HIGHWAY WORK PROPOSAL

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

Proposal Number: 015

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Milwaukee	1100-45-70	WISC 2023222	Ih 41 Airport Freeway; 84th St To 35th St (Mainline)	IH 041
Milwaukee	1100-46-71	WISC 2023223	Ih 41 Airport Freeway; Sth 36 (Loomis Rd) Bridge	IH 041

ADDENDUM REQUIRED

ATTACHED AT BACK

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

Proposal Guaranty Required: $1,000,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: February 14, 2023 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time November 03, 2023	
Assigned Disadvantaged Business Enterprise Goal 10%	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**

Mill, Grade, Storm Sewer, Base, Concrete Pavement, Asphalt Pavement, Curb & Gutter, Concrete Barrier, Sidewalk, Beam Guard, Signing, Lighting, Signals, Pavement Marking, Structures B-40-191, 192, 196, 197, 200, 201, 321, 1025, N-40-009, 010, R-40-716, 717, S-40-410, 413, 801, 834, 869, 870, 3095 - 3097, 3099 - 3102

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

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

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

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

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

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:

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

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the 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™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
3. The diskette or CD ROM is not submitted at the time and place the department designates.

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

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

Effective with March 2010 Letting

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1100-45-70, IH 41 Airport Freeway, 84th St to 35th St (Mainline), IH 41, Milwaukee County, Wisconsin; and Project 1100-46-71, IH 41 Airport Freeway, STH 36 (Loomis Rd) Bridge, IH 41, 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, 2023 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 (20220628)

2. Scope of Work.

The work under this contract shall consist of clearing and grubbing, removals, asphaltic surface milling, excavation common, base aggregate, select crushed material, base patching concrete, asphaltic pavement, structures, retaining walls, curb and gutter, sidewalk, barrier wall, storm sewer, beam guard, erosion control, permanent signing, sign structures, traffic control, pavement marking, lighting, signals, FTMS, noise walls and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

Structures:

Bridges

B-40-191	B-40-200
B-40-192	B-40-201
B-40-196	B-40-321
B-40-197	B-40-1002
B-40-198	B-40-1025

Retaining Walls

R-40-716	R-40-717

Sign Bridges

S-40-410	S-40-3096
S-40-413	S-40-3097
S-40-801	S-40-3099
S-40-834	S-40-3100
S-40-869	S-40-3101
S-40-870	S-40-3102
S-40-3095	

Noise Walls

N-40-009	N-40-010

3. Prosecution and Progress.

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

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

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

The contract time for completion is based on an expedited work schedule and may require extraordinary forces and equipment; work on Saturdays, Sundays and nationally recognized legal holidays; and work at night.

Indicate on the proposed schedule of operations that a large force and adequate equipment will be needed to assure that the work will be completed within the established contract time.

Be advised that there may be multiple mobilizations and/or remobilizations to complete construction operations, for example such items as; traffic control, concrete base patching, milling, paving, signing, temporary and permanent pavement marking, finishing items and other incidental items. No additional payment will be made by the department for additional mobilizations.

There will be no adverse weather delay of additional compensation for cold weather construction unless otherwise provided by in the contract.

After written notice to proceed, and prior to Final Acceptance of the work, assist with maintenance of existing roadways and bridges as specified in standard spec 104.6.1. This assistance may include performance of work covered under pay items to accommodating local repair forces within the work zones. Maintain all newly constructed work as specified in standard spec 104.6.1.

Place topsoil in all graded areas as designated by the engineer immediately after grading has been completed. Fertilize, seed and mulch or fertilize and sod all areas within five calendar days after placement of topsoil.

CPM Progress Schedule

Refer to the Baseline CPM Progress Schedule items elsewhere in these special provisions.

Schedule of Operations

The department anticipates that the schedule for each stage shall be as follows:

Project 1100-45-70

Stage 1 Construction:

- Install temporary lighting along IH 41/43/894.
- Mill & overlay IH 41/43/894 existing outside shoulders.
- Construct temporary storm sewer improvements on IH 41/43/894 outside shoulders.
- Begin base patching along IH 41/43/894.
- Begin all work on service ramps including base patching, milling, overlaying, and curb and gutter replacement.

Stage 2A/2B Construction:

- Install temporary barrier wall for inside shoulder work zones along IH 41/43/894.
- Remove existing pavement markings in conflict with stage 2 temporary pavement markings and place stage 2 temporary pavement marking.
- Removals in IH 41/43/894 median.
- Construct median shoulder and barrier wall along IH 41/43/894.
- Construct median storm sewer along IH 41/43/894.
- Install permanent median lighting along IH 41/43/894.

- Begin girder repairs.
    - B-40-201
- Construct median sign structure bases for:
    - S-40-410
    - S-40-413
    - S-40-801
- Complete Maintenance work on sign Structure S-40-834.
- Complete butterfly sign structures:
    - S-40-869
    - S-40-870
    - S-40-3101
    - S-40-3102
- Complete IH 41/43/894 mainline bridge overlays (remove median temporary barrier wall at the end of stage 2 to allow for overlay work zones):
    - B-40-191
    - B-40-192
    - B-40-196
    - B-40-197
    - B-40-200
- Continue base patching along IH 41/43/894.
- Complete all work on freeway service ramps.
- Complete all work on 84th street.

Stage 3 Construction:

- Install temporary barrier wall for outside shoulder work zones along IH 41/43/894.
- Remove pavement markings from stage 2 in conflict with stage 3 temporary pavement markings and place stage 3 temporary pavement markings.
- Reconstruct outside shoulder along IH 41/43/894.
- Complete base patching along IH 41/43/894.
- Complete girder repairs:
    - B-40-201
- Complete local road bridge overlays:
    - B-40-201
    - B-40-1002
- Complete cantilever sign structures:
    - S-40-3099
    - S-40-3100
- Complete full span sign structures:
    - S-40-410
    - S-40-413
    - S-40-801

- Complete all noise barrier maintenance construction:
    - N-40-009
    - N-40-010
- Complete box culvert repair:
    - B-40-321
- Install outside permanent lighting along IH 41/43/894.

Stage 4 Construction:

- Remove pavement markings from stage 3 in conflict with stage 4 temporary pavement markings and place stage 4 temporary pavement markings.
- Mill & overlay (binder) all lanes along IH 41/43/894 in both directions.
- Overlay (surface) all lanes and shoulders, including reconstructed median and outside shoulders along IH 41/43/894 in both directions and place temporary pavement marking in the same location as permanent markings.
- Install all remaining final pavement marking throughout project.

Project 1100-46-71

Traffic shifts shown in each stage may occur at different times during that stage, depending on the controlling elements for a given traffic movement. Work on the bridge will be completed with a full road closure on WIS 36/Loomis Road. The department anticipates that the schedule for each stage shall be as follows:

Stage A Construction:

- Close NB left lane on Loomis Road.
- Construct temporary median crossover for the Loomis Apartment LLC Driveway.

Stage B Construction:

- See mainline staging stage 1 for mainline traffic control.
- Close WIS 36/Loomis Road between Layton Avenue and 43rd Street. IH 894 WB exit ramp to WIS 36 SB is closed. Remaining WIS 36 entrance and exit ramps remain operational with right turn only movements. Install detour signing for WIS 36 and closed ramp movements.
- Remove traffic signals at the ramp terminals.
- Construct temporary median crossover at the IH 894 WB ramps for use during full closures.
- Begin bridge removal.

Stage C Construction:

- See mainline staging stage 1 for mainline traffic control.
- Remove existing bridge deck and girders, median piers, median barrier, and median shoulder pavement along IH 41/43/894.
- Remove existing outside piers, as needed.
- Build abutments for bridge B-40-1025.
- Place new storm sewer and drainage structures.

Stage D Construction:

- See mainline staging stage 2 for mainline traffic control.
- Continue construction of abutments for bridge B-40-1025.
- Complete removal of median piers, median barrier, and median shoulder pavement along IH 41/43/894.

- Complete median pier construction.
- Coordination with mainline construction required before switch to Stage E. Median reconstruction must be completed before switch.

Stage E Construction:

- See mainline staging stage 3 for mainline traffic control.
- Continue construction of abutments for bridge B-40-1025.
- Construct retaining wall R-40-716, retaining wall R-40-717, and slope paving.
- Complete removal of outside piers and footings.
- Set girders for bridge B-40-1025.
- Complete all bridge work that requires IH 894 full closures.

Stage F Construction:

- See mainline staging stage 3 or 4 for mainline traffic control.
- Close the IH 894 WB ramps. Modify existing detour signing for ramp full closures.
- Reconstruct WIS 36/Loomis Road north of IH 894 including drainage, lighting, and traffic signals
- Continue construction for bridge B-40-1025.
- Stage F may overlap with Stage G.

Stage G Construction:

- See mainline staging stage 3 or 4 for mainline traffic control.
- Close the IH 894 EB ramps. Modify existing detour signing for ramp full closures.
- Reconstruct WIS 36/Loomis Road south of IH 894 including drainage, lighting, and traffic signals
- Complete reconstruction of WIS 36/Loomis Road north of IH 894 including drainage, lighting, and traffic signals.
- Complete construction for bridge B-40-1025.

Stage H Construction:

- Fully open WIS 36/Loomis Road and all IH 894 ramps. Remove all detour signing.
- Close NB left lane on Loomis Road.
- Remove the temporary median crossover for the Loomis Apartment LLC Driveway and restore the center median

Contractor Coordination

Attend weekly scheduling meeting 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.

Work Zone Ingress/Egress

All locations of work zone egress or ingress for construction vehicles are subject to approval from the engineer. Submit to the engineer locations for freeway access into and out of the work zone for each stage and plans, for approval, that include signage and parallel deceleration and acceleration lanes for each freeway access into and out of the work zones. Submit the locations and plans 14 calendar days prior to each stage for approval by the engineer. This will be an official submittal as defined in section 103.10.2.4 of the Contract Award and Execution located elsewhere in these Special Provisions.

At the weekly traffic meetings, provide updated information to the Work Zone Access Plan, as approved by the engineer, to direct emergency responders accessing a mainline median barrier restricted work zone. Access for emergency responders shall be maintained at all times and not restricted by vehicles, equipment or the storage of equipment, vehicles or materials.

Access into the work zones from the freeway will be allowed, subject to approval by the engineer, if operations can be safely accomplished and do not result in non-construction traffic entering the work zones. Exiting work zones directly onto the freeway are only allowed when operations do not obstruct or slow traffic on the freeway. All construction vehicles shall yield to all through traffic at all locations.

SEF Rev. 13_0425_revised

Freeway and Ramp Work Restrictions

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

Weekday Peak Hours

5:30 AM – 9:30 PM	Monday, Tuesday, Wednesday, Thursday
5:30 AM – 11:00 PM	Friday

Weekend Peak Hours

8:00 AM – 11:00 PM	Saturday
8:00 AM – 9:30 PM	Sunday

Nighttime 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

Full Freeway and System Ramp 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

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

Do not close freeway lanes or shoulders and ensure that the freeways are entirely clear of traffic during Weekday Peak Hours and Weekend Peak Hours, except as shown in the traffic control plans. Provide a minimum of one lane in each direction of the freeway that is entirely clear for traffic during Nighttime Hours except as allowed during full closure. Do not close System Ramps unless otherwise approved by the engineer for safety or operational reasons associated with other adjacent lane or freeway closures. Close service ramps only during Service Ramp Closure Hours, unless otherwise specified in the plan, or unless otherwise approved by the engineer for safety or operational reasons associated with other adjacent lane or freeway closures.

Follow plan details for closures. Lane restrictions of the freeway beyond that shown on the traffic control plans are subject to lane rental fee assessments and must be approved by the engineer. If plan details are not provided in the traffic control plan, furnish plans for review by the engineer. Once approved, allow at least three business days prior to the closure of roadway, lane, and ramp as identified in Contractor Coordination.

Obtain prior acceptance from the engineer for Ramp Closures. Long-term ramp closures shown on the traffic control plans shall be posted 10 business days in advance of their closure with dates and time of closure. Post all short-term entrance and exit ramps three business days in advance of their closure with dates and time of closure.

No two consecutive entrance ramps or consecutive exit ramps may be closed unless it is approved by the engineer.

Full closure and detouring of freeway roads will be restricted to Full Freeway and System Ramp Closure Hours unless otherwise specified. The freeway may be closed to facilitate the removal of full span sign structures, erection of full span sign structures, removal of structures, erection of girders, and other work approved by the engineer. Provide signed detour routes, as shown in the plans, fully open and free of construction during all full freeway and system ramp closures.

Local Road Work Restrictions

Definitions

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

Peak Hours

6:00 AM – 9:00 AM	Monday, Tuesday, Wednesday, Thursday, Friday
3:00 PM – 7:00 PM	Monday, Tuesday Wednesday, Thursday
3:00 PM – 9:00 PM	Friday
11:00 AM – 8:00 PM	Saturday
1:00 PM – 5:00 PM	Sunday

Off-Peak Hours

9:00 AM – 3:00 PM	Monday, Tuesday, Wednesday, Thursday, Friday
7:00 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
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

Do not close local roads and ensure that all local roads are entirely clear for traffic during Weekday Peak Hours and Weekend Peak Hours. Provide a minimum of one lane in each direction of the local road that is entirely clear for traffic during Weekday Nighttime Lane Closure Hours and Weekend Nighttime Lane Closure Hours.

Follow standard details and traffic control details for closures. If plan details are not provided in the traffic control plan, furnish plans for review by the engineer so that approval or disapproval, is obtained at least three business days prior to any proposed closure.

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

Do not close residential approaches or remove from service without giving a 5-day notice to the occupants of the premises to remove their vehicles prior to 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.

35th Street Full Closure

35th Street may be closed, as shown in Stages 2A/2B and 3 in the plans, for a onetime period not to exceed 30 consecutive calendar days to facilitate girder repair work at Structure B-40-201. This closure will only be allowed from the June 26, 2023 to July 26, 2023 timeframe. Lane rental assessments will not apply to this 30 calendar day closure. This closure shall not occur concurrently with the 51st Street Full Closure.

51st Street Full Closure

51st Street may be closed, as shown in Stage 3 in the plans, for a onetime period not to exceed 14 consecutive calendar days to facilitate bridge painting, replacing slope paving at structures B-40-196/197, and replacing sidewalk under bridges. This closure will only be allowed during the July 27, 2023 to August 25, 2023 timeframe. Lane rental assessments will not apply to this 14 calendar day closure.

35th Street and 68th Street Bridge Overlay Full Closures

35th Street and 68th Street overlays shall be performed using nighttime closures. Overlay operations on each bridge can occur on a maximum of four consecutive calendar nights and cannot occur concurrently. Nighttime closures will only be allowed from July 27th to August 15th and cannot occur during the 14 calendar day full closure of 51st Street.

Polymer Polyester Concrete Overlay

Perform polymer polyester concrete overlays on structures B-40-191, B-40-192, B-40-196 and B-40-197 in halves at the end of Stage 2 prior to placing temporary barrier in Stage 3.

Enhanced Liquidated Damages – Final Completion

Replace standard spec 108.11 paragraph (3) as follows:

The department will assess $5,000 in daily liquidated damages. These liquidated damages reflect the cost of engineering, supervision, and a portion of road user costs.

Interim Completions and Liquidated Damages

<u>01 – Stage 2A IH 41 SB/43 NB/894 EB Lane Closure: 14 Calendar Days</u>

Complete median reconstruction on IH 41/ IH 43/ IH 894 (eastbound and westbound) from Station 81'EW'+29.20 to Station 94'EW'+00.00 including the following work: removals, grading, aggregate, storm sewer, asphalt paving, barrier wall, and median light pole bases.

If the contractor fails to complete the work necessary along the IH 41 SB/43 NB/894 EB median during Stage 2A to open the closed lane and restore three through lanes of traffic within 14 calendar days of the closure date, the department will assess the contractor $40,000 in interim liquidated damages for each calendar day that the roadway remains closed beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed and work incomplete beyond 12:01 AM.

<u>02 – Stage 2A/2B Mainline and Ramp Work: June 29, 2023</u>

Complete Stage 2A/B construction operations on IH 41/ IH 43/ IH 894 and all service ramp work, except the STH 36/ Loomis Road ramps which will be completed under the long-term ramp closures in Stages F and G of the 1100-46-71 project, to the stage necessary to transition to Stage 3 by June 29, 2023. Do not transition to Stage 3 until completing the following work: removals, grading, asphalt paving, barrier wall, lighting, and median sign bases in the median of IH 41/ IH 41/ IH 894 and milling, asphalt paving, and curb and gutter on service ramps.

If the contractor fails to complete the work necessary on IH 41/ IH 43/ IH 894 and the service ramps to transition to Stage 3, the department will assess the contractor $40,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on June 30, 2023. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

03 – Polyester Polymer Concrete Overlays on IH 41/ IH 43/ IH 894 Structures B-40-191, B-40-192, B-40-196 and B-40-197: July 15, 2023

Complete polyester polymer concrete overlay operations on IH 41/ IH 43/ IH 894 Structures B-40-191, B-40-192, B-40-196, and B-40-197 by July 15, 2023.

If the contractor fails to complete the polyester polymer concrete overlays on B-40-191, B-40-192, B-40-196, and B-40-197 by 12:01 AM July 15, 2023, the department will assess the contractor $5,000 in interim liquidated damages for each calendar day that the polyester polymer concrete overlays remain uncompleted after 12:01 AM July 16, 2023. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

04 – B-40-201 Girder Repair along 35th Street: July 26, 2023

Complete construction operations along 35th Street on B-40-201 to the stage necessary to reopen it to through traffic by July 26, 2023. Do not reopen until completing the following work: girder repair.

If the contractor fails to complete the work necessary to reopen 35th Street to through traffic by July 26, 2023, the department will assess the contractor $1,000 in interim liquidated damages for each calendar day that the roadway remains closed after 12:01 AM July 27, 2023. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

05 – B-40-196/197 along 51st Street: 14 Calendar Days

Complete construction operations along 51st Street on B-40-196/197 within 14 calendar days.

If the contractor fails to complete the work necessary along 51st Street at B-40-196 and B-40-197 including bridge painting, slope paving replacement, and sidewalk repairs within 14 calendar days of the closure date, the department will assess the contractor $1,000 in interim liquidated damages for each calendar day that the roadway remains closed and the work incomplete beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed and work incomplete beyond 12:01 AM.

06 – Restore Traffic on Loomis Road and Ramps: October 27, 2023

Complete all work to restore traffic on WIS 36/Loomis Road and the IH 41/43/894 entrance/exit ramps, including the following, by October 27, 2023:

- WIS 36/Loomis Road bridge B-40-1025, retaining walls R-40-716 and R-40-717, and approach pavements.
- WIS 36/Loomis Road roadway and IH 41/43/894 ramp pavement, sidewalks, signing and pavement marking.
- Traffic signals, lighting, and ITS/FTMS.

If the contractor fails to complete all the work necessary to restore traffic on WIS 36/Loomis Road and the Loomis IH 41/43/894 entrance/exit ramps by 12:01 AM on October 28, 2023, the department will assess the contractor $6,000 in liquidated damages per calendar day for each calendar day after 12:01 AM on October 28, 2023, that this work is not completed. An entire calendar day will be charged for any period of time within a calendar day that this work remains uncompleted beyond 12:01 AM on October 28, 2023.

07 – Stage G Reopen WB Loomis Ramps: 38 Calendar Days

During Stage G, complete removals, excavation, base course, concrete pavement, and curb & gutter, shown in the plans necessary to open both I-41/43/894 WB ramps to traffic at Looms Road within 38 calendar days.

If the contractor fails to complete the work necessary to re-open both I-41/43/894 WB ramps within 38 calendar days of the closure date, the department will assess the contractor $2,000 in interim liquidated damages for each calendar day that the roadway remains closed and the work incomplete beyond 38 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed and work incomplete beyond 12:01 AM.

08 – Stage F Re-open EB Loomis Ramps: 28 Calendar Days

During Stage F, complete removals, excavation, base course, concrete pavement, and curb & gutter, shown in the plans necessary to open both I-41/43/894 EB ramps to traffic at Looms Road within 28 calendar days.

If the contractor fails to complete the work to re-open both I-41/43/894 WB ramps within 28 calendar days of the closure date, the department will assess the contractor $3,000 in interim liquidated damages for each calendar day that the roadway remains closed and the work incomplete beyond 28 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed and work incomplete beyond 12:01 AM.

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

Sign Structure S-40-410

Removal of sign Structure S-40-410 should be coordinated to take place during full freeways closures for Structure B-40-198 demolition. Re-installation of sign Structure S-40-410 should be coordinated to take place during full freeway closures for erecting Structure B-40-1025 girders over IH 894 westbound lanes.

Box Culvert B-40-321

Repair work of box culvert B-40-321 should be coordinated to take place between the dates of July 5 and August 15, both dates inclusive.

Access to the box culvert in Stage 3 for repair construction shall be from IH 41 Southbound/ 43 Northbound/ 894 Eastbound outside shoulder. After the Honey Creek flow is diverted into one cell of the box, any construction equipment or material may be lowered into the south end of the cell of the B-40-321 dry cell. Sediment can be removed from within the dry cell as necessary to make repairs shown on the B-40-321 structure plans provided the removed sediment is not placed in existing wetlands. Small vehicles with tracks or rubber tires, carts, or sleds, can be used to move equipment and material within the dry cell. Repair work on the north end of the culvert shall be accessed from the south end of the dry cell and passing through the cell to the north end

FTMS

EX-CCTV-40-0025, CCTV-40-0025, EX-CCTV-40-0028, AND CCTV-40-0028

Construct the new camera pole concrete bases, install the new state-furnished camera poles, and new state-furnished cameras; install new camera cables to the existing cabinets, connect to the existing ethernet switches, and make functional within the WisDOT communications network. Coordinate the work with the respective fence removals and gate installations. Downtime for a CCTV camera site functionality may not exceed 24-hours.

Winter Maintenance

Milwaukee County will perform snow removal operations for freeway and ramp lanes and shoulders that are open to traffic. The Cities of Milwaukee, Wauwatosa, and West Allis 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 Rev. 12_0330_revised

Fish Spawning

There shall be no instream disturbance of Honey Creek as a result of construction activity under or for this contract, from March 1 to June 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish species.

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

Migratory Birds

Swallow or other migratory bird nests have been observed on or under the existing structure(s). 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.

See below for information on affected structure(s). As a last resort, apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds or clearing nests from all structures before the nests become active in early spring.

Either prevent active nests from becoming established or prevent birds from nesting by installing and/or maintaining one suitable deterrent device on the following structure(s) prior to nesting activity under the bid item Installing and Maintaining Bird Deterrent System:

- Structure B-40-191
- Structure B-40-192
- Structure B-40-196
- Structure B-40-197
- Structure B-40-198
- Structure B-40-201

Northern Long-eared Bat *(Myotis septentrionalis)*

Northern long-eared bats (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. To avoid adverse impacts upon the NLEBs, no tree clearing is allowed between April 1 and October 31, both dates inclusive.

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

Tree clearing is limited to that which is specified in the plans. If additional trees with a 3-inch or greater diameter at breast height (dbh) need to be removed, no tree clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the USFWS and may require a bat presence/absence or visual emergency survey. Notify the engineer if additional clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary. Submit a schedule and description of clearing operations with the ECIP 14 days prior to any clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of clearing operations, and list those additional measures in the ECIP.

4. Traffic.

Supplement standard spec 643.3.1 with the following:

IH 41/ 43/ 894 is an OSOW route. All fixed message and width restricted signs must be in place prior to the beginning of the width restricted stage to inform multi trip permit holders to utilize alternate routes. See Wisconsin Lane Closure System Advance Notification article to address lane restrictions in LCS.

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

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/ 43/ 894 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.

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 (20211227)

General

Coordinate traffic requirements under this contract with other adjacent and concurrent department or local municipality projects. Implement and coordinate with other contractors all traffic control as shown on the plans. Modifications to the traffic control plan may be required by the engineer to be safe and consistent with adjacent work by others.

Unless detailed in the plans, do not begin or continue any work that closes traffic lanes outside the allowed time periods specified in the Prosecution and Progress article.

Do not store equipment, vehicles, or materials on adjacent streets beyond the project limits without specific approval of the engineer.

Keep IH 41/ 43/ 894, all system ramps and all service ramps open to through traffic at all times for the duration of this project except as noted in the Prosecution and Progress article in these special provisions.

Local Access

Maintain access to all commercial and private properties for the duration of this contract along 84th Street, 51st Street, Loomis Road, 35th Street, and all adjacent side streets, and any other local road affected by construction for residents, businesses, and emergency vehicles. Maintain and keep open the access to all driveways and parking lots. Provide access using ramps in the curb and gutter and paving driveway aprons in stages as directed at the time of construction by the engineer.

Emergency Access

Maintain emergency access to the project area at all times.

Residential and Business Property Access

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.

Traffic Staging

Project 1100-45-70

Staging as follows:

Stage 1

- IH 41/43/894 open to traffic three lanes in each direction using the existing lanes.
- Nighttime lane closures for base patching and to mill and overlay outside shoulders, maintaining a minimum of one lane in each direction.
- Nighttime service ramp closures for ramp work and to aid outside shoulder mill and overlay operations.

Stage 2A

- IH 41NB/43SB/894WB two lanes utilizing the existing outside shoulder and lane (shifted away from work zone).
- IH 41SB/43NB/894EB three lanes utilizing the existing outside shoulder, and two outside lanes (shifted away from work zone), between 92nd Street and 84th Street three lanes are shifted onto the existing ramp TAA auxiliary lane and two outside lanes.
- Ramp TAA open to traffic, auxiliary lane reconfigured as a taper exit ramp.
- Full freeway closures along IH 41/43/894 for existing full span sign structure removals.
- Nighttime IH 41/43/894 lane closures maintaining a minimum of one lane in each direction.
- Nighttime service ramp closures.
- Nighttime single lane and shoulder closures in each direction along 84th Street.

Stage 2B

- IH 41NB/43SB/894WB two lanes utilizing the existing outside shoulder and lane (shifted away from work zone).
- IH 41SB/43NB/894EB three lanes utilizing the existing outside shoulder, and two outside lanes (shifted away from work zone), between 92nd Street and Ramp TAA three lanes open using the existing lanes.
- Ramp TAA auxiliary lane opened, reconfigured as a parallel exit ramp.
- Full freeway closures along IH 41/43/894 for existing full span sign structure removals.
- Nighttime IH 41/43/894 lane closures maintaining a minimum of one lane in each direction.
- Nighttime service ramp closures.
- Nighttime single lane and shoulder closures in each direction along 84th Street.

Stage 3

- Three lanes open along IH 41/43/894 utilizing median shoulder and existing two inside lanes in both directions.
- Full freeway closures along IH 41/43/894 for full span sign structure installation.
- Nighttime lane closures along IH 41/43/894 maintaining a minimum of one lane in each direction.
- Nighttime service ramp closures to aid outside shoulder reconstruction operations.
- Nighttime local road closures to complete bridge overlays.

Stage 4

- Three lanes open along IH 41/43/894 utilizing existing lanes in both directions.
- Nighttime lane closures along IH 41/43/894 maintaining a minimum of one lane in each direction.
- Nighttime service ramp closures to aid paving operations.

Project 1100-46-71

Construction on WIS 36/Loomis Road will occur under full closure, as shown in the traffic control plans. The IH 41/43/894 ramps are permitted to be closed during various portions of the project for extended periods. Signed detours will be in place for the WIS 36 full closure and the long-term ramp full closures.

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 to be as follows:

Staging as follows:

Stage A

- WIS 36/Loomis Road SB has a left lane closure from south of Layton Avenue to IH 894. Two SB lanes remain open on WIS 36/Loomis Road SB.

Stage B, C, D, and E

- WIS 36/Loomis Road is closed to all traffic between the IH 894 ramps. WIS 36/Loomis Road traffic is detoured along Layton Avenue and WIS 241/27th Street. Pedestrian traffic is detoured along Layton Avenue, 51st Street, and Cold Spring Road.
- The IH 41/43/894 WB exit ramp to WIS 36/Loomis Road SB is closed to traffic. Traffic is detoured using Layton Avenue.
- The IH 41/43/894 entrance ramps at WIS 36/Loomis Road are open to traffic and restricted to entry from right turn lanes. Left turns onto the ramps are not permitted. Traffic wishing to use the IH 894 WB entrance ramp from the south is detoured along Layton Avenue and 60th Street. Traffic wishing to use the IH 894 EB/IH 41 SB/IH 43 NB entrance ramp from the north is detoured along 27th Street and Layton Avenue.
- The IH 41/43/894 exit ramps at WIS 36/Loomis Road are open to traffic and restricted to one right turn lane. Left turns are not permitted. Traffic is detoured along Layton Avenue and WIS 241/27th Street.
- IH 41/43/894 configuration is described in the mainline staging section. Off-peak lane closures are permitted in all stages. Full closures are permitted in Stages C, D, and E. For full closures, freeway traffic is detoured along the exit and entrance ramps.

Stage F

- WIS 36/Loomis Road is closed to all traffic between the IH 894 EB ramp and Cold Spring Road. Access between WIS 36/Loomis Road and 43rd Street is closed. WIS 36/Loomis Road traffic is detoured along Layton Avenue and WIS 241/27th Street. Pedestrian traffic is detoured along Layton Avenue, 51st Street, and Cold Spring Road.
- The IH 41/43/894 WB exit ramp to WIS 36/Loomis Road SB is closed to traffic. Traffic is detoured using Layton Avenue.
- The IH 41/43/894 EB entrance ramp at WIS 36/Loomis Road is open to traffic and restricted to entry from right turn lanes. Left turns onto the ramps are not permitted. Traffic wishing to use the IH 894 EB/IH 41 SB/IH 43 NB entrance ramp from the north is detoured along 27th Street and Layton Avenue.
- The IH 41/43/894 EB exit ramp at WIS 36/Loomis Road is open to traffic and restricted to one right turn lane. Left turns are not permitted. Traffic is detoured along Layton Avenue and WIS 241/27th Street.
- The IH 41/43/894 WB entrance ramp at WIS 36/Loomis Road is closed traffic. Traffic is detoured along 27th Street and Layton Avenue.

- The IH 41/43/894 WB exit ramp at WIS 36/Loomis Road is closed traffic. Traffic is detoured along Layton Avenue and WIS 241/27th Street.
- IH 41/43/894 configuration is described in the mainline staging section. Off-peak lane closures are permitted in all stages. No full closures are permitted.

Stage G

- WIS 36/Loomis Road is closed to all traffic between the Layton Avenue and IH 894 WB ramps, except for access to the Loomis Apartments LLCWIS 36/Loomis Road traffic is detoured along Layton Avenue and WIS 241/27th Street. Pedestrian traffic is detoured along Layton Avenue, 51st Street, and Cold Spring Road.
- The IH 41/43/894 WB exit ramp to WIS 36/Loomis Road SB is closed to traffic. Traffic is detoured using Layton Avenue.
- The IH 41/43/894 WB entrance ramp at WIS 36/Loomis Road is open to traffic and restricted to entry from right turn lanes. Left turns onto the ramps are not permitted. Traffic wishing to use the IH 894 WB entrance ramp from the south is detoured along Layton Avenue and 60th Street.
- The IH 41/43/894 WB exit ramp at WIS 36/Loomis Road is open to traffic and restricted to one right turn lane. Left turns are not permitted. Traffic is detoured along Layton Avenue and WIS 241/27th Street.
- The IH 41/43/894 EB entrance ramp at WIS 36/Loomis Road is closed traffic. Traffic is detoured along 27th Street and Layton Avenue.
- The IH 41/43/894 EB exit ramp at WIS 36/Loomis Road is closed traffic. Traffic is detoured along Layton Avenue and WIS 241/27th Street.
- IH 41/43/894 configuration is described in the mainline staging section. Off-peak lane closures are permitted in all stages. No full closures are permitted.

Stage H

- WIS 36/Loomis Road SB has a left lane closure from south of Layton Avenue to IH 894. Two SB lanes remain open on WIS 36/Loomis Road SB.

Rolling Closure

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 2:00 AM and 4:00 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 in advance of closure. Present the scheduled time for the short-term rolling closure at the weekly traffic meeting a minimum of one week prior to the closure.

This will only be allowed when traffic is reduced to one lane and rolling closure only closes one lane.

Portable Changeable Message Signs

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

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

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

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

5. Lane Rental Fee Assessment.

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:

- Full Freeway Closure (IH 41/ 43/ 894):
  - 4:30 AM to 5:30 AM: $2,500 per lane, per direction of travel, per hour broken into 15-minute increments
  - After 5:30 AM: $8,000 per lane, per direction of travel, per hour broken into 15-minute increments
- Freeway Nighttime Lane Closure (IH 41/ 43/ 894) 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
- Freeway Nighttime Lane Closure (IH 41/ 43/ 894) Extending into Weekend Peak Hours - $6,000 per lane, per direction of travel, per hour broken into 15-minute increments
- Service Ramp - $1,000 per ramp, per hour broken into 15-minute increments
- Local Road Nighttime Lane extending into Peak Hours - $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)

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/ IH 43/ IH 894 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, May 26, 2023 to 6:00 AM Tuesday, May 30, 2023 for Memorial Day;
- From noon Friday, June 30, 2023, to 6:00 AM Wednesday, July 5, 2023 for Independence Day;
- From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023 for Labor Day;
- From noon Wednesday, November 22, 2023 to 6:00 AM Monday, November 27, 2023 for Thanksgiving.

stp-107-005 (20210113)

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.

Freeway Special Event Restrictions

During Summerfest, June 22-24, June 29-July 1, and July 6-8, 2023, maintain 2 open lanes on IH 41/43/894 until one hour after the event closes each night.

During the Wisconsin State Fair, August 3 to August 13, 2023, maintain 2 open lanes on IH 41/43/894 until one hour after the event closes each night.

During the Harley-Davidson Homecoming Anniversary, July 13-16, 2023, on or near 60th Street and Layton Avenue, maintain two open lanes on IH 41/43/894 until one hour after the event closes each night.

7. Utilities.

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

stp-107-065 (20080501)

Project 1100-45-70

Additional information regarding recently relocated utility facilities may be available on permits issued to the utility companies. Permits for IH 41 can be viewed at the Region Office during normal working hours. Contact WisDOT SE Freeways Utility Coordinator Rabi Bista at (414) 750-7224 for further information.

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per state statute.

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at 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.

Contact utility companies listed in the plans prior to preparing bids to obtain current information on existing utility locations and the status of any new utility relocation work.

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

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

All utility timelines are based on an anticipated start of construction of the project on March 20, 2023.

Known utilities in the project area are as follows:

AT&T Legacy has existing underground fiber optic communications facilities within the project limits running along the northerly IH 41 right-of-way throughout the project limits. No conflicts anticipated.

AT&T Wisconsin has existing underground communications facilities along the easterly side of S. 76th Street which cross the project near the middle of the S. 76th Street bridge over IH 41. No conflicts anticipated.

ATC Management, Inc. has existing overhead electric transmission facilities running along the northerly IH 41 right-of-way throughout the project limits. T No conflicts anticipated.

City of Greenfield – Communications has existing underground communications facilities crossing the project in the following locations:

- Along the westerly side of S. 60th Street which cross the project west of the S. 60th Street bridge over IH 41. No conflicts anticipated.
- Along the easterly side of S. 51st Street which cross the project east of the sidewalk under the IH 41 bridges over S. 51st Street. No conflicts anticipated.

City of Greenfield – Sewer has existing underground sanitary sewer facilities crossing the project in the following locations:

- At approximately Station 149EW+85, dual 8-inch ductile iron sanitary siphon pipes between manholes located approximately 129’ RT and 143’ LT. No conflicts anticipated.
- At approximately Station 206EW+20, a sanitary sewer between a capped and buried manhole located approximately 70’ RT and a manhole in S. 50th Street located approximately 194’ LT.
    - During construction, the City of Greenfield Department of Public Works will discontinue the manhole. Work will involve excavation to expose the manhole and remove the flat top. Work will be performed within the manhole to construct a support over the existing pipe liner that is exposed within the manhole. Backfill will be slurry up to the bottom of the proposed subbase of the shoulder reconstruction. Provide at least 21 calendar days advance notice prior to this area being available for the City of Greenfield to perform their work. Allow 5 working days for the City of Greenfield to perform their work.

- At approximately Station 209EW+50, a sanitary sewer between a capped and buried manhole located approximately 57’ RT and a manhole in S. 49th Street located approximately 208’ LT.
  - During construction, the City of Greenfield Department of Public Works will discontinue the manhole. Work will involve excavation to expose the manhole and remove the flat top. Work will be performed within the manhole to construct a support over the existing pipe liner that is exposed within the manhole. Backfill will be slurry up to the bottom of the proposed subbase of the shoulder reconstruction. Provide at least 21 calendar days advance notice prior to this area being available for the City of Greenfield to perform their work. Allow 5 working days for the City of Greenfield to perform their adjustments.
- At approximately Station 212EW+85, a sanitary sewer between a capped buried manhole located approximately 61’ RT and a manhole in S. 48th Street located approximately 170’ LT.
  - During construction, the City of Greenfield Department of Public Works will discontinue the manhole. Work will involve excavation to expose the manhole and remove the flat top. Work will be performed within the manhole to construct a support over the existing pipe liner that is exposed within the manhole. Backfill will be slurry up to the bottom of the proposed subbase of the shoulder reconstruction. Provide at least 21 calendar days advance notice prior to this area being available for the City of Greenfield to perform their work. Allow working 5 days for the City of Greenfield to perform their adjustments.

City of Milwaukee – Water (Milwaukee Water Works) has existing underground water facilities in the following locations:

- A 16-inch water main crossing the project along the east side of S. 84th Street near Station 96EW+55 below the IH 41 overpass. No conflicts anticipated.During construction and in conjunction with grading and paving operations, adjust water valves as shown in the plans and bid items.
- A 16-inch water main crossing under IH 41 from approximately Station 121EW+90 RT to Station 122EW+15 LT just west of the S. 76th Street overpass. T No conflicts anticipated.
- A 12-inch water main crossing under IH 41 near Station 149EW+95 just east of the S. 68th Street overpass. No conflicts anticipated.
- A 54-inch water main and a 20-inch water main crossing under IH 41 near Station 175EW+37 and 175EW+50, respectively, west of S. 60th Street. No conflicts anticipated.
- A 12-inch water main crossing the project along the east side of S. 51st Street near Station 202EW+90 below the IH 41 overpass. No conflicts anticipated.
- A 12-inch water main crossing under IH 41 near Station 230EWW+05 just west of the W. Loomis Road (STH 36) overpass. No conflicts anticipated.
- A 12-inch water main crossing under IH 41 near Station 257EWE+75 just west of the S. 35th Street overpass. No conflicts anticipated.

Expose water facilities under bid items “Expose Existing Infrastructure Paved Area” and “Expose Existing Infrastructure Unpaved Area,” using only vacuum excavation methods as allowed by the department, whenever excavation activities will be within four feet of a facility to positively confirm its location horizontally and vertically. Maintain a minimum of four feet of undisturbed earth from the outside diameter of a water main to any proposed excavation. Perform all work around Milwaukee Water Works facilities according to WisDOT project specifications, Wisconsin Statute 182.0175, and OSHA 1926.651.

Level 3 Communications LLC has existing underground fiber optic communications facilities crossing the project along the westerly side of S. 84th Street and the westerly side of S. 51st Street. They also have a facility crossing W. Loomis Road just north of the westbound ramps at IH 41. No conflicts anticipated.

Midwest Fiber Networks LLC has existing underground communications facilities in the following locations:

- Underground fiber optic communications facility crossing IH 41 near Station 124EW. No conflicts anticipated.
- Underground fiber optic communications facility crossing IH 41 near Station 203EW+25. No conflicts anticipated.
- Underground fiber optic communications facility in WisDOT FTMS conduits along the outside of eastbound IH 41, including in the outside parapet of the bridge on eastbound IH 41 over S. 51st Street, from a manhole at approximately Station 201EW+75, 67' RT to a manhole at approximately Station 257EWE+95, 52' RT. No conflicts anticipated.

Milwaukee County Department of Public Works has an existing underground fiber optic facility entering the project from the west in WisDOT conduit along the southerly side of IH 41 to a WisDOT manhole at approximately Station 120EW+91, 69' RT and continuing to an existing fiber optic line running along the west side of S. 76th Street. No conflicts anticipated.

Milwaukee Metropolitan Sewerage District has an existing underground 48-inch sanitary sewer crossing the project from approximately Station 190EW+37, 150' RT to Station 191EW+22, 140' LT. There is a buried manhole at approximately Station 190EW+85, 53' RT that will remain in place. No conflicts anticipated.

Spectrum has existing underground fiber optic and overhead communications facilities throughout the project limits. No conflicts anticipated.

Verizon Business has existing underground fiber optic communications facilities throughout the project limits. No conflicts anticipated.

We Energies – Electric has existing overhead and underground electric facilities throughout the project limits. Prior to construction We Energies – Electric will construct a new underground electric facility crossing IH 41 east of W. Loomis Road near Station 230EWE+83.

We Energies electric has facilities within the construction limits. It is imperative that the contractor contact We Energies if 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 has existing underground gas facilities throughout the project limits. No conflicts anticipated.

We Energies gas has facilities within the construction limits. It is imperative that the contractor contact We Energies if removing any gas facilities to verify that they have been discontinued and carry no natural gas. 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.

Project 1100-46-71

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area, as required per statutes. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities.

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 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. 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.

Contact each utility company listed in the plans, prior to preparing bids, to obtain current information on the status of existing and any new utility relocation work. The location of utility installations as described in this article are approximate.

The following utilities have facilities within the construction limits:

AT&T Legacy does have facilities within the construction limits; however, no conflicts are anticipated.

Contact Kenneth Nine, (574) 904-6336 cell, of JMC Engineers & Associates, Inc. to coordinate locations on site when excavation is within 50’ of their facilities.

AT&T Wisconsin does have facilities within the construction limits. No conflicts anticipated.

ATC Management, Inc. has 138 kV transmission facilities within the project limits. No conflicts anticipated.

Charter Communications has underground facilities within the construction limits. No conflicts anticipated.

Relocation and adjustment of Charters’ aerial facilities and risers are anticipated to be completed prior to construction.

Contact for Charter Communications is Beau Abuya at (414) 758-9241.

City of Greenfield – Sewer has existing facilities within the project limits.

The installation of internal/external sanitary manhole seals are included with the project. The two manhole locations are:

- 96+03, 40’ RT (MH ID 10-070)
- 96+03, 43.5’ LT (MH ID 10-068)

Three additional sanitary manholes will be discontinued as well as the 8” diameter sanitary sewer pipes connecting the manholes. The three manhole locations are:

- 92+50, 53’ LT (MH ID 10-075)
- 92+62, 40’ RT (MH ID 10-077)
- 93+54, 39’ RT (MH ID 10-078)

A new sanitary manhole will be installed within the cul du sac of the S. 43rd St Service Dr and the 3 sanitary manholes and 8” diameter sanitary sewer pipe upstream from this location will be discontinued. Work will be performed by a utility contractor under contract with the City of Greenfield. Discontinuation will follow specifications in the Standard Specifications for Sewer & Water Construction in Wisconsin, latest edition and standard spec 204. This work will be performed in stages depending on the project traffic staging.

