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0830	SPV.0165 Special 200. Longitudinal Grooving Bridge Deck	18,054.000 SF	_____.	_____.
0832	SPV.0165 Special 201. Wall Concrete Panel Mechanically Stabilized Earth R-40-714	6,470.000 SF	_____.	_____.
0834	SPV.0165 Special 202. Wall Concrete Panel Mechanically Stabilized Earth R-40-715	6,550.000 SF	_____.	_____.
0836	SPV.0165 Special 203. Temporary Wire Faced Mechanically Stabilized Earth	1,815.000 SF	_____.	_____.
0838	SPV.0165 Special 204. Removing Loose Concrete	75.000 SF	_____.	_____.
0840	SPV.0165 Special 450. Repair Galvanized Coating	3.000 SF	_____.	_____.
0842	SPV.0180 Special 001. Resin Binder High Friction Surface Treatment	3,806.000 SY	_____.	_____.
0844	SPV.0180 Special 002. Removing Concrete Rumble Strips	642.000 SY	_____.	_____.
0846	SPV.0180 Special 200. Polyester Polymer Concrete Overlay	7,697.000 SY	_____.	_____.
0848	SPV.0180 Special 201. Abutment Seat Cleaning and Sealing	115.000 SY	_____.	_____.
0850	SPV.0195 Special 001. Asphaltic Repair	40.000 TON	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.

**PLEASE ATTACH ADDENDA HERE**





## Wisconsin Department of Transportation

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June 30, 2025

**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:**

#### **Federal Wage Rate Addendum #01**

#### **Letting of July 8, 2025**

Attached is a copy of the revised WI 10 Highway Davis Bacon Prevailing Wage Rates that are included in proposals 01 – 06, and 08. These wage rates are effective for all proposals they are included in in the July 8, 2025 letting. The updated wage rates are dated June 27, 2025, and are effective on or after July 7, 2025.

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

"General Decision Number: WI20250010 06/27/2025

Superseded General Decision Number: WI20240010

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: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(1).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"> <li>. Executive Order 14026 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$17.75 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 2025.</li> </ul>
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"> <li>. Executive Order 13658 generally applies to the contract.</li> <li>. The contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2025.</li> </ul>

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <http://www.dol.gov/whd/govcontracts>.

Modification Number      Publication Date  
0                              01/03/2025



1	02/07/2025
2	02/21/2025
3	05/23/2025
4	06/06/2025
5	06/27/2025

BRWI0001-002 06/03/2024

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPLEAU, AND  
VERNON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.86	27.00

BRWI0002-002 06/01/2024

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 46.60	27.01

BRWI0002-005 06/01/2024

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...	\$ 41.62	27.03

BRWI0003-002 06/01/2024

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.45	27.41

BRWI0004-002 06/01/2024

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 43.21	27.90

BRWI0006-002 06/01/2024

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE,  
ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.33	27.53

BRWI0007-002 06/01/2024

## GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 39.34	28.15

-----  
BRWI0008-002 06/01/2024

## MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 46.16	27.33

-----  
BRWI0011-002 06/01/2024

## CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.45	27.41

-----  
BRWI0019-002 06/01/2024BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN,  
PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.18	27.68

-----  
BRWI0034-002 06/01/2024

## COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 40.17	27.32

-----  
CARP0068-011 05/05/2025BURNETT (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.....	\$ 47.57	31.17
PILEDRIVERMAN.....	\$ 47.71	30.98

-----  
CARP0231-002 06/01/2025KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA  
COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 47.73	31.52

-----  
CARP0310-002 06/03/2024

ADAMS, ASHLAND, BAYFIELD (Eastern 2/3), FOREST, IRON, JUNEAU, LANGLADE, LINCOLN, MARATHON, ONEIDA, PORTAGE, PRICE, SHAWANO (Western Portion of the County), TAYLOR, VILAS, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
Piledriver.....	\$ 42.44	28.44

-----  
CARP0314-001 06/02/2025

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, JEFFERSON, LAFAYETTE, RICHLAND, ROCK, SAUK, AND WALWORTH COUNTIES

	Rates	Fringes
Carpenter.....	\$ 42.45	28.78
Piledrivermen.....	\$ 44.45	28.78

-----  
CARP0361-004 05/05/2025

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 46.82	31.92

-----  
CARP0731-002 06/03/2024

CALUMET (Eastern Portion of the County), FOND DU LAC (Eastern Portion of the County), MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
Piledriver.....	\$ 42.44	28.44

-----  
CARP0955-002 06/03/2024

CALUMET (Western Portion of the County), FOND DU LAC (Western Portion of the County), GREEN LAKE, MARQUETTE, OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIIVER.....	\$ 42.44	28.44

-----  
CARP1056-002 06/01/2024

ADAMS, ASHLAND, BARRON, BAYFIELD , BROWN, BUFFALO, BURNETT ,CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwy. 29 & 65), POLK (E. of Hwy. 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
MILLWRIGHT.....	\$ 42.00	28.85

-----  
CARP1074-002 06/03/2024BARRON, BURNETT, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, PEPIN,  
PIERCE (E. of Hwy. 29 & 65), POLK (E. of Hwy. 35, 48 & 65),  
RUSK, SAWYER, ST. CROIX (E. of Hwy. 65), AND WASHBURN

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIIVER.....	\$ 42.44	28.44

-----  
CARP1143-002 06/03/2024BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPPEALEAU AND  
VERNON COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIIVER.....	\$ 42.44	28.44

-----  
CARP1146-002 06/03/2024BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, MENOMINEE, OCONTO,  
AND SHAWANO (Western Portion of the County) COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 42.44	28.44
PILEDRIIVER.....	\$ 42.44	28.44

-----  
CARP2337-009 06/03/2024

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA

	Rates	Fringes
PILEDRIVERMAN.....	\$ 42.21	34.07

-----  
ELEC0014-002 05/26/2024ASHLAND, 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, TREMPPEALEAU, VERNON, AND WASHBURN  
COUNTIES

	Rates	Fringes
Electricians:.....	\$ 42.73	23.99

-----  
\* ELEC0014-007 05/25/2025

## REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician.....	\$ 31.17	20.08

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).

-----  
ELEC0127-002 06/01/2023

## KENOSHA COUNTY

	Rates	Fringes
Electricians:.....	\$ 46.05	30%+13.15

-----  
ELEC0158-002 06/01/2024

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.....	\$ 40.25	29.75%+11.17

-----  
ELEC0159-003 05/26/2024

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.....	\$ 48.55	25.91

-----  
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

ELEC0242-005 06/02/2024

## DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	\$ 46.23	69.19%
-----		
ELEC0388-002 06/01/2024		

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:.....	\$ 40.19	26%+12.45
-----		
ELEC0430-002 06/01/2024		

## RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	\$ 48.50	26.25
-----		
* ELEC0494-005 06/01/2025		

## MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	\$ 50.86	28.26
-----		
* ELEC0494-006 06/01/2025		

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 45.20	25.27
-----		
ELEC0494-013 05/26/2024		

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.....	\$ 36.03	18.87
Technician.....	\$ 36.03	18.87

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 05/26/2024

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:.....	\$ 40.00	22.69

-----

ELEC0890-003 06/01/2024

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:.....	\$ 43.65	25.95%+12.26

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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 06/01/2025

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 48.37	30.30
Group 2.....	\$ 47.87	30.30
Group 3.....	\$ 46.77	30.30
Group 4.....	\$ 46.51	30.30
Group 5.....	\$ 46.22	30.30
Group 6.....	\$ 40.32	30.30

**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.



\* IRON0008-002 06/01/2025

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC,  
MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO  
COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 44.66	33.67

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor  
Day, Thanksgiving Day & Christmas Day.

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\* IRON0008-003 06/01/2025

KENOSHA, MILWAUKEE, OZAUCKEE, RACINE, WALWORTH (N.E. 2/3),  
WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 47.52	33.67

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor  
Day, Thanksgiving Day & Christmas Day.

-----  
\* IRON0383-001 06/01/2025

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.....	\$ 44.00	32.66

-----  
IRON0498-005 06/01/2024

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and  
WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 46.59	48.80

-----  
IRON0512-008 04/28/2024

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON,  
PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPLEAU  
COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 44.85	35.22

-----  
IRON0512-021 04/28/2024

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA,  
PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 41.19	34.68

-----  
LAB00113-002 06/03/2024

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 35.61	25.01
Group 2.....	\$ 35.76	25.01
Group 3.....	\$ 35.96	25.01
Group 4.....	\$ 36.11	25.01
Group 5.....	\$ 36.26	25.01
Group 6.....	\$ 32.10	25.01

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

-----  
LAB00113-003 06/03/2024

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 34.86	25.01
Group 2.....	\$ 34.96	25.01
Group 3.....	\$ 35.01	25.01
Group 4.....	\$ 35.21	25.01
Group 5.....	\$ 35.06	25.01
Group 6.....	\$ 31.95	25.01

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

-----  
LAB00113-011 06/03/2024

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 34.67	25.01
Group 2.....	\$ 34.82	25.01
Group 3.....	\$ 35.02	25.01
Group 4.....	\$ 34.99	25.01
Group 5.....	\$ 35.32	25.01
Group 6.....	\$ 31.81	25.01

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

-----  
LAB00140-002 06/03/2024

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.....	\$ 40.57	19.45
Group 2.....	\$ 40.67	19.45
Group 3.....	\$ 40.72	19.45
Group 4.....	\$ 40.92	19.45
Group 5.....	\$ 40.77	19.45
Group 6.....	\$ 37.20	19.45

#### 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 06/03/2024

#### DANE COUNTY

	Rates	Fringes
LABORER		
Group 1.....	\$ 40.85	19.45
Group 2.....	\$ 40.95	19.45
Group 3.....	\$ 41.00	19.45
Group 4.....	\$ 41.20	19.45
Group 5.....	\$ 41.05	19.45
Group 6.....	\$ 37.20	19.45

#### 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 05/05/2025

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
--	-------	---------

Painters:

New:

Brush, Roller.....	\$ 38.17	27.26
Spray, Sandblast, Steel....	\$ 38.77	27.26

Repaint:

Brush, Roller.....	\$ 36.67	27.26
Spray, Sandblast, Steel....	\$ 37.27	27.26

-----  
PAIN0108-002 06/01/2024

RACINE COUNTY

	Rates	Fringes
--	-------	---------

Painters:

Brush, Roller.....	\$ 42.04	22.95
Spray & Sandblast.....	\$ 43.04	22.95

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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
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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
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PAINTER.....	\$ 22.03	12.45
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\* PAIN0781-002 06/01/2025

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
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## Painters:

Bridge.....	\$ 43.19	24.87
Brush.....	\$ 42.44	24.87
Spray & Sandblast.....	\$ 43.19	24.87

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 \* PAIN0802-002 06/01/2025

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND,  
 ROCK, AND SAUK COUNTIES

	Rates	Fringes
--	-------	---------

## PAINTER

Brush.....	\$ 37.65	21.17
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## PREMIUM PAY:

Structural Steel, Spray, Bridges = \$1.00 additional per  
 hour.

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 \* PAIN0802-003 06/01/2025

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.....	\$ 37.65	21.17
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 PAIN0934-001 06/01/2024

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
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## Painters:

Brush.....	\$ 38.67	26.32
Spray.....	\$ 39.67	26.32
Structural Steel.....	\$ 38.82	26.32

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 PAIN1011-002 06/02/2024

FLORENCE COUNTY

	Rates	Fringes
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Painters:.....	\$ 29.95	15.89
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 PLAS0599-002 06/01/2024

	Rates	Fringes
--	-------	---------

## CEMENT MASON/CONCRETE FINISHER

Area A.....	\$ 47.17	30.35
Area B.....	\$ 41.62	26.34
Area C.....	\$ 42.74	25.91
Area D.....	\$ 43.16	25.49

Area E.....	\$ 42.25	26.39
Area F.....	\$ 38.98	29.67

## AREA DESCRIPTIONS

AREA A: ASHLAND, BURNETT, BAYFIELD, DOUGLAS, IRON, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA B: ADAMS, BARRON, BROWN, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, 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 C: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE, MONROE, PEPIN, PIERCE, RICHLAND, TREMPLEAU, AND VERNON COUNTIES

AREA D: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA E: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA F: KENOSHA AND RACINE COUNTIES

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TEAM0039-001 06/01/2025

	Rates	Fringes
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## TRUCK DRIVER

1 & 2 Axles.....	\$ 39.57	28.70
3 or more Axles; Euclids, Dumpton & Articulated, Truck Mechanic.....	\$ 39.72	28.70

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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 <https://www.dol.gov/agencies/whd/government-contracts>.

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) (iii)).

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The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

#### Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

#### Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

#### Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

#### State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

#### ----- WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via

email to [dba.reconsideration@dol.gov](mailto:dba.reconsideration@dol.gov) or by mail 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 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.

=====  
END OF GENERAL DECISION"



## Wisconsin Department of Transportation

June 25, 2025

### 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 #03: 1100-20-77**

**IH 41 Zoo Freeway  
Hampton I/C  
IH 41  
Milwaukee County**

**1100-21-70, WISC 2025548**

**IH 41 Zoo Freeway  
Silver Spring Dr to Good Hope Rd  
IH 41  
Milwaukee County**

**1100-21-71, WISC 2025549**

**IH 41 Zoo Freeway  
Mill Road Bridges (B-40-0348 & 0349)  
IH 41  
Milwaukee County**

**2984-13-77**

**C Milwaukee, Florist Ave  
Bridge Over IH 41 B-40-0369  
LOC STR  
Milwaukee County**

### Letting of July 8, 2025

This is Addendum No. 01, which provides for the following:

#### Schedule of Items:

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum
204.0115	Removing Asphaltic Surface Butt Joint	SY	0	317	317

#### Plan Sheets:

Revised Plan Sheets – 1100-21-70	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
38	Added construction detail for removing asphaltic surface butt joint
68	Identified location of removing asphaltic surface butt joint
71	Identified location of removing asphaltic surface butt joint
72	Identified location of removing asphaltic surface butt joint
446	Added column for removing asphaltic surface butt joint bid item

<b>Added Plan Sheets – 1100-21-71</b>	
<b>Plan Sheet</b>	<b>Plan Sheet Title (brief description of why sheet was added)</b>
17A	Added construction details
17B	Added construction details
17C	Added construction details
17D	Added construction details
17E	Added construction details

### **Schedule of Items**

Attached, dated June 26, 2025, are the revised Schedule of Items Page 30.

### **Plan Sheets**

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:

#### **1100-21-70**

Revised: 38, 68, 71, 72, and 446

#### **1100-21-70**

Added: 17A – 17E

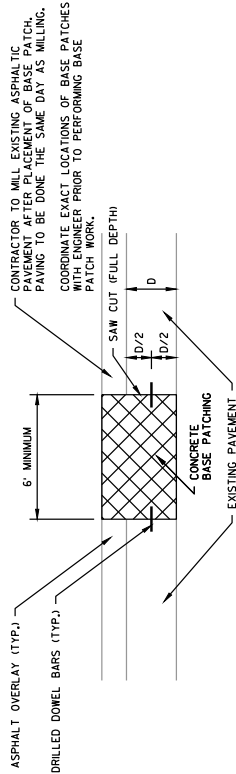
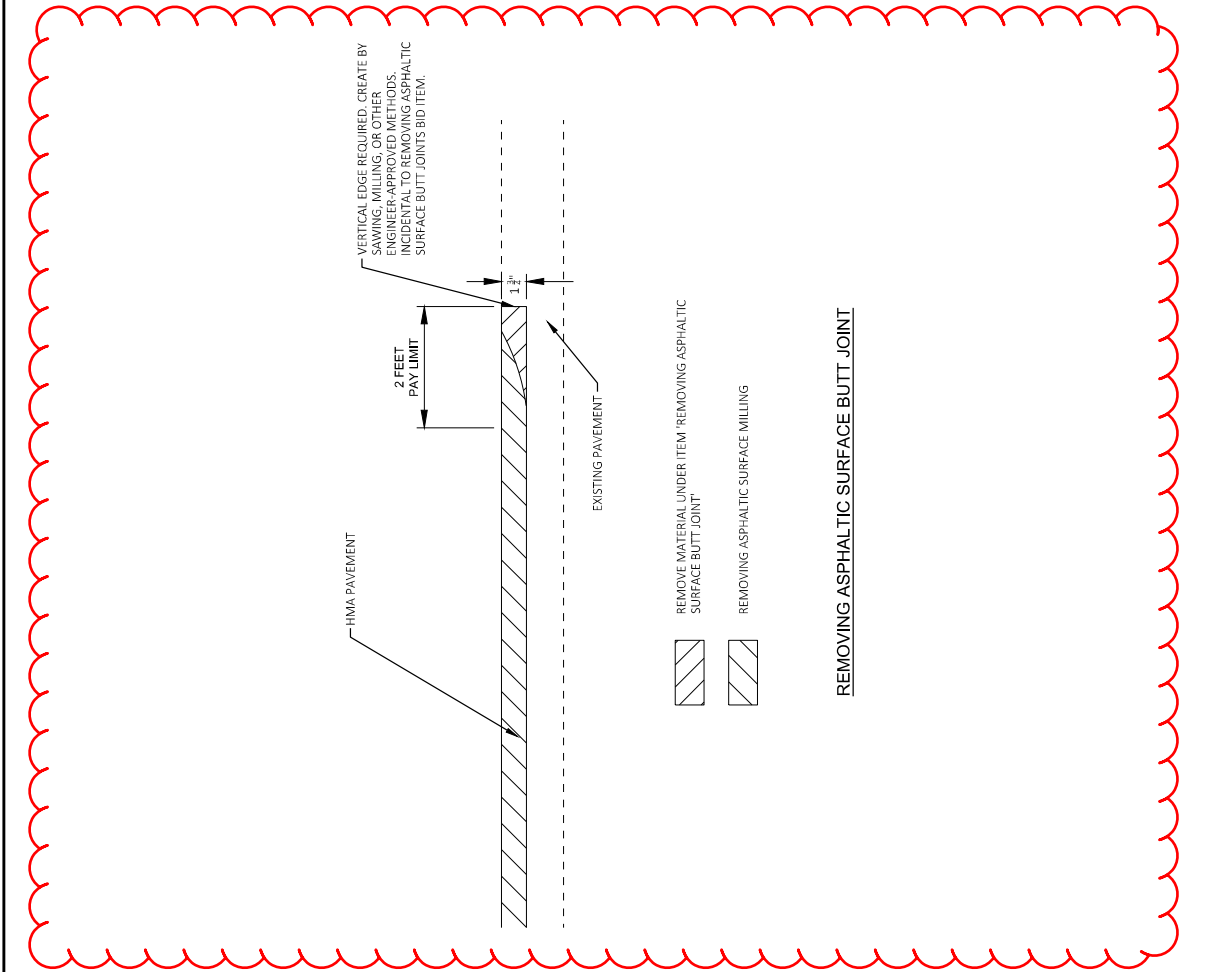
The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

END OF ADDENDUM



DETAIL OF BASE PATCHING CONCRETE SHEES

DETAIL TO BE USED IN LOCATIONS WHERE THE ROADWAY HAS TO BE OPENED TO TRAFFIC DURING THE DAY-NIGHT-WORK ONLY. SEE S.D.D. "BASE PATCHING CONCRETE" FOR ADDITIONAL DETAILS

NOTES: CONTRACTOR SHALL REMOVE ALL UNSUITABLE MATERIAL BELOW BASE PATCH AREA AND REPLACE WITH BASE AGGREGATE DENSE 1-1/4".

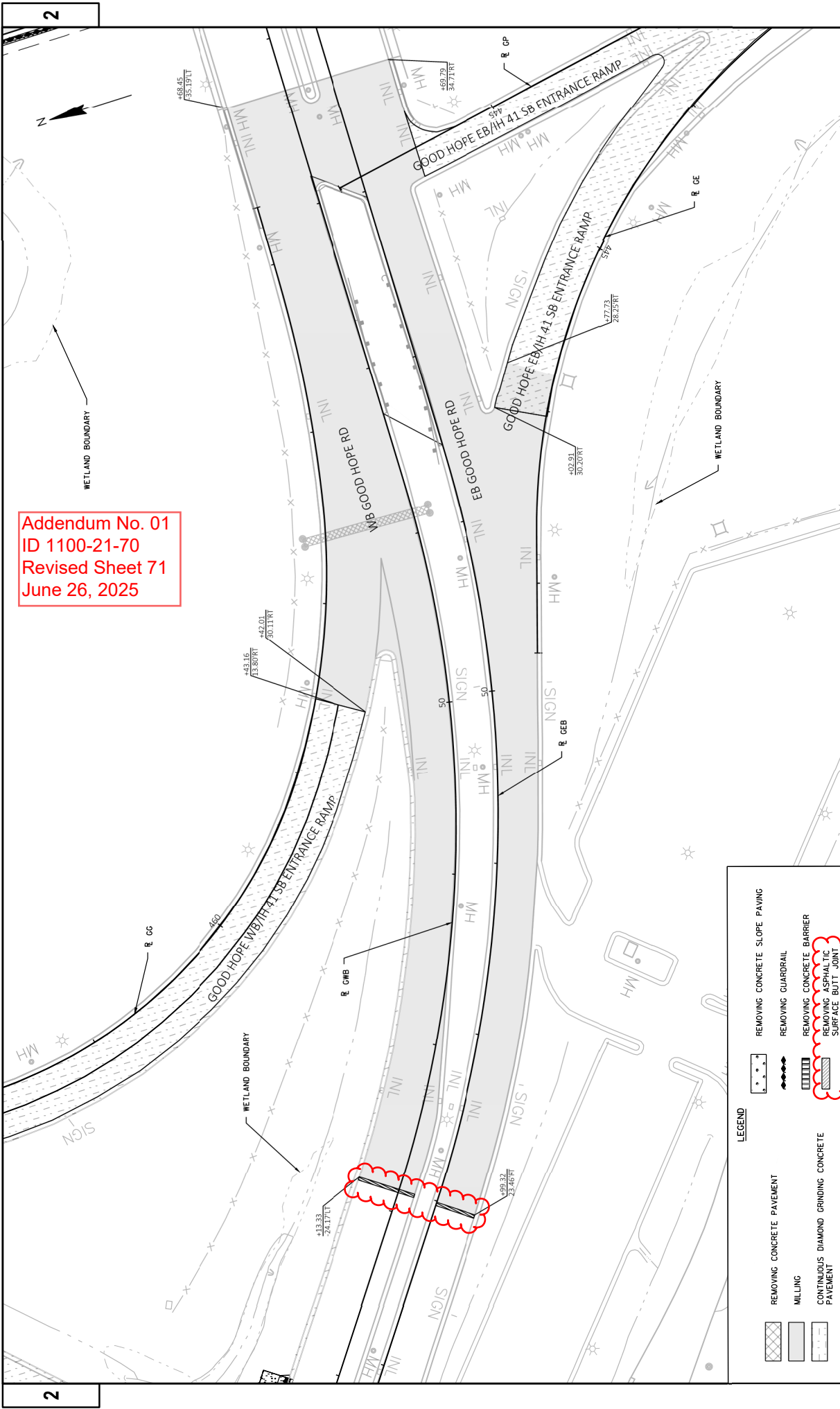
LOCATION AND AREA OF BASE PATCHING SHALL BE PLACED AS SHOWN ON PLANS AS DIRECTED BY THE ENGINEER.

DRILLED DOWEL BARS NOT NEEDED IN CRACKED AND SEATED PAVEMENT (STA 348+72 - STA 453+00).

Addendum No. 01  
ID 1100-21-70  
Revised Sheet 38  
June 26, 2025

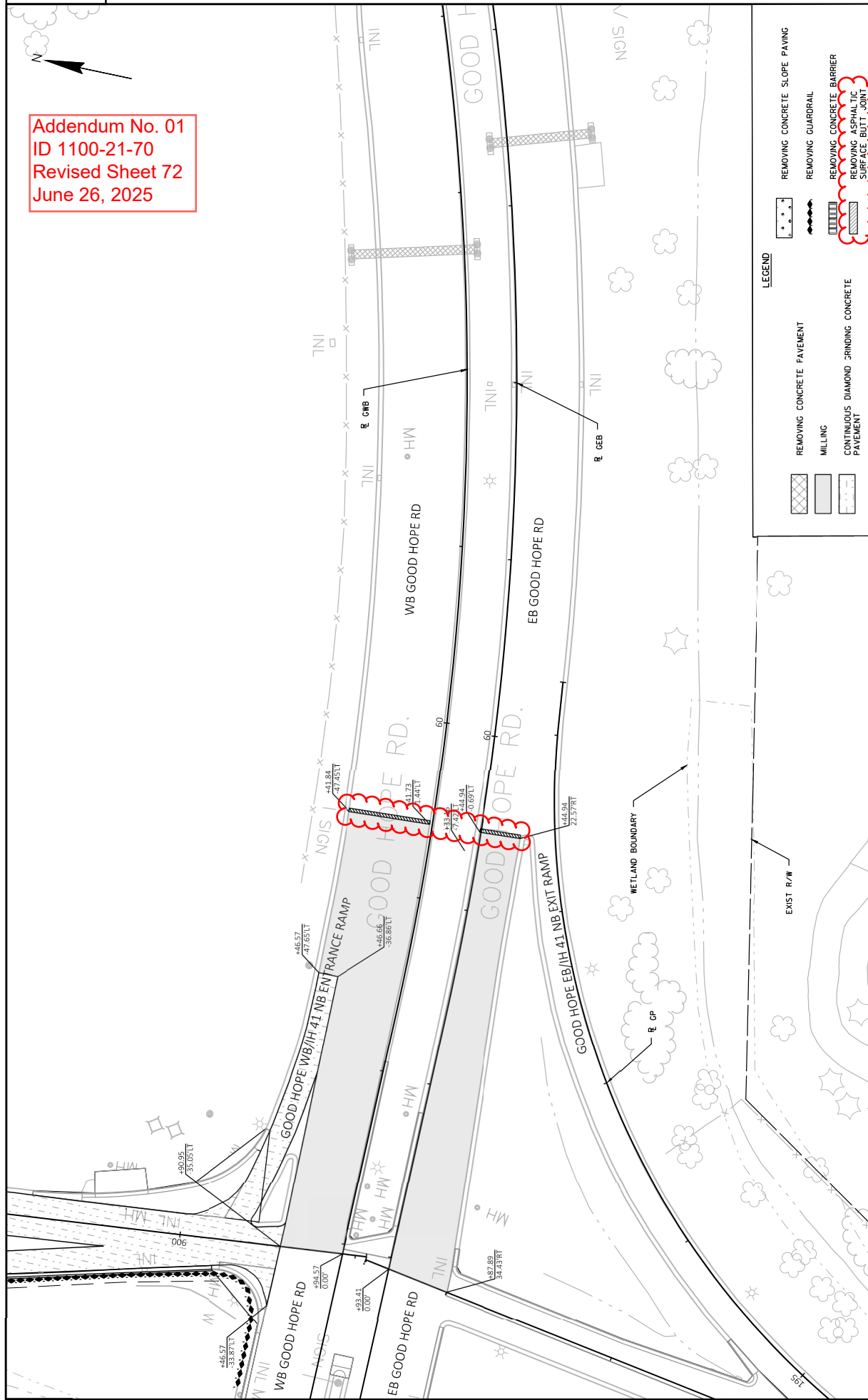
PROJECT NO: 1100-21-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 38	E
FILE NAME: I:\73235 IH41 SILVER TO GOOD HOPE\CD\11002000\SHETS\PLAN\021001-CD.DWG	LAYOUT NAME: 01	PLOT DATE: 6/25/2025 3:29 PM	PLOT BY: ALAN PACADA	PLOT SCALE: 1 IN=10 FT	WSDOT/CADDS-SHEET 42





Addendum No. 01  
ID 1100-21-70  
Revised Sheet 71  
June 26, 2025

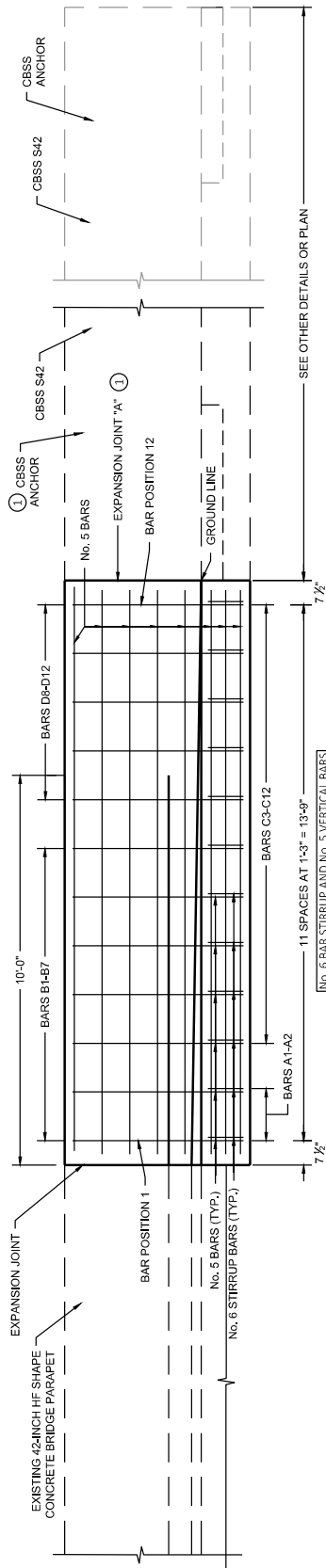
LEGEND	
	REMOVING CONCRETE PAVEMENT
	MILLING
	CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT
	REMOVING CONCRETE SLOPE PAVING
	REMOVING GUARDRAIL
	REMOVING CONCRETE BARRIER
	REMOVING ASPHALTIC SURFACE BUTT JOINT



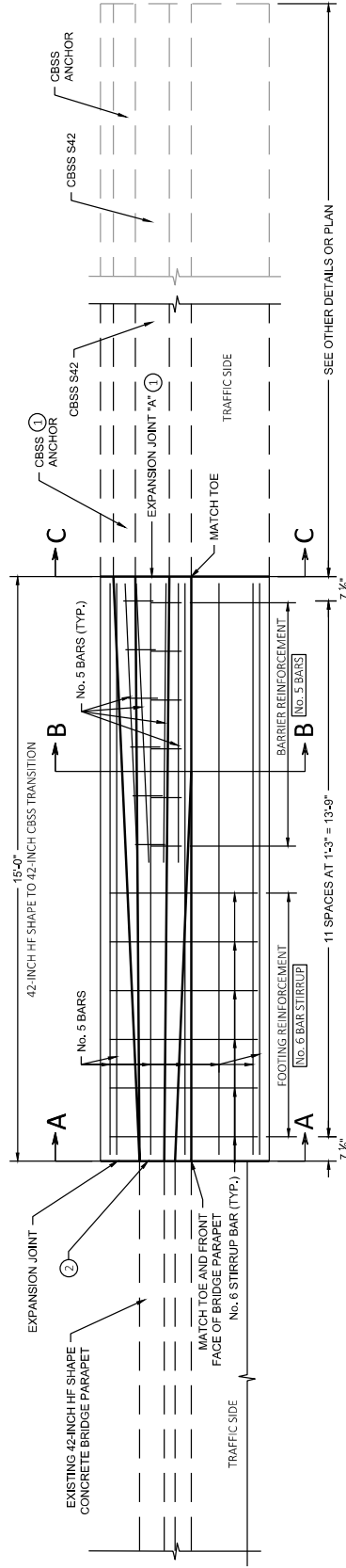


REMOVING PAVEMENT										* 204.0109 S REMOVING CONCRETE SURFACE PARTIAL DEPTH				* 204.0100 REMOVING PAVEMENT				* 204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINT				* 204.0120 REMOVING SURFACE MILLING				420.1000 CONTINUOUS DIAMOND GRINDING CONCRETE PAVEMENT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
ROADWAY	DIRECTION	FROM	TO	SF	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY	SY

Addendum No. 01  
ID 1100-21-70  
Revised Sheet 446  
June 26, 2025



ELEVATION VIEW



PLAN VIEW

## GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATIONS 603.

SPICES OF LONGITUDINAL BARS TO BE 2" LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE 1/2" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL

① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

② THE PLAN VIEW DEPICTS TRANSITION CONNECTING BARRIERS IN ALIGNMENT. WHERE THE TRANSITION IS ANGLED BETWEEN ADJACENT BARRIERS MAINTAIN THE DIMENSIONS PERPENDICULAR TO THE TRANSITION BARRIER. ADJUST THE FOOTING REINFORCEMENT AND FOOTING NEAR THE BRIDGE PARAPET AND WINGWALLS AS NECESSARY.