Contact for the City of Greenfield is Jeff Katz at (414) 939-8322.

City of Milwaukee – Water (manhole adjustments and water main protection)

City of Milwaukee - Water has existing facilities within the project limits.

Construct, reconstruct, relocate, remove, City of Milwaukee - Water as shown in the plans and in the bid items for this project.

Hydrant at approximately Station 85+00, 37’ LT conflicts with the proposed curb. Hydrant will be altered to avoid conflict with proposed curb and sidewalk. Proposed hydrant will be approximately at Station 85+00 at proposed back of walk.

Hydrant at approximately Station 93+00, 32’ LT conflicts with the proposed curb. Hydrant will be altered to avoid conflict with proposed curb and sidewalk. Proposed hydrant will be approximately at Station 91+40 at proposed back of walk.

Valves boxes will need to be adjusted after paving within 24 hours.

Midwest Fiber Networks, LLC. has existing communications facilities within the construction limits; however, no conflicts are anticipated.

WE Energies – Electric has electric facilities housed in a 6-4” duct package attached to the underside of the existing bridge B-40-198 that contains transite. The duct, which likely contains asbestos, will be removed during this contract, but prior to bridge demolition. The facilities will be removed by a licensed environmental contract, Balestrieri.

Above and underground electric facilities are located within the construction limits; however, no adjustments are anticipated. It is imperative that the 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. The contractor must call the 24-hour WE Energies Electrical Dispatch line at 1 (800) 662-4797 to arrange for this verification.

Contact for WE Energies – Electric is Dan Bandor at (262) 884-6718.

WE Energies – Gas has facilities located in the project area. It is imperative that the contractor contact WE Energies before removing any gas facilities, to verify that they have been discontinued and carry no natural gas. 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. The contractor must call the 24-hour WE Energies Gas Dispatch line at 1 (800) 261-5325 to arrange for this verification, gas valve box adjustments.

Contact the 24-hour WE Energies Gas Dispatch line at 1 (800) 261-5325 for gas emergencies.

The following utilities are adjusted as part of this contract:

- WisDOT – Lighting
- WisDOT – Signals

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

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting Joshua LeVeque at (414) 750-1468. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

9. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

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

stp-107-001 (20060512)

10. Available Documents.

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

Project 1100-45-70

- Design Study Report
- Pavement Type Selection Report
- Environmental Document
- As-Built Drawings
- Preconstruction survey
- Traffic Management Plan

Project 1100-46-71

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

These documents are available from Joshua LeVeque at 141 NW Barstow Street, Waukesha, WI 53187 (414) 750-1468.

Reproduction costs will be applied to all copies requested.

~~sef-102-005 (20170310)~~

11. 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 standard spec 104.3.3, of the specific differing condition before further disturbing the site and before further performing the affected work.

Replace standard spec 104.3.2 and 104.3.3 with the following:

104.3.2 (Vacant)

104.3.3 Contractor Initial Written Notice

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

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

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

sef-104-005 (20141211)

12. 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 to the engineer-designated folder within the department's SharePoint site. Send alerts with a link to the document 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)

13. Erosion Control.

Supplement standard spec 107.20 with the following:

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

Provide the ECIP 14 days prior to the pre-construction meeting. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaison {Click and Choose a DNR Liaison from the Drop Down Box}. Do not implement the ECIP without department approval and perform all work conforming to the approved ECIP.

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

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

Re-apply topsoil on graded areas, as the engineer directs, immediately after the grading is completed within those areas. Seed, fertilize, and mulch/erosion mat top-soiled areas, as the engineer directs, within 5 days after placement of topsoil. If graded areas are left not completed and exposed for more than 14 days, seed those areas with temporary seed and mulch.

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 any erosion from the discharge velocity that would cause release of sediment downstream. Dewatering is considered incidental to the contract.

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. Do not allow any 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.

Prior to each dewatering operation, submit to the department a separate ECIP amendment for sediment removal. Guidance on dewatering can be found on the Wisconsin DNR website located in the Storm Water Construction Technical Standards, Dewatering Code #1061,

http://dnr.wi.gov/topic/stormwater/standards/const_standards.html.

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. Dewatering is considered incidental to the contract.

Maintaining Drainage

Maintain drainage at and through worksite during construction conforming to standard spec 107.20, 204.3.2.1(3), 205.3.3 and 520.3.1(2). 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 contract.

SER-107-003 (20161220)

14. Notice to Contractor – Milwaukee County Transit System.

The Milwaukee County Transit System (MCTS) operates the following bus routes within the construction limits: Routes 35 and 92. No stops for either route are within the project limits. Invite MCTS to all coordination meetings between the contractor, the department, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations.

Notify MCTS at least 10 business days prior to beginning work. If necessary, MCTS will remove their existing bus stop signs and shelters before work begins and re-install or replace bus stop signs and shelters before new pavement opens to vehicular traffic. The contractor shall provide temporary bus stops with ADA compliant pedestrian accommodations, to be paid under separate bid item. Temporary bus stops must be connected to the sidewalk network when one is available. MCTS will provide temporary bus stop signs.

The MCTS contacts are:

Armond Sensabaugh
Transportation Coordinator (Detours)
Milwaukee County Transit System
Phone: (414) 343-1728
asensabaugh@mcts.org

David Locher
Transportation Manager (Bus Stops)
Milwaukee County Transit System
Phone: (414) 343-1727
dlocher@mcts.org

~~SER-107-004 (20220103)~~

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.

sef-107-020 (20171004)

16. Notice to Contractor, Electronic Load Tickets.

Add the following to standard spec 109.1.4:

109.1.4.3 Electronic Load Tickets

(1) Electronic load tickets may be provided as a substitute for printed tickets. Include the information as specified in 109.1.4.2 on each electronic ticket.

(2) Automatically generate electronic tickets using a system that is fully integrated with the load-out scale system being used to weigh the material. Ensure data input cannot be altered and provide offline capabilities to prevent data loss.

(3) Provide electronic tickets in real-time by allowing the department access to the tickets utilizing a web-based or app-based system compatible with iOS and Android.

(4) Provide the capability to record information and comments on each ticket.

(5) For each project ID and bid item, submit an electronic daily summary of the individual tickets daily as work is completed. In the daily summary, include the unique information for each individual load ticket. Provide the daily summary data in an importable format, such as comma separated values (.csv).

17. Notice to Contractor – Existing Water Main to Remain in Place.

Two existing water main pipes are buried in close proximity to the bridge and wall construction. These pipes will remain and must be maintained during construction. Excavate for bridge and wall construction avoiding damage to the pipes. After exposing the pipes to confirm their location, install temporary shoring as necessary to complete the excavation. Use only non-vibratory methods for shoring installation. Cut off temporary shoring a minimum of 2 feet below finished ground line and leave the remaining temporary shoring in place. The cost of all materials, equipment, and labor required to prevent damage to these existing pipes during construction is considered incidental to the bid items for temporary shoring left in place.

18. Notice to Contractor, Asbestos Containing Materials on Structure.

John Roelke, License Number All-119523, inspected Structure B-40-201 for asbestos on September 3, 2014. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities:

DESCRIPTION	LOCATION	RESULTS	FRIABLE/ NON-FRIABLE	QUANTITY
Gasket	Under railing attachment plate	PLM, 3%	Non-friable	72x7”x7” + 4x32”x8” = 32 sq ft
Transite pipe	Under bridge	Assumed positive	Friable	6x216’x16” = 1750 sq ft

A copy of the inspection report is available from Joshua LeVeque, (414) 750-1468, Joshua.LeVeque@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)

19. Notice to Contractor – Existing Wetland Adjacent to Noise Barrier N-40-010.

The existing wetland between the S. 84th Street WB On Ramp (Ramp TAB) and the face of Noise Barrier N-40-010 will be temporarily impacted during N-40-010 repair work activities. Prior to starting noise barrier repair work mow a 10' wide section in front of the noise barrier to allow for access to the areas of N-40-010 needing repair. Do not remove the existing trees in this area, and do not stockpile any materials or leave any equipment stored in this area. Restore this area as shown in the plans.

20. Notice to Contractor – Traffic Signal Bases.

Traffic signal bases in close proximity to underground utilities may require hydro excavation to excavate for the traffic signal base. The cost of hydro excavation is incidental to the cost of the traffic signal base.

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

Order traffic signal equipment as soon as possible to assure the equipment is procured in a timely fashion and, therefore, installed, inspected, and ready for turn-on at the required date.

22. Other Contracts.

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:

Project 1030-43-71

IH 41 Mitchell I/C; WB I-43/I-94 35th-Rawson-Howard
WisDOT Contact Evan Limberatos, P.E.; (414) 750-3362; evan.limberatos@dot.wi.gov

Project 1030-43-72

IH 41 Mitchell I/C; EB I-43/I-94 35th-Rawson-Howard
WisDOT Contact Evan Limberatos, P.E.; (414) 750-3362; evan.limberatos@dot.wi.gov

For all projects, coordinate activities, detours, work zone traffic control, roadway, erosion control and lane closures, and other work items as required with other contracts.

23. Work By Others.

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

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

Project 1100-45-70

City of Greenfield – Road Facility has existing streetlight poles and associated underground electric lighting facilities crossing the project in the following locations:

- Along the easterly and westerly sides of S. 84th Street with light poles located in terraces and underdeck lights located on the east and west piers of the bridges on IH 41 over S. 84th Street. No conflicts anticipated.
- Along the northwesterly and southeasterly sides of W. Forest Home Avenue, including on bridges over IH 41. No conflicts anticipated.
- Along the easterly and westerly sides of S. 76th Street, including on bridges over IH 41. No conflicts anticipated.
- Along the easterly and westerly sides of S. 68th Street, including on the bridge over IH 41. No conflicts anticipated.

- Along the easterly and westerly sides of S. 60th Street north of the westbound IH 41 ramps and south of the eastbound IH 41 ramps. No conflicts anticipated.

Along the easterly side of S. 51st Street, including underdeck lights located on the east piers of the bridges on IH 41 over S. 51st Street. No conflicts anticipated.

WisDOT – Communications has existing communications facilities throughout the project limits. Construct, reconstruct, relocate, remove, discontinue, and leave in place portions of communication facilities as shown in the plans and bid items.

WisDOT - Lighting has existing light poles and associated underground electric lighting facilities within the project limits along the IH 41 median, along ramps, and at structures at W. Forest Home Avenue (STH 24), S. 76th Street (CTH U), S. 68th Street, S. 60th Street, W. Loomis Road (STH 36), and S. 35th Street. Construct, reconstruct, relocate, remove, discontinue, and leave in place portions of lighting facilities as shown in the plans and bid items.

WisDOT –Signals has existing traffic signal facilities within the project limits at the IH 41 interchanges at S. 84th Street, S. 76th Street (CTH U), S. 60th Street, and W. Loomis Road (STH 36). Construct, reconstruct, relocate, remove, discontinue, and leave in place portions of traffic signal facilities as shown in the plans and bid items.

Project 1100-46-71

WisDOT – Fiber Optic have facilities within the construction limits; No conflicts anticipated.

- WisDOT – Fiber Optic

24. 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 1100-45-70
SPV.0075.002	Pavement Cleanup Project 1100-46-71

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)

25. Project Site Air Quality.

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

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

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.

sef-999-039 (20160929)

26. Subletting the Contract.

Replace standard spec 108.1.1 (3) with the following:

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

sef-108-035 (20171004)

27. Traffic Meetings and Traffic Control Scheduling.

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

Meet with the engineer between 11:00 - 11:30 AM on Wednesdays at the project field office to discuss and answer questions on the proposed schedule. Edit, delete and add closures to the detailed proposed 2-week look-ahead schedule, as directed by the engineer, so that proposed closures meet specification requirements. Other edits, deletions or additions unrelated to meeting specification requirements may also be agreed upon with the engineer during the 11:00 AM meeting.

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

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

sef-643-040 (20150319)

28. Abatement of Asbestos Containing Material B-40-198, Item 203.0211.S.400.

A Description

This special provision describes abating asbestos containing material on structures.

B (Vacant)

C Construction

John Roelke, License Number All-119523, inspected Structure B-40-198 for asbestos on September 3, 2014, Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities:

DESCRIPTION	LOCATION	RESULTS	FRIABLE/ NON-FRIABLE	QUANTITY
Gasket	Under railing attachment plate	PLM, 3%	Non-friable	74x7”x7” + 4x30”x8” = 34 sq ft
Transite pipe	Under bridge	Assumed positive	Friable	6x227’x16” = 1900 sq ft

The RACM on this structure must be abated by a licensed abatement contractor. A copy of the inspection report is included in the bid package or available from Joshua LeVeque, (414) 750-1468, Joshua.LeVeque@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 3/20), 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 and the abatement report to Andrew Malsom, WisDOT SE Region Hazmat & Environmental Engineer, (262) 548-6705 Andrew.Malsom@dot.wi.gov and via email to dothazmatunit@dot.wi.gov or via US 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:

- Site Name: Structure B-40-0198, STH 36 (Loomis Road) over IH 41/43/894
- Site Address: 0.1M N JCT CTH Y
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187
- Contact: Joshua LeVeque
- Phone: (414) 750-1468
- Age: 57 years. This structure was constructed in 1966.
- Area: 24,867 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.

D Measurement

The department will measure Abatement of Asbestos Containing Material (Structure #) by each structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
203.0211.S.400	Abatement of Asbestos Containing Material B-40-198	EACH

Payment is full compensation for submitting necessary forms; removing all asbestos; and for properly disposing of all waste materials.

stp-203-005 (20220628)

29. Removing Bridge.

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
B-40-0198	4 Span Rolled Steel Girder Bridge	STH 36 (Loomis Road)	IH 41/43/894

(2) 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.

203.3.1.3 Structure Pre-Removal Meetings

(1) After submission of the Structure Removal Site Safety Plan and required Structure Removal Plan, 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.

Add the following to standard spec 203.3.2.1 as paragraph four:

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

Add the following to standard spec 203.5.1(2):

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

sef-203-005 (20180104)

30. 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)

31. 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)

32. Removing or Abandoning Miscellaneous Structures.

Replace standard spec 204.5.1(4) with the following:

When backfilling with Backfill Granular as specified in this special provision article or as directed by the engineer, the item Backfill Granular is considered incidental to the appropriate bid item.

At locations where Backfill Granular is not specified, contractor may choose to use either Backfill or Backfill Granular, and no separate payments will be made for using Backfill Granular.

Supplement standard spec 204.3.2.2 with the following:

Backfill existing storm sewer or existing storm sewer structure locations shown for removal or abandonment outside the new traveled way with native backfill immediately after completing the sewer work. Backfill according to standard spec 209 within the traveled way.

All backfill, including native material, provided for removal or abandonment of existing storm sewer structures and pipes is considered incidental to the appropriate bid item.

SEF Rev. 14_1215

33. 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)

34. Removing Ramp Gate, Item 204.9060.S.001.

A Description

This special provision describes removing ramp gates according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Ramp Gate as each individual unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.001	Removing Ramp Gate	EACH

204-025 (20150630)

35. Removing Subsurface Structure, Item 204.9060.S.002.

A Description

This special provision describes removing the existing subsurface structure under the outside shoulders of I-41/43/894 at 68th Street conforming to standard spec 204.

B (Vacant)

C Construction

Remove and dispose of the existing subsurface structure, bridge columns and foundations under shoulder pavement.

D Measurement

The department will measure Removing Subsurface Structure by each unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.002	Removing Subsurface Structure	EACH

stp-204-025 (20150630)

36. Removing Underdeck Lighting B-40-198, Item 204.9060.S.100.

A Description

This special provision describes removing underdeck lighting according to the pertinent provisions of standard spec 204, as shown on the plans, and hereinafter provided.

B (Vacant)

C Construction

No removal work will be permitted without approval from the engineer.

Remove underdeck lighting luminaires, attached conduits, wires, attached junction boxes, and associated hardware and appurtenances at locations shown in the plan and as directed by the engineer. Removed materials shall become the property of the contractor and shall be disposed of off the project site according to pertinent requirements of standard spec 203.3.4. Lamps, which are considered a hazardous material, become property of the contractor and shall be disposed of in an environmentally sound manner.

All embedded conduits, junction boxes and hardware are not included in this bid item.

D Measurement

The department will measure Removing Underdeck Lighting B-40-198 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
204.9060.S.100	Removing Underdeck Lighting B-40-198	EACH

Payment is full compensation for removing and disposing of luminaires, attached conduits, attached junction boxes, and hardware off the project site including associated materials.

SER-204.19 (20170516)

37. Removing Distribution Center, Item 204.9060.S.101.

A Description

This special provision describes removing an existing highway lighting distribution center and electrical service pedestal as shown on the plans, according to the pertinent provisions of standard spec 204, and as hereinafter provided.

B Materials

C Construction

Remove the lighting distribution center and the electrical service pedestal and dispose off the project site. The department will issue the demolition request to WE-Energies. Coordinate with the utility for disconnection of services. The department will pay any fees charged by the utility. Removal of the concrete base will be paid under a separate bid item.

D Measurement

The department will measure Removing Distribution Center by each individual unit; acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.101	Removing Distribution Center	EACH

Payment is full compensation for removal of the distribution center, electrical service pedestal, and for utility coordination for the services.

38. Removing Lighting Units, Item 204.9060.S.102.

A Description

This special provision describes the removing lighting units as shown on the plans, according to the pertinent provisions of standard spec 204, and hereinafter provided. ~~Lamp disposal and concrete base removal shall be paid under a separate bid item.~~

B Materials

C Construction

Remove lighting units consisting of pole, arm, luminaire, lamp, wires, breakaway device, and associated hardware and appurtenances. All removed material shall become the property of the contractor and be disposed off the project site.

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 Units by each individual unit removed, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.102	Removing Lighting Units	EACH

The department will pay separately for detachment and disposal of luminaires and lamps.

The department will pay separately for concrete base removal.

39. Removing Luminaires, Item 204.9060.S.104.

A Description

This special provision describes removing existing luminaires from light poles or bridge decks as shown on the plans, according to the pertinent provisions of standard spec 204, and as hereinafter provided. Light poles or bridge deck shall remain in service. Lamp disposal will be measured and paid under a separate bid item.

B Materials

Removed luminaires shall become the property of the contractor and shall be disposed 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 Luminaires by each individual unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.104	Removing Luminaires	EACH

40. Removing Poles Wood 60-FT and Floodlights, Item 204.9060.S.106.

A Description

This special provision describes Removing Poles Wood 60-FT and Floodlights as shown on the plans, according to the pertinent provisions of standard spec 204, and as hereinafter provided.

B Materials

C Construction

Remove mast arm or bracket arm, luminaire, air terminal, conduit, wiring, and junction box. Backfill all holes as specified in standard spec 203.3.5, except that broken masonry will not be allowed, to the final grade lines or as directed by the engineer.

Dispose of all materials except lamps off the project site. Deliver the lamps to the department under a separate bid item, Lamp Disposal High Intensity Discharge.

The department will allow, at the contractor’s discretion, to reuse removed wood pole lighting units at new locations.

Restore all areas disturbed by construction activities to the final grade lines with topsoil and seed and mulch that meet the requirements of standard spec 625, 630, and 627, respectively. Restoration is incidental to this bid item.

D Measurement

The department will measure Removing Poles Wood 60-Foot and Floodlights by each individual unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.106	Removing Poles Wood 60-FT and Floodlights	EACH

Payment is full compensation for removing wood poles and floodlights, removing all attached components, backfilling all holes as provided in 203.3.5, and restoration of disturbed areas.

The department will pay separately for detachment and disposal of luminaires and lamps.

41. Removing Poles Wood 35-FT, Item 204.9060.S.107.

A Description

This special provision describes removing 35-FT wood poles as shown on the plans and according to the pertinent provisions of standard spec 204 and hereinafter provided.

B Materials

C Construction

Remove the 35-FT wood poles and all attached conduit and wiring. Backfill all holes as specified in standard spec 203.3.5, except that broken masonry will not be allowed, to the final grade lines or as directed by the engineer. Dispose of all materials off the project site.

Restore all areas disturbed by construction activities to the final grade lines with topsoil and seed and mulch that meet the requirements of standard spec 625, 630, and 627, respectively.

D Measurement

The department will measure Removing Poles Wood 35-Foot as each individual unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S107	Removing Poles Wood 35-FT	EACH

Payment is full compensation for removing wood poles and backfilling all holes as provided in standard spec 203.3.5, and restoration of disturbed areas.

SER-204.20 (20170918)

42. Removing Overhead Freeway DMS, Item 204.9060.S.200.

A Description

This special provision describes removing an existing full-matrix overhead freeway dynamic message sign, controller, and cables; removing the sign and controller; storing them for removal of desired parts by the department and disposing of remaining undesired parts.

B Materials

Existing sign, controller, control cables, and power wires.

Existing sign assembly consists of dynamic message sign, hardware for mounting sign on sign structure, and sign controller. Cabling for the dynamic message sign and controller is contained in rigid conduit. The above components are mounted to an overhead freeway DMS structure.

Removed dynamic message sign will be a Mark IV Industries LTD. 18-Inch Light Emitting Diode (LED), Full Matrix, Type 1 sign. The nominal dimensions of the sign are 310-Inches long, 106-Inches high, 36-Inches wide at the bottom and 42-Inches wide at the top.

C Construction

Carefully remove the dynamic message sign and controller for storage, parts removal, and later disposal. Prior to removing the sign and controller, the contractor may request that it be inspected to determine condition. Once removal has started, the contractor shall be responsible for any damage to the sign or controller. It will be the choice of the contractor on how best to remove the sign from the overhead structure. Replace or repair any damaged components at no additional expense to the department.

Store the dynamic message sign and controller in a secure and safe location until such time as the department can have a representative remove desired parts from the sign. The department will complete the parts removal process within 10 non-holiday business days of the sign being removed from the overhead structure and access being granted to the department representative. Contact Dean Beekman at (414) 227-2154 for coordination of parts removal by the department 30 days prior to the sign being made available for parts removal. After the department has obtained all desired parts from the sign, the contractor shall properly dispose of all remaining undesired parts off of the project area. Remaining

undesired parts will include the DMS enclosure. Undesired LEDs shall be be detached and paid for separately under 659.5000.S

D Measurement

The department will measure Removing Overhead Freeway DMS by the unit, acceptably removed, and stored for parts removal.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.200	Removing Overhead Freeway DMS	EACH

Payment is full compensation for removing the DMS, sign controller and cables, including any necessary wiring disconnections; for storing the sign for spare parts removal; any necessary restoration; for disposing of the sign enclosure and remaining components after spare parts removal.

43. Removing Electrical Service Meter Breaker Pedestal, Item 204.9060.S.300.

A Description

This special provision describes removing an existing electrical service meter breaker pedestal, disconnecting all connected power wires, and disposing of the equipment appropriately.

B Materials

Existing electrical service meter breaker pedestal.

C Construction

Coordinate for removal of the existing electrical service meter breaker pedestal with the electrical service provider.

Disconnect all connected power wires, remove the pedestal and dispose of all materials properly away from the project area.

D Measurement

The department will measure Removing Electrical Service Meter Breaker Pedestal by each unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.300	Removing Electrical Service Meter Breaker Pedestal	EACH

Payment is full compensation for coordination with electrical company; for disconnection of wires; for removal and disposal of the pedestal.

44. Removing Communication Vault, Item 204.9060.S.301.

A Description

This special provision describes removing an existing communication vault.

B Materials (Vacant)

C Construction

Excavate and remove existing communication vault at the location indicated on the plans. Dispose of removed materials off the state right-of-way. Backfill with material similar to the surrounding material.

D Measurement

The department will measure Remove Communication Vault as each unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.301	Removing Communication Vault	EACH

Payment is full compensation for removal, and for excavating and backfilling.

45. Removing Traffic Signals, IH 41 EB Ramps & STH 36, Item 204.9060.S.302; Removing Traffic Signals, IH 41 WB Ramps & STH 36, Item 204.9060.S.303; Removing Traffic Signals, I-894 EB Ramps & S 84TH Street, Item 204.9060.S.304.

A Description

This special provision describes removing existing traffic signals as shown on the plans, according to the pertinent provisions of standard spec 204, 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 working days prior to the removal of the traffic signals. Complete the removal work as soon as possible following shut down of this equipment.

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

Remove all standards and poles per plan from their concrete footings and disassemble out of traffic. Remove the transformer bases from each pole. Remove the signal heads, emergency vehicle preemption heads (evp), mast arms, luminaires, wiring/cabling, and traffic signal mounting devices from each signal standard, arm or pole. Ensure that all access hand-hole doors and all associated hardware remain intact. Dispose of the underground signal cable, internal wires and street lighting cable off the state right-of-way. Deliver the remaining materials, except for Traffic signal LED and luminaire lamp, switch, and ballasts, to the West Allis Electrical Service Facility at 935 South 60th Street, West Allis, Milwaukee County. Contact the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to delivery to make arrangements. Traffic signal LED and luminaire lamp, switch, and ballast disposal shall be paid for as a separate item.

DOT forces shall remove the signal cabinet from the footing. The signal cabinet and associated 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 Removing Traffic Signals, (Location) by each unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.302	Removing Traffic Signals, IH 41 EB Ramps & STH 36	EACH
204.9060.S.303	Removing Traffic Signals, IH 41 WB Ramps & STH 36	EACH
204.9060.S.304	Removing Traffic Signals I-894 EB Ramps & S 84TH Street	EACH

Payment is full compensation for removing, disassembling traffic signals, scrapping of some materials, disposing of scrap material, and for delivering the salvaged materials to the department.

The department will pay separately for traffic signal LED and luminaire lamp, switch, and ballast disposal.

46. Removing Loop Detector Wire and Lead-In Cable IH 41 EB Ramps & STH 36, Item 204.9060.S.305; Removing Loop Detector Wire and Lead-In Cable IH 41 WB Ramps & STH 36 Item 204.9060.S.306; Removing Loop Detector Wire and Lead-In Cable STH 36 & Layton Item 204.9060.S.307.

A Description

This special provision describes removing loop detector wire and lead-in cable at the IH 41 Ramps & STH 36 interchange as the plans show, conforming to standard spec 204, and as follows.

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 and loop detector wire for abandoned loops off the project site.

D Measurement

The department will measure Removing Loop Detector Wire and Lead-in Cable IH 41 EB Ramps & STH 36, Removing Loop Detector Wire and Lead-in Cable IH 41 WB Ramps & STH 36, and Removing Loop Detector Wire and Lead-in Cable IH 41 STH 36 & Layton, by each unit acceptably completed.

E Payment

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.305	Removing Loop Detector Wire and Lead-In Cable IH 41 EB Ramps & STH 36	EACH
204.9060.S.306	Removing Loop Detector Wire and Lead-In Cable IH 41 WB Ramps & STH 36	EACH
204.9060.S.307	Removing Loop Detector Wire and Lead-In Cable STH 36 & Layton	EACH

Payment is full compensation for removing, scrapping, and disposing of material and incidentals necessary to complete the contract work.

47. Removing Old Sign Structure S-40-109, Item 204.9060.S.480; Removing Old Sign Structure S-40-009, Item 204.9060.S.485; Removing Old Sign Structure S-40-221, Item 204.9060.S.490; Removing Old Sign Structure S-40-219, Item 204.9060.S.495.

A Description

This special provision describes removing existing sign structures and their concrete base foundations and disposing of resulting materials according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B Materials

(Vacant)

C Construction

Remove and dispose of the existing superstructure (columns and overhead trusses) and concrete foundations of each sign structure.

D Measurement

The department will measure Removing Old Sign Structures S-40-109, S-40-009, S-40-221, and S-40-219 by each unit for each specific sign structure removed, acceptably completed.

E Payment

Add the following to standard spec 204.5:

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.480	Removing Old Sign Structure S-40-109	EACH
204.9060.S.485	Removing Old Sign Structure S-40-009	EACH
204.9060.S.490	Removing Old Sign Structure S-40-221	EACH
204.9060.S.495	Removing Old Sign Structure S-40-219	EACH

Payment is full compensation for removing and disposing of all materials as set forth above including sign base foundations; for cutting off anchor bolts and conduits; and for sealing conduits.

48. Select Borrow, Item 208.1100.

Conform to standard spec 208 as modified in this special provision.

Material

Furnish and use material that consists of granular material meeting the following requirements: Utilize Grade 2 granular backfill material, conforming to standard spec 209.2.

stp-208-005 (20031103)

49. 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)

50. 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 standard spec 460.2; except the engineer will not require the contractor to conform to the quality management program (QMP) specified under standard spec 460.2.8.

51. 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/rdwy/cmm/cm-08-00toc.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 8-15.

B.2 Testing

(1) Conform to ASTM D2950 and CMM 8.15 for density testing and gauge monitoring methods. Conform to CMM 8-15.10.4 for test duration and gauge placement.

B.3 Equipment

B.3.1 General

(1) Furnish nuclear gauges according to CMM 8-15.2.

(2) Furnish nuclear gauges from the department's approved product list at

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/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 CMM 8-15.7.

B.3.2.2 Comparison Monitoring

(1) Conduct reference site monitoring for both QC and QV gauges according to CMM 8-15.

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 8-15.10.2.

(2) Determine required number of tests according to CMM 8-15.10.2.1.

(3) Determine random testing locations according to CMM 8-15.10.3.

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 8-15.10.2.

(2) Determine required number of tests according to CMM 8-15.10.2.2.

(3) Determine random testing locations according to CMM 8-15.10.3.

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 8.15. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

B.4.3 Corrective Action

(1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.

(2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted sublot. Testing in a previously accepted sublot will not be used to recalculate a new lot density.

(3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full sublot width within the traffic lanes or shoulders.

(4) Retesting and acceptance of replaced pavement will be 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 sublot and lot densities.

(6) If two consecutive sublot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

(1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one sublot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.

(2) The QV tester will test each selected sublot using the same testing requirements and frequencies as the QC tester.

(3) If the verification sublot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.

(4) If the verification sublot average is more than one percent below the specified target density, compare the QC and QV sublot averages. If the QV sublot average is within 1.0 lb/ft^3 of the QC sublot average, use the QC tests for acceptance.

(5) If the first QV/QC sublot average comparison shows a difference of more than 1.0 lb/ft^3 each tester will perform an additional set of tests within that sublot. Combine the additional tests with the original set of tests to compute a new sublot average for each tester. If the new QV and QC sublot averages compare to within 1.0 lb/ft^3, use the original QC tests for acceptance.

(6) If the QV and QC sublot averages differ by more than 1.0 lb/ft^3 after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

(1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge 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 sublot density test results or retesting of the sublot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.

(4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

B.7 Acceptance

(1) The department will not accept QMP HMA Pavement Nuclear Density if a non-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.

stp-460-020 (20181119)

52. HMA Percent Within Limits (PWL) Test Strip Volumetrics, Item 460.0105.S; HMA Percent Within Limits (PWL) Test Strip Density Item 460.0110.S.

A Description

This special provision describes the Hot Mix Asphalt (HMA) density and volumetric testing tolerances required for an HMA test strip. An HMA test strip is required for contracts constructed under HMA Percent Within Limits (PWL) QMP. A density test strip is required for each pavement layer placed over a specific, uniform underlying material, unless specified otherwise in the plans. Each contract is restricted to a single mix design per mix type per layer (e.g., upper layer and lower layer may have different mix type specified or may have the same mix type with different mix designs). Each mix design requires a separate test strip. Density and volumetrics testing will be conducted on the same test strip whenever possible.

Perform work according to standard spec 460 and as follows.

B Materials

Use materials conforming to HMA Pavement Percent Within Limits (PWL) QMP special provision.

C Construction

C.1 Test Strip

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. If the contractor fails to begin paving within 2 hours of the submitted start time, the test strip is delayed, and the department will assess the contractor $2,000 for each instance according to Section E of this document. 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.

On the first day of production for a test strip, produce approximately 750 tons of HMA. (Note: adjust tonnage to accommodate natural break points in the project.) Locate test strips in a section of the roadway to allow a representative rolling pattern (i.e., not a ramp or shoulder, etc.).

C.1.1 Sampling and Testing Intervals

C.1.1.1 Volumetrics

Laboratory testing will be conducted from a split sample yielding three components, with portions designated for QC (quality control), QV (quality verification), and retained.

During production for the test strip, obtain sufficient HMA mixture for three-part split samples from trucks prior to departure from the plant. Collect three split samples during the production of test strip material. Perform sampling from the truck box and three-part splitting of HMA according to CMM 836. These three samples will be randomly selected by the engineer from each *third* of the test strip tonnage (T), excluding the first 50 tons:

Sample Number	Production Interval (tons)
1	50 to 1/3 T
2	1/3 T to 2/3 T
3	2/3 T to T

C.1.1.2 Density

Required field tests include contractor QC and department QV nuclear density gauge tests and pavement coring at ten individual locations (five in each half of the test strip length) according to Appendix A: *Test Methods and Sampling for HMA PWL QMP Projects*. Both QV and QC teams shall have two nuclear density gauges present for correlation at the time the test strip is constructed. QC and QV teams may wish to scan with additional gauges at the locations detailed in Appendix A, as only gauges used during the test strip correlation phase will be allowed.

C.1.2 Field Tests

C.1.2.1 Density

For contracts that include STSP 460-020 QMP Density in addition to PWL, a gauge comparison according to CMM 815.7 shall be completed prior to the day of test strip construction. Daily standardization of gauges on reference blocks and a project reference site shall be performed according to CMM 815.8. A standard count shall be performed for each gauge on the material placed for the test strip, prior to any additional data collection. Nuclear gauge readings and pavement cores shall be used to determine nuclear gauge correlation according to Appendix A. The two to three readings for the five locations across the mat for each of two zones shall be provided to the engineer. The engineer will analyze the readings of each gauge relative to the densities of the cores taken at each location. The engineer will determine the average difference between the nuclear gauge density readings and the measured core densities to be used as a constant offset value. This offset will be used to adjust raw density readings of the specific gauge and shall appear on the density data sheet along with gauge and project identification. An offset is specific to the mix and layer; therefore, a separate value shall be determined for each layer of each mix placed over a differing underlying material for the contract. This constitutes correlation of that individual gauge for the given layer. Two gauges per team are not required to be onsite daily after completion of the test strip. Any data collected without a correlated gauge will not be accepted.

The contractor is responsible for coring the pavement from the footprint of the density tests and filling core holes according to Appendix A. Coring and filling of pavement core holes must be approved by the engineer. The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Testing of cores shall be conducted by the contractor and witnessed by department personnel. The contractor is responsible for drying the cores following testing. The department will take possession of cores following laboratory testing and will be responsible for any verification testing at the discretion of the engineer.

The target maximum density to be used in determining core density is the average of the three volumetric/mix Gmm values from the test strip multiplied by 62.24 lb/ft^3. In the event mix and density portions of the test strip procedure are separated, or if an additional density test strip is required, the mix portion must be conducted prior to density determination. The target maximum density to determine core densities shall then be the Gmm four-test running average (or three-test average from a PWL volumetric-only test strip) from the end of the previous day's production multiplied by 62.24 lb/ft^3. If no PWL production QV volumetric test is to be taken in a density-only test strip, a non-random QV test will be taken according to 460.2.8.3.1.4 as modified in HMA Pavement Percent Within Limits (PWL) QMP and if non-conforming to C.2.1 herein, follow corrective action outlined in 460.2.8.2.1.7(4) as modified in HMA Pavement Percent Within Limits (PWL) QMP.

Exclusions such as shoulders and appurtenances shall be tested and reported according to CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3. No density incentive or disincentive will be applied to shoulders or appurtenances. However, unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.

C.1.3 Laboratory Tests

C.1.3.1 Volumetrics

Obtain random samples according to C.1.1.1 and Appendix A. Perform tests the same day as taking the sample.

Theoretical maximum specific gravities of each mixture sample will be obtained. Bulk specific gravities of both gyratory compacted samples and field cores shall be determined. The bulk specific gravity values determined from field cores shall be used to calculate a correction factor (i.e., offset) for each QC and QV nuclear density gauge. The correction factor will be used throughout the remainder of the layer.

C.2 Acceptance

C.2.1 Volumetrics

Produce mix conforming to the following limits based on individual QC and QV test results (tolerances based on most recent JMF):

ITEM	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
Asphaltic content in percent[1]	- 0.5
Air Voids	-1.5 & +2.0
VMA in percent[2]	- 1.0
Maximum specific gravity	+/- 0.024

[1] Asphalt content more than -0.5% below the JMF will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction.

[2] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in table 460-1.

QV samples will be tested for Gmm, Gmb, and AC. Air voids and VMA will then be calculated using these test results.

Calculation of air voids shall use either the QC, QV, or retained split sample test results, as identified by conducting the paired t-test with the WisDOT PWL Test Strip Spreadsheet.

If QC and QV test results do not correlate as determined by the split sample comparison, the retained split sample will be tested by the department's AASHTO accredited laboratory and HTCP certified personnel as a referee test. Additional investigation shall be conducted to identify the source of the difference between QC and QV data. Referee data will be used to determine material conformance and pay.

C.2.2 Density

Compact all layers of test strip HMA mixture according to Table 460-3.

Nuclear density gauges are acceptable for use on the project only if correlation is completed for that gauge during the time of the test strip and the department issues documentation of acceptance stating the correlation offset value specific to the gauge and mix design. The offset is not to be entered into any nuclear density gauge as it will be applied by the department-furnished Field Density Worksheet.

C.2.3 Test Strip Approval and Material Conformance

All applicable laboratory and field testing associated with a test strip shall be completed prior to any additional mainline placement of the mix. All test reports shall be submitted to the department upon completion and approved before paving resumes. The department will notify the contractor within 24 hours from start of test strip regarding approval to proceed with paving unless an alternate time frame is agreed upon in writing with the department. The 24-hour approval time includes only working days as defined in standard spec 101.3.

The department will evaluate material conformance and make pay adjustments based on the PWL value of air voids and density for the test strip. The QC core densities and QC and QV mix results will be used to determine the PWL values as calculated according to Appendix A.

The PWL values for air voids and density shall be calculated after determining core densities. An approved test strip is defined as the individual PWL values for air voids and density both being equal to or greater than 75, mixture volumetric properties conforming to the limits specified in C.2.1, and an acceptable gauge-to-core correlation. Further clarification on PWL test strip approval and appropriate post-test strip actions are shown in the following table:

PWL TEST STRIP APPROVAL AND MATERIAL CONFORMANCE CRITERIA

PWL VALUE FOR AIR VOIDS AND DENSITY	TEST STRIP APPROVAL	MATERIAL CONFORMANCE	POST-TEST STRIP ACTION
Both PWL ≥ 75	Approved[1]	Material paid for according to Section E	Proceed with Production
50 ≤ Either PWL < 75	Not Approved	Material paid for according to Section E	Consult BTS to determine need for additional test strip
Either PWL < 50	Not Approved	Unacceptable material removed and replaced or paid for at 50% of the contract unit price according to Section E	Construct additional Volumetrics or Density test strip as necessary

[1] In addition to these PWL criteria, mixture volumetric properties must conform to the limits specified in C.2.1, split sample comparison must have a passing result and an acceptable gauge-to-core correlation must be completed.

A maximum of two test strips will be allowed to remain in place per pavement layer per contract. If material is removed, a new test strip shall replace the previous one at no additional cost to the department. 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 the additional test strip according to Section E of this special provision. For simultaneously conducted density and volumetric test strip components, the following must be achieved:

i. Passing/Resolution of Split Sample Comparison
ii. Volumetrics/mix PWL value ≥ 75
iii. Density PWL value ≥ 75
iv. Acceptable correlation

If not conducted simultaneously, the mix portion of a test strip must accomplish (i) & (ii), while density must accomplish (iii) & (iv). If any applicable criteria are not achieved for a given test strip, the engineer, with authorization from the department's Bureau of Technical Services, will direct an additional test strip (or alternate plan approved by the department) be conducted to prove the criteria can be met prior to additional paving of that mix. For a density-only test strip, determination of mix conformance will be according to main production, i.e., HMA Pavement Percent Within Limits (PWL) QMP special provision.

D Measurement

The department will measure HMA Percent Within Limits (PWL) Test Strip as each unit of work, acceptably completed as passing the required air void, VMA, asphalt content, gradation, and density correlation for a Test Strip. Material quantities shall be determined according to standard spec 450.4 and detailed here within.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH
460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH

These items are intended to compensate the contractor for the construction of the test strip for contracts paved under the HMA Pavement Percent Within Limits QMP article.

Payment for HMA Percent Within Limits (PWL) Test Strip Volumetrics is full compensation for volumetric sampling, splitting, and testing, and for the proper labeling, handling, and retention of the split samples.

Payment for HMA Percent Within Limits (PWL) 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.

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 C.1 of this document, 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.

Pay adjustment will be calculated using 65 dollars per ton of HMA pavement. The department will pay for measured quantities of mix based on $65/ton multiplied by the following pay adjustment:

PAY ADJUSTMENT 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%[1]

where, PF is calculated per air voids and density, denoted $PF_{air\ voids}$ & $PF_{density}$

[1] Material resulting in PWL value less than 50 shall be removed and replaced, unless the engineer allows for 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.

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 will be according to Table 460-3. Pay adjustment will be determined for an acceptably completed test strip and will be computed as shown in the following equation:

Pay Adjustment = (PF-100)/100 x (WP) x (tonnage) x ($65/ton)*

*Note: If Pay Factor <50, the contract unit price will be used in lieu of $65/ton

The following weighted percentage (WP) values will be used for the corresponding parameter:

Parameter	WP
Air Voids	0.5
Density	0.5

Individual Pay Factors for each air voids ($PF_{air\ voids}$) and density ($PF_{density}$) will be determined. $PF_{air\ voids}$ will be multiplied by the total tonnage produced (i.e., from truck tickets), and $PF_{density}$ will be multiplied by the calculated tonnage used to pave the mainline only (i.e., traffic lane excluding shoulder) as determined according to Appendix A.

The department will pay incentive for air voids under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
460.2005	Incentive Density PWL HMA Pavement	DOL
460.2010	Incentive Air Voids HMA Pavement	DOL

The department will administer disincentives under the Disincentive Density HMA Pavement and the Disincentive Air Voids HMA Pavement administrative items.

stp-460-040 (20220107)

53. HMA Pavement Percent Within Limits (PWL) QMP.

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 spec 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 according to HMA Pavement Percent Within Limits (PWL) QMP Test Strip Volumetrics and HMA Pavement Percent Within Limits (PWL) QMP Test Strip Density articles at no additional cost to the department.*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 sublot 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 and three-part splitting of HMA samples according to CMM 836. 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 three splits for all random sampling per sublot. All QC samples shall provide the following: QC, QV, and Retained. The contractor shall take possession and test the QC portions. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. Additional sampling details are found in Appendix A. Label samples according to CMM 836. Additional handling instructions for retained samples are found in CMM 836.