## CONCRETE BARRIER TRANSITION TYPE M1

(42-INCH HF SHAPE CONCRETE PARAPET TO 42-INCH SINGLE SLOPE CONCRETE BARRIER TRANSITION)

## SECTION C-C

## SECTION B-B

## SECTION A-A

PROJECT NO: 1100-21-71

HWY: IH 41

COUNTY: MILWAUKEE

CONSTRUCTION DETAILS

SHEET 17A

E

FILE NAME: I:\999251\CONSTRUCT DETAIL\9424HF04BSS.DWG  
LAYOUT NAME: Pbm 1

PLOT DATE: 11/2/2021 4:36 PM

PLOT BY: ELIZABETH CASTELLAN

PLOT SCALE: 1:3

WISDOT/CADD SHEET 42

BAR	A
C3	178°
C4	178°
C5	177°
C6	176°
C7	174°
C8	174°
C9	174°
C10	173°
C11	173°
C12	172°



## BENDING DETAIL

BAR	A
D8	169°
D9	170°
D10	170°
D11	171°
D12	171°



## BENDING DETAIL

"A" BAR

## BENDING DETAIL

BAR	A	B	C	D	E
B1	1'2 $\frac{1}{2}$ "	144"	10"	150"	2'5"
B2	1'2 $\frac{1}{2}$ "	147"	10"	154"	2'5"
B3	1'2"	151"	10"	158"	2'5"
B4	1'2"	155"	10"	163"	2'5"
B5	1'1 $\frac{1}{2}$ "	158"	10"	167"	2'5 $\frac{1}{2}$ "
B6	1'1 $\frac{1}{2}$ "	161"	10"	172"	2'5 $\frac{1}{2}$ "
B7	1'1 $\frac{1}{2}$ "	165"	10"	176"	2'5 $\frac{1}{2}$ "



## BENDING DETAIL

STIRRUP BAR  
BENDING DETAIL

BAR DETAIL  
BAR POSITIONS 8-12

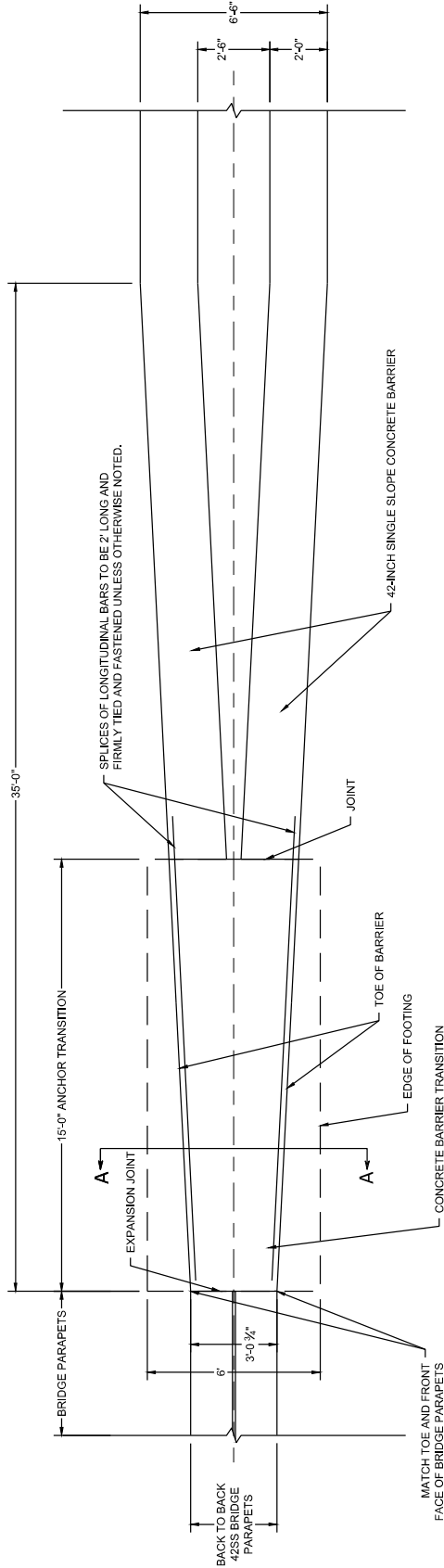
BAR DETAIL  
BAR POSITIONS 5-7

BAR DETAIL  
BAR POSITIONS 1-4

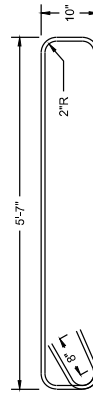
**CONCRETE BARRIER TYPE M1**  
(42-INCH HF SHAPE CONCRETE PARAPET TO 42-INCH  
SINGLE SLOPE CONCRETE BARRIER TRANSITION)



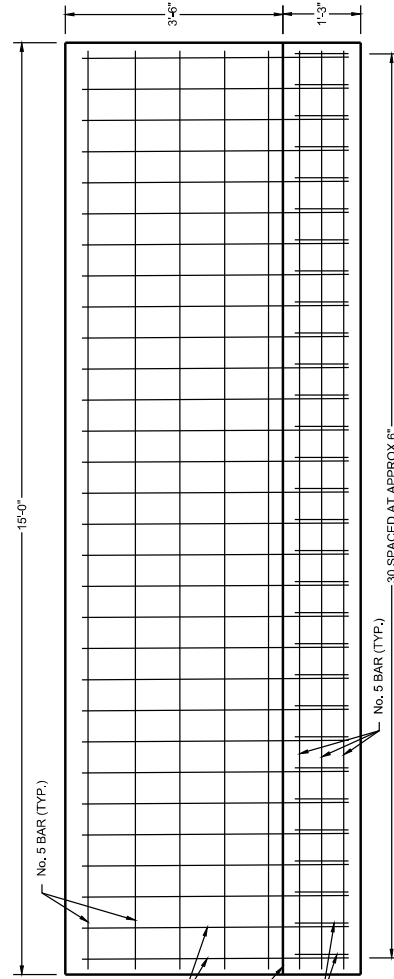
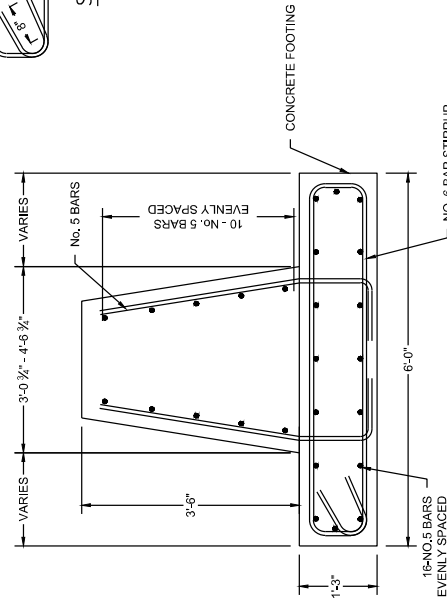
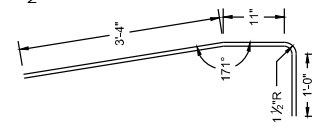
Addendum No. 01  
ID 1100-21-71  
Added Sheet 17C  
June 26, 2025



PLAN



STIRRUP BAR BENDING DETAIL



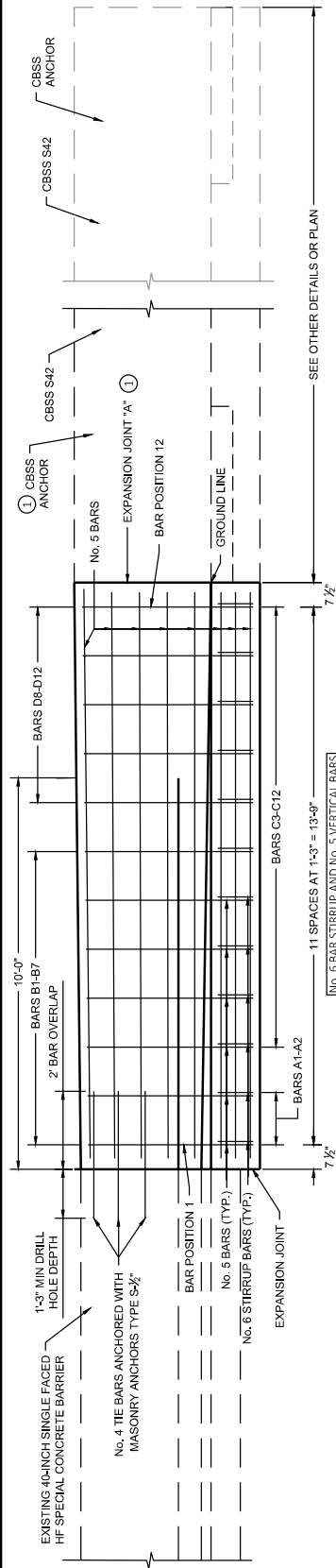
END ANCHOR CONCRETE BARRIER TRANSITION PROFILE

# CONCRETE BARRIER TRANSITION TYPE M2

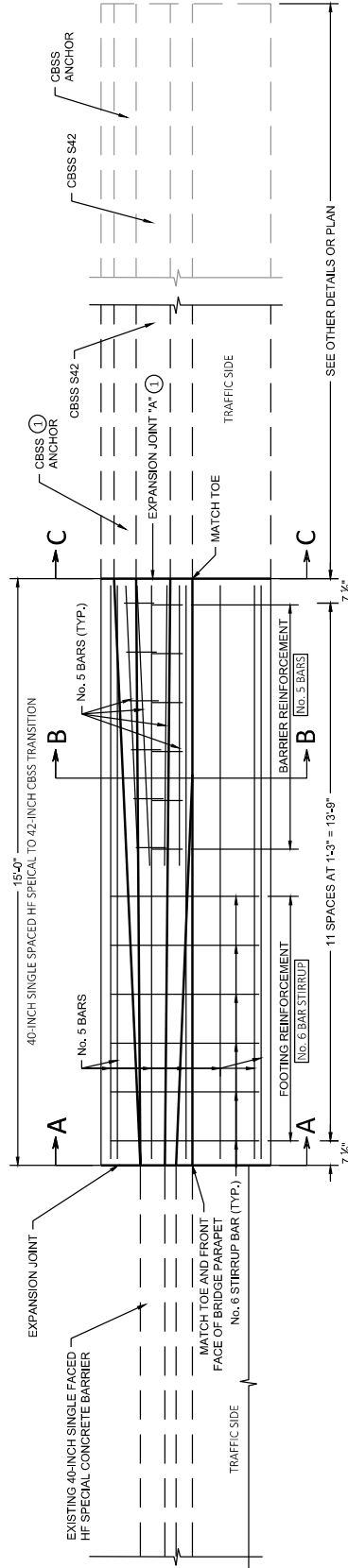
(MEDIAN BARRIER TRANSITION AT MILL ROAD BRIDGES 42SS TO S42)

NOTE:  
SEE WISDOT FDM S.D.D. 14B32-08B, CONCRETE BARRIER SINGLE  
SLOPE, FOR APPLICABLE NOTES AND MATERIAL REQUIREMENTS.

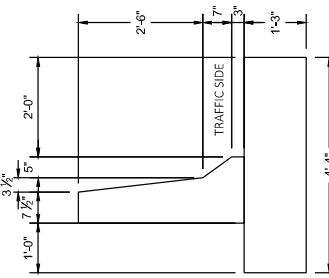
PROJECT NO: 1100-21-71	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 17C	E
FILE NAME: I:\399251\CONSTRUCT DETAILS\MILLRD_BARRIERTRANSITIONS_PLANS.DWG	LAYOUT NAME: Plan 1	PLOT DATE: 11/3/2021 2:05 PM	PLOT BY: ELIZABETH CASTELLAN	PLOT SCALE: 1:4	WISDOT/CADSS SHEET 12



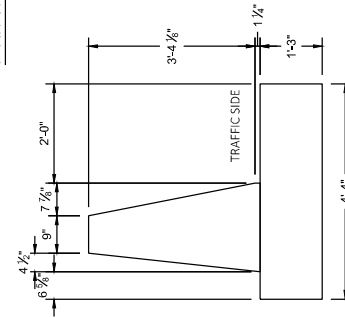
ELEVATION VIEW



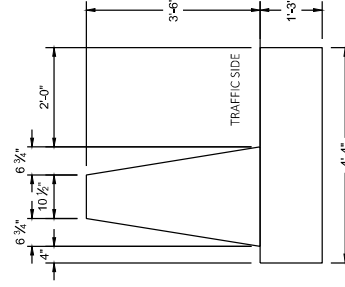
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

## GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATIONS 603.

SPICES OF LONGITUDINAL BARS TO BE 2" LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS OTHERWISE NOTED.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS SECTION 501.

USE 1/2" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD JOINT IS USED, ANCHOR IS NOT REQUIRED.

## CONCRETE BARRIER TRANSITION TYPE M3

(40-INCH SINGLE FACE HF SPECIAL CONCRETE BARRIER TO  
42-INCH SINGLE SLOPE CONCRETE BARRIER TRANSITION)

PROJECT NO: 1100-21-71

HWY: IH 41

CONSTRUCTION DETAILS

SHEET 17D

E

FILE NAME: I:\59925\1\CONSTRUCT DETAILS\40HF04SS.DWG

LAYOUT NAME: P-001

PLOT DATE: 11/4/2021 1:23 PM

PLOT BY: ELIZABETH CASTELLAN

PLOT SCALE: 1:3

W5007C-005 SHEET 42

Addendum No. 01  
ID 1100-21-71  
Added Sheet 17D  
June 26, 2025

BAR
B1
B2
B3
B4
B5
B6
B7

## BENDING DETAIL

A diagram of a bent pipe. The pipe has a horizontal section of length  $3'-3\frac{1}{2}"$  and a vertical section of height  $10"$ . The bend is at a  $90^\circ$  angle. The angle between the horizontal section and the vertical section is labeled  $A$ . The pipe has a diameter of  $1'-1\frac{1}{2}"$ .

STIRRUP BAR  
BENDING DETAIL

Technical drawing of a rectangular plate with the following specifications:

- Overall length: 3'-11"
- Overall width: 10"
- Fourteen (14) holes are distributed along the length of the plate.
- Each hole has a diameter of 1" and a depth of 1/8".

BAR DETAIL  
BAR POSITIONS 8-12

BAR DETAIL  
BAR POSITIONS 5-7

BAR DETAIL  
BAR POSITIONS 1-4

## (40-INCH SINGLE FACE HF SPECIAL CONCRETE BARRIER TO 42-INCH SINGLE SLOPE CONCRETE BARRIER TRANSITION)

PROJECT NO: 1100-21-71	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 17E
FILE NAME: I:\589251\CONSTRUCT DETAIL\RIGHT OF WAY\DWG LAYOUT NAME - PWB 2.				
		PLOT DATE: 11/2/2021 4:51 PM PLOT BY: ELIZABETH CASTELLAN PLOT NAME: 1 IN=2 FT	WSDOT/CAOS SHEET 42	



## Proposal Schedule of Items

Page 30 of 30

Proposal ID: 20250708003 Project(s): 1100-20-77, 1100-21-70, 1100-21-71, 2984-13-77

Federal ID(s): N/A, N/A, WISC 2025549, WISC 2025548

SECTION: 0001

CONTRACT ITEMS

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0830	SPV.0165 Special 200. Longitudinal Grooving Bridge Deck	18,054.000 SF	_____.	_____.
0832	SPV.0165 Special 201. Wall Concrete Panel Mechanically Stabilized Earth R-40-714	6,470.000 SF	_____.	_____.
0834	SPV.0165 Special 202. Wall Concrete Panel Mechanically Stabilized Earth R-40-715	6,550.000 SF	_____.	_____.
0836	SPV.0165 Special 203. Temporary Wire Faced Mechanically Stabilized Earth	1,815.000 SF	_____.	_____.
0838	SPV.0165 Special 204. Removing Loose Concrete	75.000 SF	_____.	_____.
0840	SPV.0165 Special 450. Repair Galvanized Coating	3.000 SF	_____.	_____.
0842	SPV.0180 Special 001. Resin Binder High Friction Surface Treatment	3,806.000 SY	_____.	_____.
0844	SPV.0180 Special 002. Removing Concrete Rumble Strips	642.000 SY	_____.	_____.
0846	SPV.0180 Special 200. Polyester Polymer Concrete Overlay	7,697.000 SY	_____.	_____.
0848	SPV.0180 Special 201. Abutment Seat Cleaning and Sealing	115.000 SY	_____.	_____.
0850	SPV.0195 Special 001. Asphaltic Repair	40.000 TON	_____.	_____.
0852	204.0115 Removing Asphaltic Surface Butt Joints	317.000 SY	_____.	_____.
Section: 0001			Total:	_____.

Total Bid: \_\_\_\_\_.