(4) Use the test methods identified below to perform the following tests at a frequency greater than or equal to that indicated:

- Blended aggregate gradations according to AASHTO T 30.
- Asphalt content (AC) in percent determined by ignition oven method according to AASHTO T 308 as modified in CMM 836.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.
- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 836.6.6.
- Air voids (V_a) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R35.

(5) Lot size shall consist of 3750 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 sublot 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, without freeze-thaw conditioning cycles, on each qualifying mixture according to 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

(1) 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[1]	- 0.5	-1.0

[1] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in table 460-1.

(2) QV samples will be tested for Gmm, Gmb, and AC. Air voids and VMA will then be calculated using these test results.

(3) 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.

(4) 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.

(5) 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

(1) The department will provide at least one HTCP-certified Transportation Materials Sampling (TMS) Technician, to observe QV sampling of HMA mixtures.

(2) Under departmental observation, a contractor TMS technician shall collect and split samples.

(3) 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 three splits for all random sampling per sublot. All QV samples shall furnish the following: QC, QV, and Retained. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. 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 standard spec 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 standard spec 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 perform all testing conforming to the following standards:

- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 836.6.6.
- Air voids (Va) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R 35.
- Asphalt Content (AC) in percent determined by ignition oven method according to AASHTO T308 as modified in CMM 836.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.

(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^{th} and 5^{th} 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 sublot 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 sublot(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. In this event, the retained portion of each sublot 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 according to the standard spec, 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 sublot basis. If an entire PWL sublot is removed and replaced, the test results of the newly placed material will replace the original data for the sublot. 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

(1) The engineer will determine the target maximum density using department procedures described in CMM 815. The engineer will determine density as soon as practicable after compaction and before placement of subsequent layers or before opening to traffic.

(2) 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.

(3) A lot is defined as 7500 lane feet with sublots of 1500 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. The contractor is required to complete three tests randomly per sublot and the department will randomly conduct one QV test per sublot. A partial quantity less than 750 lane feet will be included with the previous sublot. Partial lots with less than three sublots will be included in the previous lot for data analysis/acceptance and pay, by the engineer. If density lots/sublots are determined prior to construction of the test strip, any random locations within the test strip shall be omitted. Exclusions such as shoulders and appurtenances shall be tested and recorded according to CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3. No density incentive or disincentive will be applied to shoulders or appurtenances. Offsets will not be applied to nuclear density gauge readings for shoulders or appurtenances. Unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.

(4) The three QC locations per sublot represent the outside, middle, and inside of the paving lane. The QC density testing procedures are detailed in Appendix A.

(5) QV nuclear testing will consist of one randomly selected location per sublot. The QV density testing procedures will be the same as the QC procedure at each testing location and are also detailed in Appendix A.

(6) An HTCP-certified nuclear density technician (NUCDENSITYTEC-I) shall identify random locations and perform the testing for both the contractor and department. The responsible certified technician shall ensure that sample location and testing is performed correctly, analyze test results, and provide density results to the contractor weekly, or at the completion of each lot.

(7) For any additional tests outside the random number testing conducted for density, the data collected will not be entered into PWL calculations. However, additional QV testing must meet the tolerances for material conformance as specified in the standard specification and this special provision. If additional density data identifies unacceptable material, proceed as specified in CMM 815.11.

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) Analysis of test data for pay determination will be contingent upon test results from both the contractor (QC) and the department (QV).

(2) As random density locations are paved, the data will be recorded in the HMA PWL Production Spreadsheet for analysis in chronological order. 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. A rolling window of 3 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-4, then lots 3-5, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value of 0.025.

i. If the F- and t-tests indicate variances and means compare, the QC and QV data sets are determined to be statistically similar and QC data will be used for PWL and pay adjustment calculations.

ii. If the F- and t-tests indicate variances or means do not compare, the QV data will be used for subsequent calculations.

(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) 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 may be conducted on a sublot basis. If an entire PWL sublot is removed and replaced, the test results of the newly placed material will replace the original data for the sublot.

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 according to 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%[1]

where PF is calculated per air voids and density, denoted $PF_{air\ voids}$ & $PF_{density}$

[1] 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.

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 according to standard spec Table 460-3. Pay adjustment will be determined on a lot basis and will be computed as shown in the following equation.

Pay Adjustment = (PF-100)/100 x (WP) x (tonnage) x ($65/ton)*

*Note: If Pay Factor <50, the contract unit price will be used in lieu of $65/ton

The following weighted percentage (WP) values will be used for the corresponding parameter:

Parameter	WP
Air Voids	0.5
Density	0.5

Individual Pay Factors for each air voids ($PF_{air\ voids}$) and density ($PF_{density}$) will be determined. $PF_{air\ voids}$ will be multiplied by the total tonnage placed (i.e., from truck tickets), and $PF_{density}$ will be multiplied by the calculated tonnage used to pave the mainline only (i.e., travel lane excluding shoulder) as determined according to Appendix A.

The department will pay incentive for air voids and density under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
460.2005	Incentive Density PWL HMA Pavement	DOL
460.2010	Incentive Air Voids HMA Pavement	DOL

The department will administer disincentives under the Disincentive Density HMA Pavement and the Disincentive Air Voids HMA Pavement administrative items.

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 sublot of mix at 65 dollars per ton of HMA pavement multiplied by the following pay adjustment calculated according to the HMA PWL Production Spreadsheet:

AC Binder Relative to JMF	Pay Adjustment / Sublot
-0.4% to -0.5%	75%[1]
More than -0.5%	50%[1] [2]

[1] 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 automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.

[2] 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 & Instructions* tab of the HMA PWL Production spreadsheet.

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54. Appendix A.

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 Procedure for Nuclear Gauge/Core Correlation – Test Strip
- 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 Procedure for Nuclear Gauge/Core Correlation – Test Strip

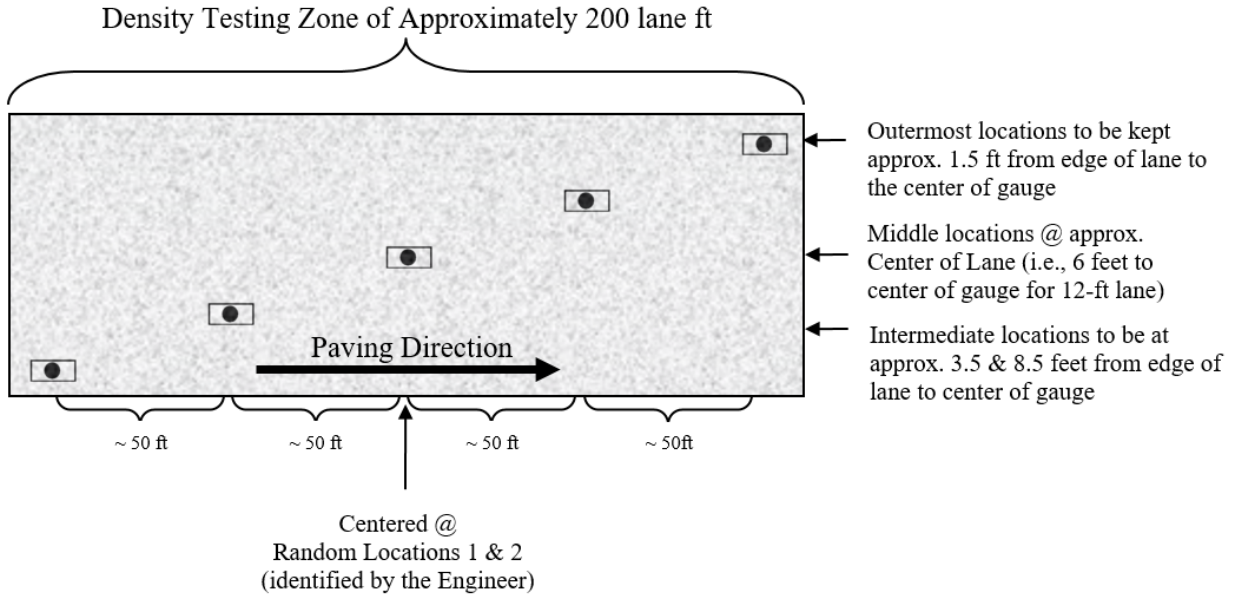


Figure 1: Nuclear/Core Correlation Location Layout

The engineer will identify two zones in which gauge/core correlation is to be performed. These two zones will be randomly selected within each *half* of the test strip length. (Note: Density zones shall not overlap and must have a minimum of 100 feet between the two zones; therefore, random numbers may be shifted (evenly) in order to meet these criteria.) Each zone shall consist of five locations across the mat as identified in Figure 1. The following shall be determined at each of the five locations within both zones:

- two one-minute nuclear density gauge readings for QC team*
- two one-minute nuclear density gauge readings for QV team*
- pavement core sample

*If the two readings exceed 1.0 pcf of one another, a third reading is conducted in the same orientation as the first reading. In this event, all three readings are averaged, the individual test reading of the three which falls farthest from the average value is discarded, and the average of the remaining two values is used to represent the location for the gauge.

The zones are supposed to be undisclosed to the contractor/roller operators. The engineer will not lay out density/core test sites until rolling is completed and the cold/finish roller is beyond the entirety of the zone. Sites are staggered across the 12-foot travel lane, and do not include shoulders. The outermost locations should be 1.5-feet from the center of the gauge to the edge of lane. [NOTE: This staggered layout is only applicable to the test strip. All mainline density locations after test strip should have a longitudinal- as well as transverse-random number to determine location as detailed in the *WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production* section of this document.]

Individual locations are represented by the symbol as seen in Figure 1 above. The symbol is two-part, comprised of the nuclear test locations and the location for coring the pavement, as distinguished here:

The nuclear site is the same for QC and QV readings for the test strip, i.e., the QC and QV teams are to take nuclear density gauge readings in the same footprint. Each of the QC and QV teams are to take a minimum of two one-minute readings per nuclear site, with the gauge rotated 180 degrees between readings, as seen here:

(a) (b)

Figure 2: Nuclear gauge orientation for (a) 1st one-minute reading and (b) 2nd one-minute reading

Photos should be taken of each of the 10 core/gauge locations of the test strip. This should include gauge readings (pcf) and a labelled core within the gauge footprint. If a third reading is needed, all three readings should be recorded and documented. Only raw readings in pcf should be written on the pavement during the test strip, with a corresponding gauge ID/SN (generalized as QC-1 through QV-2 in the following Figure) in the following format:

Figure 3: Layout of raw gauge readings as recorded on pavement

Each core will then be taken from the center of the gauge footprint and will be used to correlate each gauge with laboratory-measured bulk specific gravities of the pavement cores. One core in good condition must be obtained from each of the 10 locations. If a core is damaged at the time of extracting from the pavement, a replacement core should be taken immediately adjacent to the damaged core, i.e., from the same footprint. If a core is damaged during transport, it should be recorded as damaged and excluded from the correlation. Coring after traffic is on the pavement should be avoided. The contractor is responsible for coring of the pavement. Coring and filling of core holes must be approved by the engineer. The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Core density testing will be conducted by the contractor and witnessed by department personnel. The contractor is responsible for drying the cores following testing. The department will take possession of cores following initial testing and is responsible for any verification testing.

Each core 100 or 150 mm (4 or 6 inches) in diameter will be taken at locations as identified in Figure 1. Each random core will be full thickness of the layer being placed. The contractor is responsible for thoroughly drying cores obtained from the mat according to AASHTO R79 as modified by CMM 836.6.10 prior to using specimens for in-place density determination according to AASHTO T 166 as modified by CMM 836.6.5.

Cores must be taken before the pavement is open to traffic. Cores are cut under department/project staff observation. Relabel each core immediately after extruding or ensure that labels applied to pavement prior to cutting remain legible. The layer interface should also be marked immediately following extrusion. Cores should be cut at this interface, using a wet saw, to allow for density measurement of only the most recently placed layer. Cores should be protected from excessive temperatures such as direct sunlight. Also, there should be department custody (both in transport and storage) for the cores until they are tested whether that be immediately after the test strip or subsequent day if agreed upon between department and contractor. Use of concrete cylinder molds works well to transport cores. Cores should be placed upside down (flat surface to bottom of cylinder mold) in the molds, one core per mold, cylinder molds stored upright, and ideally transported in a cooler. Avoid any stacking of pavement cores.

Fill all core holes with non-shrink rapid-hardening grout, mortar, or concrete, or with HMA. When using grout, mortar, or concrete, remove all water from the core holes prior to filling. Mix the mortar or concrete in a separate container prior to placement in the hole. If HMA is used, fill all core holes with hot-mix matching the same day's production mix type at same day compaction temperature +/- 20 F. The core

holes shall be dry and coated with tack before filling, filled with a top layer no thicker than 2.25 inches, lower layers not to exceed 4 inches, and compacted with a Marshall hammer or similar tamping device using approximately 50 blows per layer. The finished surface shall be flush with the pavement surface. Any deviation in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the layer thickness and replacement.

WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production

For nuclear density testing of the pavement beyond the test strip, QC tests will be completed at three locations per sublot, with a sublot defined as 1500 lane feet. The three locations will represent the outside, middle, and inside of the paving lane (i.e., the lane width will be divided into thirds as shown by the dashed longitudinal lines in Figure 3 and random numbers will be used to identify the specific transverse location within each third according to CMM 815). Longitudinal locations within each sublot shall be determined with 3 independent random numbers. 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 or disincentive. Each location will be measured with two one-minute gauge readings oriented 180 degrees from one another, in the same footprint as detailed in Figure 2 above. Each location requires a minimum of two readings per gauge. The density gauge orientation for the first test will be with the source rod towards the direction of paving. QV nuclear testing will consist of one randomly selected location per sublot. The QV is also comprised of two one-minute readings oriented 180 degrees from one another. For both QC and QV test locations, if the two readings exceed 1.0 pcf of one another, a third reading is conducted in the same orientation as the first reading. In this event, all three readings are averaged, the individual test reading of the three which falls farthest from the average value is discarded, and the average of the remaining two values is used to represent the location for the gauge. The sublot density testing layout is depicted in Figure 4, with QC test locations shown as solid lines and QV as dashed.

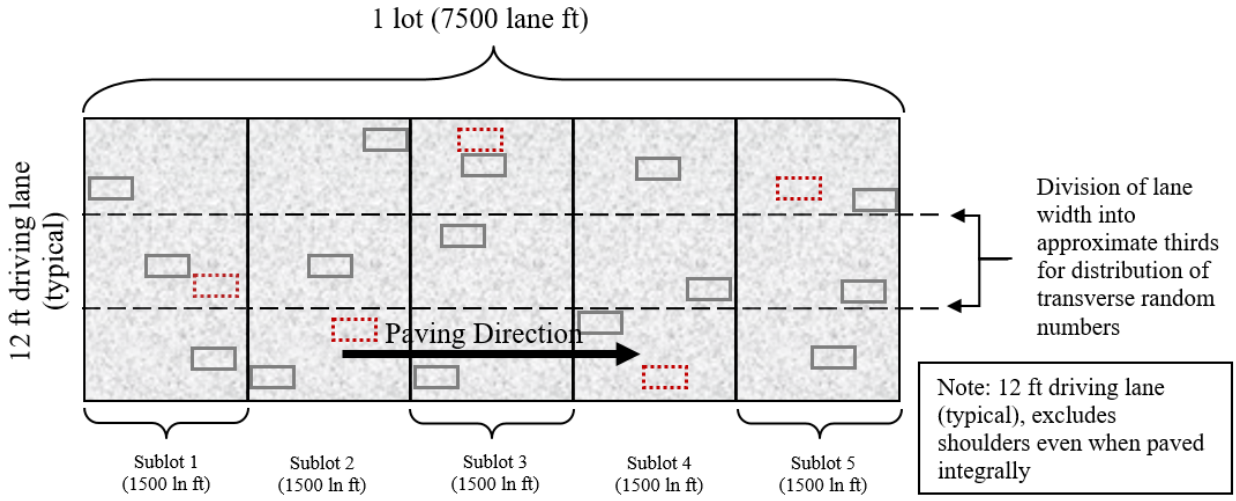


Figure 4: Locations of main lane HMA density testing (QC=solid lines, QV=dashed)

Raw nuclear density data must be shared by both parties at the end of each shift. Paving may be delayed if the raw data is not shared in a timely manner. QC and QV nuclear density gauge readings will be statistically analyzed according to section 460.3.3.3 of the HMA PWL QMP SPV. (Note: For density data, if F- and t-tests compare, QC data will be used for the subsequent calculations of PWL value and pay determination. However, if an F- or t-test does not compare, the QV data will be used in subsequent calculations.)

Investigative cores will be allowed on the approaching side of traffic outside of the footprint locations. Results must be shared with the department.
The QV density technician is expected to be onsite within 1 hour of the start of paving operations and should remain on-site until all paving is completed. Perform footprint testing as soon as both the QC and QV nuclear density technician are onsite and a minimum of once per day to ensure the gauges are not drifting apart during a project. Footprint testing compares the density readings of two gauges at the same testing location and can be done at any randomly selected location on the project. Both teams are encouraged to conduct footprint testing as often as they feel necessary. Footprint testing does not need

to be performed at the same time. At project start-up, the QV should footprint the first 10 QC locations. Individual density tests less than 0.5% above the lower limit should be communicated to the other party and be footprint tested. Each gauge conducts 2 to 3 1-minute tests according to CMM 815 and the final results from each gauge are compared for the location. If the difference between the QC and QV gauges exceeds 1.0 pcf (0.7 percent) for an average of 10 locations, investigate the cause, check gauge moisture and density standards and perform additional footprint testing. If the cause of the difference between gauge readings cannot be identified, the regional HMA Coordinator will consult the RSO, the regional PWL representative and the BTS HMA unit to determine necessary actions. If it is agreed that there is a gauge comparison issue, perform one of the following 2 options:

New Gauge Combination

- All 4 gauges used on the test strip must footprint 10 locations on the pavement. Pavement placed on a previous day may be used.
- The results of the footprint testing will be analyzed to see if a better combination of acceptable gauges is available.
- If a better combination is found, those gauges should be used moving forward.
- If a better combination cannot be found, a new gauge correlation must be performed. (see below)

Re-correlation of Gauges

- Follow all test strip procedures regarding correlating gauges except the following:
    - The 10 locations can be QC or QV random locations.
    - The locations used may have been paved on a previous day.
- Retesting with gauges must be done immediately prior to coring.
- New gauge offsets will be used for that day's paving and subsequent paving days. New gauge offsets will not be used to recalculate density results from prior days.

Density Dispute Resolution Procedure

Density results may be disputed by the contractor on a lot by lot basis if one of the following criteria is met:

- The lot average for either QC or QV is below the lower specification limit.
- The lot average for QC is different from the lot average for QV by more than 0.5%.

In lieu of using density gauges for acceptance of the lot, the lot will be cored in the QV locations. The results of the cores from the entire lot will be entered in the spreadsheet and used for payment. If the pay factor increases, the contractor will only receive the additional difference in payment for the disputed lot. If the pay factor does not increase, the department will assess the contractor $2,000 for the costs of additional testing.

Notify the engineer in writing before dispute resolution coring. Immediately prior to coring, QC and QV will test the locations with nuclear density gauges.

Under the direct observation of the engineer, cut 100 or 150 mm (4 or 6 inch) diameter cores. Cores will be cut by the next day after completion of the lot, except if the next day is not a working day, then they shall be cut within 48 hours of placement. Prepare cores and determine density according to AASHTO T166 as modified in CMM 836.6.5. Dry cores after testing. Fill core holes according to Appendix A and obtain engineer approval before opening to traffic. The department will maintain custody of cores throughout the entire sampling and testing process. The department will label cores, transport cores to testing facilities, witness testing, store dried cores, and provide subsequent verification testing. 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.

Sampling for WisDOT HMA PWL QMP Production

Sampling of HMA mix for QC, QV and Retained samples shall conform to CMM 836 except as modified here.

Delete CMM 836.4 Sampling Hot Mix Asphalt and replace with the following to update sublot tonnages:

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 (sublot) for QC and Retained Samples and 1 per 3750 tons (lot or 5 sublots) for QV as defined by the HMA PWL QMP SPV. A test sample is obtained randomly from each sublot. Each random sample shall be collected at the plant according to CMM 836.4.1 and 836.4.2. 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 ASTM Method D-3665 or by using a calculator or computerized spreadsheet that has a random number generator. The random numbers selected are used in determining when a sample is to be taken and will be multiplied by the sublot tonnage. This number will then be added to the final tonnage of the previous sublot 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 sublot 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 3750 tons with sublots of 750 tons. Partial lots with less than three sublot tests will be included into the previous lot, by the engineer.

It is intended that the plant operator not be 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, and retained samples shall be collected for all test strip and production mixture testing using a three-part splitting procedure according to CMM 836.5.2.

Calculation of PWL Mainline Tonnage Example

A mill and overlay project in being constructed with a 12-foot travel 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 sublot eligible for density incentive or disincentive.

Solution:

$$\frac{1500\ ft\ \times\ 12\ ft}{9\ sf/sy}\ \times\ \frac{2\ in\ \times 112\ lb/sy/in}{2000\ lb/ton}\ = 224\ tons$$

stp-460-055 (20220107)

55. 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	90	91.5	91.5
Upper	90	90	91.5	91.5

C Construction

Add the following to standard spec 460.3.3.2:

(5) Establish companion density locations at each applicable joint. Each companion location shares longitudinal stationing with a QC or QV density location within each sublot 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 will 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 sublot 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 sublot, 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 sublot density. When this occurs, the lane feet of any unacceptable material will be deducted from the sublot in which it is located, and the previously accepted sublot density will be used to calculate pay for the remainder of the sublot.

(8) Joint density measurements will 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, will 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. 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. Inlay paving operations will limit payment for additional material to 2 inches wider than the final paving lane width at the centerline.

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 sublot as follows:

PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY

PERCENT SUBLOT DENSITY ABOVE/BELOW SPECIFIED MINIMUM	PAY ADJUSTMENT PER LINEAR FOOT
Equal to or greater than +1.0 confined, +2.0 unconfined	$0.40
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* [1]

[1] 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.

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

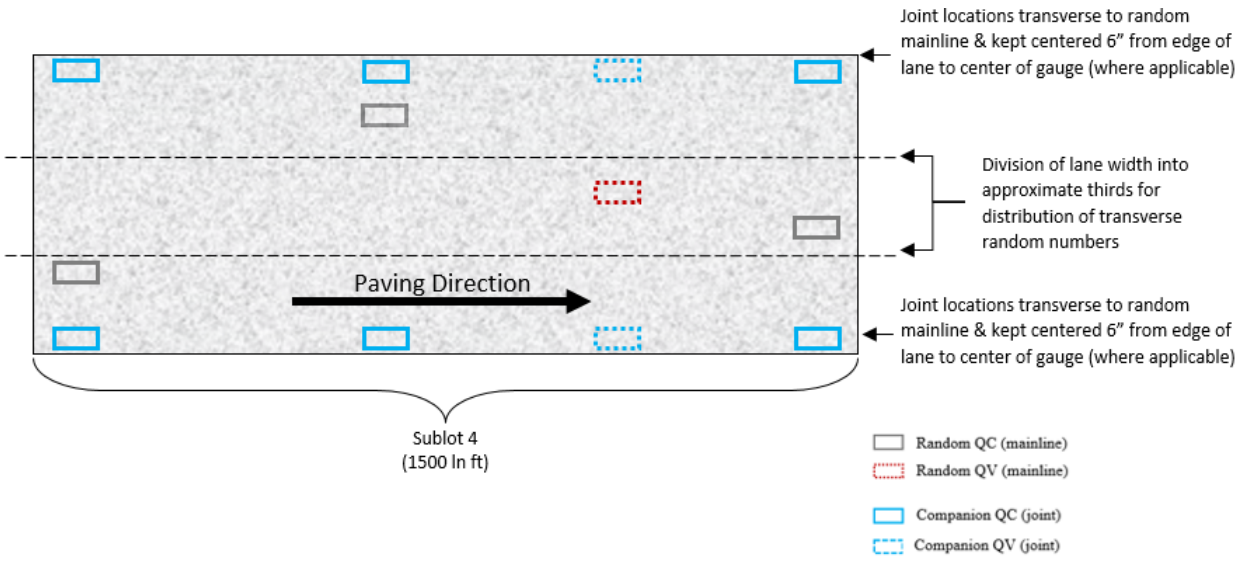
The department will administer disincentives under the Disincentive Density HMA Pavement Longitudinal Joints administrative item.

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 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				
	Lower Layer (On Base)		Upper Layer		
	LT/MT	HT	LT/MT	HT	Pay Adjust
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	$0.40
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				
	Lower Layer (On Base)		Upper Layer		
	LT/MT	HT	LT/MT	HT	Pay Adjust
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	$0.40
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 (20210113)

56. HMA Pavement 4 SMA 58-28 V, Item 460.8624; 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 8-15.13 to correlate nuclear gauges to pavement cores, 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 *[1]*	- 0.5
VMA in percent*[2]*	- 1.0
Air Voids in percent	According to the SMA Test Strip Approval Criteria Below

[1] Asphalt content more than -0.5% below the JMF will be referee tested by BTS using automated extraction according to WisDOT Modified ASTM D8159.

[2] 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 8-15 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., $3.2 \leq Va \leq 5.8$), dispute resolution according to CMM 8-36 will determine material conformance and payment for the test strip. 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 *[1]*	QV Air Voids	Average Density of All Cores *[2]*	Outcome of Test Strip for Contractor
Approved / Material Conforming	$3.2 \leq Va \leq 5.8$	≥ 93.0 %	Proceed with production
Test Strip Approved / Material Nonconforming	$2.8 \leq Va \leq 3.2$ or $5.8 < Va \leq 6.2$	≥ 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 *[3]*	$Va < 2.5$ 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.

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

[2] Individual nuclear density test results more than 3.0% below the minimum density requirement must be addressed according to CMM 8-15.11.

[3] 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 8-15 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 8-15. 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
460.8624	HMA Pavement 4 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.

stp-460-030 (20191121)

57. 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 to avoid segregation of coarse aggregates. 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 (20220628)

58. Concrete Curing Materials.

Supplement standard spec 501.2.9 with the following:

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.

59. 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 slices 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.

stp-505-005 (20190618)

60. 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 measured quantities 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)

61. Epoxy Crack Sealing, Item 509.9020.S.

A Description

This special provision describes sealing vertical cracks in abutments as the plan details show.

B Materials

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 (20100709)

62. Epoxy Injection Crack Repair, Item 509.9025.S; Cored Holes 2-Inch Diameter, Item 509.9026.S.

A Description

This special provision describes repairing structural cracks in piers using the epoxy injection method, and coring 2 inch diameter core samples the repaired cracks.

Conform to standard spec 509 as modified in this special provision.

B Materials

Furnish epoxy injection material that is insensitive to the presence of water and is composed of a two-component epoxy resin designed specifically for structurally re-bonding cracks in Portland cement concrete. The epoxy injection material shall conform to the following physical properties at 77 degrees F:

	Unmixed		**Mixed**
	Component A (Resin)	**Component B (Catalyst)**	
Weight per gallon, lbs	9.15 ±0.1	8.2 ±0.1	9.15 ±0.1
Viscosity, cps	500-700	120-160	275-350
Specific Gravity, g/cc	1.128 ±0.012	0.984 ±0.012	1.099 ±0.012
Color Straw	Straw	Straw	Straw
Shelf Life (closed containers)	2 years	2 years	---
Solids by Weight	---	---	100%
Pot Life (200 gram mass)	---	---	12-15 mins.
Mixing Ratio (by weight)	80%	20%	---
Mixing Ratio (by volume)	78%	22%	---
Bond Strength	---	---	2000 psi min
Shrinkage Resistance	---	---	ASTM C883
Thermal Compatibility	---	---	ASTM C884

Furnish surface seal material for confining the injected epoxy resin in the cracks that meets the following requirements:

1. Adequate strength to hold the injection fittings firmly in place to resist injection pressures and prevent leakage during injection.
2. Non-sag consistency.
3. Insensitive to the presence of water.
4. Controlled cure time.
5. Two-component epoxy resin.
6. 100% solids by weight.
7. Applicable to wet surfaces.
8. Viscosity should be paste.

C Construction

C.1 Injection Equipment

Use equipment to meter and mix the two-epoxy resin components and to inject the mixture into the cracks. The equipment shall be portable and have positive displacement type pumps equipped with an interlock to provide positive ration control of exact proportions of the two components at the nozzle. Use electric or air powered pumps that provide in-line metering and mixing.

Use injection equipment that has automatic pressure control capable of discharging the mixture at any present pressure up to 160 psi (±5 psi) and is equipped with a manual pressure control override.

The equipment shall have the capability of maintaining the volume ratio for the mixture prescribed by the manufacturer of the epoxy resin material within a tolerance of ±5% by volume at any discharge pressure up to 160 psi.

The injection equipment shall be equipped with sensors on both the Component A and B reservoirs that will automatically stop the machine when only one component is being pumped to the mixing head.

C.2 Surface Area Preparation

Clean the surface areas adjacent to cracks of all dirt, dust, grease, oil, efflorescence, or other foreign matter, which may be detrimental to adhesion of the surface seal material. Acids and corrosives will not be permitted for cleaning.

Install injection ports along the cracks on both faces of the pier at intervals of 4 to 10 inches, or as appropriate to accomplish full penetration of the injection resin. Center the injection ports over the cracks and secure in place using surface seal material. Where possible, install the injection ports over the widest areas of the cracks.

Apply the surface seal material to the face of the crack between the entry ports. For known through cracks, apply the surface seal material to both faces of the member. Before proceeding with the injection operation, allow sufficient time to elapse for the surface seal material to gain adequate strength.

C.3 Epoxy Injection

Install the epoxy injection resin according to the manufacturer’s instructions.

During installation, in general, limit pressures to 35 psi at the point of entry into the crack.

On vertical cracks, start the injection at the lowest point and continue upward along the crack. While injecting, resin should flow to and out of the next higher port. When this flow is established, cap the lower port and continue the injection until all ports have been injected and flow has been established between them.

On horizontal cracks, follow the same procedures used for vertical cracks; start the injection at one end and continue the injection in succession along the crack until all ports have been injected and flow has been established between them.

C.4 Finishing and Clean-Up

When cracks are completely filled, cure the epoxy resin for a sufficient length of time so that when the surface seal is removed, there is no draining or runback of the epoxy material from the cracks. Grind, or use other appropriate method, to remove surface seal material, excess epoxy material, and injection ports. No epoxy material shall extend beyond the plane of the surfaces of the in-situ concrete.

C.5 Core Sampling

To determine if the crack injection is complete, obtain two 2 inch diameter core samples from the repaired pier. Take the cores to the depth of the element or at least 12 inches. Take the cores at locations selected by the engineer. The engineer will have the option of increasing or decreasing the number of cores taken.

The injection shall be considered complete if more than 90% of the crack void, to 12 inches deep, is filled with the epoxy resin in each of the samples taken. If the injection is incomplete, re-injection and additional cores may be required.

Repair the core holes left in the member using one of the two following methods:

1. Fill core holes with an epoxy mortar consisting of one part epoxy injection resin to four parts clean, dry, bagged fine aggregate mixed by volume. Match the finish repair to the surrounding surface.
2. Fill core holes with an epoxy mortar consisting of one part epoxy gel to one part clean, dry, bagged fine aggregate mixed by volume. Match the finish repair to the surrounding surface.

D Measurement

The department will measure Epoxy Injection Crack Repair in length by the linear foot crack, acceptably repaired.

The department will measure Cored Holes 2-Inch Diameter as each individual cored hole, as approved by the engineer and acceptably completed. Additional cores taken as required by the engineer after re-injection (due to incomplete injection) will not be measured for payment. Additional cores taken by the contractor that are not ordered by the engineer will not be measured for payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9025.S	Epoxy Injection Crack Repair	LF
509.9026.S	Cored Holes 2-Inch Diameter	EACH

Payment is full compensation for furnishing and placing the epoxy sealant, including any cleaning before and after injection; coring samples of the work; inspecting the core samples; and for repairing the core holes left in the member.

stp-509-025 (20100709)

63. 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)

64. Structure Repainting Recycled Abrasive B-40-196 Item 517.1801.S.400; Structure Repainting Recycled Abrasive B-40-197, Item 517.1801.S.401.

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-40-196 11,700 SF.
2. Structure B-40-197 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 blast cleaning, 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 were previously rusted (i.e., pitted steel) 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 7ug/cm^2, 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 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.

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.400	Structure Repainting Recycled Abrasive B-40-196	EACH
517.1801.S.401	Structure Repainting Recycled Abrasive B-40-197	EACH

Payment is full compensation for preparing and cleaning the designated surfaces; furnishing and applying the paint; and for providing the listed equipment.

stp-517-050 (20210708)

65. Labeling and Disposal of Waste Material.

The EPA ID number for Structure B-40-196 will be provided at the preconstruction conference.

The EPA ID number for Structure B-40-197 will be provided at the preconstruction conference.

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.

Contact the waste management contractor a minimum of 10 working days in advance to request container drop-off or pickup. 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:

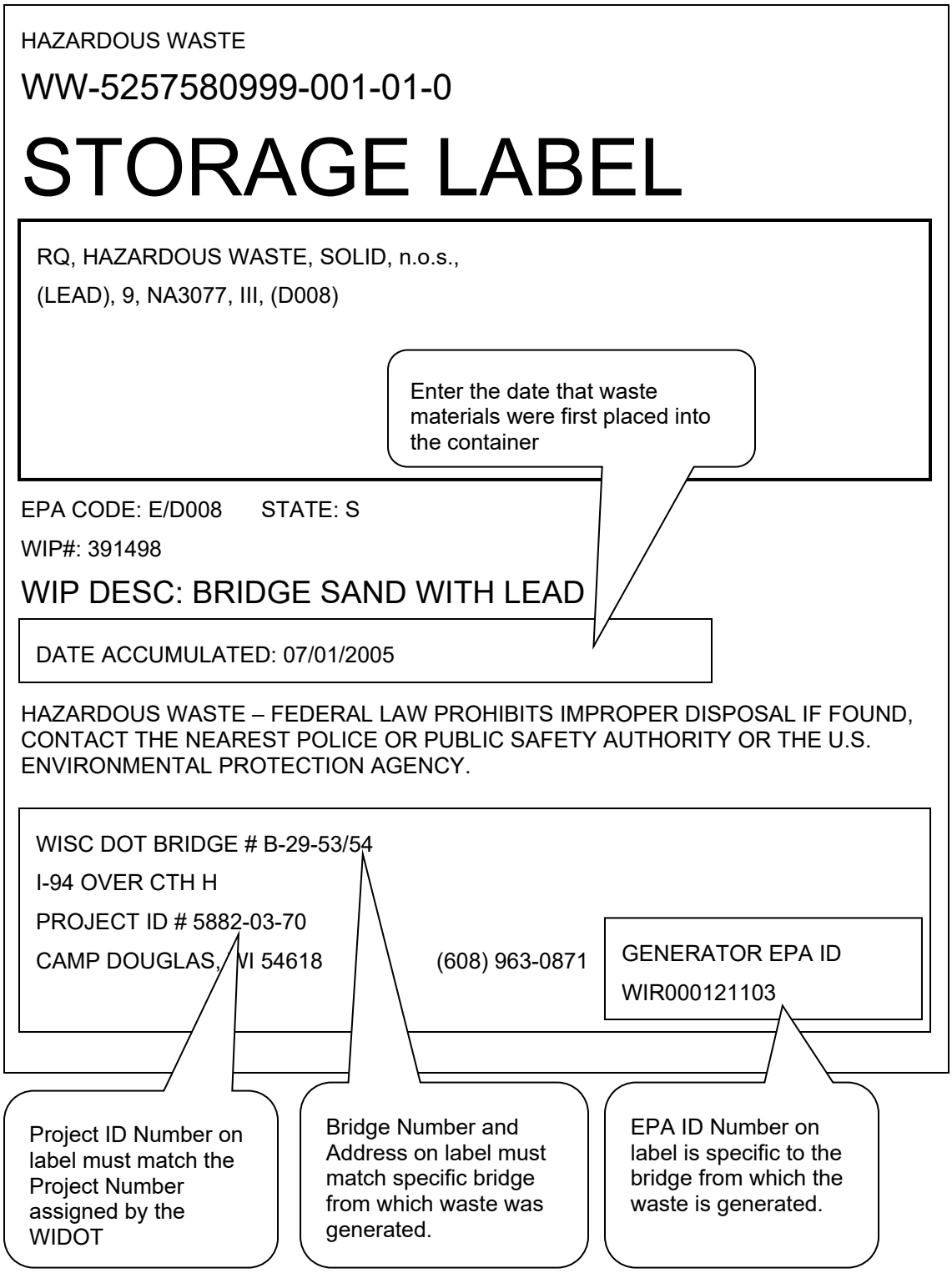
https://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrces/environment/hazwaste-contacts.pdf

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 (20190618)



66. Negative Pressure Containment and Collection of Waste Materials, B-40-196 Item 517.4501.S.400;
Negative Pressure Containment and Collection of Waste Materials, B-40-197, Item 517.4501.S.401.

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.400	Negative Pressure Containment and Collection of Waste Materials B-40-196	EACH
517.4501.S.401	Negative Pressure Containment and Collection of Waste Materials B-40-197	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 (20210708)

67. 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 (20140630)

68. Surface Drain Pipe Corrugated Metal Slotted, 15-Inch, Item 521.2005.S.

A Description

This special provision describes furnishing and installing slotted corrugated metal pipe surface drain as the plans show.

Conform to standard spec 521 as modified in this special provision.

B Materials

Furnish backfill material that is grade A concrete conforming to standard spec 501 as modified in standard spec 716.

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

High Early Strength (HES) concrete conforming to standard spec 710.4(5) is allowed. Use HES if required by the plans, or if directed by the engineer.

Furnish 6-inch special grate depth as shown in the standard detail drawings.

C Construction

Before backfilling, plug the upper end of the slotted drain as the plans show or as approved by the engineer.

Before backfill operations adjacent to the slotted area of the slotted corrugated metal pipe surface drain pipe, install timber blocks in the slots according to the plan details. Remove any material entering the pipe at no expense to the department.

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

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

D Measurement

The department will measure Surface Drain Pipe Corrugated Metal Slotted, 15-Inch, completed according to the contract and accepted, in place by the linear foot.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
521.2005.S	Surface Drain Pipe Corrugated Metal Slotted, 15-Inch	LF

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

stp-521-005 (20220628)

69. Catch Basins, Manholes, and Inlets.

Furnish Grade A concrete conforming to standard spec 501 as modified in standard spec 716.

Provide Ductile Iron Castings for Inlet Covers Type V and Inlet Covers Type 27-M conforming to ASTM A536 Grade 80-55-06.

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 licensed in the State of Wisconsin. Submit one electronic copy of shop drawings in portable

document format for engineer's review two weeks prior to starting 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 furnishing and installing such materials, even though the shop drawings may have been reviewed and accepted by the engineer.

Provide bolted covers for drainage structure cover Type J Special.

Supplement standard spec 611.3.2 with the following:

Conform to storm sewer concrete collar detail for storm sewer pipes to structure connections as shown on the plans.

Supplement standard spec 611.3.3 with the following:

Use monolithic concrete shimming as shown on plans for final adjustment of drainage structures located within the freeway concrete pavement, concrete shoulders, concrete curb and gutter and concrete barrier wall. If the adjustment is less than 4-inches, the engineer may choose to direct the contractor to use grade rings for adjustments for storm sewer structures outside the freeway concrete pavement and at other non-freeway locations.

Supplement standard spec 611.3.7 with the following:

Construct height adjustments of 4-inches or more with concrete grade rings. Do not 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. Providing granular backfill is incidental to the removal item and no separate payment will be made.

Cost of non-rocking covers for all drainage structures subject to traffic loading is incidental to new cover on proposed structure or reconstructing/adjusting manholes or inlets on existing structure.

Cost for providing bolted covers Type J Special is incidental to cover type.

Welding covers and removing welds as noted in the plan and as directed by the engineer are paid under separate bid items.

70. Pipe Grates, Item 611.9800.S.

A Description

This special provision describes providing pipe grates on the ends of pipes.

B Materials

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

Furnish pipe grates galvanized according to ASTM A123.

Furnish angles and brackets galvanized according to ASTM A123.

Furnish required hardware galvanized according to ASTM A153.

C Construction

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.9800.S	Pipe Grates	EACH

Payment is full compensation for furnishing and installing all materials; and for drilling and connecting grates to pipes.

stp-611-010 (20030820)

71. Fence Safety, Item 616.0700.S.

A Description

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

B Materials

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

Furnish fence fabric meeting the following requirements.

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

C Construction

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

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

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

stp-616-030 (20160607)

72. Signs Type I and II.

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

Supplement standard spec 637.2.4 with the following:

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

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

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

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

Replace standard spec 637.3.3.2(2) with the following:

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

Supplement standard spec 637.3.3.3(3) with the following:

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

Add the following to standard spec 641.2:

Submit shop drawings for sign bridges and overhead sign supports to SE Region Traffic Operations Engineer, Karen Martens and Bureau of Structures Design.

SER-637-001 (20170621)

73. Sign Bridge Identification Plaques.

Supplement standard spec 641.5 with the following:

(5) Payment for Sign Bridge and Overhead Sign Support bid items is full compensation for providing and installing sign bridge identification plaques and mounting hardware as shown on the standard detail drawing in the plans for each existing and new sign bridge or overhead sign support.

SER-641-001 (20160902)

74. 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)

75. Nighttime Work Lighting-Stationary.

A Description

This special provision describes furnishing portable lighting as necessary to complete nighttime work. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise.

B (Vacant)

C Construction

C.1 General

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

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

1. Layout, including location of portable lighting – lateral placement, height, and spacing. Clearly show on the layout the location of all lights necessary for every aspect of work to be done at night.
2. Specifications, brochures, and technical data of all lighting equipment to be used.
3. The details on how the luminaires will be attached.
4. Electrical power source information.
5. Details on the louvers, shields, or methods to be employed to reduce glare.
6. Lighting calculations. Provide illumination with average to minimum uniformity ratio of 5:1 or less throughout the work area.
7. Detail information on any other auxiliary equipment.

C.2 Portable Lighting

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

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

C.3 Light Level and Uniformity

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

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

C.4 Glare Control

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

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

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.
2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

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

C.5 Continuous Operation

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

D (Vacant)

E Payment

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

stp-643-010 (20100709)

76. 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 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 mph. Integrate each sensor with a modem to communicate with the automated system manager (ASM).

B.3 Automated System Manager (ASM)

Provide an ASM 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) 14 calendar days before the pre-construction meeting that the system will adequately perform the functions specified in this special provision. Adequate verification includes past successful performance of the system, literature and references from successful use of the system by other agencies, and/or demonstration of the system.

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) 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.

Number the devices in chronological 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 24 hours of becoming aware of a deficiency in the operation or individual part of the system. A minimum of three days before deployment, place the QWS and demonstrate to the department that the QWS is operational.

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 in-person 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 24 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 24 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 (20200629)

77. General Requirements for Electrical Work.

Replace standard spec 651.3.3 (3) with the following:

Request a signal inspection of the signal installation to the engineer after completing the Prerequisites for Underground Inspection or Prerequisites for Above Ground Inspection 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 continuation to aboveground work or turn-on until the contractor corrects all deficiencies.

78. Traffic Signals, General.

Failure to comply with the state standards and specifications may result in the cost of the corrections to be made at the contractors' expense. Any additional disruption of department-owned facilities shall be repaired or relocated as needed at the contractors' expense.

Notify the department's Electrical Field Unit at (414) 266-1170 at least three weeks prior to the beginning of the traffic signal work.

Furnish the engineer with material lists and specifications of all traffic control equipment for approval prior to installation.

79. Electrical Conduit.

Replace standard spec 652.5(2) 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 an existing pull box, manhole, junction box or communication vault; for excavating, bedding, and backfilling, including any sand, concrete, or other required materials; for disposing of surplus materials; and for making inspections.

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

A Description

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

B Materials

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

C Construction

Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate-sized hole 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 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 (20100709)

81. Electrical Service Meter Breaker Pedestal IH 41 EB Ramps & STH 36, Item 656.0200.300; Electrical Service Meter Breaker Pedestal IH 41 WB Ramps & STH 36, Item 656.0200.301.

Add the following to standard spec 656.2.3:

(2) The department will be responsible for the electrical service installation request for any department-maintained facility. Notify the maintaining authority if the signal is not state maintained that it is their responsibility to arrange for the electrical service installation.

(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.

Add the following to standard spec 656.5:

(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.

82. Traffic Signal Faces.

Replace standard spec 658.2(3) with the following:

(3) For traffic signal faces: furnish signal housings, visors, LED modules, backplates, and cut away or tunnel type visors as the plans show. The visors shall be a dull black. The backplates shall be a reflective yellow at 84th Street interchange. The backplates shall be black at STH 36/Loomis Road interchange. Signal head housings shall be black.

Add the following to standard spec 658.3:

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

83. Pedestrian Signal Faces 16-Inch, Item 658.0416.

Replace standard spec 658.2(4) with the following:

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.

Replace standard spec 658.3(3) with the following:

(3) For Pedestrian push buttons: provide a 3/4-inch diameter push button mounting hole for wiring purposes in standards or poles. De-burr the holes after sawing and before installing the wire. Use shielded, 14 AWG, 2 conductor, polyethylene insulated, with 16 AWG drain wire, conforming to IMSA Specification Number 50-2 for loop detector lead-in cable, to wire the push button in one continuous run from the cabinet to the push button at the locations indicated on the plan.

84. Pedestrian Push Buttons, Item 658.0500.

Replace standard spec 658.2(5) with the following:

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.

85. Signal Mounting Hardware, Item 658.5070.300; Signal Mounting Hardware, Item 658.5070.301; Signal Mounting Hardware, Item 658.5070.302.

Add the following to standard spec 658.2(7):

Use an approved type of pole or standard vertical mounting brackets/clamps for signal faces from an approved manufacturer. Pedestrian traffic signal heads mounted in the median shall use federal yellow at 84th Street interchange and black at STH 36/Loomis Road interchange for the aluminum side of pole 2-way upper and lower arm assemblies providing 16 ½-inch center to center spacing.

86. 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.

For Lamp, Ballast, LED, Switch Disposal by Department, coordinate removal from the work site and delivery to the designated location for disposal by the department.

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-rsrces/environment/hazwaste-contacts.pdf

B.2 Disposal by Department

Items turned in to the department will be considered the property of the department for proper future disposal, and the contractor will have no further obligation for the disposal.

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://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrces/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.

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.

The department will measure Lamp, Ballast, LED, SWITCH Disposal by Department as each individual unit removed and delivered to the department, 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.

Payment for Lamp, Ballast, LED, Switch Disposal by Department is full compensation for detachment, handling, packaging, labeling and delivering for disposal by the department; and scrapping and disposal of all other materials.

stp-659-500 (20220628)

87. Ramp Closure Gates 28-FT, Item 662.1028.S; Ramp Closure Gates 30-FT, Item 662.1030.S; Ramp Closure Gates 32-FT, Item 662.1032.S.

A Description

This special provision describes providing freeway on-ramp closure gates on type 5 steel luminaire poles.

B Materials

B.1 General

Provide five user manuals and a listing of vendors and contact information for each manufactured component including flasher electrical components.

The engineer may allow alternates equal to specified manufactured components. The engineer may require plan detail modifications to accommodate alternates. The engineer may accept alternate arms or mounting adaptors only if the contractor can demonstrate that the department can easily remove and replace the arms.

B.2 Components

Furnish type 5 steel poles designed to carry twin 15-foot luminaire arms and conforming to standard spec 657 and with dimensions for acceptable installation of the ramp gate hardware as shown on the detail. Ensure a contiguous pole by eliminating the hand hole near base of pole, thus allowing uninhibited mounting of the gate pivot assembly.

Furnish galvanized steel nuts and bolts conforming to ASTM A307 except where designated as high strength (HS), conform to ASTM F3125. For the ramp closure gate locking mechanism, furnish a 3/4-inch handle nut.

Furnish grade A36 steel for the gate supports, gate pivot assembly, and associated hardware galvanized after fabrication by either a mechanical or hot-dip process. Grind welded connections, rough edges, and burrs smooth before galvanizing to ensure a finished appearance. Ensure that the galvanized coating conforms to ASTM A 153.

Provide aluminum/fiberglass gate arms of the nominal length the bid item indicates and conforming to plan dimensions. Cover gate arms on two sides with alternating red and white shop-applied type H reflective from the department's approved products list. Also provide a shear pin base that is the manufacturer’s "permanent pivot" style. Obtain components from:

B&B Roadway
15191 Hwy 243
Russellville, AL 35654
Tel: (888) 560-2060
Gate arm: Model MU605

Furnish a worm gear winch with a single line vertical lift capacity of 2000 lbs. Ensure that the winch has hardened steel gears, a handgrip, permanently lubricated bearings, a reinforced arc-welded reel assembly, and mounting plate. Ensure that the winch can be mounted to the winch mount plate shown on the construction details and the handgrip can be operated without conflict with the pole or ramp gate

assembly. Furnish a 2-inch outdoor rated, rot resistant polyester strap for the connection between the worm gear winch and the gate arm pivot assembly.

C Construction

Provide ramp closure gate at the locations the plans show. Apply marine grade anti seize compound compound to all bolt threads and to the interface between the aluminum base and steel pole. The engineer may direct adjustment of the gate arm assembly to ensure the correct vertical and angular orientation of the completed closure gate.

Install structure identification plaques in the location the plan details show.

D Measurement

The department will measure the Ramp Closure Gates bid items as each individual installation, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
662.1028.S	Ramp Closure Gates 28-FT	EACH
662.1030.S	Ramp Closure Gates 30-FT	EACH
662.1032.S	Ramp Closure Gates 32-FT	EACH

Payment is full compensation for providing ramp closure gates including support poles; for gate arm assemblies including guides, collars, and gate arms; and for structure identification plaques.

stp-662-005 (20191121)

88. 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
Microwave Vehicle Detectors
CCTV Cameras
CCTV Camera Poles
Dynamic Message Signs

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

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

Transportation of the equipment between the electric shop and the field or interim 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 (20150630)

89. 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 Statewide Traffic Operations Center (STOC). Interruption of this service is not expected to perform this work. If an interruption is determined necessary, it must be done on a weekend, and must be done in a way that minimizes communication outages for the existing equipment. Notify the department's STOC at least 48 hours in advance of the planned interruption.
2. The department will furnish some of the equipment to be installed. Make a reasonable effort to discover defects in that equipment 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 Statewide Traffic Operations Center or in communication hubs, which are not contained within a single cabinet, shall have at least 10 feet of slack.

C.4 System Operations

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

C.5 Surge Protection

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

D Measurement

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 (20100709)

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

A Description

This special provision describes removing existing camera poles.

B (Vacant)

C Construction

Disconnect all cables, wiring and equipment that are mounted on or in the poles, and remove the pole from the concrete footing. 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

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

stp-677-901 (20100630)

91. Removing CCTV Camera, Item 677.9200.S.

A Description

This special provision describes removing existing CCTV cameras from existing camera poles as the plans show.

B (Vacant)

C Construction

Disconnect all wiring at the control cabinet and at the top of the camera pole. Remove all fastening hardware and remove the existing camera and pan, tilt, and zoom mechanisms from the top of the pole. Salvage and store the cameras for pick up by the department; contact maintenance staff at (414) 227-2166 at the department's Statewide Traffic Operations Center to coordinate when the materials will be picked up.

The contractor may request a meeting with the engineer to assess the condition and operability of the camera before beginning work on removing the camera. 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 camera. Store the camera until the department picks up the camera.

D Measurement

The department will measure Removing CCTV Camera by the unit, acceptably and completely removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
677.9200.S	Removing CCTV Camera	EACH

Payment is full compensation for removing an existing CCTV camera; for disconnecting all necessary cables and wiring; and properly storing the materials.

stp-677-902 (20100630)

92. Install Overhead Freeway DMS Full Matrix, Item 678.0100.S.

A Description

This special provision describes installing a state-furnished, or an existing salvaged, dynamic message sign on a new sign structure.

B Materials

The department will provide the sign, or it will be salvaged, controller, and the control cable. The control cable will be multi-mode fiber optic cable.

Use an AWG #6 copper wire or equivalent bonding straps to bond the sign and cabinet to the structure. Use an AWG #6 solid, bare copper wire to bond the sign structure to ground rods.

1. For the three wires carrying 120/240 VAC power from the cabinet to the sign, use single conductor, stranded copper, 120/240 VAC, XLP insulated, USE rated wire. Size the wire to carry the maximum amperage permitted by the main breakers in the sign.

Provide a 100-amp 120/240-VAC load center in the controller cabinet, along with breakers recommended by the sign manufacturer.

C Construction

Install the load center so that the main breakers control all power to the sign and cabinet. Provide at least three branch circuits, one for the sign, one for the controller and communication equipment, and one for all cabinet accessories, such as fan, light, and heater. Only protect the branch serving the controller and communication equipment with the second stage of the surge protector. Connect the power and control cables according to the manufacturer's recommendations. Run the cables in rigid metallic conduit or flexible metallic conduit, or combination of these, within the sign structure.

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

D Measurement

The department will measure Install Overhead Freeway DMS Full Matrix by each sign, acceptably installed and tested.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
678.0100.S	Install Overhead Freeway DMS Full Matrix	EACH

Payment is full compensation for installing and testing the sign and controller; providing cables, conduits, and fittings; for testing the sign; and for transporting materials.

stp-678-010 (20100630)

93. Crack and Damage Survey, Item 999.1501.S.

A Description

This special provision describes conducting a crack and damage survey of the residences and business located at Loomis Apartments, LLC., 4340 W. Loomis Rd., Greenfield, WI 53220.

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

B (Vacant)

C Construction

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

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

ID: _____
Building Location: _____
View looking: _____
Date: _____
Photographer: _____

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

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

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

D Measurement

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

E Payment

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

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

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

stp-999-010 (20210708)

94. Installing and Maintaining Bird Deterrent System Station 87+50, Item 999.2000.S.001; Installing and Maintaining Bird Deterrent System Station 96'EW'+10 Item 999.2000.S.002; Installing and Maintaining Bird Deterrent System Station 202'EW'+78 Item 999.2000.S.003; Installing and Maintaining Bird Deterrent System Station 257'EWW'+30 Item 999.2000.S.004.

A Description

This special provision describes inspecting, installing and/or maintaining approved deterrents that prevent migratory bird nesting on bridges and culverts. Swallows or other migratory birds' nests have been observed on or under the existing culvert or bridge at the station identified. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. One deterrent system shall be installed and/or maintained for each applicable structure. Deterrent methods selected shall be appropriate for structure type, size and/or site-specific constraints.

B Materials

B.1 Hardware and Lumber

Lumber, hardware, and fastening devices shall be durable enough to last through the length of the nesting season. Fastening devices and deterrence system must be approved by the engineer prior to installation on culverts and bridges that will remain in service after removal of deterrent systems. The method of fastening should not compromise the culvert or bridge concrete surfaces or steel protection systems. The attachment locations must be restored and repaired as needed by use of engineer approved fillers, sealers and paint systems

B.2 Netting Materials

Exclusion netting is material either wrapped around or draped and fastened to bridge decks/abutments and culvert corners to prevent bird entry.

Furnish exclusionary netting to deter nesting in bridge decks and abutments and corners of box culverts, consisting of either:

a. 1/2" x 1/2" or 3/4" x 3/4" knotless, flame resistant, U.V. stabilized polyethylene or polypropylene netting with minimum 40-pound breaking strength per strand, or engineer approved equal.
b. Galvanized wire mesh (hardware cloth) with a wire diameter of .040 inches (19-gauge) and opening width of 1/2-inch.

At a minimum, use either 1" x 2" (nominal) lumber or 3/4" x 2" pressure treated plywood strips and of equal length as the netting.

B.3 Plastic Strip Curtain

Plastic strip curtains are strips of plastic attached to vertical surfaces in areas suitable for nesting.

Furnish 3-foot wide lengths of 6 mil minimum plastic sheeting with the lower 2 feet cut into vertical strips 2 inches wide.

At a minimum, use either 1" x 2" (nominal) lumber or 3/4" x 2" pressure treated plywood strips and staples to attach plastic strips to wood to fabricate the strip curtain.

Furnish concrete screws to attach strip curtain to structure.

B.4 Corner Slope Materials

Corner slopes are pieces of curved plastic placed in corners suitable for nesting. They are particularly effective in preventing nesting in top corners of box culverts.

Furnish U.V. stabilized pre-fabricated PVC or polycarbonate corner slopes from commercial bird-deterrent manufacturers or an approved equal.

C Construction

C.1 General

If active nests are observed after construction starts, or if a trapped bird or an active nest is found, stop work that may affect birds or their nests, and notify the engineer to consult with the Wisconsin Department of Natural Resources transportation liaison, Kristina Betzold at (414) 343-9346, or the department regional environmental coordinator, Matthew Matrise at (262) 933-5233.

Efforts should be made to release trapped birds, unharmed.

C.2 Nest Removal

Remove unoccupied nests prior to the beginning of the nesting season as designated in Prosecution and Progress. Nest removal involves the removal and disposal of unoccupied or partially constructed nests without eggs or nestlings. Removing all evidence of nesting (e.g. cleaning droppings from structures) eliminates a visual cue for a potential breeding location, especially for first-time breeders. Nest removal is not a type of deterrent and does not prevent nest establishment but can delay the process. As such, it should only be used in conjunction with other methods. It cannot be used on its own to ensure compliance. Nest removal is not required if deterrents are installed before the start of the avoidance window unless nests interfere with successful installation of the deterrent.

Remove nests on the structure by scraping or pressure washing prior to established avoidance windows to deter nesting. Remove only unoccupied or partially constructed nests without eggs or nestlings. Remove newly built nests every two days before eggs are laid. Nest removal is intended to be used prior to and in conjunction with other nesting deterrents.

C.3 Exclusion Netting

C.3.1 Installation

Using concrete screws, anchor lumber to bridge or culvert along perimeter of intended netting. Fasten netting to lumber until netting is held taut. Eliminate any loose pockets or wrinkles that could trap and entangle birds. Ensure the net is pulled taut in order to prevent flapping in the wind, which results in tangles or breakage at mounting points.

For culverts, attach netting at a 45-degree angle at the culvert corner so it extends at least 12” below the corner.

C.4 Plastic Curtains

C.4.1 Installation

Attach plastic curtains along the entire length of vertical surface or corner on which nest building is to be deterred. Affix plastic curtain strips to treated lumber with staples spaced a minimum of 1 foot O.C. Wrap plastic curtains around lumber prior to attaching it to the structure to reduce the likelihood of it tearing out at the staples. Screw lumber into the underside of the bridge deck or top of box culvert with concrete screws placed 24-inches O.C. minimum.

C.5 Corner Slopes

C.5.1 Installation

Attach corner slopes to the structure per the manufacturer’s recommendations. Use urethane-based adhesives if manufacturer supplied hardware or adhesives are not available or no recommendations are provided. Install end caps or seal ends of corner slopes to prevent entry of birds or other animals.

C.6 Inspection and Maintenance

Inspect bird deterrent devices every 2 weeks both during and prior to construction when deterrents have been installed to exclude birds prior to nesting windows, and after large storm events or high winds. Ensure that netting is taut, that no gaps or holes have formed, and that the nets are functioning properly. Ensure that corner slopes are not cracked or otherwise damaged and are functioning properly. Ensure that curtains are undamaged, with no tears, holes, or creases. Repair any damaged or loose deterrent devices. Inspect, maintain, and repair nesting deterrents whether installed by the contractor or others. Repair, replace, supplement deterrents as necessary with materials meeting the requirements of this specification.

Remove any unoccupied or partially constructed nests without eggs or nestlings

Repair deterrents to prevent birds from attempting to nest again.

Record all inspection, removal, and maintenance activities. Provide inspection, removal and maintenance records to the engineer upon request.

C.7 Removal and Structure Repair

Maintain the deterrent until the engineer determines that the deterrent is deemed no longer necessary. Upon completion of the project, remove any remaining migratory bird deterrent from the project site. If the existing bridge or culvert is to remain after construction, restore and repair as needed by use of engineer approved fillers, sealers and paint systems.

D Measurement

The department will measure Installing and Maintaining Bird Deterrent System (Station) as a single unit at 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
999.2000.S.001	Installing and Maintaining Bird Deterrent System Station 87+50	EACH
999.2000.S.002	Installing and Maintaining Bird Deterrent System Station 96'EW'+10	EACH
999.2000.S.003	Installing and Maintaining Bird Deterrent System Station 202'EW'+78	EACH
999.2000.S.004	Installing and Maintaining Bird Deterrent System Station XXX'EW'+XX	EACH

Payment for Installing and Maintaining Bird Deterrent System is full compensation for providing and installing deterrents that prevent migratory bird nesting; removing and disposing of unoccupied or partially constructed nests without eggs or nestlings; maintaining, repairing, replacing, supplementing, existing deterrent materials; repairing damage to structures resulting from installation of deterrents; removal and disposal of materials.

stp-999-200 (20220107)

95. EBS Excavation, Item SPV.0035.001.

A Description

This special provision describes excavating and disposing of material taken below th subgrade of future pavement structures at locations determined by the engineer.

B Materials

Excavate materials below subgrade not classified as rock, stone piles and stone fences, or marsh excavation. Perform work according to standard spec 205.2.2 and as hereinafter provided.

C Construction

Perform work according to the pertinent provisions of standard spec 205.3 and as hereinafter provided.

C.1 Yielding Subgrade

After rough grading on all or a portion of the subgrade in cut areas and in areas requiring 2 feet or less embankment is complete and the grade is ready for blue tops, point out areas of yielding subgrade to the engineer. The engineer will evaluate the subgrade to determine if EBS Excavation is required.

If the engineer requests, provide loaded trucks and run the subgrade as the engineer directs to confirm yielding areas. Perform EBS Excavation in yielding areas as directed by the engineer.

C.2 Excavation Below Subgrade

Excavate materials as directed by the engineer. Remove deposits of frost-heave material, unstable silty soils, wet and unstable soil, material salvaged from old road cores in marshes, topsoil containing considerable amounts of humus or vegetable matter, rocks, or other undesirable foundation material to the depth below finished grade as the engineer directs.

Compact, or prepare otherwise as required, the existing ground within the roadway foundation as necessary to support the roadway and attain the specified density.

Dispose of all excavated materials offsite at no expense to the department. Locate disposal sites outside the right-of-way and comply with all regulations relating to disposal of solid waste. Ensure that disposal sites are neatly constructed. In performing these operations, do not create a nuisance or cause pollution or siltation of natural watercourses, streams, lakes, wetlands, or reservoirs. Obtain written permits for disposal from the owner of the property where placing the material, unless disposing of the material at a licensed waste disposal operation. Furnish permits or copies of permits, to the engineer before disposal. Do not deposit waste in wetlands.

C.3 Temporary Drainage

During construction, slope and drain the excavation bottoms to prevent water accumulation. If it is necessary in the prosecution of the work to interrupt existing surface drainage, sewers, or under drainage, provide temporary drainage until completing permanent drainage work.

D Measurement

The department will measure EBS Excavation by the cubic yard acceptably completed as computed using the method of average end areas, with no correction for curvature.

The department will not measure for payment materials excavated in forming benches or steps in preparing the foundation for embankments placed on slopes.

The department will not measure for payment materials excavated to remove frost from newly constructed embankments or cut subgrades unless directed by the engineer.

If undercutting designated slopes to provide for placing topsoil or salvaged topsoil, the undercut is incidental to the Topsoil or Salvaged Topsoil bid items.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.001	EBS Excavation	CY

Payment is full compensation for performing excavation below subgrade after receiving engineer approval; for the satisfactory disposal of all resulting material offsite; for obtaining and furnishing copies of permits; for furnishing, placing, and removing all temporary drainage installations; and for providing loaded trucks and running them on the subgrade to confirm yielding areas.

The department will only pay for engineer-approved EBS Excavation to correct problems beyond the contractor's control. Work performed under standard spec 105.3 to correct unacceptable work is the contractor's responsibility.

96. EBS Backfill, Item SPV.0035.002.

A Description

This special provision describes backfilling EBS Excavation with select crushed material.

B Materials

Furnish all materials according to standard spec 312.2 and as herein provided.

C Construction

Place select crushed material where EBS Excavation was performed or as the engineer directs. Compact select crushed material using standard compaction conforming to standard spec 301.3.

D Measurement

The department will determine weight or volume, adjust for moisture, and convert between weight and volume as specified in standard spec 301.4.

The department will measure EBS backfill 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
SPV.0035.002	EBS Backfill	CY

Payment is full compensation for providing and compacting select crushed material in areas of EBS Excavation.

The department will only pay for EBS Backfill at engineer-approved EBS Excavation locations. Work performed under standard spec 105.3 to correct unacceptable work is the contractor's responsibility.

The department will not pay for EBS Backfill to replace materials excavated to remove frost from newly constructed embankments or cut subgrades.

97. Rapid Set Deck Repair, Item SPV.0035.400.

A Description

This special provision describes furnishing, placing and curing a rapid setting non-shrink patch material on the sawed deck preparation areas of the concrete bridge deck. Perform the work conforming to standard spec 509.

B Materials

B.1 Patching Materials

Furnish a rapid setting non-shrink material designed for repairing concrete decks from the department's Approved Products List for "Rapid Setting Concrete Patch Material". The material shall be capable of obtaining a minimum compressive strength of 3000 psi within 3 hours. The patch material must be compatible with the existing concrete deck, reinforcing steel, and the polymer or asphalt overlay product (if applicable); and have a proven record of at least five successful applications in climates similar to Wisconsin. The use of chloride accelerators or other corrosion inducing products is prohibited.

A minimum of ten working days prior to construction, submit the manufacturer's product data sheets, material sources, mix designs, and supporting performance documentation to the engineer for approval.

B.2 Materials Quality Control Testing

For projects that allow 3 hours or more of cure time prior to opening to traffic, submit certified test results from an independent lab showing that the patch material can obtain 3000 psi within 3 hours of placement under the same curing conditions as the project.

For projects that require bridge decks to be open to traffic with less than 3 hours of cure time, perform quality control testing. For material extended with aggregates, perform cylinder breaks per ASTM C39. Make a minimum of two compressive strength test cylinders per shift per batch plant and cure under the same conditions as the deck patches. For material not using coarse aggregates, perform cube breaks per ASTM C109. Make a minimum of two compressive strength test cubes per shift per batch plant and cure under the same conditions as the deck patches. Provide test results to the engineer showing 3000 psi strength is obtained prior to opening the bridge deck to traffic.

For projects requiring ASTM C39 or ASTM C109 testing, furnish a department-certified mobile laboratory to perform the testing.

C Construction

Clean and prepare the area to be patched per the manufacturer's recommendations and as follows. After sawed deck preparation work is complete, blast clean the area and any exposed reinforcing steel. Thoroughly clean the surface upon which the new patch material is to be placed by brooming and using air pressure to remove all loose particles and dust. Apply a bonding agent, as necessary and as recommend by the patch material manufacturer, to surfaces to be covered by patch material.

Place patch material to produce plane surfaces that conform to the grade and elevation of the adjoining surfaces. Where a polymer or asphalt overlay will not be placed over the patch, finish the surface by tining or applying exposed angular aggregate as approved by the engineer. Where a polymer or asphalt overlay will be placed over the patch, shotblast the patch in the same fashion as the remainder of the bridge deck.

D Measurement

The department will measure Rapid Set Deck Repair in volume 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
SPV.0035.400	Rapid Set Deck Repair	CY

Payment is full compensation for furnishing, hauling, preparing, placing, finishing, curing, and protecting all materials, and for materials quality control testing.

98. Backfill Slurry, Item SPV.0035.801.

A Description

This special provision describes furnishing and placing Backfill Slurry. Conform to standard spec 209 except as follows.

B Materials

Replace standard spec 209.2.2 with the following:

(1) Use aggregates that conform to the gradation conforming to standard spec 501.2.5.3 for fine aggregate and for Size No. 1 in standard spec 501.2.5.4. Provide aggregates in the same proportion by weight as for Grade A concrete as in standard spec 501.3.2.2. 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 standard spec 501.2.4 to enable the mixture to flow readily.

C Construction

Replace standard spec 209.3 with the following:

Discharge from the truck in a manner to prevent segregation. Completely fill excavation in a single operation. Consolidation or compaction effort will not be required. Twelve hours shall elapse before paving over the backfill.

D Measurement

Replace standard spec 209.4 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 measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.801	Backfill Slurry	CY

Payment is full compensation conforming to standard spec 209.5.(2) and 209.5.(5).

SER-209-001 (20161208)

99. Baseline CPM Progress Schedule, Item SPV.0060.001; Monthly CPM Progress Schedule Updates, Item SPV.0060.002.

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:

Activity An administrative or construction task performed during the course of the project with a defined duration and scheduled (or actual) start and finish dates.

Critical Path The longest continuous chain of activities through the CPM schedule that establishes the minimum overall project duration.

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

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

Float	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.
Forecast Completion Date	The completion date predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date, depending on progress.
Fragnet	A group of logically-related activities, typically inserted into an existing CPM schedule to model a portion of the project, such as the work associated with a change order.
Initial Work Plan	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.
Intermediate Milestone Date	A contractually required date for the completion of a portion of the work, so that a subsequent portion of the work or stage of traffic phasing may proceed.
Department's Project Schedule Template	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.
Work Breakdown Structure (WBS)	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 and presentation of the department's master schedule.
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 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 summary activities for the balance of the project. Summary activities may have durations greater than 28 calendar days (20 business days).
    1.7. Provide activities as necessary to depict third party work related to the contract.

1.8. 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.

1.9. 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.

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 three hard copies of a hand-drawn or electronically drafted logic diagram depicting the CPM network. Organize the logic diagram by grouping related activities, based on the activity codes in the CPM.

3. Provide a written narrative with the baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:

3.1. The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.

3.2. Use of constraints.

3.3. Use of calendars.

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

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

(1) Submit electronic 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 copies of each CPM Update and the corresponding Oracle Primavera P6 schedule file (XER) in a format acceptable to the engineer.
5. If additions or changes were made to the CPM schedule since the previous update, submit an updated hard copy of the revised logic diagram.

(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) Revision by the contractor if necessary due to changes in the Work or project conditions and authorized by the engineer, a CPM Progress Schedule Revision may be submitted, although the next Monthly CPM Update is not yet due. 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 to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative detailing the work added or deleted and the other activities affected, based on the latest accepted CPM Update. For added work, submit a proposed fragnet of activities to be added or revised in the CPM schedule, indicating how the fragnet is to be tied to the CPM schedule.

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

1. 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.
2. 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.
3. The department and the contractor agree that the float is not for the exclusive use or financial benefit of either party. Either party has the full use of the float on a first come basis until it is depleted.

108.4.8 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 (20180404)

100. Concrete Barrier Transition Type M1, Item SPV.0060.003; Concrete Barrier Transition Type M2, Item SPV.0060.004; Concrete Barrier Transition Type M3, Item SPV.0060.005; Concrete Barrier Transition Type M4, Item SPV.0060.006; Concrete Barrier Transition Type M5, Item SPV.0060.007; Concrete Barrier Transition Type M6, Item SPV.0060.008; Concrete Barrier Transition Type M7, Item SPV.0060.009; Concrete Barrier Transition Type M8, Item SPV.0060.010; Concrete Barrier Transition Type M9, Item SPV.0060.011; Concrete Barrier Transition Type M10, Item SPV.0060.012; Concrete Barrier Transition Type M11, Item SPV.0060.013; Concrete Barrier Transition Type M12, Item SPV.0060.014.

A Description

This special provision describes constructing Concrete Barrier Transition (Type) according to standard spec 603, details shown in the plans, and as hereinafter provided.

B (Vacant)

C (Vacant)

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 item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.003	Concrete Barrier Transition Type M1	EACH
SPV.0060.004	Concrete Barrier Transition Type M2	EACH
SPV.0060.005	Concrete Barrier Transition Type M3	EACH
SPV.0060.006	Concrete Barrier Transition Type M4	EACH
SPV.0060.007	Concrete Barrier Transition Type M5	EACH
SPV.0060.008	Concrete Barrier Transition Type M6	EACH
SPV.0060.009	Concrete Barrier Transition Type M7	EACH
SPV.0060.010	Concrete Barrier Transition Type M8	EACH
SPV.0060.011	Concrete Barrier Transition Type M9	EACH
SPV.0060.012	Concrete Barrier Transition Type M10	EACH
SPV.0060.013	Concrete Barrier Transition Type M11	EACH
SPV.0060.014	Concrete Barrier Transition Type M12	EACH

Payment is full compensation conforming to standard spec 603.5.

101. Concrete Barrier Type S42 Light Pole Base, Item SPV.0060.015; Concrete Barrier Type S42A Light Pole Base, Item SPV.0060.016; Concrete Barrier Type S56 Light Pole Base, Item SPV.0060.017; Concrete Barrier Type S56A Light Pole Base, Item SPV.0060.018.

A Description

This special provision describes furnishing and installing concrete barrier light pole bases as shown on the plans and as hereinafter provided.

B Materials

B.1 Concrete Barrier

Furnish materials according to standard spec 603.2.

B.2 Concrete Bases

Furnish materials according to standard spec 654.2.1, Concrete Bases.

B.3 Junction Boxes

Furnish 18 X 12 X 6 – inch 316 stainless steel junction boxes with a recessed cover. Junction box shall meet NEMA 4 standards for protection against windblown dust and rain and splashing water. Furnish standard covers with stainless steel hex-head mounting bolts with each box assembly. Boxes shall have a neoprene gasket with provision for allowing drainage out of the box.

Junction boxes shall be furnished with factory installed mounting buttons as required to attach grounding lugs and mechanical connectors as shown on the plans. Provide engineer- approved protection that totally and permanently seals connections with a silicone or rubberized caulk. One junction box per base is required.

B.4 Electrical Wiring Connectors

Furnish rubber insulated submersible secondary connectors rated for copper conductors (minimum 12 AWG) as required for splicing in each location. Secondary connectors shall include silicone grease and CO-OX oxide inhibitor and meet the performance requirements of ANSI C119.1 and C119.4.

B.5 Conduit, Fittings and Expansion/Deflection Couplings

Furnish rigid non-metallic schedule 40 PVC conduit and fittings as shown on the plans conforming to the pertinent provisions of standard spec 652.

Furnish UL listed expansion/deflection coupling joints as shown on the plans. Expansion/deflection coupling joints shall be rated for use with rigid metallic conduit and provide a watertight and corrosion resistant connection which allows for movement in all directions. Couplings shall maintain a constant inner diameter and provide a smooth insulated wireway for protection of the conductors. Couplings shall include an integral bonding jumper. Two couplings per base are required.

B.6 Anchor Bolt Assemblies

Furnish anchors of the size and spacing as given on the plans, and that conform to ASTM A449 or AASHTO M 314 GR 55. The upper 8 inches of the bolts, nuts, and washers shall be hot-dipped galvanized according to ASTM A153, Class C. Provide enlarged threads on nuts for proper fit after galvanizing.

B.7 Expansion Material

Furnish 3/4-inch expansion material according to standard spec 415.2.3, Expansion Joint Filler. Use elastic type joint filler to seal the surface of the expansion joint.

C Construction

Perform work according to the pertinent requirements of standard spec 603.3 and 654.3, the plans, standard detail drawings, and as hereinafter provided.

Install junction boxes as shown in the plans and as the manufacturer directs.

Install expansion/deflection couplings as the manufacturer directs. Coordinate the connection of the conduit into the receiving roadway barrier prior to pouring the concrete base.

All secondary connectors and miscellaneous wiring, fusing and grounding connections shall be installed according to standard spec 659.3.2 and as the manufacturer directs.

Provide two nuts and two washers per anchor bolt and install per light standard manufacturer's recommendations.

D Measurement

The department will measure Concrete Barrier (Type) Light Pole Base by each unit, 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.0060.015	Concrete Barrier Type S42 Light Pole Base	EACH
SPV.0060.016	Concrete Barrier Type S42A Light Pole Base	EACH
SPV.0060.017	Concrete Barrier Type S56 Light Pole Base	EACH
SPV.0060.018	Concrete Barrier Type S56A Light Pole Base	EACH

Payment for the Concrete Barrier (Type) Light Pole Base bid items is full compensation for furnishing and installing all materials including conduit, couplings, bushings, caps or plugs or both, anchor rods, nuts, washers, expansion material, grounding electrodes, exothermic welds, copper equipment grounding conductors, bar steel reinforcement, junction boxes, and concrete; for excavating, backfilling, and disposing of surplus materials; and for furnishing and installing the anchor bolt assemblies.

SER-603.1-4 (20170720)

102. Curb Ramp Grading, Shaping and Finishing, Item SPV.0060.019.

A Description

This special provision describes excavating, grading, filling, shaping, compacting, and finishing as necessary to construct each curb ramp location conforming to standard spec 205, 208, 211, 305, 625, 627, 629, and 630, as the plans show, and as follows.

B Materials

Furnish materials as the plans show and engineer directs conforming the standard specs for the following:

Common excavation	205.2
Borrow	208.2
Base Aggregate Dense	305.2
Topsoil or Salvaged Topsoil	625.2
Mulching	627.2
Fertilizer	629.2
Seeding	630.2

C Construction

Construct the final subgrade and base for the curb ramp at the locations on the plans and as the engineer directs. Restore disturbed areas with topsoil or salvaged topsoil, fertilizer, seed, and mulch.

Dispose of all surplus and unsuitable material as specified in standard spec 205.3.12.

D Measurement

The department will measure Curb Ramp Grading, Shaping, and Finishing as each individual plan location, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.019	Curb Ramp Grading, Shaping, and Finishing	EACH

Payment is full compensation for all excavating, grading, placing borrow, base aggregate, shaping, and compacting, and for providing and placing topsoil or salvaged topsoil, fertilizer, seed, and mulch at each curb ramp location.

Sidewalk removal, construction staking, curb ramp detectable warning field, and concrete sidewalk will be paid under respective contract bid items.

SER-602-001 (20170629)

103. Field Facilities Office Space, Item SPV.0060.020.

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), (7), and (9).

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 3500 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) and (4) and add the following:

1. Eighteen suitable office desks with drawers and locks.
2. 18 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. Four 6-foot folding tables.
4. One 10-foot folding table.
5. Five 2-drawer file cabinets.
6. Three 4-shelf bookcases.
7. Twenty folding chairs.

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
SPV.0060.020	Field Facilities Office Space	EACH

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 standard spec 642.3.

The department will pay for the cost of telecommunications usage fees incurred by department staff.

~~SER-642-002 (20160808)~~

104. Mobilizations Emergency Pavement Repair, Item SPV.0060.021.

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.0060.021	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)

105. Traffic Control Close-Open Freeway Entrance Ramp, Item SPV.0060.022.

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 Entrance 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
SPV.0060.022	Traffic Control Close-Open Freeway Entrance Ramp	EACH

Payment is full compensation for closing and re-opening the freeway entrance ramp. Traffic Control devices will be paid separately.

sef-643-001 (20190828)

106. Traffic Control Full Freeway Closure, Item SPV.0060.023.

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
SPV.0060.023	Traffic Control Full Freeway Closure	EACH

Payment is full compensation for closing and re-opening the freeway. Traffic Control devices will be paid separately.

sef-643-003 (20180627)

107. Traffic Control Local Road Lane Closures, Item SPV.0060.024.

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

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.024	Traffic Control Local Road Lane Closures	EACH

Payment is full compensation for closing and re-opening a local road lane or lanes.

sef-643-035 (20171004)

108. Emergency Response to Traffic Involving Concrete Barrier Temporary, Item SPV.0060.025.

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 the measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.025	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.

109. Emergency Response to Traffic Involving Crash Cushion, Item SPV.0060.026.

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 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.

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 was 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 the measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.026	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.

110. Sand Bags, Item SPV.0060.027.

A Description

This special provision describes the construction of dikes or barriers with sand filled bags as shown on the plans.

B Materials

Provide bags made of canvas, burlap, nylon or other approved material. Use bags that will contain a minimum of one-half cubic foot of sand, be of one size and shape and be securely closed.

Use sand that conforms to the standard spec 501.2.5.3 except delete standard spec 501.2.5.3.4. The maximum size of particle shall pass a No. 4 sieve.

C Construction

Remove and dispose of the sand bags and all surplus material upon completion of its use under this contract.

D Measurement

The department will measure Sand Bags as each individual sand bag, placed and accepted 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	Sand Bags	EACH

Payment is full compensation for furnishing and installing sand filled bags; for all excavation; for removal and disposal of the sand bags and all waste or surplus materials, including eroded materials and for shaping and restoring the area.

Any required topsoiling, fertilizing, seeding or mulching will be paid for under the applicable bid item.

SER-207-001 (20101021)

111. Exposing Existing Infrastructure Paved Area, Item SPV.0060.028.

A Description

This work includes locating and exposing existing infrastructure in paved areas as directed by the engineer. The contractor shall be responsible for compliance with s.182.0175 (2), Stats., with respect to precautions to be taken to avoid and prevent damage to utility facilities. The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. Conform to Wisconsin State Statute 182.0175 (2) and Wisconsin Administrative code Trans 220. The work includes exposing existing infrastructure, including utilities, under paved surfaces and providing both lateral and depth measurements for use in determining potential infrastructure conflict solutions, and backfilling the locate.

B Materials

B.1 Backfill Slurry

Utilize backfill slurry as specified elsewhere in these special provisions.

C Construction

C.1 General

The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. This item will only be used as determined by the department for unique locations as directed by the engineer. It does not remove the contractor's obligation to locate utilities as specified by Wisconsin Administrative code Trans 220 and Wisconsin State Statute 182.0175. The engineer will direct all exposing existing infrastructure in writing. Coordinate infrastructure exposures with the engineer and notify the infrastructure owner or their agents of this work two working days in advance so that they may be present when the work commences.

C.2 Excavation

Remove all paved surfaces at locations where the existing infrastructure is being exposed. Saw or remove concrete and asphaltic pavements to the nearest joint. Remove all pavement surfaces in such a way that all existing edges consist of a true line having a perpendicular edge with no unraveling. Maintain drainage at all times according to standard spec 205.3.3. Take precautions, including temporary shoring, in order to prevent any undermining of the existing roadway. Perform work according to all applicable laws, ordinances, rules, regulations, and OSHA standards.

Expose all infrastructure locations within a given location to a minimum depth of 18-inches below the bottom of each infrastructure. Excavate in a manner that protects the integrity of the infrastructure and prevents any damage to wrappings or protective coatings such as by any mechanical method or hand digging. Notify the infrastructure owner promptly if damage or interruption of service occurs. Repair all damage caused to such infrastructure resulting from negligence or carelessness at own expense.

Take all lateral and depth measurements in US feet and tenths thereof. Identify horizontal locations of each exposed infrastructure with a coordinate northing and easting referenced to the Wisconsin County Coordinate System (WCCS), Milwaukee County, NAD 83 (97). Provide vertical elevations for each exposed infrastructure and reference to NAVD 88 (91).

The infrastructure location shall remain exposed and available for visual inspection until the completion of all work in a given location. If the infrastructure shall remain exposed overnight or for prolonged periods of time, protect the location with traffic-rated steel plating, safety barriers, and all necessary traffic control devices that may be required under applicable standards or as directed by the engineer.

C.3 Backfilling

Upon completion of the infrastructure exposure, restore the location in kind to its original condition. When exposed infrastructure locations fall within local streets or city right-of-way, use slurry backfill to fill the entire location to the subgrade elevation.

Restore concrete pavement and concrete base course to the depth found in the existing roadway. Replace all locations that fall within live lanes of any roadway or pedestrian traffic with a high early-strength concrete pavement mix design having a depth equivalent to the existing pavement structure unless directed otherwise by the engineer. Locations that are closed to through traffic may use an approved concrete pavement mix conforming to standard spec 501. If directed by the engineer, tie concrete pavement and/or dowel it to the existing pavement according to the standard detail drawing for concrete pavement. All locations requiring asphaltic pavement shall consist of HMA Pavement Type E-3 unless otherwise directed by the engineer. Place the HMA pavement in lifts to a depth as directed by the engineer. Apply tack coat to composite pavement structures and between lifts. Alternate restoration methods may be used upon written approval from the engineer.

Place base aggregate dense between the subgrade surface and the bottom of the pavement.

C.4 Documentation

Provide documentation to the engineer and include the coordinates, elevations, and sketches of the infrastructure locations tied to known features in the plans. Reference each infrastructure to a proposed alignment with a station and offset. Where near a ramp, reference the ramp alignment. Document the size and/or diameter, composition, and a description of each infrastructure and the location of the elevation with respect to each infrastructure noted. Supply digital photographs of the uncovered infrastructure to the engineer in .jpeg format for future reference.

D Measurement

The department will measure Exposing Existing Infrastructure Paved Area as a unit for each location. A location may have multiple infrastructures located within the same exposure area. An exposure area will include all infrastructures within 6 lateral feet of each other and payment will only be made for one unit regardless of the number of infrastructures exposed. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is between 0 and 6 feet, the department will measure each location as a single unit of work. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is greater than 6 feet and less than 12 feet, the department will pay for the item as two units of work.

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.0060.028	Exposing Existing Infrastructure Paved Area	EACH

Payment is full compensation for mobilization; for all excavation; for disposing of all materials; for locating all infrastructure within each respective location; for providing documentation and photographs of infrastructure locations to the engineer; for all surveying associated with exposing existing infrastructure; for all maintenance of the location during construction; for all traffic control, safety barriers, and steel plating required; for temporary shoring; and for all finishing items including, but not limited to, base aggregate dense, slurry backfill, concrete pavement, HMA pavement, curb and gutter, and sidewalk located above the subgrade elevation.