## Wisconsin Department of Transportation

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July 3, 2025

**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 #03: 1100-20-77**

**IH 41 Zoo Freeway  
Hampton I/C  
IH 041  
Milwaukee**

**1100-21-70, WISC 2025548**

**IH 41 Zoo Freeway  
Silver Spring Dr to Good Hope Rd  
IH 041  
Milwaukee**

**1100-21-71, WISC 2025549**

**IH 41 Zoo Freeway  
Mill Road Bridges (B-40-0348 & 0349)  
IH 041  
Milwaukee**

**2984-13-77**

**C Milwaukee, Florist Ave  
Bridge Over IH 41 B-40-0369  
LOC STR  
Milwaukee**

### Letting of July 8, 2025

This is Addendum No. 02, which provides for the following:

#### **Special Provisions:**

Revised Special Provisions	
Article No.	Description
3	Prosecution and Progress
5	Traffic
7	Utilities

**Plan Sheets:**

<b>Revised Plan Sheets</b>	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
286 - 288	Revised work areas for Stage 2A
315 - 317	Revised work areas for Stage 2A Nighttime
324 - 326	Revised work areas for Stage 2B
353 - 355	Revised work areas for Stage 2B Nighttime
362 - 364	Revised work areas for Stage 3
369 – 370, 373 - 374	Revised work areas for Stage 3

<b>Added Plan Sheets</b>	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
285A	Stage 2A typical section for Structures B-40-213/214/365/366
305A	Stage 2A Ramp Closure
323A	Stage 2B typical section for Structures B-40-213/214/365/366
342A	Stage 2B Ramp Closure

<b>Deleted Plan Sheets</b>	
Plan Sheet	Plan Sheet Title (brief description of why sheet was deleted)
254 - 260	Removed Pre-Stage 1A work moved to Stages 2A/2B
261 – 270	Removed Pre-Stage 1B work moved to Stages 2A/2B

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**

**1100-20-77, 1100-21-70/71, 2984-13-77**

**July 3, 2025**

**Special Provisions**

**3. Prosecution and Progress**

*Add the following paragraph after paragraph 3:*

To revise the start date of the winter shutdown for Project ID 1100-20-77/1100-21-70/1100-21-71/2984-13-77, submit a written request to the Engineer at least two weeks before November 15, 2025. The engineer will approve or deny that request based on the conditions cited in the request. Additional Holiday restrictions for Christmas and New Years will apply.

*Delete the following from Schedule of Operations, Project 1100-21-70, 1100-21-71, 2984-13-77:*

**Pre-Stage 1A Construction**

This stage consists of roadway rehabilitation on IH 41 NB & IH 41 SB. More specifically, the work includes the following:

- Bridge overlays and expansion joint replacement on inside half of B-40-365, B-40-366, B-40-213, and B-40-214.
- Roadway work consists base patching inside shoulder and inside lane between structures over UPRR and Carmen Avenue.

**Pre-Stage 1B Construction**

This stage consists of roadway rehabilitation on IH 41 NB & IH 41 SB. More specifically, the work includes the following:

- Bridge overlays and expansion joint replacement on outside half of B-40-365, B-40-366, B-40-213, and B-40-214.
- Ramp work consists base patching, diamond grinding, beam guard replacement and pavement marking for Silver Spring/SB IH 41 exit ramp and Silver Spring/NB IH 41 entrance ramp/auxiliary lane.

*Add the following to Schedule of Operations, Project 1100-21-70, 1100-21-71, 2984-13-77, Stage 2A Construction:*

This stage consists of roadway rehabilitation on IH 41 NB & IH 41 SB. More specifically, the work includes the following:

- Perform inside half of bridge overlay and expansion joint replacement for B-40-365 and bridge overlay for B-40-213.
- Perform outside half of bridge overlay and expansion joint replacement for B-40-366 and bridge overlay for B-40-214.
- Roadway work consists base patching inside shoulder and inside lane between structures over UPRR and Carmen Avenue.

Ramp work consists base patching, diamond grinding, beam guard replacement and pavement marking for Silver Spring/SB IH 41 exit ramp and Silver Spring/NB IH 41 entrance ramp/auxiliary lane.

*Add the following to Schedule of Operations, Project 1100-21-70, 1100-21-71, 2984-13-77, Stage 2B Construction:*

This stage consists of roadway rehabilitation on IH 41 NB & IH 41 SB. More specifically, the work includes the following:

- Perform outside half of bridge overlay and expansion joint replacement for B-40-365 and bridge overlay for B-40-213.
- Perform inside half of bridge overlay and expansion joint replacement for B-40-366 and bridge

overlay for B-40-214.

- Roadway work consists base patching inside shoulder and inside lane between structures over UPRR and Carmen Avenue.

Ramp work consists base patching, diamond grinding, beam guard replacement and pavement marking for Silver Spring/SB IH 41 exit ramp and Silver Spring/NB IH 41 entrance ramp/auxiliary lane.

*Under Prosecution and Progress, replace the Base Patching, Mill and Overlay and Crack Repair paragraph with the following:*

### **Base Patching and Mill and Overlay**

#### **Project 1100-21-70, 1100-21-71, 2984-13-77**

Where only night-time closures are allowed, perform the operations in the order described below:

- Complete base patching before performing Removing Asphaltic Surface Milling.
- Complete Removing Asphaltic Surface Milling and Removing Concrete Surface Partial Depth. Milling of the concrete base patches is incidental to the item Removing Asphaltic Surface Milling.
- Additional base patches may need to be completed after the Removing Asphaltic Surface Milling and Removing Concrete Surface Partial Depth, as identified by the engineer.
- Place the lower layer of HMA prior to opening the lane to traffic. Do not place traffic on milled surface. Additional base patching may be performed prior to the placement of the upper HMA layer as identified by the engineer.
- Place wedging for any drop-offs between the stages of operations.
- Place the upper layer of HMA.

Where daytime and night-time closures are allowed, perform the operations in the order described below:

- Complete Removing Asphaltic Surface Milling and Removing Concrete Surface Partial Depth.
- Perform base patching.
- Place the HMA.

## **5. Traffic.**

*Under Traffic, delete the following from Project 1100-21-70, 1100-21-71, 2984-13-77, Schedule of Operations:*

#### **Pre-Stage 1A Traffic**

- Shift IH 41 NB and SB traffic to the outside of IH 41 SB for construction between Carmen Avenue and Florist Avenue.
- Ramp closures include Silver Spring/IH 41 SB Exit Ramp and Silver Spring/IH 41 NB Entrance Ramp.

#### **Pre-Stage 1B Traffic**

- Shift IH 41 NB and SB traffic to the outside of IH 41 SB for construction between Carmen Avenue and Florist Avenue.
- Ramp closures include Silver Spring/IH 41 SB Exit Ramp and Silver Spring/IH 41 NB Entrance Ramp.

*Under Traffic, add the following to Project 1100-21-70, 1100-21-71, 2984-13-77, Schedule of Operations, Stage 2A Traffic:*

- Shift IH 41 SB traffic to the outside of IH 41 SB for construction between B-40-365 and Carmen Avenue.

- Shift IH 41 NB traffic to the inside of IH 41 NB for construction between B-40-366 and Carmen Avenue.
- Ramp closures include Silver Spring/IH 41 SB Exit Ramp and Silver Spring/IH 41 NB Entrance Ramp. Duration will be 35 days for each ramp at the end of this stage.

*Under Traffic, add the following to Project 1100-21-70, 1100-21-71, 2984-13-77, Schedule of Operations, Stage 2B Traffic:*

- Shift IH 41 SB traffic to the inside of IH 41 SB for construction between B-40-365 and Carmen Avenue.
- Shift IH 41 NB traffic to the outside of IH 41 NB for construction between B-40-366 and Carmen Avenue.
- Ramp closures include Silver Spring/IH 41 SB Exit Ramp and Silver Spring/IH 41 NB Entrance Ramp. Duration will be 35 days for each ramp at the beginning of this stage.

## **7. Utilities.**

*Replace the ID 1100-21-71 information with the following:*

### **ID 1100-21-71**

**The following utility companies have facilities within the project area that need adjustments:**

**Midwest Fiber Network – Communication Line** has facilities within the project limits. MWFN will relocate the fiber line on the north side of Mill Rd. from Station 32+00 to Station 26+00 (and beyond) that is currently in conflict with retaining wall R 40-715 prior to construction. The line will be moved to 30 feet north of centerline with final grade elevations between 760-765 leaving 4-5' of cover. Existing duct will be discontinued in place.

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

**AT&T Wisconsin - Communication Line**

**City of Milwaukee - Sewer**

**City of Milwaukee - Water**

**We Energies - Electric**

**We Energies - Gas**

**Wisconsin Independent Network – Communication Line** has an underground communication line in the WisDOT communication duct that runs along US-41.

END OF ADDENDUM



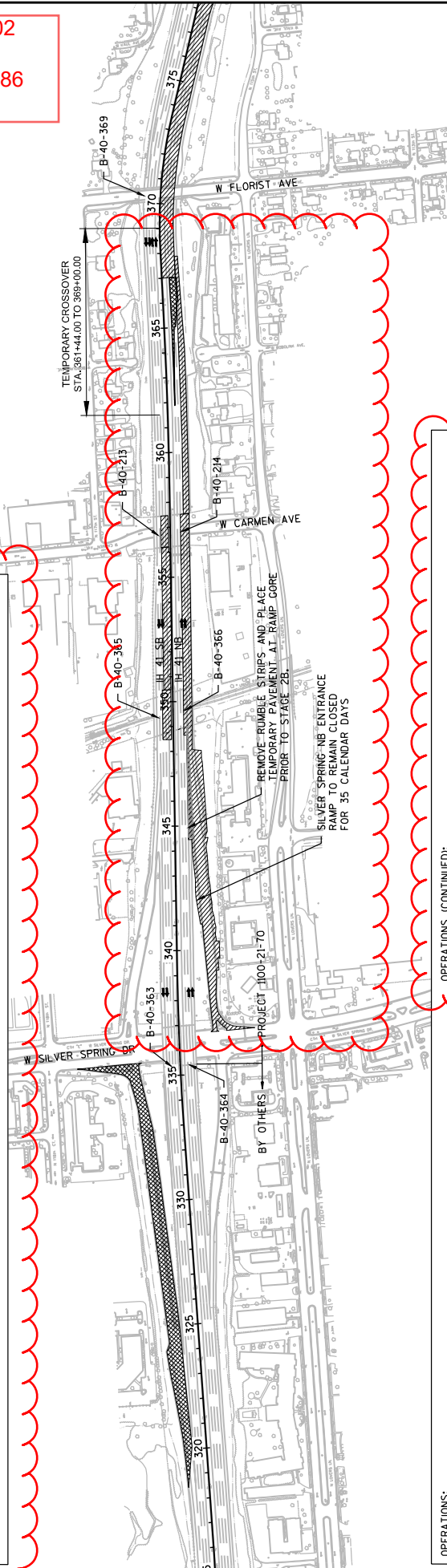
IH 41



Addendum No. 02  
ID 1100-21-70  
Revised Sheet 286  
July 3, 2025

#### TRAFFIC CONTROL:

- NB TRAFFIC IS CROSSED OVER TO THE SB ROADWAY. TWO LANES ARE MAINTAINED. ONE LANE DURING NIGHTTIME.
- SB TRAFFIC IS SHIFTED TO THE OUTSIDE TO ALLOW SPACE FOR THE NB LANES. TWO LANES ARE MAINTAINED. ONE LANE MAINTAINED DURING NIGHTTIME.
- CLOSE MILL ROAD.
- NIGHTTIME RAMP CLOSURES SHALL NOT CLOSE MULTIPLE RAMP AT THE SAME TIME.
- SILVER SPRING/SB IH 41 ENTRANCE RAMP: NIGHTTIME CLOSURES.
- GOOD HOPE/SB IH 41 ENTRANCE RAMP: NIGHTTIME CLOSURES.
- GOOD HOPE/NB IH 41 ENTRANCE RAMP: NIGHTTIME CLOSURES.
- GOOD HOPE/SB IH 41 EXIT RAMP: NIGHTTIME CLOSURES.
- NB AND EB GOOD HOPE RD: ONE LANE OPEN AND SHIFTED TO THE INSIDE LANE. OUTSIDE LANE CLOSED.
- FOR BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT B-40-213, SB TRAFFIC IS SHIFTED TO THE OUTSIDE TO ALLOW SPACE FOR INSIDE LANE AND SHOULDER CONSTRUCTION. TWO LANES ARE MAINTAINED.
- FOR BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT B-40-366, AND BRIDGE OVERLAY AT B-40-214, NB TRAFFIC IS SHIFTED TO THE INSIDE TO ALLOW SPACE FOR OUTSIDE LANE AND SHOULDER CONSTRUCTION. TWO LANES ARE MAINTAINED.
- SILVER SPRING/NB IH 41 ENTRANCE RAMP: 35 CALENDAR DAY CLOSURE.



#### OPERATIONS:

WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:

- BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT IH 41 NB OVER STH 175/APPLETON AVE. SB STRUCTURE B-40-347.
- DEMOLISH IH 41 NB OVER MILL ROAD STRUCTURE B-40-349.
- BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT IH 41 NB OVER STH 175/APPLETON AVE. SB STRUCTURE B-40-351.
- CONSTRUCTION OF NB APPROACH SLABS AND MILL & OVERLAY MAINLINE PAVEMENT.
- CONSTRUCTION OF NB OUTSIDE SHOULDER AND CONCRETE BARRIER.
- PLACEMENT OF NB STORM SEWER LATERALS - SEE STAGE 2A TYPICALS FOR STATION RANGES.
- CONSTRUCTION OF THE NB STRUCTURES OVER MILL ROAD. B-40-1022, R-40-714, R-40-715.
- PAINTING OF B-40-369 OVER NB LANES.
- PERFORM BASE PATCHING, DIAMOND GRINDING/OVERLAY, AND PAVEMENT MARKINGS FOR SILVER SPRING/SB IH 41 ENTRANCE RAMP, GOOD HOPE/SB IH 41 ENTRANCE RAMP, AND GOOD HOPE/NB IH 41 ENTRANCE RAMP.
- PERFORM HIGH FRICTION SURFACE TREATMENT GOOD HOPE SB EXIT STA 36+60 TO STA 41+92

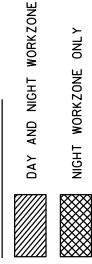
#### OPERATIONS (CONTINUED):

- PERFORM INSIDE HALF OF BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT B-40-365, AND BRIDGE OVERLAY AT B-40-213.
- PERFORM OUTSIDE HALF OF BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT B-40-366, AND BRIDGE OVERLAY AT B-40-214.

#### OTHER AVAILABLE WORK THIS STAGE:

- PERFORM BASE PATCHING IN MEDIAN BETWEEN STRUCTURES OVER UPRR AND CARMEN AVE.
- PERFORM BASE PATCHING, DIAMOND GRINDING, BEAM GUARD AND PAVEMENT MARKINGS ALONG SILVER SPRING NB ENTRANCE AND SB EXIT RAMP.
- INSTALL SIGN REPLACEMENTS ON OUTSIDES.
- PERFORM BEAMGUARD REPLACEMENTS.
- PERFORM SLOPE IMPROVEMENTS.
- PERFORM REMOVALS.
- INSTALL PERMANENT PAVEMENT MARKINGS BETWEEN STA. 365+00 TO 417+00.

#### PLAN VIEW LEGEND



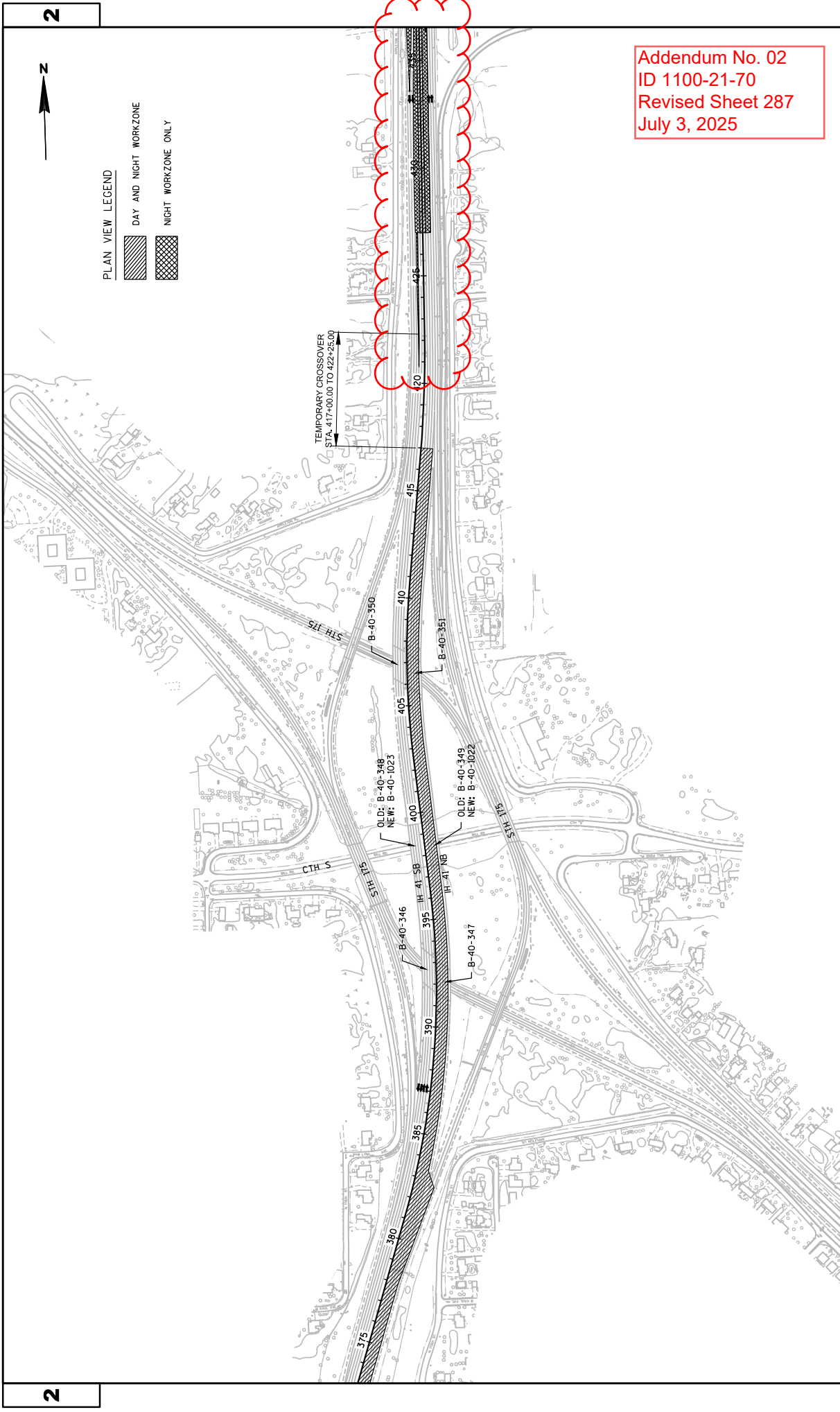
PROJECT NO: 1100-21-70

HWY: IH 41

COUNTY: MILWAUKEE

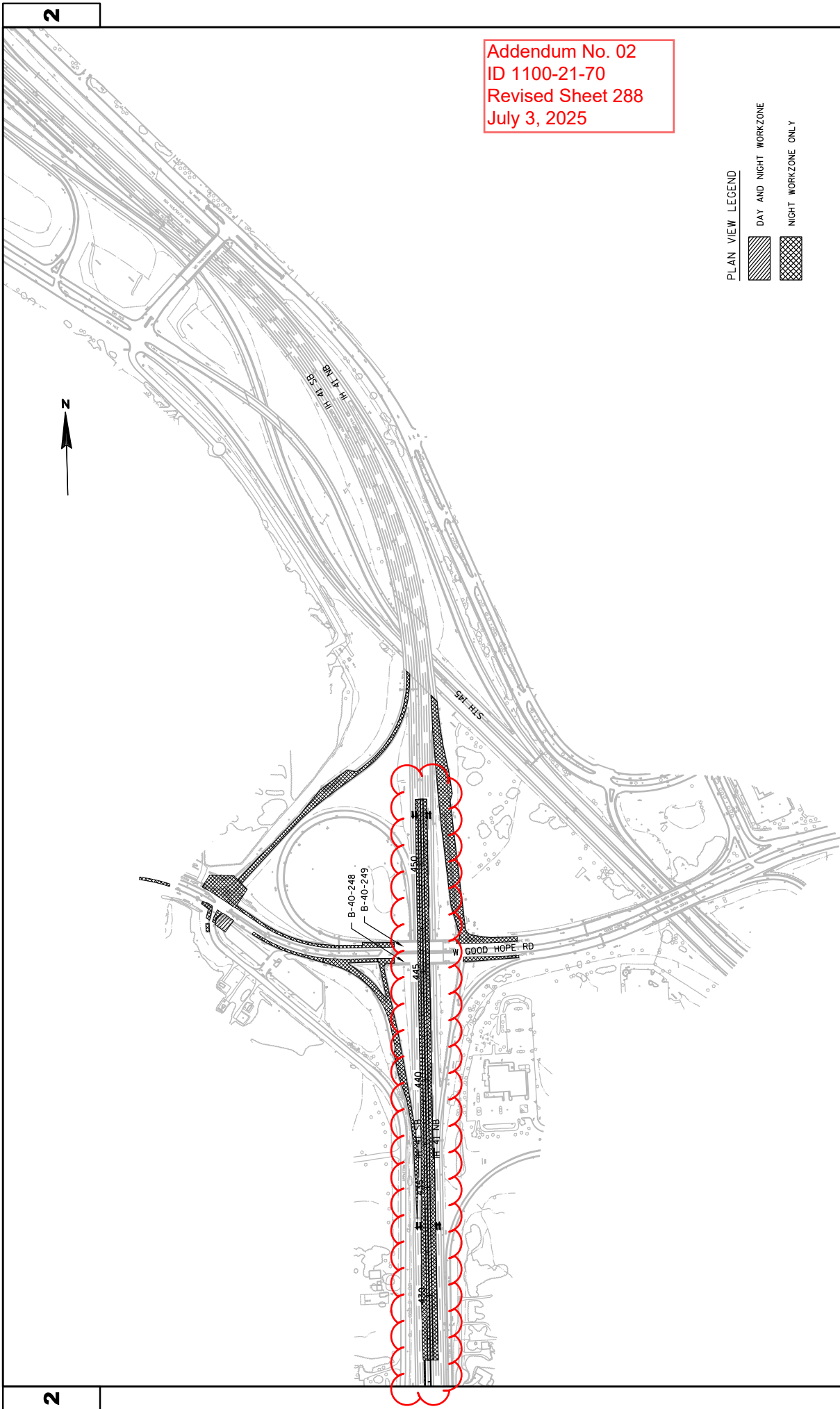
TRAFFIC CONTROL - OVERVIEW STAGE 2A

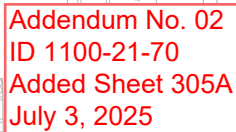
SHEET 286



Addendum No. 02  
ID 1100-21-70  
Revised Sheet 287  
July 3, 2025









CURVE NB2AT2-1  
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D = 100'19"  
L = 177.71'  
T = 117.71'  
R = 5700.00'  
PC STA = 418+34.07  
Y = 336155.527  
X = 567100.914  
PT STA = 426+84.52  
Y = 337200.232  
X = 567209.057  
BK = N08°48'32.9"E  
AH = N00°36'56.2"E

CURVE NB2AT2-2  
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R = 5700.00'  
PC STA = 418+34.07  
Y = 336155.527  
X = 567100.914  
PT STA = 426+84.52  
Y = 337200.232  
X = 567209.057  
BK = N08°48'32.9"E  
AH = N00°36'56.2"E

CONNECT CONCRETE BARRIER  
TEMPORARY PRECAST TO EXISTING  
CONCRETE MEDIAN BARRIER  
STA 417+76

CONNECT CONCRETE BARRIER  
TEMPORARY PRECAST TO EXISTING  
CONCRETE MEDIAN BARRIER  
STA 421+61

TEMPORARY PRECAST  
TRENCH DRAIN

APPLETON PL

C/L IH 41

114th ST.

TYPE III BARRICADE WITH TWO TYPE A LIGHTS

TRAFFIC CONTROL DRUM

FLASHING ARROW BOARD

SIGN ON PERMANENT SUPPORT

TYPE C WARNING LIGHT (FLASHING)

DIRECTION OF TRAFFIC

ARROW, TYPE 5 WHITE

CONCRETE BARRIER TEMPORARY PRECAST

FLASHING BEACON SIGNS

DAY WORK AREA

NIGHT WORK AREA

① TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)

② TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)

③ TEMPORARY MARKING LINE PAINT 4-INCH (DASHED)

④ TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)

⑤ TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)

⑥ TEMPORARY MARKING LINE PAINT 6-INCH (DASHED)

⑦ TEMPORARY MARKING LINE PAINT 6-INCH (DOT PATTERN WHITE)

⑧ TEMPORARY MARKING LINE PAINT 10-INCH (DOT PATTERN WHITE)

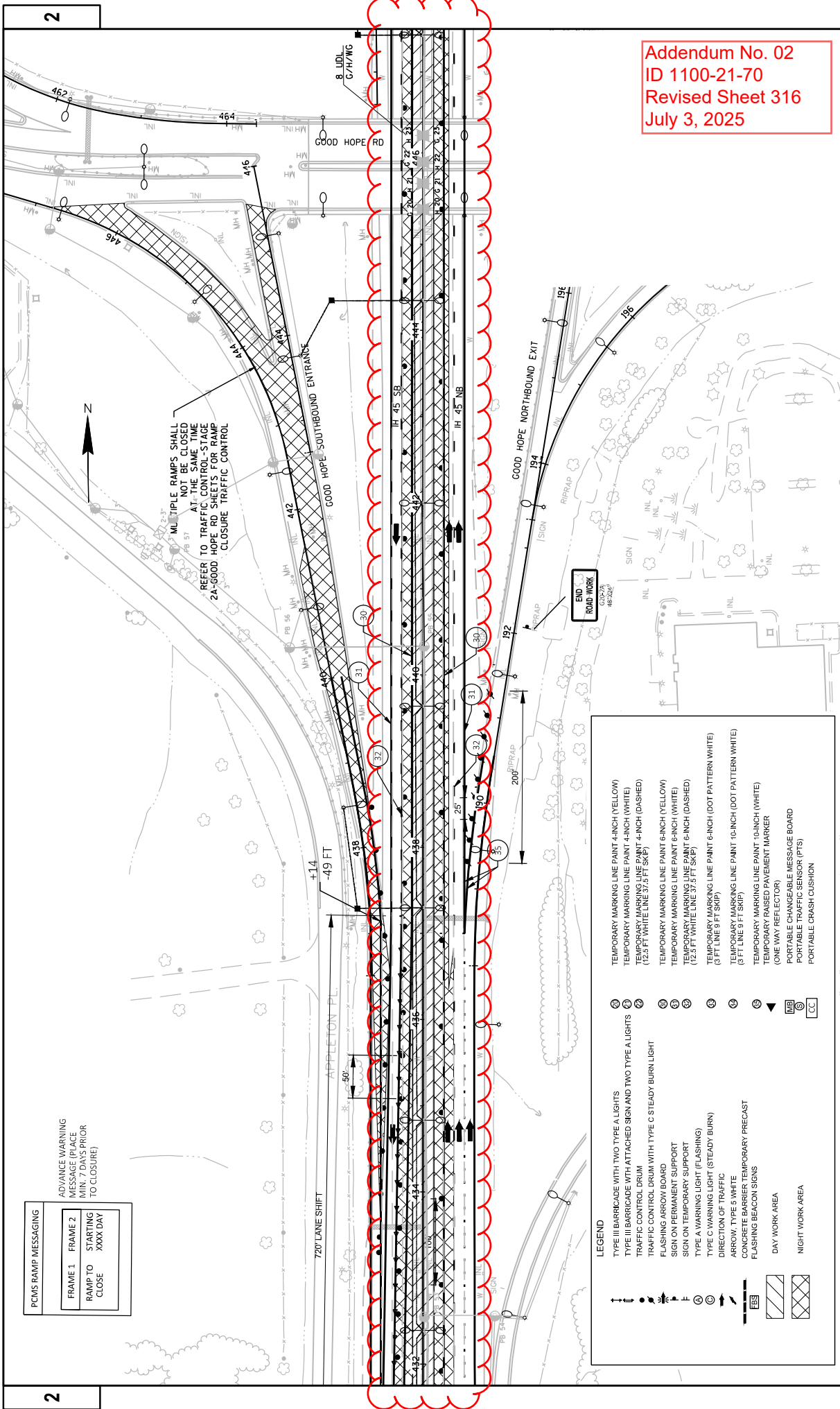
⑨ TEMPORARY RAISED PAVEMENT MARKER

⑩ PORTABLE CHANGEABLE MESSAGE BOARD

⑪ PORTABLE TRAFFIC SENSOR (PTS)

⑫ PORTABLE CRASH CUSHION

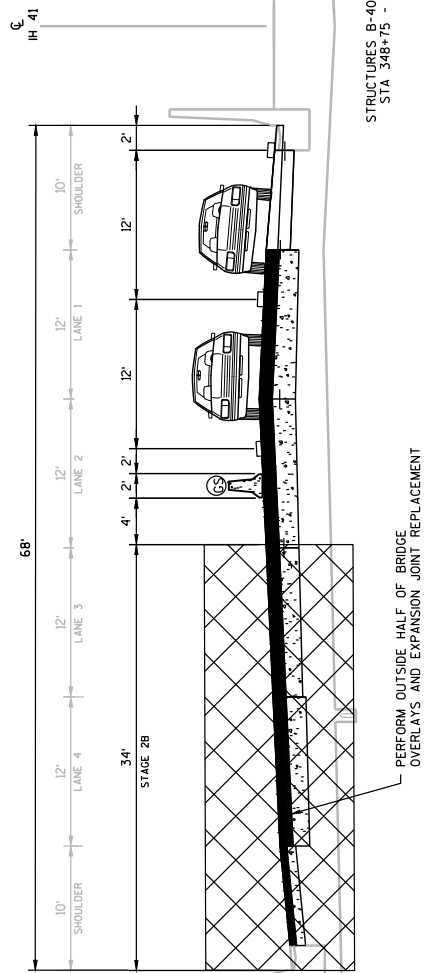
Addendum No. 02  
ID 1100-21-70  
Revised Sheet 315  
July 3, 2025





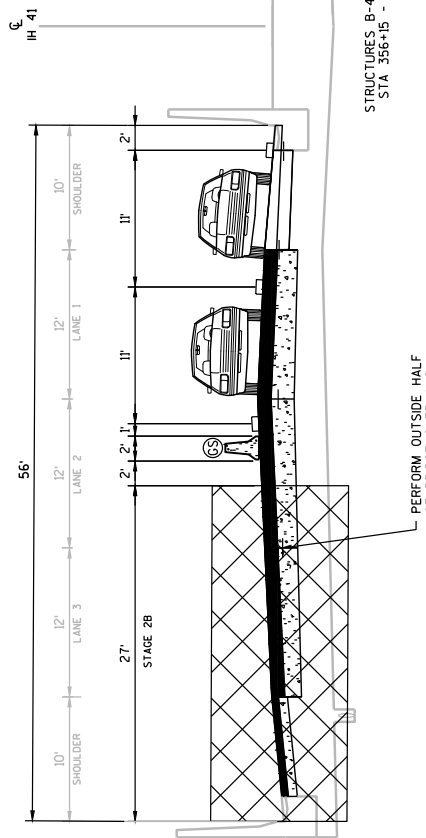
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PROJECT NO: 1100-21-70		COUNTY: MILWAUKEE		TRAFFIC CONTROL - STAGE 2A NIGHTTIME		E	
PROJECT NAME: I-73/235 I41 SILVER TO GOOD HOPE (CB011002000) SHEETS 41-028214-5241 DWG		HWY: IH 41		PLOT DATE: 7/2/2025 2:54 PM		PLOT BY: ALLAN PACADA	
				PLOT SCALE: 1 IN 100 FT		SHEET 317	
						WSDOT/CADDS SHEET 42	



TYPICAL SECTION - STAGE 2B (DAY/NIGHT WORK)

41



TYPICAL SECTION - STAGE 2B (DAY/NIGHT WORK)

1H 41

TRAFFIC CONTROL:

- SB TRAFFIC IS CROSSED OVER TO THE NB ROADWAY. TWO LANES ARE MAINTAINED.
- NB TRAFFIC IS SHIFTED TO THE OUTSIDE SPACE FOR THE NB LANES. TWO LANES ARE MAINTAINED.
- GOOD HOPE/SB IH 41 ENTRANCE LOOP RAMP: NIGHTTIME CLOSURES.
- CLOSE MILL ROAD.
- WB AND EB GOOD HOPE RD: ONE LANE OPEN AND SHIFTED TO THE OUTSIDE LANE; INSIDE LANE CLOSED.
- FOR BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT B-40-365, AND BRIDGE OVERLAY AT B-40-213. SB TRAFFIC IS SHIFTED TO THE INSIDE TO ALLOW SPACE FOR OUTSIDE LANE AND SHOULDER CONSTRUCTION. TWO LANES ARE MAINTAINED.
- SILVER SPRING/SB IH 41 EXIT RAMP: 35 CALENDAR DAY CLOSURE.
- FOR BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT B-40-366, AND BRIDGE OVERLAY AT B-40-214. NB TRAFFIC IS SHIFTED TO THE OUTSIDE TO ALLOW SPACE FOR INSIDE LANE AND SHOULDER CONSTRUCTION. TWO LANES ARE MAINTAINED.
- SILVER SPRING/NB IH 41 ENTRANCE RAMP: 35 CALENDAR DAY CLOSURE.