112. Exposing Existing Infrastructure Unpaved Area, Item SPV.0060.029.

A Description

This work includes locating and exposing existing infrastructure in unpaved areas as directed by the engineer. The contractor shall be responsible for compliance with s.182.0175 (2), Stats., with respect to precautions to be taken to avoid and prevent damage to utility facilities. The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. Conform to Wisconsin State Statute 182.0175 (2) and Wisconsin Administrative code Trans 220. The work includes exposing existing infrastructure, including utilities, under unpaved surfaces and providing both lateral and depth measurements for use in determining potential infrastructure conflict solutions, and backfilling the locate.

B Materials

B.1 Backfill Slurry

Utilize backfill slurry as specified elsewhere in these special provisions.

C Construction

C.1 General

The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. This item will only be used as determined by the department for unique locations as directed by the engineer. It does not remove the contractor’s obligation to locate utilities as specified by Wisconsin Administrative code Trans 220 and Wisconsin State Statute 182.0175. The engineer will direct all exposing existing infrastructure in writing. Coordinate infrastructure exposures with the engineer and notify the infrastructure owner or their agents of this work two working days in advance so that they may be present when the work commences.

C.2 Excavation

Remove all unpaved surfaces at locations where the existing infrastructure is being exposed. Maintain drainage at all times according to standard spec 205.3.3. Take precautions, including temporary shoring, in order to prevent any undermining of the existing roadway. Perform work according to all applicable laws, ordinances, rules, regulations, and OSHA standards.

Expose all infrastructure locations within a given location to a minimum depth of 18-inches below the bottom of each infrastructure. Excavate in a manner that protects the integrity of the infrastructure and prevents any damage to wrappings or protective coatings such as by any mechanical method or hand

digging. Notify the infrastructure owner promptly if damage or interruption of service occurs. Repair all damage caused to such infrastructure resulting from negligence or carelessness at own expense.

Take all lateral and depth measurements in US feet and tenths thereof. Identify horizontal locations of each exposed infrastructure with a coordinate northing and easting referenced to the Wisconsin County Coordinate System (WCCS), Milwaukee County, NAD 83 (97). Provide vertical elevations for each exposed infrastructure and reference to NAVD 88 (91).

The infrastructure location shall remain exposed and available for visual inspection until the completion of all work in a given location. If the infrastructure shall remain exposed overnight or for prolonged periods of time, protect the location with traffic-rated steel plating, safety barriers, and all necessary traffic control devices that may be required under applicable standards or as directed by the engineer.

C.3 Backfilling

Upon completion of the infrastructure exposure, restore the location in kind to its original condition. Use slurry backfill, conforming to standard spec 501, to backfill the exposed infrastructure locations to the subgrade elevation except for areas located within local streets. In grassy areas, place 6-inches of topsoil, sod or seed and mulch, and fertilizer. Alternate restoration methods may be used upon written approval from the engineer.

C.4 Documentation

Provide documentation to the engineer and include the coordinates, elevations, and sketches of the infrastructure locations tied to known features in the plans. Reference each infrastructure to a proposed alignment with a station and offset. Where near a ramp, reference the ramp alignment. Document the size and/or diameter, composition, and a description of each infrastructure and the location of the elevation with respect to each infrastructure noted. Supply digital photographs of the uncovered infrastructure to the engineer in .jpeg format for future reference.

D Measurement

The department will measure Exposing Existing Infrastructure Unpaved Area as a unit for each location. A location may have multiple infrastructures located within the same exposure area. An exposure area will include all infrastructures within 6 lateral feet of each other, and payment will only be made for one unit regardless of the number of infrastructures exposed. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is between 0 and 6 feet, the department will measure each location as a single unit of work. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is greater than 6 feet and less than 12 feet, the department will pay for the item as two units of work.

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.0060.029	Exposing Existing Infrastructure Unpaved Area	EACH

Payment is full compensation for mobilization; for all excavation; for disposing of all materials; for locating all infrastructure within each respective location; for providing documentation and photographs of infrastructure locations to the engineer; for all surveying associated with exposing existing infrastructure; for all maintenance of the location during construction; for all traffic control, safety barriers, and steel plating required; for temporary shoring; for furnishing backfill slurry and backfilling the locate.

113. Survey Project 1100-45-70, Item SPV.0060.030; Survey Project 1100-46-71, Item SPV.0060.031.

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
- water main
- sanitary sewer
- 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.
6. Sanitary sewer construction or other gravity–based drainage system, including structure centers, offsets, access openings, rim and invert elevations.

Replace standard spec 650.3.1.1(2) 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 650.3.3.3.4.1 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 1060-33-84 and Survey Project 1060-34-77 as a single unit for each project, 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.0060.030	Survey Project 1100-45-70	EACH
SPV.0060.031	Survey Project 1100-46-71	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.

sef-650-005 (20181219)

114. Maintenance of Lighting Systems, Item SPV.0060.101.

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 Materials

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.

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 as a single unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.101	Maintenance of Lighting Systems	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.

115. Lighting System Integrator, Item SPV.0060.102.

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 them 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 as a single unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.102	Lighting System Integrator	EACH

Payment will be full compensation for providing specified expertise, assistance and documents, and personnel costs.

116. Lighting System Survey, Item SPV.0060.103.

A Description

This special provision describes performing a lighting system survey as-built for IH 894 84th Street to 35th St., Roadway, 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 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 as single unit of work, acceptably completed, and includes all lighting units, pull boxes, and control cabinets.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.103	Lighting System Survey	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.

117. Luminaire Arms Single Member 4-Inch Clamp 4-FT, Item SPV.0060.107.

A Description

These special provisions describe furnishing and installing nonstandard Luminaire Arms Single Member 4-Inch Clamp 4-FT.

B Materials

Furnish material as shown in the plan and according to standard spec 657.2.2.3.

C Construction

Conform to standard spec 657.3.

D Measurement

The department will measure Luminaire Arms Single Member 4-Inch Clamp 4-FT by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.107	Luminaire Arms Single Member 4-Inch Clamp 4-FT	EACH

Payment is full compensation conforming to be standard spec 657.5(5) and 657.5(7).

118. Poles Wood 35-FT, Item SPV.0060.108.

A Description

This special provision describes furnishing and installing a 35-FT wood pole and other incidental items as required as shown on the plans, according to standard spec 651 and 657, and as hereinafter provided.

B Materials

Furnish wood poles that are Class 4 or larger with a 35-foot minimum overall length. The poles shall be shaved the entire length and conforming to ANSI 05.1.

Wood poles 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

Install the pole according to the pertinent provisions of standard spec 657.3.1.1 and as shown on the plans. As necessary, install #4 AWG grounding wire exothermically bonded to a 5/8-inch by 8-foot copper clad grounding electrode, cable guard, NEMA 3R junction box 3ft above grade level for splice, and incidentals as necessary.

D Measurement

The department will measure Poles Wood 35-FT for 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.0060.108	Poles Wood 35-FT	EACH

Payment is full compensation for furnishing and installing a wood pole including grounding lugs and related mounting hardware, for hardware and fittings necessary to install the pole, for leveling shims, for corrosion prevention, and for furnishing all excavation and backfill.

119. Wood Pole Lighting 60-FT, Item SPV.0060.109.

A Description

This special provision describes furnishing and installing a 60-FT wood pole, arm(s) and floodlight(s), junction box, grounding system, and a lightning protection system, as shown on the plans, according to standard spec 651, 657, and 659, and as hereinafter provided.

B Materials

Furnish wood poles, Class 4 or larger with a 60-FT minimum overall length. The poles shall be western red cedar according to ANSI standards 05.1. Pressure treatment shall be 5% pentachlorophenol with a minimum of 8 pounds per cubic foot net retention of the oil-bornepreservative. All poles shall be shaved the entire length.

Luminaire arm and luminaire for wood pole lighting units and temporary wood pole lighting units shall be per standard spec 657.2 and 659.2, respectively.

Floodlight mounting bracket arms for wood pole lighting units will be as shown on plan details. The floodlights are provided under separate bid item.

C Construction

This work shall be done according to the pertinent provisions of standard spec 651.3 and as shown on the plans. Install #4 AWG equipment grounding wire exothermically bonded to a 5/8 inch by 8 foot copper clad grounding electrode. Install cable guard, NEMA 3R junction box near mounting arm, and NEMA 4X junction box at 3 feet above grade for fuses and splice on wood pole units. Install air terminal with #2 AWG grounding wire exothermically bonded to a 5/8-inch by 8-foot copper clad grounding electrode for lightning protection. Install #2 AWG bare copper exothermically bonding between grounding electrodes. Install conduit and wiring between junction boxes, wire racks, and required hardware as necessary and as shown on lighting plans and detail drawings.

Install luminaire arm for wood pole lighting units as shown on the plans and details and as per applicable portion of standard spec 657.3 and 659.3.

D Measurement

The department will measure Wood Pole Lighting 60-Foot as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.109	Wood Pole Lighting 60-FT	EACH

Payment is full compensation for providing and installing all material, and for furnishing all excavation and backfill.

120. Luminaires Utility LED Floodlight, Item SPV.0060.110.

A Description

This special provision describes furnishing and installing LED wide angle floodlight luminaires with photoelectric control in a 240V configuration as shown on the plans, according to pertinent provisions of standard spec 659, and as hereinafter provided.

B Materials

Appropriate 240V Floodlight Models include or approved equal:

- American Electric Lighting, Model ACP2LEDP10MVOLT66BLANK
- Phillips Signify, Model FLDLA23740WFLSFC240
- Cree Lighting, Model OSQXB50L40K766UL

Units shall have a 6X6 or 7X7 light distribution. Units shall have a photoelectric cell for control of the fixture operation.

C Construction

The following lighting control cabinets will supply 240V power to flood lights for temporary lighting: HL-40-EH, HL-40-FO, HL-40-AL, HL-40-BO, HL-40-LM, HL-40-AR and HL-40-TF.

The contractor shall install the luminaire on the light poles at locations specified in lighting plan and according to standard spec 659.2 and 659.3, wired and fused according to standard spec 659.3.2 and as shown on the plans. Luminaires shall be orientated as shown on the plans and at an angle of 60-degrees from the vertical.

D Measurement

The department will measure Luminaires Utility LED Floodlight as each individual luminaire, 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.0060.110	Luminaires Utility LED Floodlight	EACH

Payment is full compensation for furnishing and installing all material required under this bid item.

121. Lighting Equipment Painting IH 41 & STH 36, Item SPV.0060.111.

A Description

This special provision describes the painting of the exterior surfaces of street lighting equipment and associated mounting hardware as shown on the lighting plans. Individual lighting equipment is paid for in separate bid items.

B Materials

Contact City of Greenfield, Craig Skala, (414) 329-5315, prior to ordering lighting equipment to obtain the exact color code from the City of Greenfield.

Obtain lighting equipment powder-coated in the black color from the manufacturer or supplier. Lighting equipment includes luminaire arms, lighting poles, and metal bases. All black items shall match in color. All lighting hardware, sign hardware, and stainless steel banding used on standards and poles, shall be cleaned and painted with a primer and two finish coats of the best rust resistant synthetic resin enamel in the color that exactly matches the color code provided by the City of Greenfield.

C Construction

Install per manufacturer’s instructions. Marks and scratches on painted equipment and lighting hardware shall be touched up with two coats of synthetic resin enamel consistent in color and texture to the original finish, or as directed by the engineer.

D Measurement

The department will measure Lighting Equipment Painting IH 41 & STH 36 by the 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.0060.111	Lighting Equipment Painting IH 41 & STH 36	EACH

Payment is full compensation for furnishing lighting equipment, hardware, and banding in the color specified by the City of Greenfield.

122. Removing Wireless Modem, Item SPV.0060.200.

A Description

This special provision describes removing a wireless cellular modem and antenna and all associated wiring.

B (Vacant)

C Construction

Carefully remove the antenna on top of the cabinet or other field device and seal the hole with purpose-made waterproof sealing device such as a grommet or gasket.

Carefully remove the wireless modem from the existing field cabinet or device. Salvage the wireless modem and antenna for pick up by the department.

D Measurement

The department will measure Removing Wireless Modem by the unit, removed according to the contract, tested, and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.200	Removing Wireless Modem	EACH

Payment is full compensation for removing a wireless modem, antenna, and associated hardware.

123. Removing Controller Cabinet, Item SPV.0060.201.

A Description

This special provision describes removing an existing controller cabinet.

B (Vacant)

C Construction

Remove controller cabinets at the locations shown on the plans, or as directed by the engineer. Salvage and store the cabinets and all contents for pick up by the department.

Do not remove the existing ITS control cabinets, or any other associated equipment until necessary, or as directed by the engineer. Carefully remove the existing cabinets from the concrete bases, together with all components in such a manner as to safeguard all parts and wiring from damage or loss. Salvage and store the cabinet and contents for pick up by the department.

Prior to removing the existing ITS control cabinets, remove all cables being terminated in the cabinet. Cut existing cables flush with cabinet base and cap existing conduits. Dispose of the cables properly away from the project area.

D Measurement

The department will measure Removing Controller Cabinet by the 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	Removing Controller Cabinet	EACH

Payment is full compensation for removal and storage of the controller cabinet; disconnecting all associated wires and cables; and for capping existing conduits

124. Removing Controller Cabinet Base, Item SPV.0060.202.

A Description

This special provision describes removing an existing controller cabinet concrete base.

B Materials

Existing controller cabinet base, including concrete masonry, ground rods, masonry anchors, and restoration materials such as topsoil, seeding, mulch, and fertilizer according to the pertinent provisions of standard spec 201, 625, 627, 629, 630, 636, and 640.

C Construction

Remove and dispose of the concrete foundation and all other pertinent materials and restore the disturbed area by placing 4-inches of topsoil, and fertilize, seed, and mulch all disturbed areas according to the pertinent requirements of the standard specifications.

D Measurement

The department will measure Removing Controller Cabinet Base by the unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.202	Removing Controller Cabinet Base	EACH

Payment is full compensation for removing and disposing of a concrete controller cabinet base, including masonry anchors, ground rods, and concrete masonry; for topsoil, fertilizer, seed and mulch.

125. Removing Controller Ramp Meter Processor Assembly, Item SPV.0060.203.

A Description

This special provision describes removing existing controller ramp meter processor assembly at locations shown on the plan including all materials needed, rewiring and/or disconnect of wiring in the cabinet and return of removed equipment to WisDOT.

B Materials

Materials include existing ITS cabinets and existing 170 ramp meter processor assemblies.

C Construction

Make all the proper disconnects and wiring changes in the controller cabinet.

Remove the existing controller ramp meter processor assembly as the plans show. Use caution not to damage any existing devices or processor assembly.

The department will pick up the controller ramp meter processor assembly. Contact Kurt Wilm, (414) 940-5570) Wisconsin Department of Transportation, Statewide Traffic Operations Center. Dispose of the cabling and wiring properly away from the project site.

D Measurement

The department will measure Remove Controller Ramp Meter Processor Assembly as a unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.203	Remove Controller Ramp Meter Processor Assembly	EACH

Payment is full compensation for removing an existing controller ramp meter processor assembly; for disconnecting all necessary cables and wiring; and properly storing the materials.

126. Ground Rod, Item SPV.0060.204.

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 8 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 measured quantities at the contract unit price each under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.204	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

127. Refocus Vehicle Detector Assembly, Item SPV.0060.205.

A Description

This special provision describes refocusing an existing microwave detector, or detectors, on a pole or other structure, for operation with a new lane configuration.

B Materials

Materials include Electronic Integrated Systems, Inc. (EIS) Remote Traffic Microwave Sensors (RTMS) and the respective poles they have been mounted on.

C Construction

Coordinate all planned down-time of vehicle detector assemblies with the STOC at (414) 227-2166. Notify the STOC an amount of time ahead of planned down-time equal to the planned down-time. Examples would be that a 4-hour temporary down-time of the system would require notification 4-hours ahead of time while an 8-hour planned down-time would require 8-hours of advance notification.

Refocus and recalibrate the detector each time the adjacent traffic pattern is changed due to a change in traffic control or construction staging.

Verify to the satisfaction of the engineer that the existing detector assembly is working properly. Inspect the vehicle detector assembly for damage.

D Measurement

The department will measure Refocus Vehicle Detector Assembly by the unit, acceptably refocused and operational.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.205	Refocus Vehicle Detector Assembly	EACH

Payment is full compensation for making the detector fully operational with a new lane configuration.

128. Install Poles Type 9, Item SPV.0060.300; Install Poles Special Type 9, Item SPV.0060.301; Install Poles Type 13, Item SPV.0060.302; Install Monotube Arms 25-FT, Item SPV.0060.303; Install Monotube Arms Special 45-FT, Item SPV.0060.304; Install Monotube Arms 55-FT, Item SPV.0060.305; Install Luminaire Arms Steel 15-FT, Item SPV.0060.306; Install Monotube Arms Special 35-FT, Item SPV.0060.307.

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 following:

a) Type 9 and 12 poles, including standard, over height and special configurations and associated mounting hardware, hand hole covers, and pole caps.

b) Monotube arms.

c) Steel luminaire arms.

Furnish necessary material required to complete the installation that is not furnished by the department as the plans show and according to standard spec 654 and 657.

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 a minimum of five (5) working days prior to picking the materials up.

C Construction

Install equipment according to standard spec 657.3.

Inspect according to standard spec 532.3.8 prior to opening to traffic.

D Measurement

The department will measure bid items under this section at the contract 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.0060.300	Install Poles Type 9	EACH
SPV.0060.301	Install Poles Special Type 9	EACH
SPV.0060.302	Install Poles Type 13	EACH
SPV.0060.303	Install Monotube Arms 25-FT	EACH
SPV.0060.304	Install Monotube Arms Special 45-FT	EACH
SPV.0060.305	Install Monotube Arms 55-FT	EACH
SPV.0060.306	Install Luminaire Arms Steel 15-FT	EACH
SPV.0060.307	Install Monotube Arms Special 35-FT	EACH

Payment for the Install Poles bid items is full compensation for installing department furnished poles and for providing grounding lugs, fittings, shims, hardware, and other required components the department does not furnish.

Payment for the Install Monotube Arms and Install Luminaire Arms bid items is full compensation for installing department furnished arms; for testing and installing high strength bolt assemblies; and for providing related mounting hardware, leveling shims, and other required components the department does not furnish.

129. Transport and Install State Furnished Traffic Signal Cabinet, IH 41 EB Ramps & STH 36, Item SPV.0060.308; Transport and Install State Furnished Traffic Signal Cabinet, IH 41 WB Ramps & STH 36, Item SPV.0060.309.

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 working days prior to picking the materials up.

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

C Construction

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

Request a signal inspection of the completed signal installation to the engineer at least five (5) working days prior to the time of the requested inspection. The department's Region Electrical personnel will perform the inspection.

Coordinate directly with the department's traffic signal cabinet vendor {TAPCO at (262) 814-7327 or rickk@tapconet.com / TCC at 651-439-1737 or mallwood@trafficcontrolcorp} to schedule the cabinet acceptance testing. Coordinate with the department's Electrical Field Unit at (414)-266-1170 to participate in the acceptance testing. The department has final determination of the cabinet acceptance testing date and time.

D Measurement

The department will measure Transport and Install State Furnished Traffic Signal Cabinet IH 41 EB Ramps & STH 36 and Transport and Install State Furnished Traffic Signal Cabinet IH 41 WB Ramps & STH 36 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.0060.308	Transport and Install State Furnished Traffic Signal Cabinet, IH 41 EB Ramps & STH 36	EACH
SPV.0060.309	Transport and Install State Furnished Traffic Signal Cabinet, IH 41 WB Ramps & STH 36	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.

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130. Transport Signal and Intersection Lighting Materials IH 41 EB Ramps & STH 36, Item SPV.0060.310; Transport Signal and Intersection Lighting Materials IH 41 WB Ramps & STH 36, Item SPV.0060.311.

A Description

This special provision describes the transporting of department furnished materials for traffic signals and intersection lighting.

B Materials

Transport materials furnished by the department including: monotube arms/poles and luminaire arms (to be installed on monotube assemblies).

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 a minimum of five (5) working days prior to picking the materials up.

Provide all other needed materials in conforming to standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2 of the standard spec.

C Construction

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

D Measurement

The department will measure Transport Signal and Intersection Lighting Materials IH 41 Ramps & STH 36 and Transport Signal and Intersection Lighting Materials IH 41 Ramps & STH 36 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.0060.310	Transport Signal and Intersection Lighting Materials IH EB 41 & STH 36	EACH
SPV.0060.311	Transport Signal and Intersection Lighting Materials IH WB 41 & STH 36	EACH

Payment is full compensation for transporting the monotube poles/arms and luminaire arms (to be installed on monotubes). Installation of these materials is paid under a separate pay item.

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131. Transport and Install State Furnished Video Detection IH 41 EB Ramps & STH 36, Item SPV.0060.312; Transport and Install State Furnished Video Detection IH 41 WB Ramps & STH 36, Item SPV.0060.313.

A Description

This special provision describes the transporting and installing of a department furnished Traffic Signal Video Detection System.

B Materials

Pick up the department furnished Video Detection System for all state-maintained traffic signals for the project 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 to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

C Construction

Install the Traffic Signal Power Cable, the camera manufacturer's connector cable whip, pole/arm mounting bracket, extension arm (if required) and camera as shown on the plans (the final determination of location will be made by the department's electrical personnel to ensure best line of sight). The department's Electrical Field Unit (EFU) shall install State-furnished video detection equipment in the traffic signal control cabinet with assistance from the vendor and contractor.

Install the Traffic Signal Power Cable to run continuously (without splices) from the traffic signal cabinet plus an additional 10 feet to the handhole or base. Leave 10 feet of cable in each pull box. Install the camera manufacturer's connector cable whip from the camera to the handhole or base. Mark each end of the lead appropriately to indicate the equipment label (i.e., VID1, VID2, etc.). Splice, solder and shrink wrap the power cable to the camera manufacturer's cable whip. Allow 3 feet of slack on each cable. Notify department's Electrical Shop at (414) 266-1170 upon completion of the installation of the Traffic Signal Power Cable, cable whip and camera at each intersection. Camera programming will be performed by the vendor with assistance from the department and the contractor when operation of the permanent signal begins.

The department will provide notification of the video detection system vendor and provide the vendor's contact information. Coordinate directly with the department's video detection system vendor to arrange for the vendor to program the video detection. Notify the department and vendor at least five working days prior to the date of programming.

D Measurement

The department will measure Transport and Install State Furnished Video Detection System IH 41 EB Ramps & STH 36 and Transport and Install State Furnished Video Detection System IH 41 EB Ramps & STH 36 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.0060.312	Transport and Install State Furnished Video Detection System IH 41 EB Ramps & STH 36	EACH
SPV.0060.313	Transport and Install State Furnished Video Detection System IH 41 WB Ramps & STH 36	EACH

Payment is full compensation for transporting and installing the Video Detection System, Traffic Signal Power Cable, cable whips, mounting hardware, and cameras, arranging for and providing programming by the vendor.

132. Transport and Install State Furnished EVP Detector Heads IH 41 EB Ramps & STH 36, Item SPV.0060.314; Transport and Install State Furnished EVP Detector Heads IH 41 WB Ramps & STH 36, Item SPV.0060.315.

A Description

This special provision describes the transporting and installing of state furnished Emergency Vehicle Preemption (EVP) Detector Heads and EVP Detector Head Mounting Brackets at IH 41 & STH 36 as the plans show and as follows.

B Materials

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 the materials up.

C Construction

Install the EVP detector heads as shown on the plans. The department will determine the exact location to ensure that the installation does not create a sight obstruction. Mount the EVP detector heads and wire them per manufacturer instructions. For a cabinet that is not operating the signal, the contractor will terminate the ends and install the discriminators and card rack in the cabinet. If the cabinet is operating the signal, the cabinet wiring will be done by the department.

Notify the department's Electrical shop at (414) 266-1170 upon completion of the installation of the Emergency Vehicle Preemption (EVP) Detector Heads.

D Measurement

The department will measure Transport and Installing State Furnished EVP Detector Heads IH 41 EB Ramps & STH 36 and Transport and Installing State Furnished EVP Detector Heads IH 41 WB Ramps & STH 36 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.0060.314	Transport and Install State Furnished EVP Detector Heads IH 41 EB Ramps & STH 36	EACH
SPV.0060.315	Transport and Install State Furnished EVP Detector Heads IH 41 WB Ramps & STH 36	EACH

Payment is full compensation for transporting and installing department furnished Emergency Vehicle Preemption EVP Detector Heads and mounting brackets.

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133. Traffic Signal and Lighting Equipment Painting IH 41 EB Ramps & STH 36, Item SPV.0060.316; Traffic Signal and Lighting Equipment Painting IH 41 WB Ramps & STH 36, Item SPV.0060.317.

A Description

This special provision describes the painting of the exterior surfaces of traffic signal equipment, street lighting equipment, and associated mounting hardware as shown on the signal plans. Individual signal and lighting equipment is paid for in separate bid items.

B Materials

Contact City of Greenfield, Craig Skala, (414) 329-5315, prior to ordering traffic signal equipment to obtain the exact color code from the City of Greenfield.

Obtain signal and lighting equipment powder-coated in the black color from the manufacturer or supplier. Signal and lighting equipment includes monotube arms, monotube poles, luminaire arms, lighting poles, signal standards, and metal bases. Cabinets shall not be painted. All black items shall match in color. All signal hardware, lighting hardware, sign hardware and stainless steel banding used on standards and poles, shall be cleaned and painted with a primer and two finish coats of the best rust resistant synthetic resin enamel in the color that exactly matches the color code provided by the City of Greenfield.

C Construction

Install per manufacturer's instructions. Marks and scratches on painted equipment and signal hardware shall be touched up with two coats of synthetic resin enamel consistent in color and texture to the original finish, or as directed by the engineer.

D Measurement

The department will measure Traffic Signals and Lighting Equipment Painting IH 41 EB Ramps & STH 36 and Traffic Signals and Lighting Equipment Painting IH 41 WB Ramps & STH 36 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.0060.316	Traffic Signals and Lighting Equipment Painting IH 41 EB Ramps & STH 36	EACH
SPV.0060.317	Traffic Signals and Lighting Equipment Painting IH 41 WB Ramps & STH 36	EACH

Payment is full compensation for furnishing traffic signal and lighting equipment, hardware, and banding in the color specified by the City of Greenfield.

134. Install Fiber Optic Communications in Cabinet IH 41 EB Ramps & STH 36, Item SPV.0060.318; Install Fiber Optic Communications in Cabinet IH 41 WB Ramps & STH 36, Item SPV.0060.319.

A Description

This special provision describes the installation of fiber optic communications equipment in the traffic signal cabinet.

B Materials

The department will furnish pre-terminated fiber optic patch panels or fiber termination panels. The materials will be provided with the traffic signal cabinet. The patch panels will have pre-terminated fiber optic cable pigtails. Provide two each 1-meter lengths of ST-ST single mode fiber jumper (2 fibers per jumper) from the patch panel to the Ethernet switch. Provide all patch panel or termination panel attachment hardware.

Provide a 14 AWG XLP insulated, stranded, copper, 600 volt AC locate wire through the conduit run from the communication vault to the traffic signal cabinet. Connect the locate wire by using a silicone filled wire nut at each pull box, vault or other access point. Alternatively, use a single wire through the access

points, leaving a 6 foot coil in each pull box, vault or other access point for splicing. All material under this item shall meet the requirements of standard spec 655.

C Construction

Install the patch panel or termination 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.

Install the fiber jumpers and provide a communications link from the FTMS cabinet to the controller.

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

D Measurement

The department will measure Install Fiber Optic Communications in Cabinet IH 41 EB Ramps & STH 36 and Install Fiber Optic Communications in Cabinet IH 41 WB Ramps & STH 36 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.0060.318	Install Fiber Optic Communications in Cabinet, IH 41 EB Ramps & STH 36	EACH
SPV.0060.319	Install Fiber Optic Communications in Cabinet, IH 41 WB Ramps & STH 36	EACH

Payment is full compensation for installing pre-terminated patch panels or termination panels and fiber optic cable in conduit; furnishing and installing attachment hardware, fiber jumpers, and locate wire; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work. Removal of the existing equipment from the traffic signal cabinet and installation of the ethernet switch are paid for as separate items.

135. Girder Surface Repair, Item SPV.0060.400.

A Description

This special provision describes repairing prestressed concrete girder ends by removing deteriorated concrete from surfaces of concrete girder ends at locations designated in the plans and as determined by the engineer and replacing it with a polymer modified Portland cement mortar.

B Materials

Provide a polymer modified Portland cement mortar meeting the following requirements:

- Have a corrosion inhibitor additive.
- A workable mix capable of bonding and holding its own plastic weight, when mixed and placed according to manufacturer instructions, on vertical and overhead surfaces.
- A minimum compressive strength of 1,500 psi at 24 hours, 3,500 psi at 3 days, and 5,000 psi at 28 days; according to ASTM C 109.
- Have a minimum bond strength of 2,000 psi at 28 days.
- Have a water soluble chloride ion content of less than 0.40 lb/cu yd. The test shall be performed according to ASTM C 1218, and the mortar shall have an age of 28 to 42 days at the time of test. The ASTM C 1218 test shall be performed by an independent lab a minimum of once every two years, and the test results shall be provided to the department.

C Construction

Perform the work according to the requirements of standard spec 509.3.7 and as specified herein. Remove all deteriorated concrete to sound material. The repair depth shall be a minimum of 3/8 inches. Take necessary precautions while removing deteriorated concrete to preserve all existing reinforcing steel and prestressing strands. At locations where reinforcing steel is exposed due to deteriorated and/or spalled concrete, remove concrete to a minimum depth of 1/2” inch behind the steel. Do not remove concrete behind prestressing strands except if it is heavily deteriorated.

Make a 3/8-inch deep saw cut at the limits of the repair area before removal of the deteriorated concrete.

Use chipping hammers for removing concrete that are a light-duty pneumatic or electric tool with a 15 pound class or less. Use blast cleaning equipment for concrete surface preparation of the abrasive type with equipment having oil traps.

Abrasive blast clean concrete and exposed steel reinforcement and prestressing strands against which repair mortar will be placed.

Power wash using water pressure between 1,200 psi to 2,000 psi to remove all chlorides, dust and loose materials, and any bond-inhibiting materials from the prepared surface.

After power washing, coat the blast cleaned surfaces of steel reinforcement and prestressing strands with zinc rich paint.

Just prior to mortar placement, saturate the repair surface with water to a saturated surface-dry condition.

Mix and place the polymer modified Portland cement mortar according to the manufacturer's instructions. Place and finish mortar to the contours of the member, as originally constructed. Do not place the mortar when the air temperature is below 45° F and falling or below 40° F. Do not place mortar when the surface temperature of the repair area is less than 40° F. Do not place mortar when the air temperature is greater than 90° F. Ensure mortar has a minimum temperature of 50°F and a maximum temperature of 90° F.

Apply cotton mats for curing the exposed layer of mortar within 10 minutes after finishing and begin wet curing immediately. Maintain curing for a minimum of 3 days. If temperatures below 45° F are forecast during the curing period, provide protection methods during the curing period.

Provide ladders or other appropriate equipment for the engineer to inspect repaired areas. After curing but no sooner than 28 days after placement of the mortar, examine the repair in the presence of the engineer for conformance with original dimensions, cracks, and delaminations. Perform sounding for delaminations with a hammer or by other methods determined by the engineer. Remove and replace repaired areas of mortar as determined by the engineer for delaminations or surface cracks greater than 0.01 inches in width.

D Measurement

The department will measure Concrete Girder End Repair by the 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.0060.400	Girder Surface Repair	EACH

Payment is full compensation for completing all work including saw cutting, removing concrete; abrasive blasting, preparing surfaces; furnishing, applying and curing the repair mortar and cleanup.

136. Strapping B-40-321, Item SPV.0060.401.

A Description

This special provision describes securing a wing wall to a culvert or abutment body with a structural channel.

B Materials

Use galvanized structural channel conforming to the size and material shown on the plans and conforming to standard spec 506.

C Construction

Attach the structural channel with the number, size and spacing of anchors shown on the plans.

D Measurement

The department will measure Strapping B-40-321, as each wing for the repair work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.401	Strapping B-40-321	EACH

Payment is full compensation for furnishing and installing the channel.

137. Sidewalk Cover Plate Resetting, Item SPV.0060.402.

A Description

This special provision describes removing, cleaning and reinstalling the sidewalk cover plate for the strip seal expansion joint on B-40-201.

B Materials

Provide new screws to reinstall the sidewalk cover plate. Provide ¾" dia. X 1½" long stainless steel socket flat head screws with anti-seize lubricant.

C Construction

Remove the existing sidewalk cover plate identified in the plan. Clean debris from under the cover plate, on the cover plate, and from inside the existing threaded holes. Reinstall the cover plate using new screws in existing threaded holes. Recess the screw heads 1/16" below the plate surface.

D Measurement

The department will measure Sidewalk Cover Plate Resetting by the 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.0060.0402	Sidewalk Cover Plate Resetting	EACH

Payment is full compensation for completing all work including removal and cleaning of the cover plate and holes, installation of new screws with the cover plate, and disposal of debris and old screws.

138. Concrete Channel Lining Repair, Item SPV.0060.403.

A Description

This special provision describes filling in with concrete the voids under the concrete channel lining for the drainage ditch adjacent to the south end of box culvert B-40-321, as shown in the plan.

B Materials

Provide concrete fill according to standard spec 501.

C Construction

Saw cut along the existing broken concrete on the channel apron to make a clean line. Remove loose concrete. Pour new concrete such that it flows under the existing end of the concrete lined channel to fill in the void underneath and so that it fills in the missing concrete on the channel apron. Incorporate existing rebar into the new concrete.

D Measurement

The department will measure Concrete Channel Lining Repair by the 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.0060.403	Concrete Channel Lining Repair	EACH

Payment is full compensation for completing all work including saw cutting, removing concrete, new concrete and cleanup

139. Embedded Galvanic Anodes, Item SPV.0060.404.

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. 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 the measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.404	Embedded Galvanic Anodes	EACH

Payment for Embedded Galvanic Anodes is full compensation for furnishing and for properly installing anodes.

Concrete repair work, and concrete for that work, will be paid for separately.

140. Cleaning and Sealing Concrete Girder Ends, Item SPV.0060.405.

A Description

This special provision describes the removing of any loose, delaminated, or deteriorated concrete from the end 5 feet of concrete girders at the abutments, cleaning any exposed bar steel reinforcement or steel prestressing strand, applying an organic zinc rich primer and top coat to areas of cleaned exposed steel, and applying a non-pigmented epoxy where shown in the plans, and/or 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 instruction 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 Concrete Girder Ends as each individual end section of concrete girder, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.405	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.

141. Cleaning and Painting Bearings, Item SPV.0060.406.

A Description

This special provision describes cleaning and painting the existing steel bearings on structures conforming to standard spec 517 and as directed by the engineer.

B Materials

Furnish a complete coating system from the department's Painting Epoxy System Structure approved product list. Use the same coating system for all repairs due to handling, shipping, and erecting, and for all other uncoated areas.

The color of epoxy shall be Federal Standard Color No. 25240 or as approved and directed by the engineer and the urethane coating material shall match the color number shown on the plans conforming to AMS Standard 595A.

Supply the engineer with the product data sheets before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the minimum drying time for shop or field applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

C Construction

C.1 Surface Preparation

Clean areas of loose paint and rust by wire brushing, grinding, or other mechanical means. Sound paint does not need to be removed. After clean up and storage of waste material, blast cleaning is allowed for only those areas where paint has been removed. Shield adjacent painted areas during blast cleaning operations. The blasting sand does not have to be collected.

Furnish containment methods as required to contain and collect waste material resulting from the preparation of painted steel surfaces for painting. All clean up activities should minimize dust. Store waste materials in hazardous waste containers provided by the department. The department is responsible for the transport and disposal of the contained materials by the statewide hazardous waste contractor.

C.2 Coating Application

Apply paint in a neat, workmanlike manner, and conforming to the manufacturer's instructions and recommendations. Paint application shall be brushed on.

D Measurement

The department will measure Cleaning and Painting Bearings as each individual bearing, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.406	Cleaning and Painting Bearings	EACH

Payment for Cleaning and Painting Bearings is full compensation for preparing and cleaning the designated bearings; furnishing and applying the paint; cleaning up; and containing and collecting all waste materials.

142. Remove and Relocate Existing Sign Bridge S-40-410. Item SPV.0060.450; Remove and Relocate Existing Sign Bridge S-40-413. Item SPV.0060.455; Remove and Relocate Existing Sign Bridge S-40-801. Item SPV.0060.460.

A Description

This special provision describes dismantling and relocating the horizontal truss and the vertical upright tower portions of existing Sign Bridges S-40-410, S-40-413, and S-40-801 and incorporating into new Sign Bridges S-40-410, S-40-413, and S-40-801 as shown in the plans. The type I signs or Digital Message Signs, and upper portions of the sign bridge foundations for existing Sign Bridges S-40-410, S-40-413, and S-40-801 are to be removed. Removal of the type I sign or Digital Message Sign is paid for under a separate item.

B Materials

Furnish new connecting hardware, high-strength bolts, nuts, washers, U-bolts, and lock washers according to standard spec 532.2.

C Construction

Disassemble the truss, towers, and signs as required to relocate the existing sign bridge. Exercise care and perform removal and relocation in such a manner so as to preserve the portions of the existing sign structure to be incorporated into new Sign Bridges S-40-410, S-40-413, and S-40-801. If necessary, repair or replace all components of the existing sign bridge designated for re-use that are damaged during the removal and relocation process to the satisfaction of the department at the contractor's expense. Any electrical conduits and miscellaneous electrical items on the towers or in the ground shall be removed and disposed of off the site.

Furnish and replace all connecting hardware, high-strength bolts, nuts, washers, U-bolts, and lock washers.

Repair all damage to the protective coating of the sign structure using a cold galvanizing paint.

The type I signs and digital message signs of existing Sign Bridges S-40-410, S-40-413, and S-40-801 become the property of the contractor and shall be disposed of outside of the right-of-way after they have been temporarily moved to post mounted signs. See signing plan quantities and plans for moving signs as separate pay items.

The structure shall be out of service a maximum of 60 days and during such time the post mounted signs shall be in place per the signing plans.

Remove concrete footing caps. Remove the top of the median caisson shafts to 2 feet below subgrade. Backfill the holes as specified in standard spec 203.3.5, except that broken masonry will not be allowed. Backfill to the final grade lines or as directed by the engineer.

Remove the top of the outer shoulder caisson shafts to 2 feet below existing ground. Cover the outer shoulder footing caisson shafts with topsoil and seed vacated footing sites.

Restore all areas disturbed by construction activities to the final grade lines with topsoil, seed, and mulch that meet the requirements of standard spec 625, 630, and 627 respectively. Restoration is incidental to the bid item.

Provide new I beams to mount the new signs or new W sections and angles to mount the Digital Message Sign to the existing sign structure based on sign sizes shown on signing plans and sign quantities.

D Measurement

The department will measure Remove and Relocate Existing Sign Bridge (structure) a single unit of work for each sign bridge, 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.0060.450	Remove and Relocate Existing Sign Bridge S-40-410	LS
SPV.0060.455	Remove and Relocate Existing Sign Bridge S-40-413	LS
SPV.0060.460	Remove and Relocate Existing Sign Bridge S-40-801	LS

Payment is full compensation for disassembly of sign bridge components as required; relocating the sign bridge; furnishing and replacing all connecting hardware, high-strength bolts, nuts, washers, U-bolts, lock washers; repairing all damaged protective coating, sign structure; furnishing I Beams or W sections and angles as required; removing and disposing of footing caps, and other materials; and for covering vacated outer shoulder footing sites with topsoil and seeding.

143. Tension Chord Splice Connections (S-40-834), Item SPV.0060.465.

A Description

This special provision describes replacing the splice connection bolts and installing shims to provide proper alignment of the chord connection plates at each splice connection at the locations shown on the plans, and as hereinafter provided.

B Materials

Furnish materials according to the pertinent provisions of standard spec 532.2 and as shown in the plans.

C Construction

Use construction methods that are according to the pertinent provisions of standard spec 532.6, 657, and as shown in the plans. Remove the truss from uprights and place on cribbing. The contractor shall follow the re-tensioning procedure outlined herein:

Each bolt to be tensioned shall be replaced with a new bolt. Field verify the number of bolts, the bolt diameter and length. The length of the new bolt shall take into account the use of a DTI washer and the thickness of the shim. The contractor shall furnish bolts, flat washers, heavy hex nuts, shims, and DTI's conforming to standard spec 532. Washers are not to be placed between flaying surfaces. Beveled washers may be required if connected plates are not parallel. Do not install lock washers on new splice bolts. Remove all existing bolt connections, including bolts, nuts, washers, and lock washers. Install #16 gauge galvanize shims as required to provide the camber as shown in the plans. Properly tension the connection so that the faying surfaces are in firm contact or in firm contact with the shims (if required). Reference the department's DT2322 pre-installation and installation procedures. Reinstall the truss on uprights. Properly dispose of all existing bolts, washers, and nuts. Complete Form DT2322 and submit to the regional ancillary structure engineer for transmittal to BOS and inclusion in HSIS.

The work is proposed to occur during construction stage 3. The existing truss shall be removed from uprights and placed on cribbing in the proposed work-zone near the I-894 WB exit ramp to Loomis Road gore area using a rolling closure. The truss shall be re-installed on the existing uprights within 24 hours using the next rolling closure.

D Measurement

The department will measure Tension Chord Splice Connections (S-40-834), as a single unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.465	Tension Chord Splice Connections (S-40-834)	EACH

Payment is full compensation for removing the existing truss from uprights and placing it on cribbing; replacing all necessary splice bolts, nuts and washers at splice connections; installing shims; reinstalling the truss on uprights; properly disposing of existing material being replaced.

144. Remove and Relocate Existing 2-Chord Butterfly Sign Structure S-40-869, Item SPV.0060.470; Remove and Relocate Existing 4-Chord Sign Structure S-40-870, Item SPV.0060.475.

A Description

This special provision describes dismantling and relocating the horizontal chords, vertical upright post, and light pole portions of existing 2-Chord Sign Structure S-40-869 and 4-Chord Sign Structure S-40-870 and incorporating into new Sign Bridges S-40-869 and S-40-870 as shown in the plans. The type I signs and upper portions of the sign structure foundations for existing Sign structures S-40-869 and S-40-870 are to be removed. Removal of the type I sign is paid for under a separate item.

B Materials

Furnish new connecting hardware, high-strength bolts, nuts, washers, U-bolts, and lock washers according to standard spec 532.2.

C Construction

Disassemble the chords, upright posts, light pole, and signs as required to relocate the existing sign structure. Exercise care and perform removal and relocation in such a manner so as to preserve the portions of the existing sign structure to be incorporated into new Sign Structures S-40-869 and S-40-870. If necessary, repair or replace all components of the existing sign structure designated for re-use that are damaged during the removal and relocation process to the satisfaction of the department at the contractor's expense. Any electrical conduits and miscellaneous electrical items on the upright posts or in the ground shall be removed and disposed of off the site.