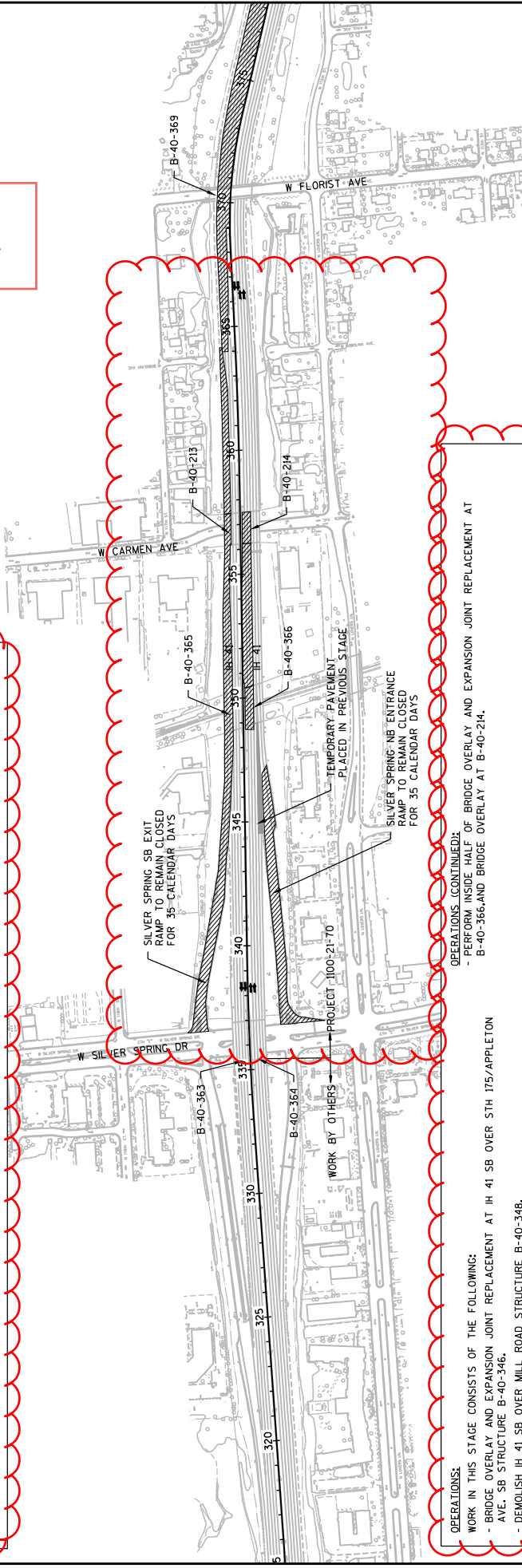
OPERATIONS:

- WORK IN THIS STAGE CONSISTS OF THE FOLLOWING:
- BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT IH 41 SB OVER 5TH ITS/APPLETON AVE. SB STRUCTURE B-40-346.
  - DEMOLISH IH 41 SB OVER MILL ROAD STRUCTURE B-40-348.
  - BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT IH 41 SB OVER 5TH ITS/APPLETON AVE. SB STRUCTURE B-40-350.
  - CONSTRUCTION OF SB APPROACH SLABS AND MILL & OVERLAY OF MAINLINE PAVEMENT.
  - HEAT STRAIGHTENING STEEL GIRDERS, STEEL GIRDER REPAIR, AND PAINTING B-40-369 OVER SB LANES.
  - CONSTRUCTION OF SB OUTSIDE SHOULDER AND CONCRETE BARRIER.
  - PLACEMENT OF SB STORM SEWER LATERALS BETWEEN STA 364+00 AND STA 410+00.
  - CONSTRUCTION OF THE SB STRUCTURES OVER MILL ROAD.
  - PERFORM BASE PATCHING, DIAMOND GRINDING/OVERLAY, AND PAVEMENT MARKINGS FOR GOOD HOPE/SB IH 41 ENTRANCE LOOP RAMP.
  - PERFORM HIGH FRICTION SURFACE TREATMENT I 41 SB STA 368+20 TO STA 373+53
  - PERFORM OUTSIDE HALF OF BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT B-40-365, AND BRIDGE OVERLAY AT B-40-213.

OPERATIONS (CONTINUED):

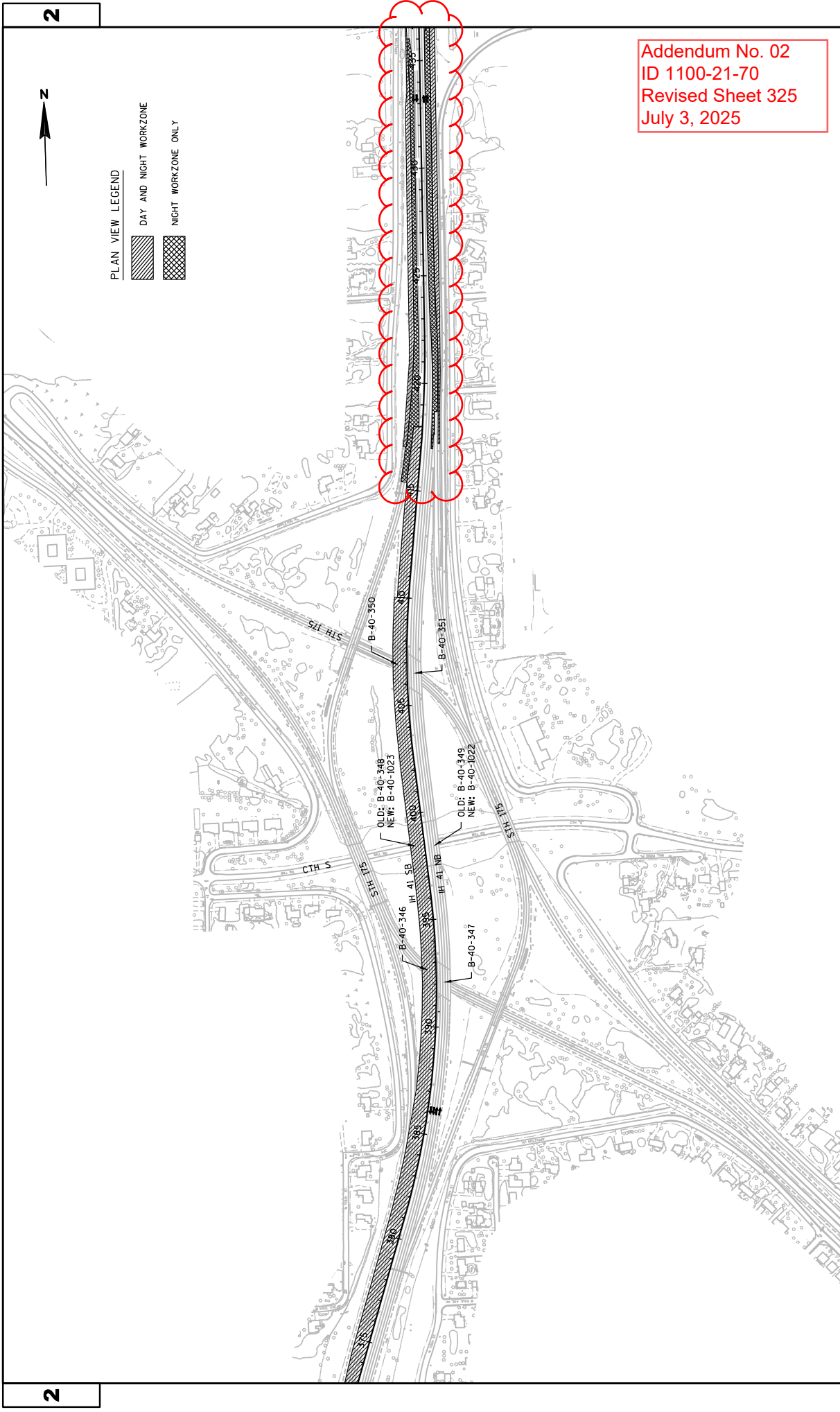
- PERFORM INSIDE HALF OF BRIDGE OVERLAY AND EXPANSION JOINT REPLACEMENT AT B-40-366 AND BRIDGE OVERLAY AT B-40-214.
- OTHER AVAILABLE WORK THIS STAGE:
- PERFORM BASE PATCHING, DIAMOND GRINDING, BEAM GUARD AND PAVEMENT MARKINGS ALONG SILVER SPRING NB ENTRANCE AND SB EXIT RAMPS.
  - INSTALL SIGN REPLACEMENTS ON OUTSIDE.
  - PERFORM BEAMGUARD REPLACEMENTS.
  - PERFORM SLOPE IMPROVEMENTS.
  - PERFORM REMOVALS.
  - INSTALL PERMANENT PAVEMENT MARKINGS BETWEEN STA. 367+00 TO STA. 417+00.

Addendum No. 02  
ID 1100-21-70  
Revised Sheet 324  
July 3, 2025



PLAN VIEW LEGEND

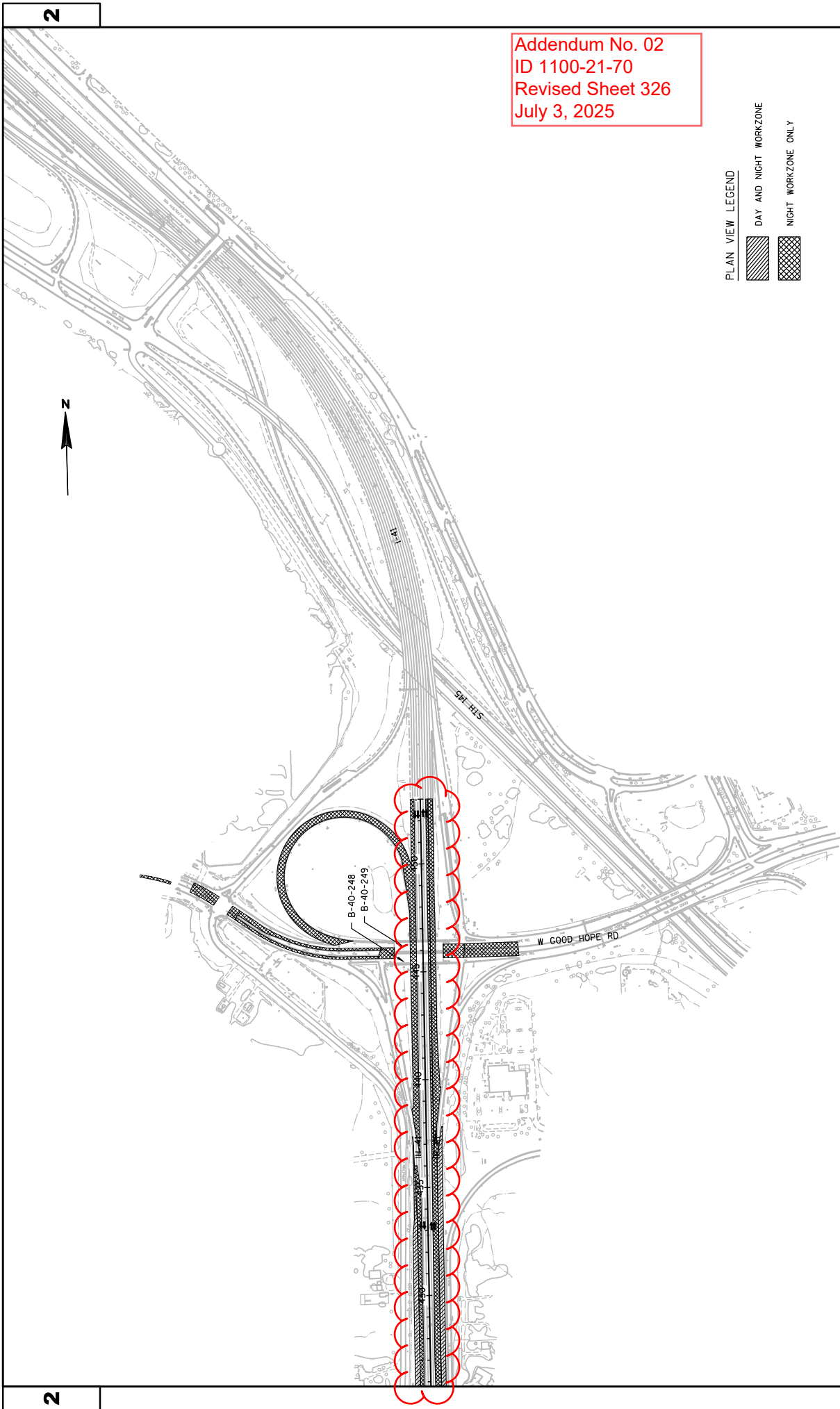
	DAY AND NIGHT WORKZONE
	NIGHT WORKZONE ONLY



Addendum No. 02  
ID 1100-21-70  
Revised Sheet 325  
July 3, 2025

PROJECT NO: 1100-21-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - OVERVIEW STAGE 2B	SHEET 325	E
FILE NAME : I:\N2325 IH41 SILVER TO GOOD HOPE\CD\11002000\SHETS\PLAN\026221-S2B.DWG					
LAYOUT NAME - 026221-S2B - 025002					
PLOT DATE : 7/2/2025 2:08 PM					
PLOT BY : ALLAN PACADA					
PLOT NAME :					
PLOT SCALE : 1 IN:400 FT					
WISDOT/CADDs SHEET 44					





Addendum No. 02  
ID 1100-21-70  
Revised Sheet 326  
July 3, 2025

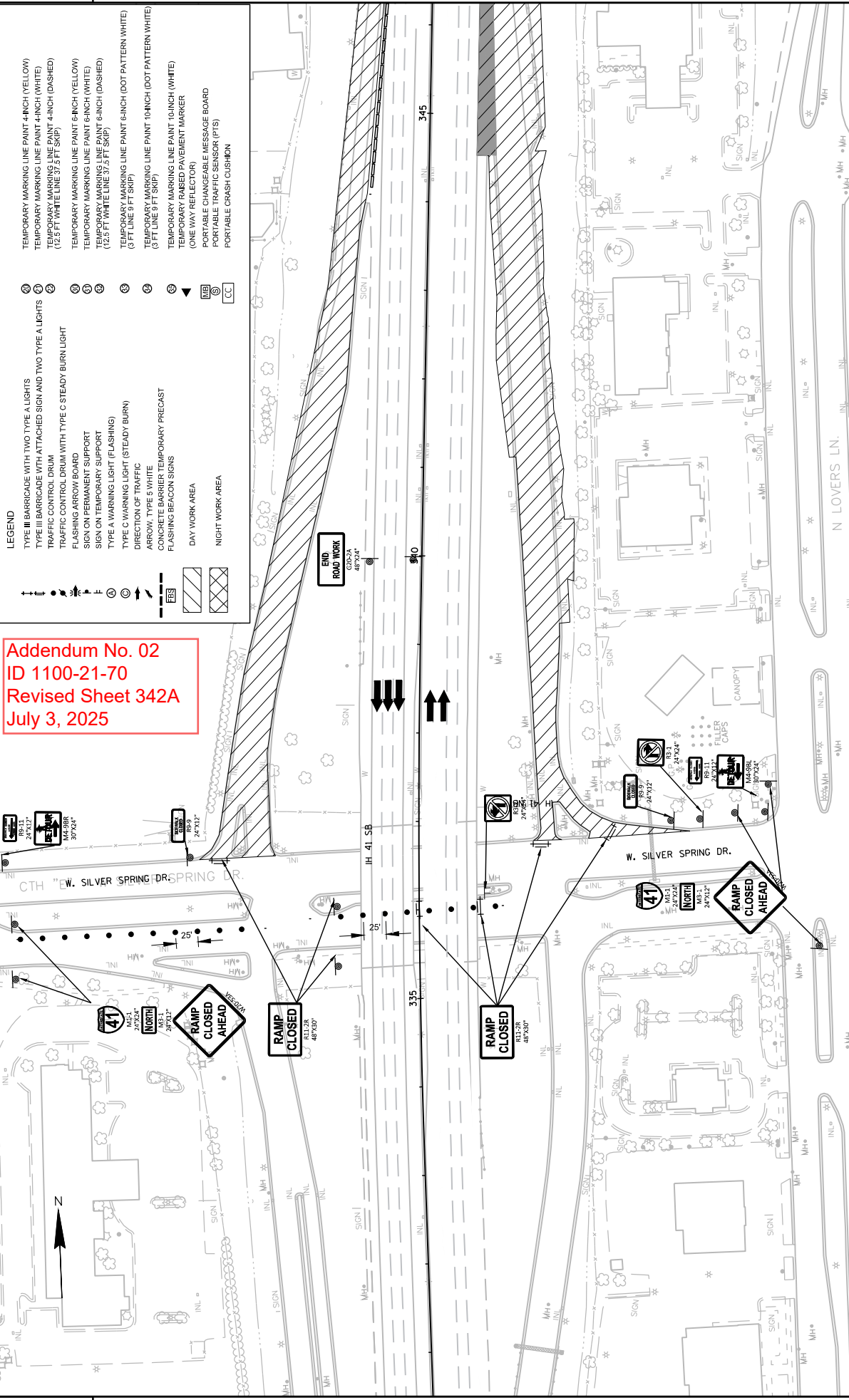
PLAN VIEW LEGEND

	DAY AND NIGHT WORKZONE
	NIGHT WORKZONE ONLY

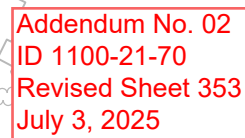
PROJECT NO: 1100-21-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - OVERVIEW STAGE 2B	SHEET 326	E
FILE NAME : I:\73235 IH41 SILVER TO GOOD HOPE\CD\11002000\SHETS\PLAN\026221-52B.DWG					
LAYOUT NAME - 026221-52B - 025003					
PLOT DATE : 7/2/2025 2:09 PM			PLOT NAME :		
PLOT BY : ALLAN PACADA			PLOT SCALE : 1 IN:400 FT		
			WISDOT/CADD'S SHEET 44		