Furnish and replace all connecting hardware, high-strength bolts, nuts, washers, U-bolts, and lock washers.

Repair all damage to the protective coating of the sign structure using a cold galvanizing paint.

The type I signs of existing Sign Structures S-40-869 and S-40-870 become the property of the contractor and shall be disposed of outside of the right-of-way after they have been temporarily moved to post mounted signs. See signing plan quantities and plans for moving signs as separate pay items.

The structure shall be out of service a maximum of 60 days and during such time the post mounted signs shall be in place per the signing plans.

Remove concrete footing caps. Remove the top of the median caisson shafts to 2 feet below subgrade. Backfill the holes as specified in standard spec 203.3.5, except that broken masonry will not be allowed. Backfill to the final grade lines or as directed by the engineer.

Provide new I beams to mount the new signs to the existing sign structure based on sign sizes shown on signing plans and sign quantities.

D Measurement

The department will measure Remove and Relocate Existing 2-Chord Sign Structure S-40-869 and Remove and Relocate Existing 4-Chord Sign Structure S-40-870 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
SPV.0060.470	Remove and Relocate Existing 2-Chord Sign Structure S-40-869	EACH
SPV.0060.475	Remove and Relocate Existing 4-Chord Sign Structure S-40-870	EACH

Payment is full compensation for disassembly of sign bridge components as required; relocating the sign structure; furnishing and replacing all connecting hardware, high-strength bolts, nuts, washers, U-bolts, lock washers; repairing all damaged protective coating, sign structure; furnishing I Beams as required; removing and disposing of footing caps, and other materials.

145. Remove and Reinstall Existing Noise Barrier Panels. Item SPV.0060.499.

A Description

This special provision describes removing, handling, storing, protecting, and reinstalling precast prestressed concrete noise barrier panels of existing Noise Barrier N-40-009.

B Materials

Furnish materials as necessary to store and protect the noise barrier panels on-site.

C Construction

Remove, handle, store, and protect the N-40-009 noise barrier panels as required to install the Cantilever Sign Structure S-40-3101 foundation. Reinstall the N-40-009 noise barrier upon completion of the Cantilever Sign Structure S-40-3101 foundation. Exercise care and perform removal, handling, and storage activities in such a manner as to preserve the integrity and finish of the noise barrier panels. If necessary, repair any noise barrier panels and noise barrier posts damaged during the removal, handling, storage, and reinstallation processes to the satisfaction of the department at the contractor’s expense.

Any grading required to remove or reinstall the noise barrier panels is incidental to this bid item. If grading is required, restore the affected area to its original condition.

Furnish all materials necessary to store and protect the noise barrier panels on-site.

D Measurement

The department will measure Remove and Reinstall Existing Noise Barrier Panels as a single unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.499	Remove and Reinstall Existing Noise Barrier Panels	EACH

Payment is full compensation for removal, handling, storage, protection, and reinstallation of precast prestressed concrete noise barrier panels of existing Noise Barrier N-40-009; repair, if necessary; required grading; restoration of graded area.

146. Utility Line Opening (ULO), Item SPV.0060.500.

A Description

This special provision describes excavating to uncover utilities for the purpose of determining elevation and potential conflicts as shown on the plans or as directed by the engineer.

B (Vacant)

C Construction

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 openings as soon as possible and at least 10 days in advance of proposed utility construction to allow any conflicts to be resolved with minimal disruption. Give the engineer a minimum of three working days once utility line opening information is received to review all relevant design information prior to proposed utility construction. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening will be called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Utility line openings include a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Approve and coordinate all utility line openings with the engineer. Notify the utility engineers or their agents of this work a minimum of 3 days prior to the work so they may be present when the work is completed.

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 Utility Line Opening by the each unit.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.500	Utility Line Opening (ULO)	EACH

Payment is full compensation for the excavation required to expose the utility line; backfilling with existing material removed from the excavation; compacting the backfill material; restoring the site; cleanup; and for furnishing all labor, tools, equipment, transportation, and incidentals to perform the work.

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings are not considered part of or paid for under Utility Line Openings but are considered separate and measured and paid for separately as removal items. Pavement replacement material, concrete curb, gutter, and sidewalk items will also be considered separate from Utility Line Openings and will be measured and paid for separately.

147. Water Main Protection, Item SPV.0060.501.

A Description

This special provision describes protecting existing water mains from newly constructed storm drainage facilities. No structures will be allowed over the existing water main or hydrant branch with less than 18 inches of vertical out-to-out clearance. Alternate drainage structures shall be used to provide minimum sewer-water clearances required by the Wisconsin DNR.

B Materials

Furnish and install materials as detailed in the plans and in the Construction section below.

C Construction

Construct drainage structure, located above and across an existing water main, by utilizing materials and joints that are water tight. For all catch basins and inlets that have less than 24 inches of out-to-out of horizontal clearance, the following water main protections shall be made:

- The catch basins and inlets shall be altered to provide 18 inches of vertical clearance to the water mains or hydrant branches.
- The catch basins and inlets shall be wrapped with two layers of 8-mil polyethylene around the base and extending 1 foot vertically on all sides of the drainage structure.

D Measurement

The department will measure Water Main Protection as each individual water main protection, 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.0060.501	Water Main Protection	EACH

Payment is full compensation for protecting existing water mains; and for all excavation, backfilling, disposal of surplus materials, restoration of the work site.

148. Adjusting Water Boxes, Item SPV.0060.502.

A Description

This special provision describes adjusting, protecting, and maintaining accessibility, for the duration of the paving project, to all City of Milwaukee water service boxes and water valve boxes located within the project limits.

B Materials

All water box material for the adjustment of these facilities shall meet City of Milwaukee specifications and will be provided by the city of Milwaukee by contacting Syreeta Woodley, Milwaukee Water Works, at (414) 708-2753 (or Andray DeCordova, Milwaukee Water Works at (414) 286-6302).

Furnish asphaltic surface conforming to standard spec 465.2.

If there is contractor damage, the materials must still be provided by the City of Milwaukee, however, in this case, the contractor will be charged for all materials. Materials furnished by the City of Milwaukee and not used on the project shall be delivered back to DPW Field Headquarters – Infrastructure, Operations, Water Works at 3850 N. 35th St.

C Construction

The contractor, or authorized project representative, shall contact Milwaukee Water Works prior to the start of construction. The city will locate, mark, inspect and repair all water service boxes and water valve boxes within the limits of the project prior to commencement of work on the project.

Install asphaltic surface according to standard spec 465.3.1.

All water service boxes and water valve boxes within the project limits shall be adjusted to proposed elevations by the contractor using materials meeting city specifications.

Throughout the duration of the project, the contractor must ensure that all water service boxes, and water valve boxes are adequately located and identified by blue paint, and that at all times, all water appurtenances remain accessible for operation by city forces. Exercise caution working adjacent to water facilities to avoid damage and ensure accessibility.

Upon completion of the contract, the city will inspect all water facilities to ensure the water boxes are clean, properly aligned, and accessible. The contractor shall be responsible to make identified repairs and adjustments, and if any repairs or adjustments are made by the city, the cost will be charged to the contractor.

D Measurement

The department will measure Adjusting Water Boxes 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.0060.502	Adjusting Water Boxes	EACH

Payment is full compensation for all excavation, removals, backfilling, asphaltic surface, disposal of surplus materials, water box adjustments, water box clean-out, and restoration of the work site.

Sawing Concrete will be measured and paid for separately.

149. Inlet Covers Type 27-M, Item SPV.0060.801.

A Description

The work under these items shall be according to the requirements of standard spec 611 and the details as shown on the plans.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Inlet Covers Type 27-M by the unit in place, furnished, installed and 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.0060.801	Inlet Covers Type 27-M	EACH

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

150. Reconstructing Manhole Special, Item SPV.0060.802.

A Description

This item describes reconstructing manhole special, including required excavating and backfilling according to construction details shown on plan, the standard specifications, and as hereinafter provided.

B Materials

Provide a precast reinforced concrete flat slab top for each manhole with an opening for the cover type that is shown in the plan.

Furnish materials that conform to standard spec 611.2 for reconstructing manholes to the depth as shown in the plans.

C Construction

Reconstruct existing manholes to the required lines and elevations the plans show.

Rotate the structure opening to the location the plans show. Install new steps into the existing structure that align with the final opening of the structure top.

Use construction methods confomring to the requirements set forth in standard spec 611.

D Measurement

The department will measure Reconstructing Manhole Special as each individual unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.802	Reconstructing Manhole Special	EACH

Payment is full compensation for providing required materials, including masonry, fittings, and steps; for installing new steps into existing structure; for salvaging and reinstalling existing covers, including frames, grates, or lids; for necessary excavation, backfilling, and for cleaning out and restoring the site.

151. Reconstructing Inlet Special, Item SPV.0060.803.

A Description

This item describes reconstructing inlet special, including required excavating and backfilling according to construction details shown on plan, the standard specifications, and as hereinafter provided.

B Materials

Provide a precast reinforced concrete flat slab top for each inlet with an opening for the cover type that is shown in the plan.

Furnish materials that conform to standard spec 611.2 for reconstructing inlets to the depth as shown in the plans.

C Construction

Reconstruct existing inlets to the required lines and elevations the plans show.

Rotate the structure opening to the location the plans show. Install new steps into the existing structure that align with the final opening of the structure top.

Use construction methods confomring to the requirements set forth in standard spec 611.

D Measurement

The department will measure Reconstructing Inlet Special as each individual unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.803	Reconstructing Inlet Special	EACH

Payment is full compensation for providing required materials, including masonry, fittings, and steps; for installing new steps into existing structure; for salvaging and reinstalling existing covers, including frames, grates, or lids; for necessary excavation, backfilling, and for cleaning out and restoring the site.

152. Remove and Cap Existing Drainage Structure, Item SPV.0060.804.

A Description

This item describes removing and capping existing drainage structure with concrete and necessary reinforcement, including required excavating and backfilling according to construction details shown on plan, the standard specifications, and as hereinafter provided.

B Materials

Furnish materials conforming to standard spec 501 for concrete, standard spec 505 for reinforcement, and standard spec 506 for structural steel and miscellaneous metals.

Furnish grade A concrete with Type II cement conforming to standard spec 501.2. Furnish ASTM 617 Grade 60 reinforcing steel.

Furnish plastic waterstop conforming to standard spec 502.3.6.4 or butyl rubber seal per sealant manufacturer’s recommendations conforming to recommendation ASTM C 990.

C Construction

Excavate and backfill as specified for excavation for Storm Sewer Structures in standard spec 206, except do not backfill concrete brick until at least 3 days after completing the unit. Use granular backfill material for backfilling.

Construct concrete as specified in standard spec 501, and as specified for culverts and retaining walls in standard spec 504.

Construct concrete brick as specified in standard spec 519.

Construct structural steel and miscellaneous metals as specified for steel bridges in standard spec 506.

Cure the concrete by one of the methods specified in standard spec 502.3.8 for curing concrete in sub Storm Sewer Structure units.

Construct the masonry and install waterstop material to provide a watertight joint between new masonry cap and existing manhole.

Clean and remove all materials and debris deposited or lodged in the manhole due to the contractor's operations during construction.

D Measurement

The department will measure Remove and Cap Existing Drainage Structure as each individual unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.804	Remove and Cap Existing Drainage Structure	EACH

Payment is full compensation for providing all materials, including all masonry; for furnishing all excavating; for sheeting and shoring; for backfilling; for providing granular backfill material; for control of water; for temporary support and protection of existing utilities to construction; for removing sheeting and shoring; disposing of surplus material, for providing waterstop or butyl rubber seal; for providing and installing reinforcing bars; and for cleaning out and restoring the work site. Granular backfill material required for backfilling is incidental to the work.

153. Cap Proposed Drainage Structure, Item SPV.0060.805.

A Description

This item describes cap proposed drainage structure with concrete and necessary reinforcement. Required excavation and backfilling shall be included with other items.

B Materials

Furnish materials conforming to standard spec 501 for concrete, standard spec 505 for reinforcement, and standard spec 506 for structural steel and miscellaneous metals.

Furnish grade A concrete with Type II cement conforming to standard spec 501.2. Furnish ASTM 617 Grade 60 reinforcing steel.

Furnish plastic waterstop conforming to standard spec 502.3.6.4 or butyl rubber seal per sealant manufacturer's recommendations conforming to recommendation ASTM C 990.

Furnish support assemblies conforming to standard spec 611.2.2.

C Construction

Construct concrete as specified in standard spec 501, and as specified for culverts and retaining walls in standard spec 504.

Construct concrete brick as specified in standard spec 519.

Construct structural steel and miscellaneous metals as specified for steel bridges in standard spec 506.

Cure the concrete by one of the methods specified in standard spec 502.3.8 for curing concrete in sub Storm Sewer Structure units.

Construct the masonry and install waterstop material to provide a watertight joint between new masonry cap and existing manhole.

Clean and remove all materials and debris deposited or lodged in the manhole due to the contractor's operations during construction.

D Measurement

The department will measure Cap Proposed Drainage Structure as each individual unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.805	Cap Proposed Drainage Structure	EACH

Payment is full compensation for providing all materials, including all masonry; for providing waterstop or butyl rubber seal; and for cleaning out and restoring the work site.

The department will pay separately under other contract storm sewer structure items for all excavating; for sheeting and shoring; for backfilling; for providing granular backfill material; for control of water; for temporary support and protection of existing utilities to construction; for providing and installing reinforcing bars; for removing sheeting and shoring; and for disposing of surplus material.

154. Pipe Connection to Existing Structure, Item SPV.0060.806.

A Description

This special provision describes connecting new storm sewer pipe to existing structure**.**

B Materials

Conform to standard spec 608.2 and standard spec 611.2.

C Construction

Conform to standard spec 608.3 and standard spec 611.3.

D Measurement

The department will measure Pipe Connection to Existing Structure by each pipe connected, 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.0060.806	Pipe Connection to Existing Structure	EACH

Payment is full compensation for performing all work; excavation, backfilling, furnishing, masonry and fittings; disposing of surplus material, coring holes in existing structure to connect new pipe; and installing all materials, couplings, concrete collars, and pipe.

155. Welded Existing Inlet Covers, Item SPV.0060.807.

A Description

This special provision describes welding inlet covers subject to traffic loading as shown on the plans, and as hereinafter provided.

B (Vacant)

C Construction

Clean and prepare the surface of the inlet frames and grates which are subject to traffic loading. Weld the grate to the frame in a manner which prevents rocking or the ability of the grate to dislodge from the frame.

D Measurement

The department will measure Welded Existing Inlet Covers as each individual inlet cover, 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.0060.807	Welded Existing Inlet Covers	EACH

Payment is full compensation for preparing the surfaces; and welding the grates to the frames.

156. Welded Proposed Inlet Covers, Item SPV.0060.808.

A Description

This special provision describes welding inlet covers subject to traffic loading as shown on the plans, and as hereinafter provided.

B (Vacant)

C Construction

Clean and prepare the surface of the inlet frames and grates which are subject to traffic loading. Weld the grate to the frame in a manner which prevents rocking or the ability of the grate to dislodge from the frame.

Upon completion of traffic loading, remove the welds by grinding, or other method approved by the engineer, to the original condition of the frame and grate. The edges of the frame and grate shall be free of sharp edges or other defects. The contractor must replace all frames, grates, storm sewer structures, or other associated items determined to be damaged as a result of the work at no cost to the department.

D Measurement

The department will measure Welded Proposed Inlet Covers as each individual inlet cover, 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.0060.808	Welded Proposed Inlet Covers	EACH

Payment is full compensation for preparing the surfaces; welding the grates to the frames; removing the welds; restoring the frames and grates to existing condition; and for protecting from damage.

157. Pavement Cleanup Project 1100-45-70, Item SPV.0075.001; Pavement Cleanup Project 1100-46-71, Item SPV.0075.002.

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:

- STH 36 (Loomis Road)
- IH 41/43/894
- 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 1100-46-71) 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 1100-45-70	HR
SPV. 0075.002	Pavement Cleanup Project 1100-46-71	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.

sef-104-006 (20170323)

158. Concrete Barrier Vertical Back Type S56 Modified, Item SPV.0090.001; Concrete Barrier Vertical Back Type S56 Modified With 24-Inch Pan, Item SPV.0090.002.

A Description

Construct Concrete Barrier Vertical Back Type S56 Modified and Concrete Barrier Vertical Back Type S56 Modified With 24-Inch Pan according to standard spec 603, details shown in the plans and as hereinafter provided.

B Materials

Furnish materials conforming to standard spec 603.2. Concrete minimum strength to be 4000 psi.

C Construction

Use construction methods conforming to standard spec 603.3.

Barrier shall consist of cast-in-place construction. Pre-cast barrier will not be accepted.

Delete paragraph (1) in standard spec 603.3.1.2 and replace with the following:

Install anchor bars at the locations, spacing, and depth shown in the plans.

Construct the Concrete Barrier Vertical Back Type S56 Modified and Concrete Barrier Vertical Back Type S56 Modified with 24-Inch Pan to present a smooth, uniform appearance in its final position conforming to the horizontal and vertical lines shown on the plans or ordered by the engineer, and be free of lumps, sags or other irregularities. The top and exposed faces of the barrier shall conform to standard spec 603.3.1.5.

If constructed by using a slip form machine or similar type equipment, the Concrete Barrier Vertical Back Type S56 Modified and Concrete Barrier Vertical Back Type S56 Modified with 24-Inch Pan shall be of well-compacted, dense concrete, and the exposed surfaces conform to standard spec 603.3.1.7. If requested by the engineer, evidence of successful operation of the slip form machine or other equipment may be required.

Feed concrete into the slip form machine at a uniform rate. Operate the machine under sufficient uniform restraint to forward motion to produce a well compacted mass of concrete free from surface pits larger than 1- inch in diameter and requiring no further finishing, other than that conforming to standard spec 603.3.1.6.

Utilize concrete of such consistency that, after slip forming, it will maintain the shape of the barrier without support.

Construct expansion joints in conformance with standard spec 603.3.1.3.

When forming joints before the concrete has hardened, support adjacent portions of the barrier firmly with close fitting shields.

When forming joints after the application of curing compound, treat the exposed faces of the barrier in the vicinity of the joint with curing compound after the forming of the joints.

In transitions between barrier shapes, tie reinforcement bars to Concrete Barrier Vertical Back Type S56 Modified and Concrete Barrier Vertical Back Type S56 Modified with 24-Inch Pan reinforcement by tying the first vertical bar +/- 3 inches from the transition point and lapping any horizontal bars that match.

D Measurement

The department will measure Concrete Barrier Vertical Back Type S56 Modified and Concrete Barrier Vertical Back Type S56 Modified with 24-Inch Pan by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Concrete Barrier Vertical Back Type S56 Modified	LF
SPV.0090.002	Concrete Barrier Vertical Back Type S56 Modified with 24-Inch Pan	LF

Payment is full compensation conforming to standard spec 603.5.2.

Delete paragraph (1) in standard spec 603.5.2 and replace with the following:

Except as specified otherwise below for cast in place barrier deficient in smoothness by more than 3/8 inch, payment for Concrete Barrier Vertical Back Type S56 Modified and Concrete Barrier Vertical Back Type S56 Modified with 24-Inch Pan is full compensation for excavating and preparing the foundation; for providing all materials shown in the plans, including concrete, expansion joints, reinforcement, concrete and base aggregate dense between parallel runs of concrete barrier vertical back, and extruded polystyrene; for furnishing all joints as shown in the plans; and for placing, finishing, protecting, and curing concrete.

159. Marking Contrast Epoxy 4-inch, Item SPV 0090.003.

A Description

This special provision describes applying contrast 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 two 1 ½-inch wide black epoxy lines with a 4-inch separation between the two black lines for the first pass, followed by a 4-inch wide white epoxy line second pass, for a total width of 7 inches. Apply epoxy pavement marking conforming to standard spec 646.3.

D Measurement

The department will measure Marking Contrast Epoxy 4-Inch Special by the linear foot, acceptably completed, measured once as the length of the centerline of the completed installation.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.003	Marking Contrast Epoxy 4-Inch	LF

Payment is full compensation for providing replacement marking.

SER-646-001 (20180214)

160. Marking Contrast Epoxy 8-inch, Item SPV 0090.004.

A Description

This special provision describes applying contrast 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 two 1 ½-inch wide black epoxy lines with an 8-inch separation between the two black lines for the first pass, followed by an 8-inch wide white epoxy line second pass, for a total width of 7 inches. Apply epoxy pavement marking conforming to standard spec 646.3.

D Measurement

The department will measure Marking Contrast Epoxy 8-Inch Special by the linear foot, acceptably completed, measured once as the length of the centerline of the completed installation.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.004	Marking Contrast Epoxy 8-Inch	LF

Payment is full compensation for providing replacement marking.

SER-646-002 (20180214)

161. Maintain and Remove Concrete Barrier Temporary Precast, Item SPV.0090.005.

A Description

This special provision describes maintaining existing concrete barrier temporary precast including any attached temporary glare screen and reflectors and removing these items upon contract completion. The temporary barrier has been left in place under a previous contract. Assume ownership and responsibility of the temporary barrier, temporary glare screen and reflectors upon the contract's Notice to Proceed. The location of this temporary barrier is shown in the Traffic Control plans.

Concrete barrier temporary precast, including any attached temporary glare screen and reflectors becomes property of the contractor at the end of this contract.

B Materials

The concrete barrier temporary precast left in place from a previous project is Wisconsin type concrete barrier temporary precast.

C Construction

Maintain Wisconsin type concrete barrier temporary precast left in place according to standard spec 603.

Realign the wall after snowplow operations or as directed by the engineer. Maintain reflectors and hardware in a condition similar to when new on the project.

Keep drainage/lifting slot holes free from debris.

D Measurement

The department will measure Maintain and Remove Concrete Barrier Temporary Precast by the linear foot of concrete barrier temporary precast, acceptably maintained and 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.0090.005	Maintain and Remove Concrete Barrier Temporary Precast	LF

Payment is full compensation for receiving, maintaining, keeping concrete barrier temporary precast drainage/lifting slot holes free from debris, and removing from the project site concrete barrier temporary precast including any attached temporary glare screen and reflectors.

162. Temporary Marking Crosswalk Removable Tape 6-Inch, Item SPV.0090.006.

A Description

This special provision describes providing and removing Temporary Marking Crosswalk Removable Tape 6-Inch.

B Materials

Furnish pavement marking crosswalk materials conforming to standard spec. 646.2.

C Construction

Construct pavement marking crosswalks conforming to standard spec 649.3.

D Measurement

The department will measure Temporary Marking Crosswalk Removable Tape 6-Inch 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.0090.006	Temporary Marking Crosswalk Removable Tape 6-Inch	LF

Payment is full compensation for providing the marking; for maintaining, and for removing the marking. Placing and removing temporary markings applied under the standard spec 646 contractor option for same-day marking are incidental to the associated permanent pavement marking bid item.

163. Cable Aerial Aluminum 4 AWG Quadruplex, Item SPV.0090.103; Cable Aerial Aluminum 2 AWG Quadruplex, Item SPV.0090.104; Cable Aerial Aluminum 6 AWG Quadruplex, Item SPV.0090.105.

A Description

Furnish, install, and connect temporary overhead cable complete with all splicing, identifications, terminations and guy wires at wood poles. The removal of the overhead cable after the temporary lighting is approved for removal.

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	1.1	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 105º C dry and 90º 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-coded 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.

Make the luminaire connections to the aerial cable with listed parallel tap insulation piercing connectors. The connector shall be rated for 600-V and be listed under UL Standard 486B.

C Construction

Overhead cable as shown on temporary lighting plans will not be needed for final lighting. 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.

Upon written request by 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.

Install guy wires as necessary per WisDOT standard details for Spanwire Temporary Traffic Signal.

Conform to standard spec 655.3.5(9) for ground resistance testing.

D Measurement

The department will measure Cable Aerial Aluminum 6 AWG Quadruplex; Cable Aerial Aluminum 4 AWG Quadruplex; Cable Aerial Aluminum 2 AWG Quadruplex in length by the linear foot in place, acceptably completed, 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.0090.103	Cable Aerial Aluminum 4 AWG Quadruplex	LF
SPV.0090.104	Cable Aerial Aluminum 2 AWG Quadruplex	LF
SPV.0090.105	Cable Aerial Aluminum 6 AWG Quadruplex	LF

Payment 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 providing messenger wire, and guy wires; and for removing temporary overhead cable.

164. Expansion Joint Seal System, Item SPV.0090.400.

A Description

This special provision describes furnishing and installing an expansion joint seal system at bridge expansion joints indicated on the plans. The selected joint system shall be either a cellular foam with a factory applied and cured silicone facing or an extruded preformed inorganic silicone gland. The selected system must accommodate expansion and contraction, be able to be installed against either concrete or existing steel expansion device extrusions and be able to adhere to itself to allow for staged installation.

B Materials

B.1 Foam/Silicone System

System shall be comprised of the following components: 1.) acrylic impregnated foam, 2.) factory-applied and cured silicone bellows facing on top side, 3.) field-applied epoxy adhesive, and 4.) field-injected silicone sealant bands.

Material shall be capable of movements of +50%, -50% (100% total) of nominal material size. Standard sizes from ½” to 4”. Depth of seal ranges from 1 ¾” to 3 ½”.

Silicone coating to be highway-grade, low-modulus, fuel resistant silicone factory-applied to the foam while it is partially pre-compressed to a width greater than maximum joint extension and cured before final compression. When compressed to final supplied dimension, a bellow(s) to handle movement must be created in the silicone coating.

Foam to meet the following requirements:

Property	Value	Test Method
Base material	Cellular, high density polyurethane foam	N/A
Impregnation	Modified, water based acrylic	N/A
Temperature service range High Low	 185° F -40° F	ASTM C 711
UV resistance	No changes – 2,000 hours	ASTM G 155-00A
(Accelerated Weatherometer) Resistance to aging	No changes – 2,000 hours	ASTM G 155-00A
Bleeding -40º F to 180º F	No bleeding when compressed to minimum of claimed movement	
Compression Set	Material recovers to +50% of nominal size within 24 hours of compression to -50% and simultaneous heating to 180º F for 3 hours	

Silicone coating to meet the following requirements:

Property	Value
Color	Black
Percent solids	96% min.
Specific gravity	1.26-1.34
Following tests conducted on sealant cured after 21 days at 77º F and 50% RH:	
Elongation	1400% min.
Joint modulus at 50% elongation	7 psi max.
Joint modulus at 100% elongation	8 psi max.
Joint modulus at 150% elongation	9 psi max.
Adhesion to concrete	+600% min. elongation
Adhesion to asphalt	+600% min. elongation
Joint movement capability, +100%/-50%, 10 cycles	No failure
Weatherability	Unaffected by climatic extremes
Flexibility	Cured sealant stays rubbery from -50º to 300º F

System to be installed into manufacturer’s standard field-applied epoxy adhesive.

Select the system size appropriate to the movement and existing joint opening dimension at each joint location that meet the project specifications or as defined by the engineer.

Furnish required or recommended primers, adhesives, or other ancillary materials from the same manufacturer as the foam/silicone system or as recommended by the manufacturer.

B.2 Silicone Gland System

System shall be comprised of the following components: 1.) extruded preformed inorganic silicone gland in an inverted “V” shape and 2.) single part silicone adhesive.

Silicone gland to meet the following requirements:

Property	Value	Test Method
Durometer (Shore A)	55 +/- 5	ASTM D 2240
Tensile Strength	1,000 psi min.	ASTM D 412
Elongation	400% min.	ASTM D 412
Tear Strength (Die B)	100 ppi min.	ASTM D 624
Compression Set at 212º F 70 hours	30% max.	ASTM D 395

Silicone adhesive to meet the following requirements:

Property	Value	Test Method
Tensile Strength	200 psi min.	ASTM D 412
Elongation	450% min.	ASTM D 412
Tack free time	20 minutes max.	ASTM C 679
Cure time ¼" bead	24 hours max.	ASTM C 679
Resistance to UV	No cracking, ozone chalking or degradation	ASTM C 793

Select the system size appropriate to the movement and existing joint opening dimension at each joint location that meet the project specifications or as defined by the engineer.

Furnish required or recommended primers, adhesives, or other ancillary materials from the same manufacturer as the silicone gland system or as recommended by the manufacturer.

B.3 Submittals for Approval

Submit material specifications and installation instructions for the proposed system at least 21 calendar days prior to beginning joint retrofit work to the department for review and approval. Do not order any materials or begin work until the department provides acceptance of the proposed system and installation methods.

C Construction

C.1 Surface Preparation

Remove the existing neoprene gland(s).

Prepare concrete surfaces or existing steel expansion joint extrusions per selected product manufacturer's instructions and recommendations.

C.2 Installation

Install selected joint materials per manufacturer's instructions and recommendations.

Install expansion joint seal system per the selected system's manufacturer's recommendations and so that the ends of the existing joint device are covered.

D Measurement

The department will measure Expansion Joint Seal System by the linear foot, acceptably completed, measured along the centerline of the joint from toe to toe of the parapets.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.400	Expansion Joint Seal System	LF

Payment is full compensation for removing existing gland(s), cleaning and preparing surfaces, and furnishing and installing the expansion joint seal system.

Concrete repair work along expansion joints will be paid for separately under other items.

165. Cleaning Storm Sewer, Item SPV.0090.801.

A Description

This special provision describes the removal and disposal of accumulated sand, gravel, and other debris in existing storm sewer structures and pipes.

B (Vacant)

C Construction

A vacuum/jetting truck must be used that is considered standard within the storm sewer cleaning industry. Lift and move storm sewer structure lid/grate, remove sand, gravel, and other debris trapped in the inlet structure, and reinstall lid/grate. Follow all applicable OSHA requirements pertaining to confined spaces.

Inlets may be connected to existing storm sewer systems and as such the absence of hazardous atmospheric conditions in the system cannot be guaranteed. Mechanized vacuum/excavation equipment is required.

Perform cleaning from upstream to downstream storm sewer structure whenever possible. Vacuum any wastewater and debris from the inlet and pipe cleaning/jetting activities from within the storm sewer structure. All material must be removed from the downstream storm sewer structure. Use a plug device to prevent material from passing from one section to another.

D Measurement

The department will measure Cleaning Storm Sewer by the linear foot for each inlet and pipe, 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.0090.801	Cleaning Storm Sewer	LF

Payment is full compensation for moving and reinstallation of the storm sewer structure lid/grate, removal and disposal off-site of the debris from the storm sewer structure and pipes, and all associated labor, safety measures or equipment including but not limited a plug device and vacuum/jetting truck.

166. Vibration Monitoring, Item SPV.0135.001.

A Description

This special provision describes developing a vibration monitoring plan, deploying seismographs for continuous monitoring and recording, documentation, and reporting.

B (Vacant)

C Construction

C.1 General

Vibration Monitoring establishes vibration recordings at the closest affected locations. This spans the entire duration of operations for various vibration inducing activities identified within this special provision unless monitored readings are sufficiently below nuisance limits in Figure 1 and engineer determines that continued monitoring will be at the contractor's discretion.

C.2 Equipment

Use a seismograph meeting the requirements of Wisconsin Department of Safety and Professional Services SPS307.43. Use monitoring equipment with an instantaneous alert notification system that consists of a text message or an e-mail alert message automatically sent directly to the engineer any time the nuisance limits in Figure 1 are exceeded.

C.3 Preconstruction Survey

The engineer will conduct preconstruction surveys of structures that may be potentially affected by vibration before any work. The engineer will visually inspect and record all existing defects in the structures before construction. Photographs or video may be used to assist in documentation.

The contractor may conduct and document pre-construction surveys of any additional nearby buildings or structures not identified by the engineer. Provide results to engineer before construction. Any damage resulting from excessive vibration-causing operations or claims of damage during construction is the responsibility of the contractor to resolve.

C.4 Monitoring Plan

Submit a monitoring plan that includes the following:

- Location of each vibration-inducing activity to be monitored
- Locations at which the approved seismographs will be placed
- Anticipated vibration levels at the closest building(s) or other sensitive facility during the various activities
- Anticipated monitoring duration for each monitoring location
- Maximum allowable vibration limits
- Mitigation plan to reduce potentially excessive vibration levels to acceptable limits.

Obtain the engineer's acceptance seven calendar days before any vibration-inducing activity for the project.

C.5 Monitoring and Recording

Monitor the following operations:

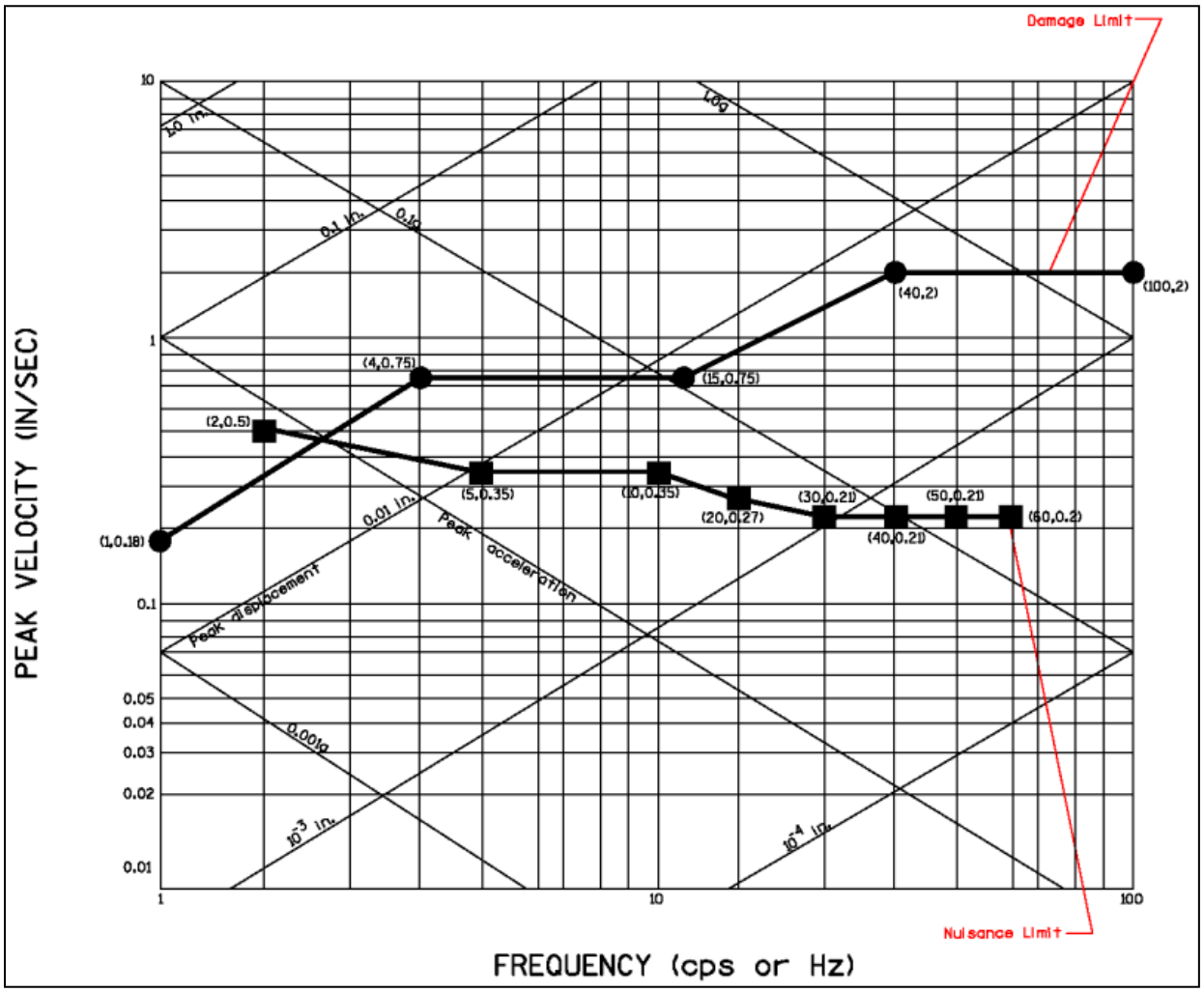
- Bridge and sign bridge pile driving or bridge demolition
- Sheet pile installation and removal
- MSE wall compaction
- Asphalt compaction
- Pavement breaking
- All compaction activities utilizing large vibratory rollers
- Any other activities that may cause vibration damage to adjacent buildings, structures, or utilities.

Ensure that a qualified person operates and continuously monitors the vibration monitoring equipment. If any vibration levels exceed the nuisance levels shown, immediately halt the vibration-inducing work, and notify the engineer.

Monitor between the construction vibration source and the closest structure or other sensitive facility subject to vibration damage, and as close as practical to the subject structure or facility. Monitor vibration levels according to Figure 1 and SPS 307.43.

Compare the measured peak particle velocity and frequency data to the nuisance limits specified in Figure 1. Record peak particle velocity and frequency in three mutually perpendicular directions.

Figure 1: Amplitude of Vertical Vibrations



C.6 Reporting

Furnish a weekly bound report of data recorded at each location to the engineer by 4 PM CST every Friday. Additionally, provide a separate daily report documenting any work that was halted before the next vibration-causing workday. Include the following in both reports:

- Date vibration monitoring operations began for each location with an associated compilation of total days currently monitored at each site.
- Identification of vibration inducing activities monitored each day at each location
- Serial number of vibration monitoring instrument used and record of latest calibration.
- Description of contractor's equipment.
- Name of qualified observer and interpreter.
- Distance and direction of recording station from vibration source.
- Surficial material type at recording station.
- Principal frequency and particle velocity in each component direction.
- Copy of records of seismograph readings, dated and signed by the person qualified to perform vibration monitoring.
- Contractor documentation of any operational changes necessary to reduce vibration levels below nuisance levels.

D Measurement

The department will measure Vibration Monitoring by months, or partial months where applicable, for each seismograph monitoring site, 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.0135.001	Vibration Monitoring	MON

Payment is full compensation for providing, setting up and removal of recording unit, an approved vibration monitoring plan, continuous monitoring and recording vibrations, and reporting. No payment for Vibration Monitoring will be made without agreement on recommended locations. Continued monitoring at locations where readings are sufficiently below nuisance limits will be at the contractor's expense.

Any pre-construction surveys of additional nearby buildings or structures not identified by the engineer will be conducted at no additional cost to the department.

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167. Wall Concrete Panel Mechanically Stabilized Earth R-40-716, Item SPV.0165.400; Wall Concrete Panel Mechanically Stabilized Earth R-40-717, Item SPV.0165.401.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to 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 according to 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.

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 dra

wings. 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 according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to 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 according to 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 according to 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. 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 according to 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 feet 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, unless the plans indicate other.

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 according to 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. Joints between panels shall be no more than 0.75 inch. 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 according to ASTM A884 or galvanized according to 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.

A minimum of two bearing pads shall be used 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 minimum Durometer Hardness of 80, or high- density polyethylene pads with a minimum density of 0.034 lb/in3 according to 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[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 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 according to AASHTO M 111 or ASTM A641. Aluminized soil reinforcement shall be according to ASTM A463 Aluminized Type 2-100, SS, Grade 50, Class 2. Design of galvanized soil reinforcement shall be according 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 according to 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.

C3.4 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 ¾-inch when measured along a 10-foot straight edge. The maximum allowable offset in any panel joint shall be ¾-inch. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed ½-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 ¾-inch joint separation between all adjacent face panels to prevent direct concrete-to-concrete contact. Maintain this gap by the use of bearing pads and/or alignment pins. 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:

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:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/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.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 two 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 accepted measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.400	Wall Concrete Panel Mechanically Stabilized Earth R-40-716	SF
SPV.0165.401	Wall Concrete Panel Mechanically Stabilized Earth R-40-717	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.

SPV.0165 (20211104)

168. Fiber Wrap Reinforcing Non-Structural, Item SPV.0165.402.

A Description

This special provision describes providing non-structural protection using externally bonded, high-strength, fiber reinforced polymer (FRP) composite/epoxy resin systems field-applied per the details shown on the plans.

B Materials

Furnish a glass or carbon composite fabric that is a continuous unidirectional filament woven fabric with a primary fiber of electrical (E) glass or carbon, respectively.

Use a two-component, solvent-free with 0% Volatile Organic Compound (VOC) epoxy that is supplied by the manufacturer. Polyester resin shall not be allowed as a substitute for epoxy resin. Deliver epoxy materials in factory sealed containers with the manufacturer’s labels intact and legible with verification of the date of manufacture and shelf life.

The protective top coating shall be concrete gray in color and match the color of the adjacent unwrapped concrete. Protective top coating shall be vapor permeable and UV resistant.

The use of more than one FRP system in an application is not permitted. All components, including primer, putty, filler, protective coating, and other materials, shall be compatible with the FRP system.

Store products in a protected area at a temperature between 40°F and 100°F with no moisture contact, no UV exposure, protected from dirt, chemicals, and physical damage, and according to the manufacture’s requirements. Do not use components exceeding their shelf lives.

Provide the following to the engineer:

- The manufacturer’s data sheet indicating physical, mechanical and chemical characteristics of all materials used in the FRP system including the primer, putty, resin, saturant, fibers, and top coating.
- The manufacturer’s Material Safety Data Sheets (MSDS) for all materials used.
- The manufacturer’s instructions for installation and repair, including information on lap details if required.
- The manufacturer’s storage and handling requirements of all materials.

Supplied composite fabric and epoxy resin products must have a minimum of ten installations. Furnish proof of successful installations including date of construction and owner references. Furnish certified test reports including 1000 hour tests for 140°F, water, and salt water.

C Construction

C.1 Certified Applicators

Installers shall have a minimum of three years of experience performing similar FRP composite strengthening and be trained and certified by the manufacturer of the supplied FRP composite/epoxy resin system being used. Submit a list of completed surface bonded FRP composite strengthening projects completed with the manufacturer's FRP composite system in the past three years. The list shall include a minimum of 10 projects with the proposed FRP system, the dates when work was performed, general description of work, quantity of work and owner references. Provide written verification from the FRP composite manufacturer that the applicator has received the required training and is a certified installer by the FRP manufacturer.

C.2 Surface Preparation

Remove spalled and loose concrete.

Grind uneven surfaces or protrusions until smooth. Any corners or edges shall be rounded over to a minimum radius of 1/2-inch. This requirement also applies to beveled edges which must be ground smooth to eliminate sharp spots.

Per standard spec 509, treat any areas of active corrosion of the reinforcement and patch the concrete surface so as to restore it to its original dimensions. When patching the concrete substrate, remove defective concrete down to sound concrete; the extents of the area to be removed and patched shall be 1/2-inch beyond the boundary of the distress on all sides. If there is a loss of bond between the reinforcing steel and the concrete, remove the surrounding concrete to a depth equal to the greater of 3/4-inch or the maximum aggregate size plus 1/4-inch. If surface repair is performed, allow patches to cure a minimum of 10 days before FRP application or until the surface moisture is less than 4%. This work to be paid for under separate bid items per the plans.

Epoxy inject cracks in the concrete larger than 0.25 mm in width at least 24 hours prior to FRP installation. Seal cracks smaller than 0.25 mm in width in aggressive environments at the direction of the engineer. This work to be paid for under a separate bid item per the plans.

Preserve and utilize the required existing reinforcing steel, and blast clean, realign, and retie as the engineer directs. If additional reinforcement is required, use grade 60 steel conforming to AASHTO M31 and standard spec 505.2. Repair damage to existing, epoxy-coated reinforcement conforming to 509.3.1.

The concrete surface shall be clean, and free of any material that could interfere with bonding, such as dirt, grease, wax, etc. The surface must also be free of moisture with a maximum moisture content of 4%. Immediately prior to bonding, all contact surfaces shall receive a final cleaning by hand or oil-free compressed air to remove any residual dust, powder residue or laitance.

C.3 Installation

A minimum of two layers are required.

Place FRP only under the following conditions or per manufacturer's recommendation:

- Ambient temperature and the temperature of the epoxy resin components shall be between 55°F and 90°F during the entire application process.
- Relative humidity less than 85%.
- Surface temperature more than 5°F above the dew point.
- Moisture level of all contact surfaces, included patched areas, less than 4% unless the resin has been specifically formulated for wet applications.

Unless directed otherwise by the engineer, install the FRP after all dead loads have been applied to the bridge. Do not install FRP while the component being repaired is subjected to live loads.

Apply, per manufacturer's instructions, a system-compatible putty as required to fill uneven surfaces or recesses. Depending on the manufacturer, this putty may be applied before or after the primer.

Apply the primer coat uniformly to the substrate using a roller or trowel. Primed and puttied surface shall be protected from all contaminants (i.e., dust, moisture, etc) prior to the application of the fiber wrap.

Mix the components of the epoxy resin with a mechanical mixer and apply the epoxy resin uniformly to the fiber at a rate that ensures complete saturation of the fabric. Apply saturating resin uniformly to the prepared substrate. Begin resin application within one hour after the batch has been mixed. Use all resin within the pot life as specified by the manufacturer.

Apply the fabric per manufacturer's recommendation. Handle fiber wraps in a manner to maintain fiber straightness and prevent fiber damage. Any kinks, folds, or severe waviness will not be accepted. Use rollers or hand pressure to remove any air trapped between the fabric and the concrete, or between fabric plies. Rolling must be parallel to the direction of the fibers to avoid fiber misalignment or damage. Do not use metal serrated rollers because they can damage the FRP fabric.

Stagger the joints between layers so that a continuous sheet in one layer will span the joints of the sheets in the layer below. If multiple layers cannot all be placed in one day, defer to the manufacturer to determine the extent of the cure and surface preparation required for the previously placed layers required before proceeding. If required, laps shall be per manufacturer's instructions, with a minimum edge lap of 6 inches and a minimum end lap of 12 inches. Laps should be staggered between layers.

Cover the final layer of fabric with a coat of epoxy that produces a uniform finished surface per manufacturer's instructions.

Cure per manufacturer's instructions. The FRP system shall be protected from weather, large temperature variations, moisture, sand, dust, and other foreign particles during curing. Do not allow the system to be subjected to live loads until it is completely cured. Defer to manufacturer's instructions regarding the degree of cure which must be achieved before additional dead loads can be applied to the wrapped member.

An additional protective coating is required to protect the fibers from the elements, specifically UV radiation, and to give the final aesthetic effect. Install protective coating per manufacturer's instructions after the field inspection described in section C.4.2 has been conducted. To prepare the FRP surface to receive the coating, clean and roughen the exterior surfaces of the composite wrap using a light abrasive after the final epoxy coat is completely polymerized. The abrasive shall be of the appropriate hardness to roughen the surface without damaging the fibers. Remove all dust, dirt, and other bond inhibiting materials and dry all cleaned and roughened surfaces.

C.4 Testing and Acceptance

C.4.1 Records and Sampling

The contractor shall record the following information for each installation:

- Date, time, and specific location of installation.
- Surface preparation methods.
- Widths and lengths of cracks not injected with epoxy.
- Material information including product used, fiber and resin lot/batch numbers, mixture ratios, mixing times, etc.
- Ambient temperature, relative humidity, and general weather observations at the beginning and end of each installation.
- Concrete surface temperature, concrete moisture content, and surface cleanliness.
- Number of FRP layers used and fiber orientation of each layer.
- Square footage of fabric and volume of epoxy used each day.

C.4.2 Field Testing

In the presence of the engineer, the contractor will conduct a visual and acoustic sounding inspection to test for defects such as voids, delaminations, external cracks, chips, cuts, loose fibers, external abrasions, blemishes, foreign inclusions, depressible raised areas, or fabric wrinkles. Conduct this inspection after the FRP is cured but before the protective coating is applied.

In the presences of the engineer, the contractor will conduct a visual inspection of the protective coating for damage including but not limited to cracking, crazing, blisters, peeling, or external abrasions. Conduct this inspection after placement and cure of the protective coating.

If any defects are found, they must be repaired as detailed in C.4.3, or removed and replaced.

C.4.3 Required Remediation

Inject or back fill any small voids or bubbles (1-1/2” diameter or less) with epoxy. If five or more such voids are found in an area smaller than 10 square feet, submit a proposed remediation procedure subject to the acceptance of the engineer.

Voids or delaminated areas greater than 3” in diameter or an equivalent rectangular area shall be reported to the engineer. Proposed remediation procedure(s) for addressing these areas are subject to the acceptance of the engineer.

D Measurement

The department will measure Fiber Wrap Reinforcing Non-Structural 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.0165.402	Fiber Wrap Reinforcing Non-Structural	SF

Payment is full compensation for preparing required submittals, cleaning the surfaces of elements to be confined, furnishing, transporting, handling, and installing the fabric, finish coat of epoxy, the final protective coating system, field testing, and required remediation. No extra measurement or payment will be made for overlap areas.

Repairing damage to existing reinforcement is incidental to this item.

169. Removing Loose Concrete, Item SPV.0165.403.

A Description

This special provision describes removing concrete that is visibly delaminated or deteriorated on structures as shown on the plans or as directed by the engineer and applying a migrating corrosion inhibitor to existing and new areas of exposed steel reinforcing and spalled concrete. This work shall be according to the pertinent parts of standard spec 517 and the details as shown in the plans.

B Materials

Furnish a migrating corrosion inhibitor for vertical and overhead applications that is according to the pertinent requirements of standard spec 517, and with the following typical physical properties:

- Color appearance: clear yellow viscous liquid,
- pH: 9.0 – 10.9 (neat),
- Density: 8.6 – 8.8 lb./gal. (1.03 – 1.05 kg/liter),
- 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:

- Organic liquid.
- Water-based.
- Non-flammable.
- Non-vapor barrier.
- Non-toxic, oral LD 50 2000 g/kg maximum, or lower.
- Protects both anodic and cathodic areas.
- Does not contain calcium nitrate.
- Non-polluting after flushing or dilution.
- Non-harmful to plant life after flushing or dilution.
- Approved for potable water applications by NSF Standard 61.
- Certified for potable water applications by Underwriters laboratories.

- Not carcinogenic under occupational Safety and Health Agency, NTP, or IARC.
- Seven-year minimum usage experience as a migrating corrosion inhibitor.
- Confirmed effective by ASTM G – 109.
- 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 visibly delaminated and deteriorated loose concrete from the underside and bottom corners of the slab or deck and back face of parapets. Take necessary precautions while removing deteriorated concrete to preserve all existing reinforcing steel. 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, and membranes. Clean existing spalled surfaces and spalled surfaces created by concrete removals by steam cleaning, water blasting, or sandblasting. 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 to chase cracks and on surfaces as final cleaning before application. Implement necessary procedures to prevent debris from impacting or damaging nearby traffic.

C.2 Surface Treatment Application

Use a corrosion inhibitor intended for vertical or overhead surface applications. Apply the solution by spray (conventional airless or hand pressure spray equipment), roller, squeegee, or paintbrush. Follow manufacturer's application rate, but at a minimum 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. Do not apply if the ambient temperature near the applied concrete surface is expected to fall below 32° F within 12 hours of application or if precipitation is expected within 8 hours after application.

D Measurement

The department will measure Removing Loose Concrete in area by the square foot, 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.0165.403	Removing Loose Concrete	SF

Payment is full compensation for concrete removal and disposal, cleaning preparation, furnishing, and for applying the product.

170. Concrete Surface Repair-Special, Item SPV.0165.499.

A Description

This special provision describes removing portions of existing precast concrete noise barrier panels that the plans show, and the engineer directs, and patching or overlaying of the vertical surfaces with a pneumatically placed cementitious, high strength shrinkage-compensated Portland cement mortar.

B Materials

Furnish pneumatically placed cementitious, high strength shrinkage-compensated Portland cement mortar that meets the following requirements:

- The mortar shall be a blend of selected Portland cements, microsilica, fibers, and specially graded aggregates. It shall be applicable for vertical surfaces.
- The materials shall be non-combustible, both before and after cure.
- The materials shall be supplied in a factory-proportioned unit.
- The cementitious, micorsilica mortar must be placeable from 3/8" in depth and greater.
- The material shall contain a corrosion inhibitor.

Delivery, Storage, Handling:

- All materials must be delivered in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Damaged material must be removed from the job site immediately.
- Store all materials off the ground and protect from rain, freezing, or excessive heat until ready for use.
- Condition the specified product as recommended by the manufacturer.

Site Conditions:

- Environmental Conditions: Do not apply material if it is raining or snowing of if such conditions appear to be imminent. Minimum application temperature 45^{o} and rising.
- Protection: Precautions should be taken to avoid damage to any surface near the work zone due to mixing and handling of the specified material.

Submittals:

- Submit two copies of manufacturer's literature, including Product Data Sheets and appropriate Safety Data Sheets to the engineer.
- Submit a copy of Certificate of Approved Contractor status by the manufacturer.

Warranty:

- Provide a written warranty from the manufacturer against defects of materials for a period of one year, beginning with date of substantial completion of the project.

TYPICAL PROPERTIES

Yield	Approximately 0.4ft^3 per 50 lb. bag
Color	Concrete Gray
Mixing Ratio	6-7 pints per 50 lb. bag
Application Thickness	Min. 3/8"; max 2" for vertical application
Application Temperature	Min. 40^{o}F
Setting Time (ASTM C-266)	Initial: 2-3 hours
Setting Time (ASTM C-266)	Final: 5-6.5 hours
Compressive Strength (ASTM C-39)	28 days – 7,000 psi
Bond Strength (ASTM C-469)	28 days – 2,000 psi
Shrinkage (ASTM C-157 Modified)	<0.07%

C Construction

Surface Preparation:

- Areas to be repaired must be clean, sound, and free of contaminants. All loose and deteriorated concrete shall be removed by mechanical means. Mechanically prepare concrete substate to obtain a surface profile of +/- 1/8" with a new exposed aggregate surface. Area to be patched shall not be less than 3/8" in depth.
- Where reinforcing steel with active corrosion is encountered, sandblast the steel to a white metal finish to remove all contaminants and rust. Where corrosion has occurred due to the presence of chlorides, the steel shall be high pressure washed after mechanical cleaning. Prime steel with two coats of a compatible primer by the same manufacturer as the mortar.

Mixing and Application:

- Mechanically mix in an appropriate-sized mortar mixer or per product manufacturer recommendations.
- Place the mortar per product manufacturer recommendations. Apply the material by spraying. Shoot the material perpendicular to the surface to properly encase the rebar. Create a finish pattern that is similar to the existing concrete exposed aggregate finish. After applying the material, allow to stiffen for approximately 10 minutes before modifying the surface to correct for any unacceptable surface areas. If another layer is needed, allow the material to reach initial set. Begin and finish a given patch on the same day.
- Concrete curing is required. Moist cure with wet burlap and polyethylene, a fine mist of water, or a water-based compatible curing compound. Moist curing should commence immediately after finishing and continue for 48 hours. Protect newly applied material from rain, sun, and wind until compressive strength is 70% of the 28 day compressive strength. Cover with Insulating material to prevent freezing.

- Adhere to all procedures, limitations, and cautions for the polymer-modified portland cement mortar in the manufacturer's current printed Product Data Sheet and literature.

Quality Assurance:

- Manufacturing Qualifications: The manufacturer of the specified product shall be ISO 9001 certified and have in existence a recognized ongoing quality assurance program independently audited on a regular basis.
- Contractor Qualifications: Contractor shall be qualified in the field of concrete repair and protection with a successful track record of 5 years of more. Contractor shall maintain qualified personnel who have received product training by a manufacturer's representative.

D Measurement

The department will measure Concrete Surface Repair-Special 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.0165.499	Concrete Surface Repair-Special	SF

Payment is full compensation for removing portions of existing precast concrete noise barrier panels; sandblast and prime reinforcing steel as required; patching or overlaying of the vertical surfaces with a pneumatically placed Portland cement mortar; and required submittals.

171. Base Patching Concrete SHES Special, Item SPV.0180.001.

A Description

This special provision describes patching areas of existing concrete pavement with Special High Early Strength concrete as shown on the plans, according to relevant sections of standard spec 390, and as hereinafter provided.

B Materials

C Construction

Base Patching Concrete SHES Special according to standard spec 390.3.

D Measurement

The department will measure Base Patching Concrete SHES Special 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	Base Patching Concrete SHES Special	SY

Payment is full compensation for removing old pavement and disposing of removed materials; for preparing the foundation; for providing, curing, and protecting the concrete and for making and testing concrete cylinders and providing the test data to the engineer.

The department will pay for sawing the existing concrete pavement for removal under the Sawing Concrete bid item as specified in standard spec 690.5.

If the engineer orders the contractor to excavate yielding or unstable subgrade materials and backfill with suitable materials, the department will pay for that work either under pertinent contract bid items, or as extra work.

SER-390.1 (20170525)

172. Removing Asphaltic Surface Milling Special, Item SPV.0180.002.

A Description

This special provision describes milling and removing between 2 and 4-inches of asphalt surface overlay or between 2 and 4-inches of a combination of asphalt surface overlay and underlying concrete pavement as shown on the plans.

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.

C.2

Remove existing asphalt surface and concrete pavement to a depth of between 2 and 4-inches as shown on the plan by grinding, planning, 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 plan surface free of excessive large scarification marks and having a uniform transverse slope across each lane.

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. The removed pavement shall become the property of the contractor. Properly dispose of it according to standard spec 204.3.1.3.

D Measurement

The department will measure Removing Asphaltic Surface Milling Special by the square yard of material removed, 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.0180.002	Removing Asphaltic Surface Milling Special	SY

Payment is full compensation for removing the asphaltic surface and any portion of the underlying concrete required and for disposing of materials.

173. Slope Paving Crushed Aggregate Special Item SPV.0180.400.

A Description

This special provision describes furnishing, crushing, and placing aggregate for slope paving; and application of an epoxy resin binder with the aggregate per the applicable provisions of standard spec 604.

B Materials

B.1 General

The epoxy resin binder shall be a low modulus, medium-viscosity, two-component epoxy resin.

Furnish evidence, to the satisfaction of the engineer, that the proposed product has been successfully used in a similar application.

Epoxy resin binder shall be clear to light amber when fully cured.

Crushed aggregate shall be native Wisconsin limestone with hues of tan, amber and gray. Crushed aggregate shall have 100% fractured faces.

Crushed aggregate shall conform to the following nominal requirements:

Sieve Size	Percent by Weight Passing
4-Inch	100
1-Inch	0-25

B.2 Minimum Requirements.

The epoxy resin binder shall conform to ASTM C881 and AASHTO M235 specifications and the following requirements:

Total water absorption, ASTM D570

- 7 day, 1.3% (2 hour boil)
- 14 day, 0.232% (24 hour immersion)
- Viscosity: 2,500 cps

C. Construction

C.1 Application

The binder shall be applied per the manufacturer's directions, uniformly over the surface of the paving at a rate sufficient to assure penetration and binding of the particles in the upper 2 inches of the aggregate blanket. Application of the binder shall take place utilizing a two part sprayer with mixing completed at the nozzle.

Apply and mix epoxy resin binder under dry conditions only. Do not apply if rain is expected within 8 hours following epoxy resin application to crushed aggregate.

Air and surface temperature should be between 50 and 90 degrees Fahrenheit during and for 24 hours following application and mixing of the epoxy resin binder.

Protect installed crushed aggregate with epoxy resin binder from excessive dust exposure for the first 4 hours of curing.

C.2 Test Section

Prior to placing slope paving, prepare a test section utilizing the proposed aggregate and epoxy resin binder so the engineer will be able to assess the adequacy of the product and the application and mixing methods to yield the desired results. Test section to be 3 feet x 3 feet and a minimum of 4-inches thick. Notify the engineer no less than 24 hours in advance of preparing the test section to allow him time to arrange for witnessing the epoxy resin binder application and mixing with the aggregate. Test section shall be allowed to cure per the product manufacturer’s requirements before the engineer will accept the product for use on the final structures.

If the test section is not accepted, prepare another test section and repeat the process, using either a different aggregate or epoxy resin binder. Repeat this procedure until the engineer accepts the test section. Use the same aggregate and epoxy resin binder means and methods when installing the product under each structure that were used in preparing the accepted test section.

D Measurement

The department will measure Slope Paving Crushed Aggregate Special by the square yard in place, 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.0180.400	Slope Paving Crushed Aggregate Special	SY

Payment is full compensation for furnishing, crushing and placing crushed aggregate; for furnishing, mixing and applying the epoxy resin binder to the aggregate; for preparing the subsurface; for cleaning any splatter of epoxy resin binder to adjacent pavement or structures; and for making and disposing of the test section.

174. Abutment Seat Cleaning and Sealing, Item SPV.0180.401.

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 Construction

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 standard spec 502.3.12.

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.0180.401	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.

175. Concrete Bridge Deck Methacrylate Flood Seal, Item SPV.0180.402.

A Description

This special provision describes preparation of concrete bridge deck surfaces, furnishing and applying a protective methacrylate deck sealer and broadcast sand, and any incidentals necessary to complete the project as specified or as shown in plans or as authorized by the engineer.

B Materials

The deck sealer shall consist of a methacrylate sealant, sand to prefill cracks, and broadcast sand.

B.1 Methacrylate Sealant

The following methacrylate sealants are acceptable for use provided that the requirements of this specifications are met, or an approved equal

Product	Manufacturer
MasterSeal 630 (formerly Degadeck Crack Sealer Plus)	BASF
T-78	Transpo Industries
KBP 204 P SEAL	Kwik Bond Polymers

B.2 Fine Grade Sand

Provide fine grade abrasive sand for (20/40 abrasive) prefilling large cracks unable to be prefilled with sealant alone.

Submit sand material data to the engineer for review and address all written comments. Submit storage and use plan to the engineer documenting procedures for maintaining dry sand and within gradation requirements above.

B.3 Broadcast Sand

Provide a 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.

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, coordination of work, all necessary safety precautions, and application considerations. Furnish the engineer with a copy of the recommended procedures and the manufacturer’s instructions.

A manufacturer's representative familiar with the seal system installation procedures shall be present during the first surface preparation and methacrylate sealer placement to provide quality assurance that the work is being performed properly.

C.1.2 Contractor Personnel Requirements

Experienced personnel are required to be actively present during the sealant application.

A technical representative from the sealer manufacturer must be present during first application. The need for manufacturer’s representative may be waived for subsequent applications if the contractor provides evidence and reference contacts for work involving at least 5 bridges treated with the same products and within the last two years. Contractor experience record in no way relieves the contractor from applying according to this specification and as recommended by the manufacturer.

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.2 Surface Preparation

Abrasive blast clean the area to be treated (either entire deck or portion of the deck to be sealed in one placement when staged construction is being employed) to remove existing sealants, including epoxy crack sealant, from the surface of the bridge deck prior to applying deck sealer. 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 methacrylate sealer. Blasting should not damage the underlying substrate.

If the area to be treated is reopened to traffic prior to placement of the sealer, the deck should be re-inspected for any contaminates and subsequently remove them by use of abrasive sand blasting or shotblasting at no additional cost.

The engineer may consider alternate surface preparation methods per the methacrylate sealer system manufacturer’s recommendations. The engineer must approve the final surface profile and deck cleanliness prior to the contractor placing the methacrylate sealer.

Just prior to methacrylate sealer 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 surface with compressed air. Use a direct 125 psi air blast, from a compressor unit with a minimum pressure of 365 ft3 / min., over the entire surface to remove all dust and debris paying special attention to carefully clean all deck cracks. Use a suitable oil trap between the air supply and nozzle. Use ASTM D4285 "Standard Test Method for Indicating Oil or Water in Compressed Air" to ensure the compressed air is oil and moisture free. 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. Provide shielding as necessary to prevent dust or debris from striking vehicular traffic. The engineer shall approve the prepared surface prior to applying the deck sealer.

Perform a visual inspection of the roadway surface, and sidewalk where applicable. Locate and mark all cracks greater than 0.03 inch appearing on the top for prefilling.

Prefill Cracks greater than 0.03 inch - Prior to sealer application, prefill cracks with the same methacrylate sealer or a pre-promoted version of the sealer. Where sealant soaks in/withdraws from top of crack, place fine grade abrasive sand (20/40 abrasive) in crack and reapply sealant to seal to top of crack. When sealant has not retreated after gel time, the crack is considered prefilled. Do not fill crack with sand beyond top of concrete surface.

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.3 Application of the Overlay System

Apply the methacrylate deck sealer conforming to the manufacturer’s instructions.

Apply an approved methacrylate sealer to roadway surfaces on bridge deck or on surfaces as directed by the engineer. At least 30 calendar days before the start of the work, provide the engineer with the sealer Manufacturer's written instructions for application and use.

Air dry a wet deck for a minimum of 48 hours before applying the sealer. Dry time may be reduced to 24 hours if an approved ASTM D4263 moisture test reveals the deck concrete is dry. Do not apply sealer materials during wet weather conditions or if adverse weather conditions are anticipated within 12 hours of the completion of sealer application. Do not mix or apply any of these products at temperatures lower or higher than those specified in their product literature. Apply the sealant at the coolest time of the day within these limitations. Application by spray methods will not be permitted during windy conditions if the engineer predicts unsatisfactory results.

Do not thin or alter the methacrylate sealer unless specifically required in the Manufacturer's instructions.

Mix the sealer before and during its use as recommended by the Manufacturer. Distribute the sealant as a flood coat in a gravity-fed process by broom, roller, or with a spray bar near the surface so the spray pattern and coverage rates are reasonably uniform to the satisfaction of the engineer. Apply the sealant at a minimum rate of 90 ft2 / gal.

Prior to completion of gel time of the flood seal and before broadcasting sand, broom uncured sealant in the direction of tining or deck grooves to promote maintenance of the deck texture for traction.

Broadcast sand to refusal into uncured resin to create traction and absorb sealant that is not penetrating into cracks. Broadcast approved sand into the wet, uncured resin no sooner than 10 minutes after applying resin but within gel time of product. Apply approved sand at a minimum rate of 2 pounds per square yard, completely covering the sealer.

Allow the sealant to dry according to the Manufacturer's instructions. Do not allow vehicular traffic onto the treated areas until the sealer has dried and the treated surfaces provide safe skid resistance and traction. Remove non-adhered sand from bridge deck and joints by power sweeping the deck and vacuuming the joints. Traffic or equipment will be allowed on the sealed deck after the engineer has determined:

1. The treated deck surface is tack-free and non-oily;
2. The sand cover adheres and resists brushing by hand;
3. Excess sand and absorbent material has been removed; and
4. No sealant material will be tracked beyond limits of treatment by traffic

D Measurement

The department will measure Concrete Bridge Deck Methacrylate Flood Seal 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.0180.402	Concrete Bridge Deck Methacrylate Flood Seal	SY

Payment is full compensation for furnishing and applying the sealer to the bridge decks, as described above, including surface preparation, and all incidentals thereto. Cleanup of excess sand in joints and on bridge deck will not be paid separately. Restoration of damaged or marred striping will be considered incidental to application requirements of Methacrylate Flood Seal.

176. Polyester Polymer Concrete Overlay, Item SPV.0180.403.

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 [A B]	≤ 25 cps	ASTM D 2196 – Brookfield RVT
Specific Gravity [A B]	≥0.90	ASTM D 1475
Flash Point [B]	≥ 180°F	ASTM D 3278
Tack-free Time [A]	≤ 400 minutes	California Test Method 551
Vapor Pressure [A B]	≤ 0.04-in Hg	ASTM D 323
Volatile Content [B]	< 30%	ASTM D 2369
PCC Saturated Surface Dry Bond Strength [C]	≥ 500 psi (24hrs)	California Test Method 551

[A] Value based on specimens or samples cured or aged and tested at 77°F

[B] Test performed prior to adding the initiator

[C] Value based on specimens or samples stored at 70±1ºF

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 [A B]	75-200 cps	ASTM D 2196 – Brookfield RVT
Specific Gravity [A B]	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 [B]	40-50 percent by weight	ASTM D2369
Silane Coupler	> 1 percent by weight of resin	
PCC Saturated Surface Dry Bond Strength [C]	≥ 500 psi (24 hrs)	California Test Method 551
Permeability to Chloride ion	≤ 100 coulombs (28 days)	AASHTO T 277

[A] Values are based on specimens or samples cured or aged and tested at 77°F

[B] Test performed prior to adding initiator

[C] Values are based on specimens or samples cured or aged and tested at 70ºF

The silane coupler shall be an organsilane 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 C131and 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 according to 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 [A]	Test Method
Minimum Compressive Strength	2,000 psi (8 hrs) 5,000 psi (24 hrs)	ASTM C 579 Method B, Modified [B]
Set Time	30-120 minutes	ASTM C 266
Minimum Pull-off Strength	500 psi (24 hrs)	ASTM C1583

[A] Based on samples cured or aged and tested at 75°F

[B] 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 feet 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 two locations in the first 500 SF and a minimum of one 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 according to 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 feet. A roller type screed is not allowed. If a vibratory screed is used, the surface shall be tested according to 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 feet 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 foot 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.0180.403	Polyester Polymer Concrete Overlay	SY

Payment 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.

SPV.0180 (20211202)

177. HMA Longitudinal Joint Repair, Item SPV.0195.001.

A Description

This special provision describes providing longitudinal joint repairs in HMA pavements. Conform to standard spec 204, 314, 455, and 460, and as follows.

B Materials

Furnish asphaltic mixture as specified for type 4 HT 58-28 H under standard spec 460.2.

Provide tack coat conforming to standard spec 455.2.5.

C Construction

C.1 General

Remove an area 2 feet wide and at least to the full depth of asphaltic pavement; the engineer will determine the repair length. Remove damage concrete pavement discovered below the asphalt during this removal and replace with asphalt mixture.

Clean the existing exposed concrete pavement surface before placing tack coat.

Apply asphaltic materials the same day the joint is removed to prevent the entrance of water. Do not apply if weather or surface conditions are unfavorable or before impending rains.

Conform to standard spec 315.3.1 for placement of the HMA pavement.

Dispose of removed pavement and other waste materials outside of the project limits unless the engineer allows otherwise.

C.2 Maintenance

Maintain repaired joints during the contract. Remove and replace additional tack coat and HMA pavement if the engineer directs.

D Measurement

The department will measure HMA Longitudinal Joint Repair by the ton, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.001	HMA Longitudinal Joint Repair	TON

Payment is full compensation for providing the joint repair including removing the existing asphaltic surface and damaged concrete; for tack coat and asphaltic pavement mixture; and for maintaining the repair during the contract.

sef-455-005 (20180104)

ADDITIONAL SPECIAL PROVISION 1 (ASP 1)
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)
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 includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

TrANS is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor's needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of $5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

   Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __18__ *(number)* TrANS Graduate(s) be utilized on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

   Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __7___ *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

II. RATIONALE AND SPECIAL NOTE

The $5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

<u>NOTE</u>: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

III. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. TRANS TRAINING

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups,

disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal

Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.

(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b*)* (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a*)* (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM IMPLEMENTATION

Authority

Wisconsin Department of Transportation (WisDOT) is a recipient of funds from the US Department of Transportation's Federal Highway Administration. The DBE program is a federal program applicable on all contracts administered by WisDOT that include federal-aid highway funds. The authority for the DBE program is the Transportation Bill as approved by Congress periodically. DBE program guidance and requirements are outlined in the Code of Federal Regulations at 49 CFR Part 26. This contract is subject to DBE provisions because it is financed with federal-aid-highway funds. Additionally, this contract is subject to the *State of Wisconsin Standard Specifications for Highway and Structure Construction* and all applicable contract documents.

Requirements

Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE program regulatory provisions will be considered a material breach of contract. This is nonnegotiable.

If a contractor fails to carry out the DBE program requirements and/or the Required Contract Provisions for Federal Aid Contracts (FHWA 1273) referenced in this document, sanctions will be assessed depending upon the facts, reasoning, severity, and remedial efforts of the contractor that may include: termination of contract, withholding payment, assessment of monetary sanctions, and/or suspension/debarment proceedings that could result in the disqualification of the contractor from bidding for a designated period of time.

(1) 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

(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

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

*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 Expediters, 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 + 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 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

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). 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

Proposal **County**	**1** **Dane County**	**6** **Crawford County**
Clearing & Grubbing	**X**	**X**
Dump Truck Hauling	**X**	**X**
Curb/Gutter/Sidewalk	**X**	
Erosion Control Items		**X**
Excavation	**X**	**X**
Pavement Marking		**X**
Traffic Control	**X**	
Sawing	**X**	**X**
QMP, Base		**X**
Pipe Underdrain	**X**	
Landscape		**X**
Beam Guard	**X**	
Electrical	**X**	
Signs/Posts/Markers		**X**
Survey/Staking		**X**

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 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** 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
Solicitation Documentation	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. *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)*		
Selected Work Items Documentation	All work items are broken out into economically feasible units to facilitate DBE participation. *Such as: Selected work items are specific to each proposal and clearly identified in all solicitation(s)*		
Documentation of Project Information provided to Interested DBEs	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. *Such as: Project information is clearly identified in all solicitation(s)*		
Documentation of Negotiation with Interested DBEs	Provide sufficient evidence demonstrating that good faith negotiations took place during the bid letting. *Such as: Documented attempts with DBEs or on behalf of DBEs to increase DBE participation*		
Documentation of Sound Reason for Rejecting DBEs	Provide sufficient evidence demonstrating that DBEs are rejected for sound reasons. *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.*		
Documentation of Assistance to Interested DBEs- bonding, credit, insurance, equipment, supplies/materials	Documented assistance in both solicitation(s) and outreach to DBEs.		
Documentation of Outreach to Minority, Women, and Community organizations and other DBE Business Development Support	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. *Such as: Variety of activities that translate into meaningful DBE participation*		
Documentation of other GFE activities	*Such as: Used DT1202 Excel Workbook, Diversity & 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*		
Overall Demonstration of GFE			

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

GFE RUBRIC ANALYSIS	
OBOEC DECISION	APPROVAL OR DENIAL
Prime Contractor	
Proposal	
Project	
Bid Letting	
DBE Goal Amount	
DBE Goal Amount Achieved	
Bid Analysis	
Goal %	Achieved %
Apparent Low Bidder	%
Bidder B	
Bidder C	
Average of OTHER Bidders (Not including Apparent Low Bidder)	
DBE Quotes Received	
DBE Quotes Awarded	
DBE Quote(s) Rejected	**Rejected Quote Analysis**
DBE Quote(s) Awarded	**Awarded DBE Amount**

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) Conducing 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

Official Form DT1506 can be found here: https://wisconsindot.gov/Documents/formdocs/dt1506.pdf

COMMITMENT TO SUBCONTRACT TO DBE

Clear

Wisconsin Department of Transportation

DT1506 12/2021 s.84.06(2) Wis. Stats. ☐ Non-Traditional Project

Project ID: _____

Proposal # _____

Prime Contractor: _____

County: _____

Letting Date: _____

Total $ Value of Prime Contract: $ _____

DBE Contract Goal: _____ %

DBE Goal Achieved: 0.00 %

This contract requires that a specified percentage of the work be subcontracted to a disadvantaged business enterprise and that this information be submitted as described in ASP-3. The submittal of this form with the bid proposal constitutes your DBE commitment. Include Attachment A for DBEs included on commitment.

This form must be completed and returned for this proposal. See page 2 for instructions.

1. DBE Firm	2. Work or Items to be subcontracted	3. Supplier Y/N	4. Trucking Only	5. DBE Full Subcontract $	6. DBE Amount for Credit $
			O# L#		
			O# L#		
			O# L#		
			O# L#		
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			O# L#		
			O# L#		
			O# L#		
				$ 0.00	$ 0.00

Government Use Only Approved Amounts		
A =	$	%
V =	$	%
Total =	$	%

Signature:

Date:

Good faith effort approved: Yes ☐ No ☐

Prime Representative Signature & Date

DBE Office Signature & Date Approved

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: *(list all names of tiers if more than one)*	
Type of Work or Type of Material Supplied:	
Total Subcontract Value:	Total DBE Credit Value:

FOR PRIME CONTRACTORS ONLY: 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

FOR PARTICIPATING DBE FIRMS ONLY: I certify that I made arrangements with the Prime Contractor or the Hiring Contractor to perform the type of work or supply the material indicated above for the subcontract value listed above.	Participating DBE Firm Representative's Signature	Date
	Participating DBE Firm Representative's Name (Print Name)	
FOR DBE TRUCKING FIRMS ONLY: 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 (Print Company Name)	
	DBE Firm's Address:	

# Owned Trucks	# Leased Trucks	# DBE-Owned Leased Trucks	# Non-DBE-Owned Leased Trucks

☐ Off site Hauling

Official Form DT1506 can be found here: https://wisconsindot.gov/Documents/formdocs/dt1506.pdf

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 PROVISIONS 5
FUEL COST ADJUSTMENT

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $3.90 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1 \right) x\ Q\ x\ BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

Additional Special Provision 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

416.2.4 Concrete Pavement Repair and Replacement

Replace the entire text with the following effective with the November 2022 letting:

(1) Except as specified in 416.3.6 for inlaid rumble strips, use grade C concrete as specified in 501.

(2) The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi.

416.2.5 Special High Early Strength Concrete Pavement Repair and Replacement

416.2.5.1 Composition and Proportioning of Concrete

Replace paragraph one with the following effective with the November 2022 letting:

(1) For the concrete mixture, use a minimum of 846 pounds of cementitious material per cubic yard of concrete. The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi. The contractor may add one or a combination of admixtures to the ingredients or to the mixture in order to obtain the required minimum strength and required air content. Do not retemper the concrete mixture.

455.2.4.3 Emulsified Asphalts

Replace paragraph one with the following effective with the November 2022 letting:

(1) Furnish material conforming, before dilution, to the following:

Anionic emulsified asphalts[1] ..... AASHTO M140
Cationic emulsified asphalts[1] ..... AASHTO M208
Polymer-modified cationic emulsified asphalts ..... AASHTO M316

[1] Non-tracking emulsified asphalts shall conform to TABLE 455-1 for the type and grade specified.

TABLE 455-1 Requirements for Non-Tracking Emulsified Asphalt

PRODUCT	ANTT	CNTT
Saybolt Viscosity at 77°F (25°C), (AASHTO T 59), SFS	15-100	15-100
Paddle Viscosity at 77°F (25°C), (AASHTO T 382), cPs[1]	30-200	30-200
Storage Stability Test, 24 hr, (AASHTO T 59), %	1 max	1 max
Residue by Distillation, 500 ± 10 °F (260 ± 5 °C), or Residue by Evaporation, 325 ± 5 °F (163 ± 3 °C), (AASHTO T 59), %	50 min	50 min
Sieve Test, No. 20 (850 µm), (AASHTO T 59), %	0.3	0.3
Penetration at 77°F (25°C), 100 g, 5 sec, (AASHTO T 49), dmm	10-40	10-40
Ash Content, (AASHTO T 111), %	1 max	1 max
Solubility in Trichlorethylene Test, (AASHTO T 44)[2]	97.5% min	97.5% min

[1] Paddle Viscosity (AASHTO T 382) may be run in lieu of Saybolt Viscosity (AASHTO T 59).

[2] The solubility in Trichlorethylene test (AASHTO T 44) may be run in lieu of Ash Content (AASHTO T 111).

455.2.5 Tack Coat

Replace paragraph one with the following effective with the November 2022 letting:

(1) Under the Tack Coat bid item, furnish type SS-1h, CSS-1h, QS-1h, CQS-1h, ANTT, CNTT, or modified emulsified asphalt with an “h” suffix, unless the contract specifies otherwise.

710.5.7 Corrective Action

710.5.7.1 Optimized Aggregate Gradations

Replace paragraph one with the following effective with the November 2022 letting:

(1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size, notify the other party immediately and do one of the following:

- Perform corrective action documented in the QC plan or as the engineer approves. Continue with the following:
  1. Document and provide corrective action results to the engineer as soon as they are available.
  2. Department will conduct two tests within the next business day after corrective action is complete.

     If blended aggregate gradations are within the tarantula curve limits by the second department test:
     - Continue with concrete production.
     - Include a break in the 4-point running average.
     - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
  - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract requires an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit a new optimized aggregate gradation mix design.
  - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract does not require an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit either a new optimized aggregate gradation mix design or a combined aggregate gradation mix design.
- Submit a new optimized aggregate gradation mix design and perform the following:
  1. Restart control charts for the new mix design.
  2. Amend contractor Quality Control Plan

715.5 Payment

Replace the entire text with the following effective with the November 2022 letting:

715.5.1 General

(1) The department will pay incentive for concrete strength under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL

(2) Incentive payment may be more or less than the amount the schedule of items shows.

(3) The department will administer disincentives for strength under the Disincentive Strength Concrete Structures, Disincentive Strength Concrete Barrier, Disincentive Flexural Strength Concrete Pavement, and Disincentive Compressive Strength Concrete Pavement, administrative items.

(4) The department will adjust pay for each lot using PWL of the 28-day sublot average strengths for that lot. The department will measure PWL relative to strength lower specification limits as follows:

- Compressive strength of 3700 psi for pavements.
- Flexural strength of 650 psi for pavements.
- Compressive strength of 4000 psi for structures and barrier.

(5) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.

(6) Submit test results to the department electronically using MRS software. The department will verify contractor data before determining pay adjustments.

(7) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

715.5.2 Pavements

715.5.2.1 Compressive

(1) The department will adjust pay for each lot using equation "QMP 3.01" as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	(0.1 x PWL) – 9.5
>= 85 to < 95	0
>= 30 to < 85	(1.5/55 x PWL) – 127.5/55
< 30	-1.50

(2) The department will not pay incentive if the lot standard deviation is greater than 400 psi compressive.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 3700 psi compressive by $1.50 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.2.2 Flexural

(1) The department will adjust pay for each lot using equation "QMP 6.02" as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	(0.2 x PWL) – 19
>= 85 to < 95	0
>= 50 to < 85	(2.0/35 x PWL) – 170/35
< 50	-2.00

(2) The department will not pay incentive if the lot standard deviation is greater than 60 psi flexural.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 650 psi flexural by $2.00 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.3 Structures and Cast-in-Place Barrier

(1) The department will adjust pay for each lot using equation "QMP 2.01" as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 99 to 100	10
>= 90 to < 99	0
>= 50 to < 90	(7/8 x PWL) – 78.75
< 50	-35

(2) The department will not pay incentive if the lot standard deviation is greater than 350 psi.

(3) For lots with less than 4 sublots, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 4000 psi by $35 per cubic yard.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. 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 within 5 days of payment receipt to be logged manually.

***Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf

ADDITIONAL SPECIAL PROVISION 9

Electronic Certified Payroll or Labor Data Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to electronically submit certified payroll reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS. These payrolls or labor data are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin their submittals. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll/labor data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at paul.ndon@dot.wi.gov. Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. 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. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding (29 CFR 5.5)

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records (29 CFR 5.5)

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency.

(2) Each payroll submitted shall be accompanied by a “Statement of Compliance,” signed by the contractor or

subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees (29 CFR 5.5)

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the

corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 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 journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract 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 (29 CFR 5.5)

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

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 watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 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. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 of this section, in the sum 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. 29 CFR 5.5.

* $27 as of January 23, 2019 (See 84 FR 213-01, 218) 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. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 2 of this section. 29 CFR 5.5.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1 through 4 of this section. 29 CFR 5.5.

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 200.326.

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 200.326.

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 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).

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.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(a) 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;

(b) 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

(c) 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)

2. 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:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

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 M-22-11 from the Office of Management and Budget: https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf) 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 smelting forward in the manufacturing process) must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America.

   The exemption of 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 OMB M-22-11 and as referenced in CMM 228.5) must comply with Buy America. No exemptions (0.0%) are allowed.

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Buy America provision.

https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project, certify to the engineer, in writing using department form DT4567 that all iron and steel, manufactured products, and construction materials conform to this Buy America provision.

Form DT4567 is available at: https://wisconsindot.gov/Documents/formdocs/dt4567.docx

Attach a list of iron or steel exemptions and their associated costs to the certification form.

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. Itis 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
- 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

"General Decision Number: WI20220010 12/16/2022

Superseded General Decision Number: WI20210010

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)(2)-(60).

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:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $15.00 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 2022.
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:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $11.25 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 2022.

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 https://www.dol.gov/agencies/whd/government-contracts.