Addendum No. 02  
ID 1100-21-70  
Revised Sheet 342A  
July 3, 2025

LEGEND	
	TYPE III BARRICADE WITH TWO TYPE A LIGHTS
	TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
	TRAFFIC CONTROL DRUM
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	TYPE C WARNING LIGHT (FLASHING)
	TYPE C WARNING LIGHT (STEADY BURN)
	ARROW, TYPE E WHITE
	CONCRETE BARRIER TEMPORARY PRECAST
	FLASHING BEACON SIGNS
	DAY WORK AREA
	NIGHT WORK AREA
	TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
	TEMPORARY MARKING LINE PAINT 4-INCH (DASHED)
	TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
	TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)
	TEMPORARY MARKING LINE PAINT 6-INCH (DASHED)
	TEMPORARY MARKING LINE PAINT 8-INCH (DOT PATTERN WHITE)
	TEMPORARY MARKING LINE PAINT 10-INCH (DOT PATTERN WHITE)
	TEMPORARY MARKING LINE PAINT 10-INCH (WHITE)
	(ONE WAY REFLECTOR)
	PORTABLE CHANGEABLE MESSAGE BOARD
	PORTABLE TRAFFIC SENSOR (PTS)
	PORTABLE CRASH CUSHION

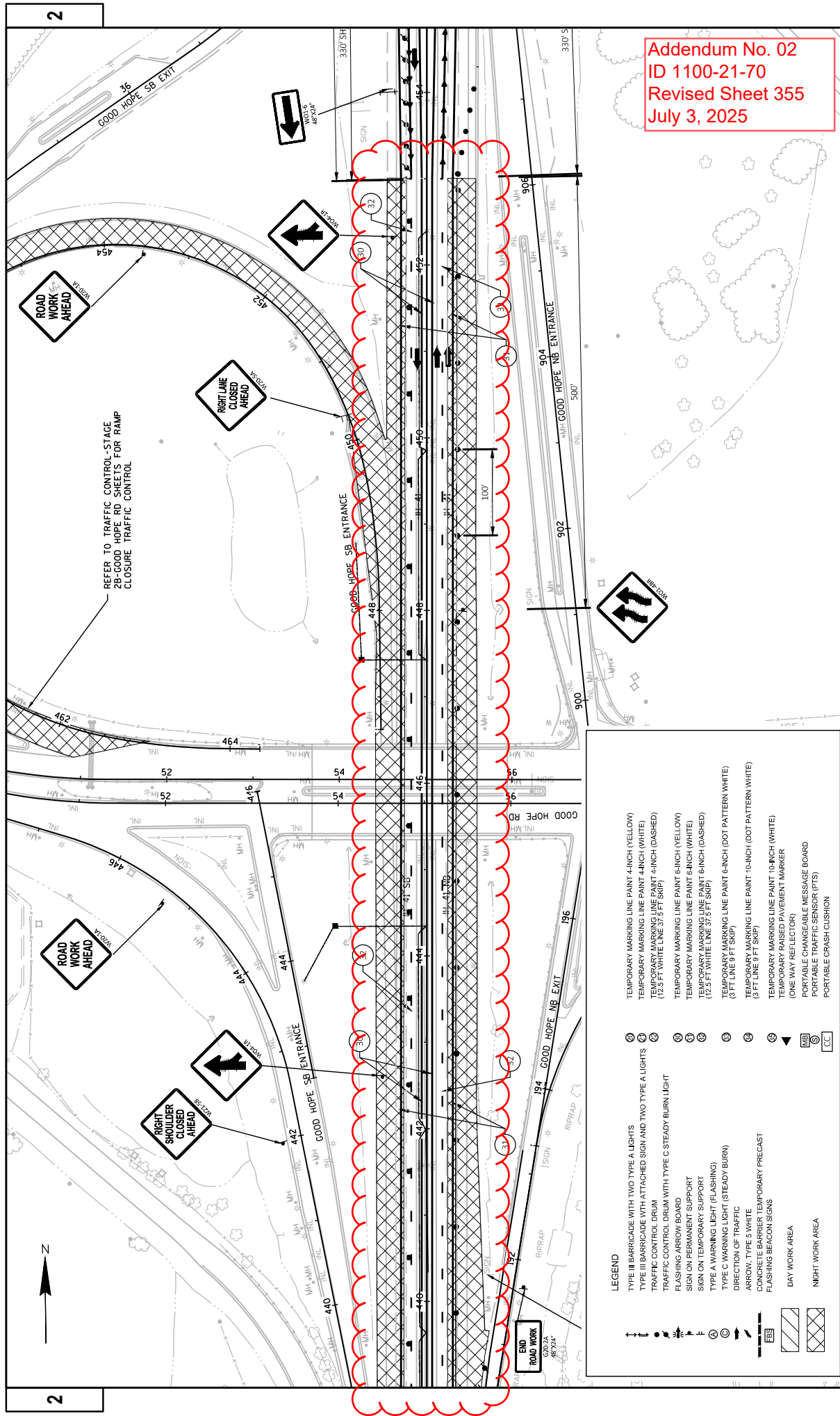


PROJECT NO: 1100-21-70	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2B RAMP CLOSURES	SHEET 342A
FILE NAME: I:\7325 IH41 SILVER TO GOOD HOPE\CD\11002000\SHETS\PLAN\02640-52B-RAMP CLOSURE.DWG	DATE: 7/2/2025 11:26 AM	BY: ALAN PACADA	1 IN 100 FT
LAYOUT NAME: 02584			WSDOT/CADDS-SHEET 42



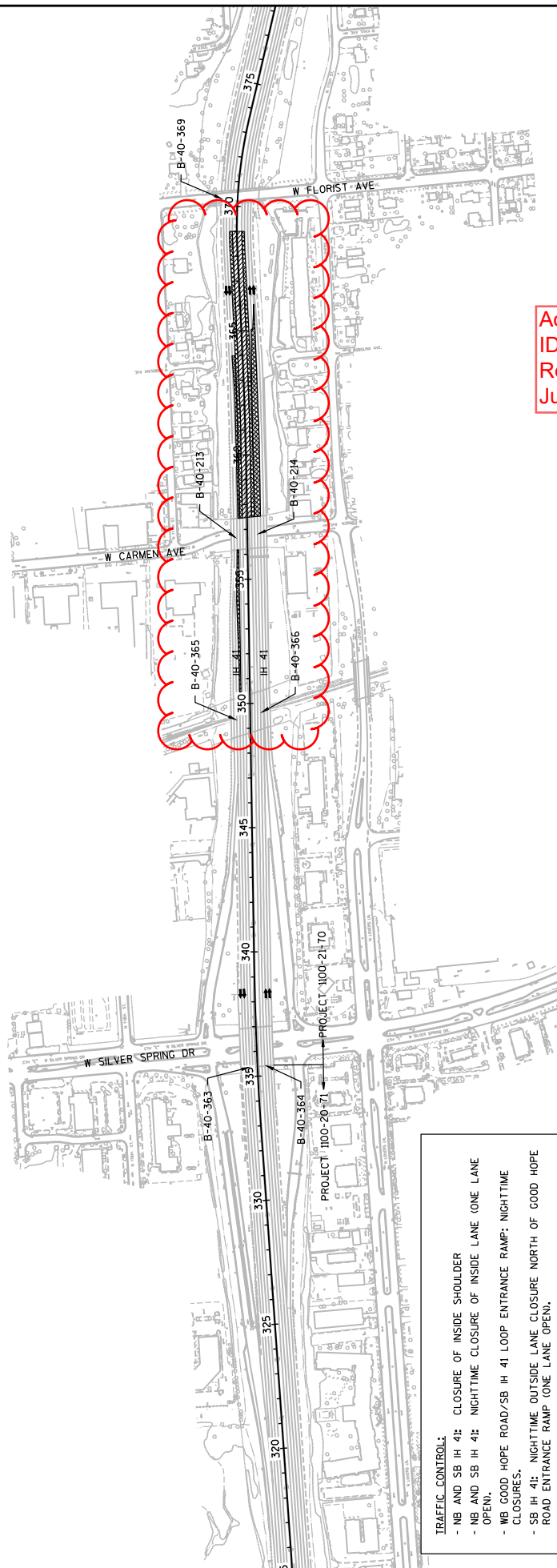






Addendum No. 02  
ID 1100-21-70  
Revised Sheet 355  
July 3, 2025

LEGEND	
	TYPE III BARRICADE WITH TWO TYPE A LIGHTS
	TYPE III BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS
	TRAFFIC CONTROL DRUM
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	TYPE A WARNING LIGHT (FLASHING)
	TYPE C WARNING LIGHT (STEADY BURN)
	DIRECTION OF TRAFFIC
	ARROW, TYPE S WHITE
	CONCRETE BARRIER TEMPORARY PRECAST
	FLASHING BEACON SIGNS
	DAY WORK AREA
	NIGHT WORK AREA
	PORTABLE CHANGEABLE MESSAGE BOARD
	PORTABLE TRAFFIC SENSOR (PTS)
	PORTABLE CRASH CUSHION



Addendum No. 02  
ID 1100-21-70  
Revised Sheet 362  
July 3, 2025

PLAN VIEW LEGEND

DAY AND NIGHT WORKZONE

NIGHT WORKZONE ONLY

TRAFFIC CONTROL:

- NB AND SB IH 4I: CLOSURE OF INSIDE SHOULDER
- NB AND SB IH 4I: NIGHTTIME CLOSURE OF INSIDE LANE (ONE LANE OPEN).
- WB GOOD HOPE ROAD/SB IH 4I LOOP ENTRANCE RAMP: NIGHTTIME CLOSURES.
- SB IH 4I: NIGHTTIME OUTSIDE LANE CLOSURE NORTH OF GOOD HOPE ROAD ENTRANCE RAMP (ONE LANE OPEN).
- NIGHTTIME CLOSURES OF EXIT AND ENTRANCE RAMPS AT GOOD HOPE ROAD TO SB IH 4I.
- CONSTRUCTION ON APPLETON AVENUE RAMPS WILL BE RESTRICTED TO NIGHTTIME HOURS ONLY.
- ALL CROSSROADS OPEN.
- OPERATIONS:
  - PERFORM BASE PATCHING OF INSIDE SHOULDER
  - PERFORM BASE PATCHING OF INSIDE SHOULDER OVER NIGHT
  - REMOVE TEMPORARY CROSSOVER.
  - CONSTRUCT PERMANENT BARRIER IN MEDIAN.
  - CONSTRUCT LIGHTING REPLACEMENTS IN MEDIAN.
  - PERFORM STORM SEWER/INLET REPAIR/REPLACEMENTS IN MEDIAN.

PROJECT NO: 1100-21-70

HWY: IH 41

FILE NAME : I:\73235 IH41 SILVER TO GOOD HOPE\C3D\11002000\SHEETPLAN\026301-S3.DWG  
LAYOUT NAME - 026301-S3 - 025001

COUNTY: MILWAUKEE

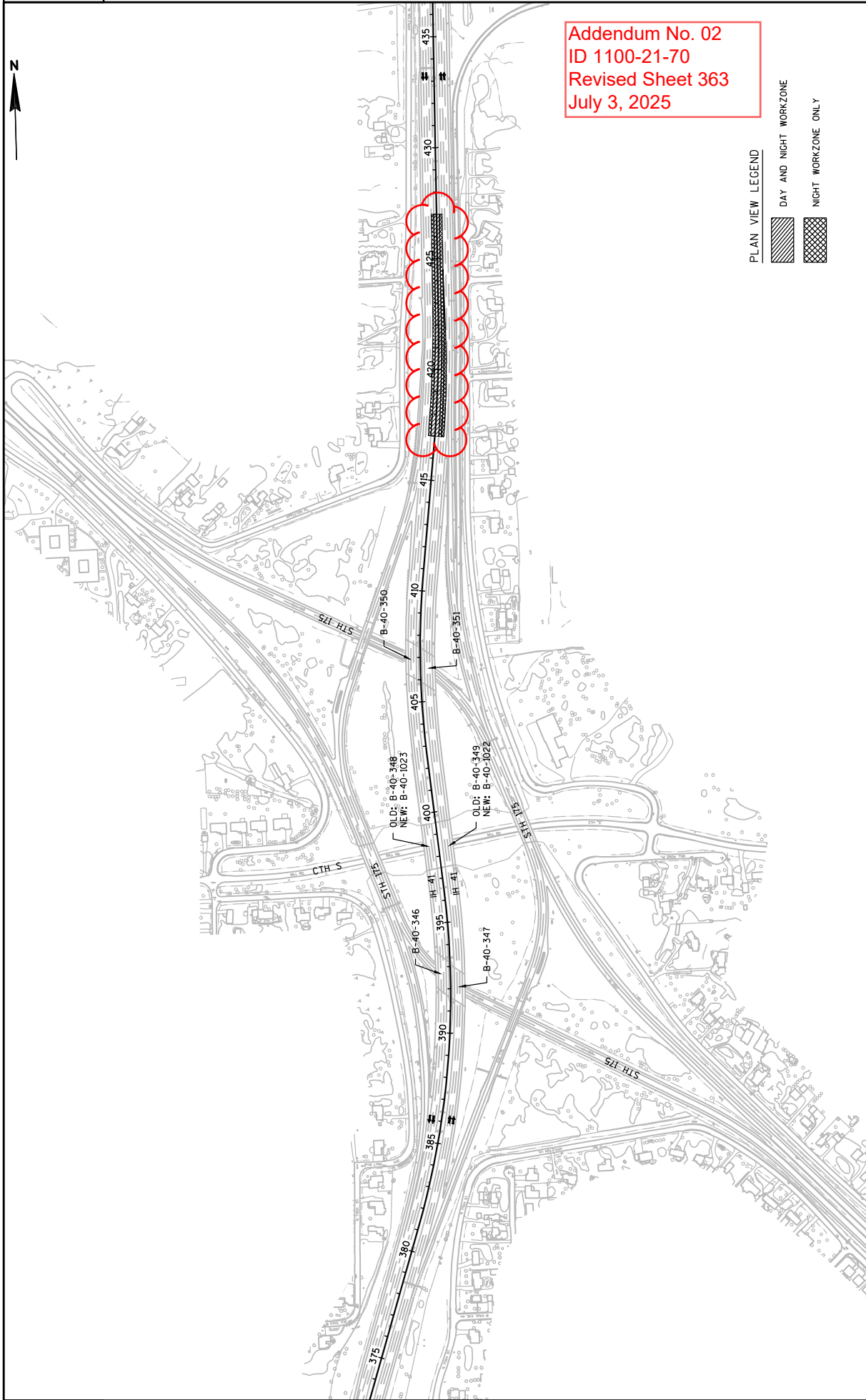
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### CONSTRUCTION OVERVIEW STAGE 3

PLOT NAME :

SHEET 362 E


WISDOT/CADDs SHEET 44



Addendum No. 02  
ID 1100-21-70  
Revised Sheet 363  
July 3, 2025

PLAN VIEW LEGEND

DAY AND NIGHT WORKZONE

 NIGHT WORKZONE ONLY

PROJECT NO: 1100-21-70

HWY: IH 41

COUNTY: MILWAUKEE

## CONSTRUCTION OVERVIEW STAGE 3

SHEET 363 E

FILE NAME : I:\73235 IH41 SILVER TO GOOD HOPE\C3D\11002000\SHETSPLAN\026301-S3.DWG  
LAYOUT NAME - 026301-S3 - 025002

PLOT DATE : 7/2/2025 2:32 PM

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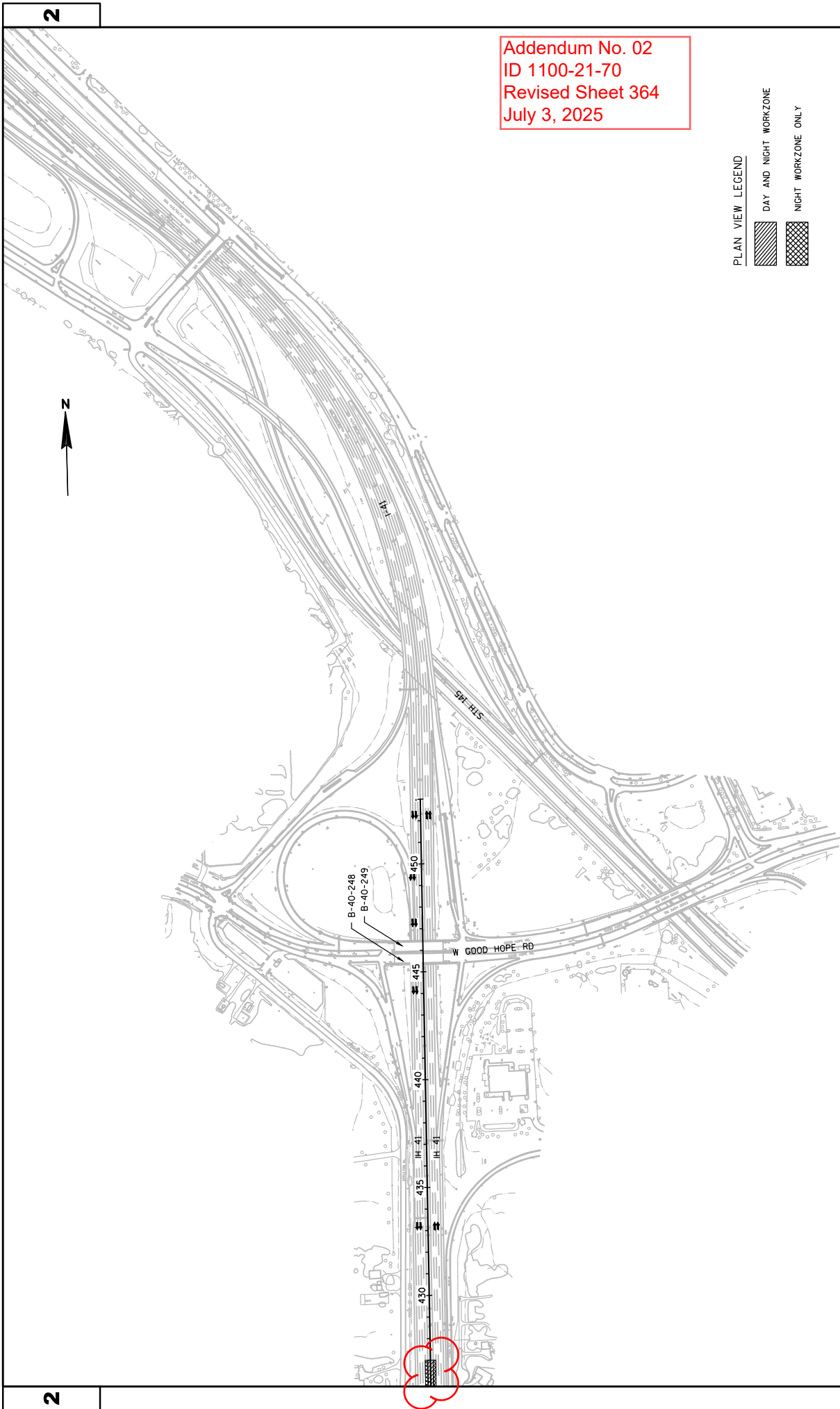


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PLOT BY : ALLAN PACADA      PLOT NAME :

PLOT SCALE : 1 IN:400 FT

WISDOT/CADDs SHEET 44



Addendum No. 02  
ID 1100-21-70  
Revised Sheet 364  
July 3, 2025

PLAN VIEW LEGEND



DAY AND NIGHT WORKZONE



NIGHT WORKZONE ONLY

PROJECT NO: 1100-21-70	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION OVERVIEW STAGE 3	SHEET 364	E
FILE NAME : I:\73235 IH41 SILVER TO GOOD HOPE\CD\11002000\SHETS\PLAN\026301-S3.DWG LAYOUT NAME - 026301-S3 - 026303					
PLOT DATE : 7/2/2025 2:32 PM					
PLOT BY : ALLAN PACADA					
PLOT NAME :					
PLOT SCALE : 1 IN:400 FT					
WISDOT/CADDs SHEET 44					



2

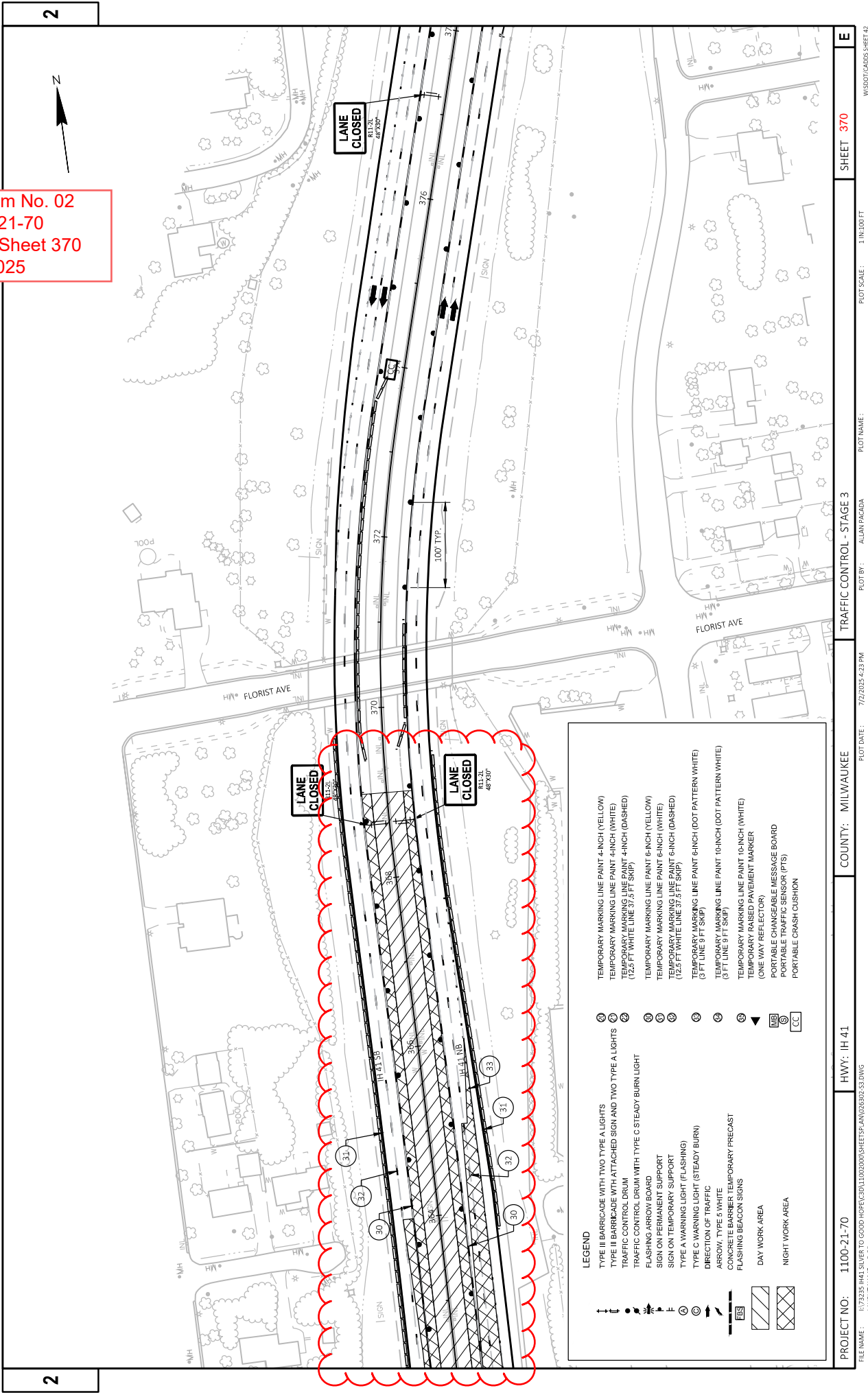
No. 02  
70  
et 369

2

LEGEND	21	TEMPORARY TYPE II BARRICADE WITH TWO TYPE A LIGHTS	TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
	22	TYPE I BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
	23	TRAFFIC CONTROL DRUM	TEMPORARY MARKING LINE PAINT 4-INCH (DASHED) (12.5 FT WHITE LINE 37.5 FT SKIP)
	24	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
	25	LASHING ARROW BOARD	TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)
	26	SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING LINE PAINT 6-INCH (DASHED) (12.5 FT WHITE LINE 37.5 FT SKIP)
	27	SIGN ON TEMPORARY SUPPORT	TEMPORARY MARKING LINE PAINT 6-INCH (DOT PATTERN) (3 FT LINE 9 FT SKIP)
	28	TYPE A WARNING LIGHT (FLASHING)	TEMPORARY MARKING LINE PAINT 10-INCH (DOT PATTERN) (3 FT LINE 9 FT SKIP)
	29	TYPE C WARNING LIGHT (STEADY BURN)	TEMPORARY MARKING LINE PAINT 10-INCH (WHITE)
	30	DIRECTION OF TRAFFIC	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	31	ARROW, TYPE 5 WHITE	PORTABLE CHANGEABLE MESSAGE BOARD
	32	CONCRETE BARRIER	PORTABLE TRAFFIC SENSOR (PTS)
	33	FLASHING BEACON SIGNS	PORTABLE CRASH CUSHION
	34	DAY WORK AREA	
	35	NIGHT WORK AREA	

PROJECT NO:	1100-21-70	HWY:	IH 41	COUNTY:	MILWAUKEE	TRAFFIC CONTROL - STAGE 3	SHEET	369	E
FILE NAME: \\V3235\I44\SILVER TO GOOD-HOPE\CD\11002000\SHEETS\PLAN\026030.S3.DWG						PLLOT DATE:	7/21/2025 4:23 PM	PLLOT BY:	ALANI PAGADA
						PLLOT SCALE:	1 IN 100 FT		
						WSDOT/CADD/SHEET 42			

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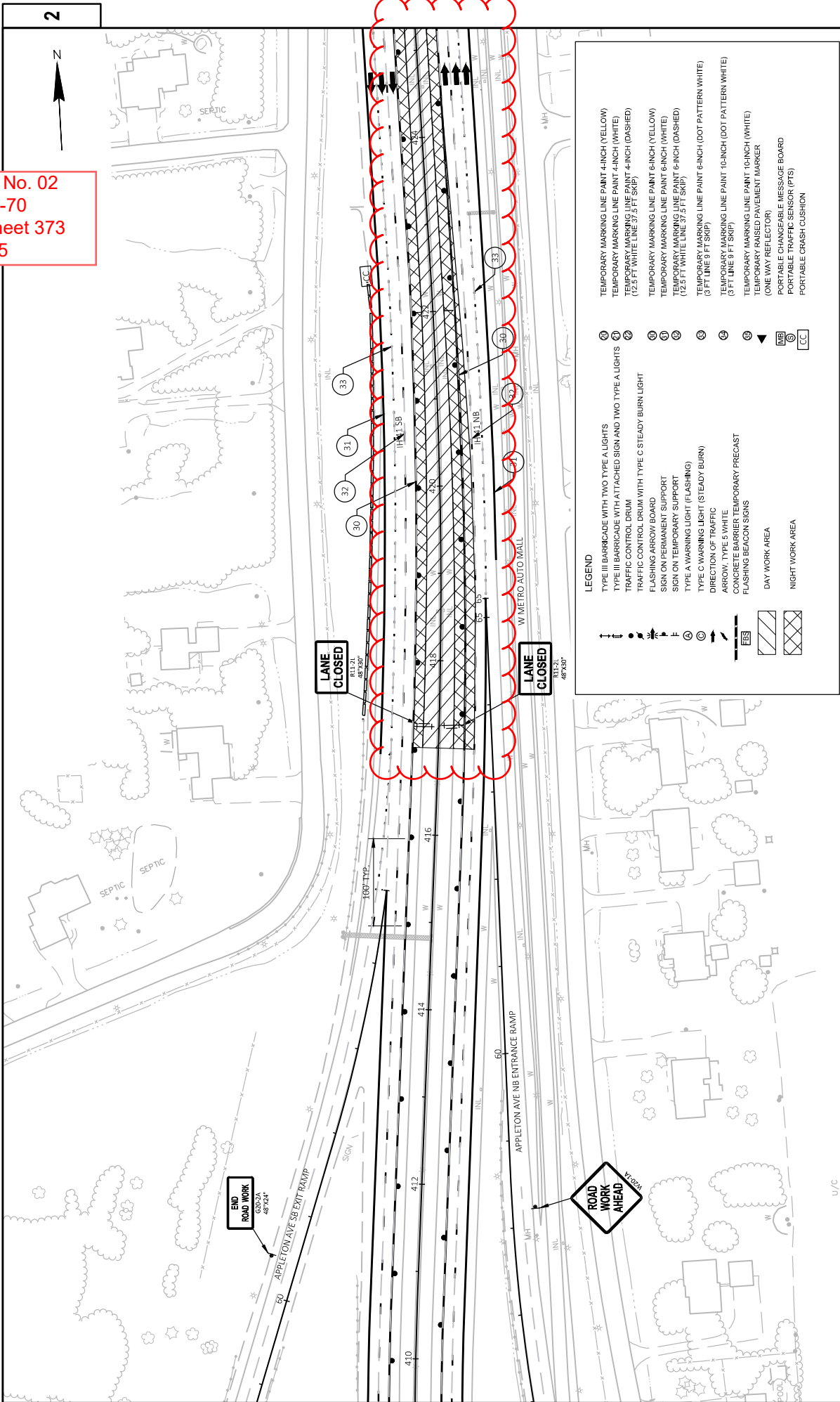


**LEGEND**

TYPE II BARRICADE WITH TWO TYPE A LIGHTS	TEMPORARY MARKING LINE PAINT 4-INCH (YELLOW)
TYPE II BARRICADE WITH ATTACHED SIGN AND TWO TYPE A LIGHTS	TEMPORARY MARKING LINE PAINT 4-INCH (WHITE)
TRAFFIC CONTROL DRUM	TEMPORARY MARKING LINE PAINT 4-INCH (DASHED)
FLASHING ARROW BOARD	TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)
SIGN ON PERMANENT SUPPORT	TEMPORARY MARKING LINE PAINT 6-INCH (WHITE)
SIGN ON TEMPORARY SUPPORT	TEMPORARY MARKING LINE PAINT 6-INCH (DASHED)
TYPE C WARNING LIGHT (FLASHING)	TEMPORARY MARKING LINE PAINT 6-INCH (DOT PATTERN WHITE)
DIRECTION OF TRAFFIC	TEMPORARY MARKING LINE PAINT 10-INCH (DOT PATTERN WHITE)
ARROW, TYPE S WHITE	TEMPORARY MARKING LINE PAINT 10-INCH (WHITE)
CONCRETE BARRIER TEMPORARY PRECAST	TEMPORARY RAISED PAVEMENT MARKER
FLASHING BEACON SIGNS	(ONE WAY REFLECTOR)
	PORTABLE CHANGEABLE MESSAGE BOARD
	PORTABLE TRAFFIC SENSOR (PTS)
	PORTABLE CRASH CUSHION

DAY WORK AREA  
NIGHT WORK AREA

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