Modification Number	Publication Date
0	01/07/2022

1	01/21/2022
2	02/04/2022
3	02/25/2022
4	03/11/2022
5	03/18/2022
6	04/29/2022
7	05/13/2022
8	06/17/2022
9	07/08/2022
10	07/22/2022
11	07/29/2022
12	08/12/2022
13	09/16/2022
14	10/14/2022
15	12/16/2022

BRWI0001-002 06/01/2021

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.81	25.17

BRWI0002-002 06/01/2021

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 44.35	23.89

BRWI0002-005 06/01/2021

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	$ 37.73	24.15

BRWI0003-002 06/01/2021

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.03	24.95

BRWI0004-002 06/01/2021

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 41.30	26.03

BRWI0006-002 06/01/2021

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.78	24.20

BRWI0007-002 06/01/2021

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.38	25.31

BRWI0008-002 06/01/2021

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 42.38	24.64

BRWI0011-002 06/01/2021

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.03	24.95

BRWI0019-002 06/01/2021

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.31	25.67

BRWI0034-002 06/01/2021

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.53	25.16

CARP0068-011 05/02/2022

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 41.19	27.05

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON

COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

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* CARP0310-002 06/05/2022

Ashland, Bayfield, Forest, Iron, Langlade, Lincoln, Marathon, Oneida, Shawano, Taylor and Vilas

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

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* CARP0314-001 06/05/2022

Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk and Walworth

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

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* CARP0731-002 06/05/2022

Calumet (Eastern portion of the County), Fond Du Lac, Manitowoc and Sheboygan

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

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* CARP0804-001 06/05/2022

Adams, Juneau, Portage and Wood

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

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* CARP0955-002 06/01/2022

Calumet (western portion of County), Fond Du Lac, Green Lake, Marquette, Outagamie and Winnebago

	Rates	Fringes

CARPENTER.....$ 36.80 26.12
PILEDRIVER.....$ 37.37 25.96

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* CARP1056-002 06/05/2022

	Rates	Fringes
MILLWRIGHT	$ 38.00	26.78

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* CARP1074-002 06/01/2022

Barron, Burnett, Chippewa, Clark, Dunn, Eau Claire, Pepin, Pierce, Polk, Rusk, Sawyer, St. Croix and Washburn

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

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* CARP1143-002 06/01/2022

Crawford, Jackson, La Crosse, Monroe, Trempealeau and Vernon

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

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* CARP1146-002 06/01/2022

Brown, Door, Florence, Kewaunee, Marinette, Menominee and Shawano

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

ELEC0014-002 05/29/2022

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, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes

Electricians:.....$ 38.49 22.09

ELEC0014-007 05/29/2022

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer	$ 29.63	3%+16.18
Installer/Technician	$ 28.50	15.92

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 06/01/2021

KENOSHA COUNTY

	Rates	Fringes
Electricians	$ 43.16	30%+12.70

ELEC0158-002 05/30/2021

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 36.14	29.75%+10.26

ELEC0159-003 05/30/2021

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	$ 43.38	23.13

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 05/30/2021

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 41.37	69.25%

ELEC0388-002 05/30/2021

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:	$ 36.22	26%+11.24

ELEC0430-002 06/01/2022

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 45.02	24.35

ELEC0494-005 06/01/2021

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 44.39	25.67

ELEC0494-006 06/01/2021

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 37.91	22.74

ELEC0494-013 06/01/2021

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer	$ 22.39	18.80
Technician	$ 32.49	20.26

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2021

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:	$ 35.66	29.50%+10.00

ELEC0890-003 06/01/2021

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 39.00	25.95%+11.17

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

ENGI0139-005 06/01/2022

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 43.27	25.95
Group 2	$ 42.77	25.95
Group 3	$ 42.27	25.95

Group 4	$ 42.01	25.95
Group 5	$ 41.72	25.95
Group 6	$ 35.82	25.95

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; bituminious 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 06/13/2022

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 41.00	28.95

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2021

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 40.57	28.40

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/05/2022

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	$ 39.00	28.58

IRON0498-005 06/01/2021

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 41.37	44.41

IRON0512-008 05/01/2022

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes

IRONWORKER.....$ 41.00 33.11

IRON0512-021 05/01/2022

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.94	33.11

LABO0113-002 06/01/2022

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 32.65	23.09
Group 2	$ 32.80	23.09
Group 3	$ 33.00	23.09
Group 4	$ 33.15	23.09
Group 5	$ 33.30	23.09
Group 6	$ 29.14	23.09

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 Sawer 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

LABO0113-003 06/01/2022

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.90	23.09
Group 2	$ 32.00	23.09
Group 3	$ 32.05	23.09
Group 4	$ 32.25	23.09
Group 5	$ 32.10	23.09
Group 6	$ 28.99	23.09

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 Sawer 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

 LABO0113-011 06/01/2022

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.71	23.09
Group 2	$ 31.86	23.09
Group 3	$ 32.06	23.09
Group 4	$ 32.03	23.09
Group 5	$ 32.36	23.09
Group 6	$ 28.85	23.09

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 Sawer 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

 LABO0140-002 06/01/2022

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, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 36.42	18.68
Group 2	$ 36.52	18.68
Group 3	$ 36.57	18.68
Group 4	$ 36.77	18.68
Group 5	$ 36.62	18.68
Group 6	$ 33.05	18.68

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; Bitminous 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 Sawer 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 Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2022

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 36.70	18.68
Group 2	$ 36.80	18.68
Group 3	$ 36.85	18.68
Group 4	$ 37.05	18.68
Group 5	$ 36.90	18.68
Group 6	$ 33.05	18.68

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; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer 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

PAIN0106-008 05/01/2022

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 33.99	22.70
Spray, Sandblast, Steel	$ 34.59	22.70
Repaint:		
Brush, Roller	$ 33.09	22.70
Spray, Sandblast, Steel	$ 32.49	22.70

PAIN0108-002 06/01/2022

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 39.60	21.79
Spray & Sandblast	$ 40.60	21.79

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

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2022

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 38.15	24.80
Brush	$ 37.40	24.80
Spray & Sandblast	$ 38.15	24.80

PAIN0802-002 06/01/2021

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 29.98	18.78

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

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* PAIN0802-003 06/01/2022

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	$ 34.68	18.94

PAIN0934-001 06/01/2022

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 36.70	24.69
Spray	$ 37.70	24.69
Structural Steel	$ 36.85	24.69

PAIN1011-002 06/06/2021

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 26.71	14.38

PLAS0599-010 06/01/2021

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		

Area 1	$ 42.06	20.87
Area 2 (BAC)	$ 37.73	23.80
Area 3	$ 38.74	22.46
Area 4	$ 38.59	22.66
Area 5	$ 38.16	22.98
Area 6	$ 34.94	26.36

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2021

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 32.57	23.81
3 or more Axles; Euclids, Dumptor & Articulated, Truck Mechanic	$ 32.72	23.81
WELL DRILLER	$ 16.52	3.70

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) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative

Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

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 ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	29.000 STA	_____.____	_____.____
0004	201.0120 Clearing	82.000 ID	_____.____	_____.____
0006	201.0205 Grubbing	27.000 STA	_____.____	_____.____
0008	201.0220 Grubbing	82.000 ID	_____.____	_____.____
0010	203.0211.S Abatement of Asbestos Containing Material (structure) 400. B-40-0198	1.000 EACH	_____.____	_____.____
0012	203.0220 Removing Structure (structure) 400. B-40-0198	1.000 EACH	_____.____	_____.____
0014	203.0220 Removing Structure (structure) 401. B-40-321	1.000 EACH	_____.____	_____.____
0016	203.0330 Debris Containment (structure) 400. B-40-0198	1.000 EACH	_____.____	_____.____
0018	204.0100 Removing Concrete Pavement	43,726.000 SY	_____.____	_____.____
0020	204.0105 Removing Concrete Pavement Butt Joints	168.000 SY	_____.____	_____.____
0022	204.0109.S Removing Concrete Surface Partial Depth	60,519.000 SF	_____.____	_____.____
0024	204.0115 Removing Asphaltic Surface Butt Joints	4,504.000 SY	_____.____	_____.____
0026	204.0120 Removing Asphaltic Surface Milling	253,619.000 SY	_____.____	_____.____
0028	204.0150 Removing Curb & Gutter	22,847.000 LF	_____.____	_____.____
0030	204.0155 Removing Concrete Sidewalk	701.000 SY	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0032	204.0157 Removing Concrete Barrier	36,173.000 LF	_____.____	_____.____
0034	204.0165 Removing Guardrail	1,487.000 LF	_____.____	_____.____
0036	204.0170 Removing Fence	504.000 LF	_____.____	_____.____
0038	204.0175 Removing Concrete Slope Paving	452.000 SY	_____.____	_____.____
0040	204.0195 Removing Concrete Bases	88.000 EACH	_____.____	_____.____
0042	204.0210 Removing Manholes	70.000 EACH	_____.____	_____.____
0044	204.0220 Removing Inlets	225.000 EACH	_____.____	_____.____
0046	204.0245 Removing Storm Sewer (size) 801. 12-Inch	2,177.000 LF	_____.____	_____.____
0048	204.0245 Removing Storm Sewer (size) 802. 15-Inch	853.000 LF	_____.____	_____.____
0050	204.0245 Removing Storm Sewer (size) 803. 18-Inch	1,066.000 LF	_____.____	_____.____
0052	204.0245 Removing Storm Sewer (size) 804. 21-Inch	576.000 LF	_____.____	_____.____
0054	204.0245 Removing Storm Sewer (size) 805. 24-Inch	783.000 LF	_____.____	_____.____
0056	204.0245 Removing Storm Sewer (size) 806. 30-Inch	534.000 LF	_____.____	_____.____
0058	204.0245 Removing Storm Sewer (size) 807. 36-Inch	9.000 LF	_____.____	_____.____
0060	204.0245 Removing Storm Sewer (size) 808. 42-Inch	21.000 LF	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0062	204.9060.S Removing (item description) 001. Ramp Gate	2.000 EACH	_____.____	_____.____
0064	204.9060.S Removing (item description) 002. Subsurface Structure	1.000 EACH	_____.____	_____.____
0066	204.9060.S Removing (item description) 100. Underdeck Lighting B-40-198	1.000 EACH	_____.____	_____.____
0068	204.9060.S Removing (item description) 101. Distribution Center	6.000 EACH	_____.____	_____.____
0070	204.9060.S Removing (item description) 102. Lighting Units	161.000 EACH	_____.____	_____.____
0072	204.9060.S Removing (item description) 104. Luminaires	225.000 EACH	_____.____	_____.____
0074	204.9060.S Removing (item description) 106. Poles Wood 60-FT and Floodlights	83.000 EACH	_____.____	_____.____
0076	204.9060.S Removing (item description) 107. Poles Wood 35-FT	2.000 EACH	_____.____	_____.____
0078	204.9060.S Removing (item description) 200. Overhead Freeway DMS	2.000 EACH	_____.____	_____.____
0080	204.9060.S Removing (item description) 300. Electrical Service Meter Breaker Pedestal	2.000 EACH	_____.____	_____.____
0082	204.9060.S Removing (item description) 301. Communication Vault	1.000 EACH	_____.____	_____.____
0084	204.9060.S Removing (item description) 302. Traffic Signals IH 41 EB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0086	204.9060.S Removing (item description) 303. Traffic Signals IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0088	204.9060.S Removing (item description) 304. Traffic Signals I-894 EB Ramps & S 84TH St	1.000 EACH	_____.____	_____.____
0090	204.9060.S Removing (item description) 305. Loop Detector Wire and Lead-In Cable, IH 41 EB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0092	204.9060.S Removing (item description) 306. Loop Detector Wire and Lead-In Cable, IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0094	204.9060.S Removing (item description) 307. Loop Detector Wire and Lead-In Cable STH 36 & Layton	1.000 EACH	_____.____	_____.____
0096	204.9060.S Removing (item description) 480. Old Sign Structure S-40-109	1.000 EACH	_____.____	_____.____
0098	204.9060.S Removing (item description) 485. Old Sign Structure S-40-009	1.000 EACH	_____.____	_____.____
0100	204.9060.S Removing (item description) 490. Old Sign Structure S-40-221	1.000 EACH	_____.____	_____.____
0102	204.9060.S Removing (item description) 495. Old Sign Structure S-40-219	1.000 EACH	_____.____	_____.____
0104	205.0100 Excavation Common	99,426.000 CY	_____.____	_____.____
0106	206.1001 Excavation for Structures Bridges (structure) 400. B-40-1025	1.000 EACH	_____.____	_____.____
0108	206.2001 Excavation for Structures Culverts (structure) 401. B-40-321	1.000 EACH	_____.____	_____.____
0110	208.1100 Select Borrow	2,895.000 CY	_____.____	_____.____
0112	210.2500 Backfill Structure Type B	179.000 TON	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0114	213.0100 Finishing Roadway (project) 001. 1100-45-70	1.000 EACH	_____.____	_____.____
0116	213.0100 Finishing Roadway (project) 002. 1100-46-71	1.000 EACH	_____.____	_____.____
0118	214.0100 Obliterating Old Road	6.000 STA	_____.____	_____.____
0120	305.0110 Base Aggregate Dense 3/4-Inch	47.000 TON	_____.____	_____.____
0122	305.0120 Base Aggregate Dense 1 1/4-Inch	43,225.000 TON	_____.____	_____.____
0124	312.0110 Select Crushed Material	100,185.000 TON	_____.____	_____.____
0126	390.0403 Base Patching Concrete Shes	2,210.000 SY	_____.____	_____.____
0128	415.0080 Concrete Pavement 8-Inch	2,258.000 SY	_____.____	_____.____
0130	415.0085 Concrete Pavement 8 1/2-Inch	13,779.000 SY	_____.____	_____.____
0132	415.0410 Concrete Pavement Approach Slab	680.000 SY	_____.____	_____.____
0134	416.0160 Concrete Driveway 6-Inch	21.000 SY	_____.____	_____.____
0136	416.0260 Concrete Driveway HES 6-Inch	14.000 SY	_____.____	_____.____
0138	416.0610 Drilled Tie Bars	10,296.000 EACH	_____.____	_____.____
0140	416.0620 Drilled Dowel Bars	4,718.000 EACH	_____.____	_____.____
0142	450.4000 HMA Cold Weather Paving	9,761.000 TON	_____.____	_____.____
0144	455.0605 Tack Coat	50,790.000 GAL	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0146	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	1.000 EACH	_____._____	_____._____
0148	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____._____	_____._____
0150	460.0115.S HMA Pavement Test Strips Volumetrics	1.000 EACH	_____._____	_____._____
0152	460.0120.S HMA Pavement Test Strips Density	1.000 EACH	_____._____	_____._____
0154	460.2000 Incentive Density HMA Pavement	1,910.000 DOL	1.00000	1,910.00
0156	460.2005 Incentive Density PWL HMA Pavement	13,740.000 DOL	1.00000	13,740.00
0158	460.2007 Incentive Density HMA Pavement Longitudinal Joints	25,960.000 DOL	1.00000	25,960.00
0160	460.2010 Incentive Air Voids HMA Pavement	61,200.000 DOL	1.00000	61,200.00
0162	460.6224 HMA Pavement 4 MT 58-28 S	2,963.000 TON	_____._____	_____._____
0164	460.7423 HMA Pavement 3 HT 58-28 H	63,532.000 TON	_____._____	_____._____
0166	460.8624 HMA Pavement 4 SMA 58-28 V	26,445.000 TON	_____._____	_____._____
0168	460.9000.S Material Transfer Vehicle	1.000 EACH	_____._____	_____._____
0170	465.0120 Asphaltic Surface Driveways and Field Entrances	6.000 TON	_____._____	_____._____
0172	465.0125 Asphaltic Surface Temporary	4,521.000 TON	_____._____	_____._____
0174	502.0100 Concrete Masonry Bridges	2,353.000 CY	_____._____	_____._____
0176	502.3200 Protective Surface Treatment	4,382.000 SY	_____._____	_____._____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0178	502.3205 Pigmented Surface Sealer Reseal	7,806.000 SY	_____.____	_____.____
0180	502.3210 Pigmented Surface Sealer	410.000 SY	_____.____	_____.____
0182	502.3215 Protective Surface Treatment Reseal	3,426.000 SY	_____.____	_____.____
0184	502.4205 Adhesive Anchors No. 5 Bar	7.000 EACH	_____.____	_____.____
0186	503.0146 Prestressed Girder Type I 45W-Inch	3,614.000 LF	_____.____	_____.____
0188	504.0100 Concrete Masonry Culverts	1.000 CY	_____.____	_____.____
0190	505.0400 Bar Steel Reinforcement HS Structures	28,260.000 LB	_____.____	_____.____
0192	505.0600 Bar Steel Reinforcement HS Coated Structures	423,870.000 LB	_____.____	_____.____
0194	505.0800.S Bar Steel Reinforcement HS Stainless Structures	5,410.000 LB	_____.____	_____.____
0196	506.2605 Bearing Pads Elastomeric Non-Laminated	72.000 EACH	_____.____	_____.____
0198	506.4000 Steel Diaphragms (structure) 400. B-40-1025	68.000 EACH	_____.____	_____.____
0200	509.0301 Preparation Decks Type 1	28.000 SY	_____.____	_____.____
0202	509.0302 Preparation Decks Type 2	14.000 SY	_____.____	_____.____
0204	509.0310.S Sawing Pavement Deck Preparation Areas	286.000 LF	_____.____	_____.____
0206	509.0500 Cleaning Decks	4,354.000 SY	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0208	509.1200 Curb Repair	8.000 LF	_____.____	_____.____
0210	509.1500 Concrete Surface Repair	836.000 SF	_____.____	_____.____
0212	509.2000 Full-Depth Deck Repair	3.000 SY	_____.____	_____.____
0214	509.9020.S Epoxy Crack Sealing	320.000 LF	_____.____	_____.____
0216	509.9025.S Epoxy Injection Crack Repair	15.000 LF	_____.____	_____.____
0218	511.1200 Temporary Shoring (structure) 400. B-40-1025	3,276.000 SF	_____.____	_____.____
0220	511.1200 Temporary Shoring (structure) 401. R-40-716	210.000 SF	_____.____	_____.____
0222	511.2200 Temporary Shoring Left in Place (structure) 400. R-40-717	210.000 SF	_____.____	_____.____
0224	513.2001 Railing Pipe	318.000 LF	_____.____	_____.____
0226	513.4091 Railing Tubular Screening	484.000 LF	_____.____	_____.____
0228	516.0500 Rubberized Membrane Waterproofing	71.000 SY	_____.____	_____.____
0230	517.1801.S Structure Repainting Recycled Abrasive (structure) 400. B-40-196	1.000 EACH	_____.____	_____.____
0232	517.1801.S Structure Repainting Recycled Abrasive (structure) 401. B-40-197	1.000 EACH	_____.____	_____.____
0234	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 400. B-40-196	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0236	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 401. B-40-197	1.000 EACH	_____.____	_____.____
0238	517.6001.S Portable Decontamination Facility	2.000 EACH	_____.____	_____.____
0240	520.8000 Concrete Collars for Pipe	161.000 EACH	_____.____	_____.____
0242	521.2005.S Surface Drain Pipe Corrugated Metal Slotted (inch) 001. 15-Inch	4,795.000 LF	_____.____	_____.____
0244	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	1.000 EACH	_____.____	_____.____
0246	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	2.000 EACH	_____.____	_____.____
0248	531.1100 Concrete Masonry Ancillary Structures Type NS	265.000 CY	_____.____	_____.____
0250	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	22,605.000 LB	_____.____	_____.____
0252	531.1160 Steel Reinforcement HS Coated Ancillary Structures Type NS	13,460.000 LB	_____.____	_____.____
0254	531.2024 Drilling Shaft 24-Inch	20.000 LF	_____.____	_____.____
0256	531.2036 Drilling Shaft 36-Inch	250.000 LF	_____.____	_____.____
0258	531.2042 Drilling Shaft 42-Inch	184.000 LF	_____.____	_____.____
0260	531.2048 Drilling Shaft 48-Inch	23.000 LF	_____.____	_____.____
0262	531.4050 Foundation Camera Pole 50-FT	3.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0264	531.5310 Foundation Single-Shaft Type TC-I (structure) 400. S-40-3095	1.000 EACH	_____.____	_____.____
0266	531.5310 Foundation Single-Shaft Type TC-I (structure) 401. S-40-3097	1.000 EACH	_____.____	_____.____
0268	531.5330 Foundation Single-Shaft Type TC-III (structure) 400. S-40-3096	1.000 EACH	_____.____	_____.____
0270	531.6010 Foundation Two-Shaft Type FC-I (structure) 480. S-40-3099	1.000 EACH	_____.____	_____.____
0272	531.6010 Foundation Two-Shaft Type FC-I (structure) 485. S-40-3100	1.000 EACH	_____.____	_____.____
0274	531.8990 Anchor Assemblies Poles on Structures	14.000 EACH	_____.____	_____.____
0276	532.5020 Butterfly 2-Chord NS (structure) 490. S-40-3101	1.000 EACH	_____.____	_____.____
0278	532.5020 Butterfly 2-Chord NS (structure) 495. S-40-3102	1.000 EACH	_____.____	_____.____
0280	532.5310 Truss Cantilever 2-Chord Type I (structure) 400. S-40-3095	1.000 EACH	_____.____	_____.____
0282	532.5310 Truss Cantilever 2-Chord Type I (structure) 402. S-40-3097	1.000 EACH	_____.____	_____.____
0284	532.5330 Truss Cantilever 2-Chord Type III (structure) 401. S-40-3096	1.000 EACH	_____.____	_____.____
0286	532.6000 Truss Cantilever 4-Chord Type NS (structure) 480. S-40-3099	1.000 EACH	_____.____	_____.____
0288	532.6000 Truss Cantilever 4-Chord Type NS (structure) 485. S-40-3100	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0290	550.0600 Pile Redriving	27.000 EACH	_____.____	_____.____
0292	550.1100 Piling Steel HP 10-Inch X 42 Lb	12,160.000 LF	_____.____	_____.____
0294	601.0319 Concrete Curb & Gutter 19-Inch	68.000 LF	_____.____	_____.____
0296	601.0331 Concrete Curb & Gutter 31-Inch	14,953.000 LF	_____.____	_____.____
0298	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	33,006.000 LF	_____.____	_____.____
0300	601.0600 Concrete Curb Pedestrian	350.000 LF	_____.____	_____.____
0302	602.0410 Concrete Sidewalk 5-Inch	20,525.000 SF	_____.____	_____.____
0304	602.0505 Curb Ramp Detectable Warning Field Yellow	20.000 SF	_____.____	_____.____
0306	602.0515 Curb Ramp Detectable Warning Field Natural Patina	380.000 SF	_____.____	_____.____
0308	602.0605 Curb Ramp Detectable Warning Field Radial Yellow	45.000 SF	_____.____	_____.____
0310	602.0615 Curb Ramp Detectable Warning Field Radial Natural Patina	56.000 SF	_____.____	_____.____
0312	602.1500 Concrete Steps	309.000 SF	_____.____	_____.____
0314	603.1132 Concrete Barrier Type S32	64.000 LF	_____.____	_____.____
0316	603.1142 Concrete Barrier Type S42	11,184.000 LF	_____.____	_____.____
0318	603.1156 Concrete Barrier Type S56	1,379.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0320	603.1242 Concrete Barrier Type S42A	5,368.000 LF	_____.____	_____.____
0322	603.1342 Concrete Barrier Type S42B	81.000 LF	_____.____	_____.____
0324	603.1356 Concrete Barrier Type S56B	53.000 LF	_____.____	_____.____
0326	603.1442 Concrete Barrier Type S42C	265.000 LF	_____.____	_____.____
0328	603.1456 Concrete Barrier Type S56C	740.000 LF	_____.____	_____.____
0330	603.3113 Concrete Barrier Transition Type NJ32SF to S36	11.000 EACH	_____.____	_____.____
0332	603.3513 Concrete Barrier Transition Type S32 to S36	3.000 EACH	_____.____	_____.____
0334	603.3535 Concrete Barrier Transition Type S36 to S42	14.000 EACH	_____.____	_____.____
0336	603.3559 Concrete Barrier Transition Type S42 to S56	26.000 EACH	_____.____	_____.____
0338	603.8000 Concrete Barrier Temporary Precast Delivered	62,975.000 LF	_____.____	_____.____
0340	603.8125 Concrete Barrier Temporary Precast Installed	64,563.000 LF	_____.____	_____.____
0342	604.0400 Slope Paving Concrete	540.000 SY	_____.____	_____.____
0344	606.0200 Riprap Medium	170.000 CY	_____.____	_____.____
0346	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	844.000 LF	_____.____	_____.____
0348	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	1,760.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0350	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	167.000 LF	_____.____	_____.____
0352	608.0321 Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	13.000 LF	_____.____	_____.____
0354	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	2,439.000 LF	_____.____	_____.____
0356	608.0327 Storm Sewer Pipe Reinforced Concrete Class III 27-Inch	180.000 LF	_____.____	_____.____
0358	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	746.000 LF	_____.____	_____.____
0360	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	206.000 LF	_____.____	_____.____
0362	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	338.000 LF	_____.____	_____.____
0364	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	386.000 LF	_____.____	_____.____
0366	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	130.000 LF	_____.____	_____.____
0368	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	158.000 LF	_____.____	_____.____
0370	608.0442 Storm Sewer Pipe Reinforced Concrete Class IV 42-Inch	16.000 LF	_____.____	_____.____
0372	608.0512 Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	153.000 LF	_____.____	_____.____
0374	608.3612 Storm Sewer Pipe Class III-B 12-Inch	167.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0376	608.3615 Storm Sewer Pipe Class III-B 15-Inch	221.000 LF	_____.____	_____.____
0378	608.3618 Storm Sewer Pipe Class III-B 18-Inch	184.000 LF	_____.____	_____.____
0380	608.3621 Storm Sewer Pipe Class III-B 21-Inch	40.000 LF	_____.____	_____.____
0382	611.0420 Reconstructing Manholes	2.000 EACH	_____.____	_____.____
0384	611.0430 Reconstructing Inlets	58.000 EACH	_____.____	_____.____
0386	611.0530 Manhole Covers Type J	8.000 EACH	_____.____	_____.____
0388	611.0535 Manhole Covers Type J-Special	1.000 EACH	_____.____	_____.____
0390	611.0606 Inlet Covers Type B	1.000 EACH	_____.____	_____.____
0392	611.0612 Inlet Covers Type C	2.000 EACH	_____.____	_____.____
0394	611.0624 Inlet Covers Type H	26.000 EACH	_____.____	_____.____
0396	611.0627 Inlet Covers Type HM	72.000 EACH	_____.____	_____.____
0398	611.0639 Inlet Covers Type H-S	3.000 EACH	_____.____	_____.____
0400	611.0642 Inlet Covers Type MS	47.000 EACH	_____.____	_____.____
0402	611.0654 Inlet Covers Type V	35.000 EACH	_____.____	_____.____
0404	611.2004 Manholes 4-FT Diameter	5.000 EACH	_____.____	_____.____
0406	611.2005 Manholes 5-FT Diameter	100.000 EACH	_____.____	_____.____
0408	611.2006 Manholes 6-FT Diameter	6.000 EACH	_____.____	_____.____

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0410	611.2008 Manholes 8-FT Diameter	5.000 EACH	_____.____	_____.____
0412	611.3004 Inlets 4-FT Diameter	87.000 EACH	_____.____	_____.____
0414	611.3220 Inlets 2x2-FT	1.000 EACH	_____.____	_____.____
0416	611.3225 Inlets 2x2.5-FT	1.000 EACH	_____.____	_____.____
0418	611.3230 Inlets 2x3-FT	22.000 EACH	_____.____	_____.____
0420	611.3901 Inlets Median 1 Grate	35.000 EACH	_____.____	_____.____
0422	611.3902 Inlets Median 2 Grate	6.000 EACH	_____.____	_____.____
0424	611.8110 Adjusting Manhole Covers	10.000 EACH	_____.____	_____.____
0426	611.8115 Adjusting Inlet Covers	15.000 EACH	_____.____	_____.____
0428	611.9800.S Pipe Grates	2.000 EACH	_____.____	_____.____
0430	612.0106 Pipe Underdrain 6-Inch	60,446.000 LF	_____.____	_____.____
0432	612.0206 Pipe Underdrain Unperforated 6-Inch	95.000 LF	_____.____	_____.____
0434	612.0406 Pipe Underdrain Wrapped 6-Inch	430.000 LF	_____.____	_____.____
0436	614.0905 Crash Cushions Temporary	23.000 EACH	_____.____	_____.____
0438	614.2500 MGS Thrie Beam Transition	560.000 LF	_____.____	_____.____
0440	614.2610 MGS Guardrail Terminal EAT	14.000 EACH	_____.____	_____.____
0442	616.0206 Fence Chain Link 6-FT	440.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0444	616.0329 Gates Chain Link (width) 001. 12-FT	2.000 EACH	_____.____	_____.____
0446	616.0700.S Fence Safety	650.000 LF	_____.____	_____.____
0448	618.0100 Maintenance And Repair of Haul Roads (project) 001. 1100-45-70	1.000 EACH	_____.____	_____.____
0450	618.0100 Maintenance And Repair of Haul Roads (project) 002. 1100-46-71	1.000 EACH	_____.____	_____.____
0452	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0454	620.0300 Concrete Median Sloped Nose	477.000 SF	_____.____	_____.____
0456	623.0200 Dust Control Surface Treatment	104,043.000 SY	_____.____	_____.____
0458	624.0100 Water	956.000 MGAL	_____.____	_____.____
0460	625.0100 Topsoil	54,065.000 SY	_____.____	_____.____
0462	628.1504 Silt Fence	10,314.000 LF	_____.____	_____.____
0464	628.1520 Silt Fence Maintenance	5,584.000 LF	_____.____	_____.____
0466	628.1905 Mobilizations Erosion Control	28.000 EACH	_____.____	_____.____
0468	628.1910 Mobilizations Emergency Erosion Control	16.000 EACH	_____.____	_____.____
0470	628.2002 Erosion Mat Class I Type A	14,586.000 SY	_____.____	_____.____
0472	628.2004 Erosion Mat Class I Type B	4,298.000 SY	_____.____	_____.____
0474	628.2008 Erosion Mat Urban Class I Type B	263.000 SY	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0476	628.2023 Erosion Mat Class II Type B	1,324.000 SY	_____.____	_____.____
0478	628.7005 Inlet Protection Type A	215.000 EACH	_____.____	_____.____
0480	628.7010 Inlet Protection Type B	337.000 EACH	_____.____	_____.____
0482	628.7015 Inlet Protection Type C	72.000 EACH	_____.____	_____.____
0484	628.7020 Inlet Protection Type D	169.000 EACH	_____.____	_____.____
0486	628.7560 Tracking Pads	39.000 EACH	_____.____	_____.____
0488	628.7570 Rock Bags	200.000 EACH	_____.____	_____.____
0490	629.0210 Fertilizer Type B	43.100 CWT	_____.____	_____.____
0492	630.0120 Seeding Mixture No. 20	202.000 LB	_____.____	_____.____
0494	630.0160 Seeding Mixture No. 60	0.500 LB	_____.____	_____.____
0496	630.0200 Seeding Temporary	94.000 LB	_____.____	_____.____
0498	630.0500 Seed Water	138.000 MGAL	_____.____	_____.____
0500	631.0300 Sod Water	100.000 MGAL	_____.____	_____.____
0502	631.1000 Sod Lawn	4,270.000 SY	_____.____	_____.____
0504	633.1000 Delineators Barrier Wall	32.000 EACH	_____.____	_____.____
0506	634.0618 Posts Wood 4x6-Inch X 18-FT	91.000 EACH	_____.____	_____.____
0508	634.0622 Posts Wood 4x6-Inch X 22-FT	25.000 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
0510	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	7.000 EACH	_____.____	_____.____
0512	634.0885 Posts Tubular Steel 2x2-Inch X 8.5-FT	4.000 EACH	_____.____	_____.____
0514	635.0200 Sign Supports Structural Steel HS	2,000.000 LB	_____.____	_____.____
0516	635.0300 Sign Supports Replacing Base Connection Bolts	19.000 EACH	_____.____	_____.____
0518	637.1220 Signs Type I Reflective SH	3,005.000 SF	_____.____	_____.____
0520	637.2210 Signs Type II Reflective H	1,861.773 SF	_____.____	_____.____
0522	637.2215 Signs Type II Reflective H Folding	149.520 SF	_____.____	_____.____
0524	637.2230 Signs Type II Reflective F	172.750 SF	_____.____	_____.____
0526	638.2101 Moving Signs Type I	7.000 EACH	_____.____	_____.____
0528	638.2102 Moving Signs Type II	8.000 EACH	_____.____	_____.____
0530	638.2601 Removing Signs Type I	19.000 EACH	_____.____	_____.____
0532	638.2602 Removing Signs Type II	153.000 EACH	_____.____	_____.____
0534	638.3000 Removing Small Sign Supports	92.000 EACH	_____.____	_____.____
0536	643.0300 Traffic Control Drums	189,579.000 DAY	_____.____	_____.____
0538	643.0420 Traffic Control Barricades Type III	19,829.000 DAY	_____.____	_____.____
0540	643.0705 Traffic Control Warning Lights Type A	36,191.000 DAY	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0542	643.0715 Traffic Control Warning Lights Type C	42,622.000 DAY	_____.____	_____.____
0544	643.0800 Traffic Control Arrow Boards	1,903.000 DAY	_____.____	_____.____
0546	643.0900 Traffic Control Signs	127,985.000 DAY	_____.____	_____.____
0548	643.0910 Traffic Control Covering Signs Type I	15.000 EACH	_____.____	_____.____
0550	643.0920 Traffic Control Covering Signs Type II	75.000 EACH	_____.____	_____.____
0552	643.1000 Traffic Control Signs Fixed Message	970.000 SF	_____.____	_____.____
0554	643.1050 Traffic Control Signs PCMS	2,545.000 DAY	_____.____	_____.____
0556	643.1200.S Portable Automated Real-Time Traffic Queue Warning System	272.000 DAY	_____.____	_____.____
0558	643.3105 Temporary Marking Line Paint 4-Inch	2,089.000 LF	_____.____	_____.____
0560	643.3120 Temporary Marking Line Epoxy 4-Inch	343,912.000 LF	_____.____	_____.____
0562	643.3150 Temporary Marking Line Removable Tape 4-Inch	121,569.000 LF	_____.____	_____.____
0564	643.3205 Temporary Marking Line Paint 8-Inch	1,028.000 LF	_____.____	_____.____
0566	643.3220 Temporary Marking Line Epoxy 8-Inch	46,433.000 LF	_____.____	_____.____
0568	643.3250 Temporary Marking Line Removable Tape 8-Inch	22,948.000 LF	_____.____	_____.____
0570	643.3505 Temporary Marking Arrow Paint	2.000 EACH	_____.____	_____.____
0572	643.3605 Temporary Marking Word Paint	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
0574	643.3760 Temporary Marking Raised Pavement Marker Type I	184.000 EACH	_____.____	_____.____
0576	643.4100 Traffic Control Interim Lane Closure	706.000 EACH	_____.____	_____.____
0578	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0580	644.1430 Temporary Pedestrian Surface Plate	460.000 SF	_____.____	_____.____
0582	644.1601 Temporary Pedestrian Curb Ramp	38.000 DAY	_____.____	_____.____
0584	644.1605 Temporary Pedestrian Detectable Warning Field	60.000 SF	_____.____	_____.____
0586	644.1810 Temporary Pedestrian Barricade	960.000 LF	_____.____	_____.____
0588	645.0111 Geotextile Type DF Schedule A	30,239.000 SY	_____.____	_____.____
0590	645.0120 Geotextile Type HR	14.000 SY	_____.____	_____.____
0592	646.1020 Marking Line Epoxy 4-Inch	35,513.000 LF	_____.____	_____.____
0594	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	65,200.000 LF	_____.____	_____.____
0596	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	1,246.000 LF	_____.____	_____.____
0598	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	17,849.000 LF	_____.____	_____.____
0600	646.3020 Marking Line Epoxy 8-Inch	223.000 LF	_____.____	_____.____
0602	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	8,053.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0604	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	17,892.000 LF	_____.____	_____.____
0606	646.5020 Marking Arrow Epoxy	48.000 EACH	_____.____	_____.____
0608	646.5120 Marking Word Epoxy	20.000 EACH	_____.____	_____.____
0610	646.5220 Marking Symbol Epoxy	15.000 EACH	_____.____	_____.____
0612	646.6120 Marking Stop Line Epoxy 18-Inch	618.000 LF	_____.____	_____.____
0614	646.7120 Marking Diagonal Epoxy 12-Inch	9,826.000 LF	_____.____	_____.____
0616	646.7220 Marking Chevron Epoxy 24-Inch	1,165.000 LF	_____.____	_____.____
0618	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	1,682.000 LF	_____.____	_____.____
0620	646.8120 Marking Curb Epoxy	370.000 LF	_____.____	_____.____
0622	646.8220 Marking Island Nose Epoxy	5.000 EACH	_____.____	_____.____
0624	646.9000 Marking Removal Line 4-Inch	98,295.000 LF	_____.____	_____.____
0626	646.9100 Marking Removal Line 8-Inch	17,180.000 LF	_____.____	_____.____
0628	646.9200 Marking Removal Line Wide	9,963.000 LF	_____.____	_____.____
0630	652.0125 Conduit Rigid Metallic 2-Inch	48.000 LF	_____.____	_____.____
0632	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	32,612.000 LF	_____.____	_____.____
0634	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	4,797.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0636	652.0605 Conduit Special 2-Inch	403.000 LF	_____.____	_____.____
0638	652.0615 Conduit Special 3-Inch	5,683.000 LF	_____.____	_____.____
0640	652.0700.S Install Conduit into Existing Item	5.000 EACH	_____.____	_____.____
0642	652.0800 Conduit Loop Detector	2,466.000 LF	_____.____	_____.____
0644	653.0135 Pull Boxes Steel 24x36-Inch	13.000 EACH	_____.____	_____.____
0646	653.0140 Pull Boxes Steel 24x42-Inch	63.000 EACH	_____.____	_____.____
0648	653.0222 Junction Boxes 18x12x6-Inch	18.000 EACH	_____.____	_____.____
0650	653.0905 Removing Pull Boxes	84.000 EACH	_____.____	_____.____
0652	654.0101 Concrete Bases Type 1	16.000 EACH	_____.____	_____.____
0654	654.0102 Concrete Bases Type 2	2.000 EACH	_____.____	_____.____
0656	654.0105 Concrete Bases Type 5	85.000 EACH	_____.____	_____.____
0658	654.0108 Concrete Bases Type 8	18.000 EACH	_____.____	_____.____
0660	654.0110 Concrete Bases Type 10	1.000 EACH	_____.____	_____.____
0662	654.0113 Concrete Bases Type 13	1.000 EACH	_____.____	_____.____
0664	654.0120 Concrete Bases Type 10-Special	3.000 EACH	_____.____	_____.____
0666	654.0217 Concrete Control Cabinet Bases Type 9 Special	2.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0668	654.0230 Concrete Control Cabinet Bases Type L30	6.000 EACH	_____.____	_____.____
0670	655.0230 Cable Traffic Signal 5-14 AWG	1,189.000 LF	_____.____	_____.____
0672	655.0235 Cable Traffic Signal 7-12 AWG	281.000 LF	_____.____	_____.____
0674	655.0240 Cable Traffic Signal 7-14 AWG	2,590.000 LF	_____.____	_____.____
0676	655.0260 Cable Traffic Signal 12-14 AWG	2,985.000 LF	_____.____	_____.____
0678	655.0320 Cable Type UF 2-10 AWG Grounded	1,208.000 LF	_____.____	_____.____
0680	655.0515 Electrical Wire Traffic Signals 10 AWG	7,233.000 LF	_____.____	_____.____
0682	655.0610 Electrical Wire Lighting 12 AWG	38,835.000 LF	_____.____	_____.____
0684	655.0615 Electrical Wire Lighting 10 AWG	3,075.000 LF	_____.____	_____.____
0686	655.0620 Electrical Wire Lighting 8 AWG	50,223.000 LF	_____.____	_____.____
0688	655.0625 Electrical Wire Lighting 6 AWG	29,222.000 LF	_____.____	_____.____
0690	655.0630 Electrical Wire Lighting 4 AWG	64,565.000 LF	_____.____	_____.____
0692	655.0635 Electrical Wire Lighting 2 AWG	1,524.000 LF	_____.____	_____.____
0694	655.0640 Electrical Wire Lighting 1 AWG	108.000 LF	_____.____	_____.____
0696	655.0700 Loop Detector Lead In Cable	9,811.000 LF	_____.____	_____.____
0698	655.0800 Loop Detector Wire	8,930.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0700	655.0900 Traffic Signal EVP Detector Cable	1,815.000 LF	_____.____	_____.____
0702	656.0201 Electrical Service Meter Breaker Pedestal (location) 300. IH 41 EB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0704	656.0201 Electrical Service Meter Breaker Pedestal (location) 301. IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0706	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 101. HL-40-FO	1.000 EACH	_____.____	_____.____
0708	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 102. HL-40-AL	1.000 EACH	_____.____	_____.____
0710	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 103. HL-40-BO	1.000 EACH	_____.____	_____.____
0712	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 104. HL-40-LM	1.000 EACH	_____.____	_____.____
0714	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 105. HL-40-AR	1.000 EACH	_____.____	_____.____
0716	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 106. HL-40-TF	1.000 EACH	_____.____	_____.____
0718	657.0100 Pedestal Bases	17.000 EACH	_____.____	_____.____
0720	657.0210 Transformer Bases Breakaway 15-17 Inch Bolt Circle	18.000 EACH	_____.____	_____.____
0722	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	89.000 EACH	_____.____	_____.____
0724	657.0310 Poles Type 3	2.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0726	657.0322 Poles Type 5-Aluminum	87.000 EACH	_____.____	_____.____
0728	657.0380 Poles Type E	18.000 EACH	_____.____	_____.____
0730	657.0381 Poles Type F	70.000 EACH	_____.____	_____.____
0732	657.0420 Traffic Signal Standards Aluminum 13-FT	6.000 EACH	_____.____	_____.____
0734	657.0425 Traffic Signal Standards Aluminum 15-FT	6.000 EACH	_____.____	_____.____
0736	657.0430 Traffic Signal Standards Aluminum 10-FT	5.000 EACH	_____.____	_____.____
0738	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	1.000 EACH	_____.____	_____.____
0740	657.0610 Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	96.000 EACH	_____.____	_____.____
0742	657.0614 Luminaire Arms Single Member 4-Inch Clamp 8-FT	1.000 EACH	_____.____	_____.____
0744	657.0615 Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	12.000 EACH	_____.____	_____.____
0746	658.0173 Traffic Signal Face 3S 12-Inch	29.000 EACH	_____.____	_____.____
0748	658.0174 Traffic Signal Face 4S 12-Inch	8.000 EACH	_____.____	_____.____
0750	658.0175 Traffic Signal Face 5S 12-Inch	2.000 EACH	_____.____	_____.____
0752	658.0416 Pedestrian Signal Face 16-Inch	15.000 EACH	_____.____	_____.____
0754	658.0500 Pedestrian Push Buttons	16.000 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
0756	658.5070 Signal Mounting Hardware (location) 300. IH 41 EB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0758	658.5070 Signal Mounting Hardware (location) 301. IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0760	658.5070 Signal Mounting Hardware (location) 302. I-894 EB Ramps & S 84TH St	1.000 EACH	_____.____	_____.____
0762	659.0601 Underdeck Lighting (structure) 001. B-40-1025	1.000 EACH	_____.____	_____.____
0764	659.1125 Luminaires Utility LED C	93.000 EACH	_____.____	_____.____
0766	659.1130 Luminaires Utility LED D	158.000 EACH	_____.____	_____.____
0768	659.1210 Luminaires Underdeck LED B	4.000 EACH	_____.____	_____.____
0770	659.2230 Lighting Control Cabinets 240/480 30-Inch	6.000 EACH	_____.____	_____.____
0772	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor	51.000 EACH	_____.____	_____.____
0774	662.1028.S Ramp Closure Gates 28-FT	2.000 EACH	_____.____	_____.____
0776	662.1030.S Ramp Closure Gates 30-FT	1.000 EACH	_____.____	_____.____
0778	662.1032.S Ramp Closure Gates 32-FT	1.000 EACH	_____.____	_____.____
0780	670.0101 Field System Integrator	1.000 EACH	_____.____	_____.____
0782	670.0101 Field System Integrator 001. FTMS	1.000 EACH	_____.____	_____.____
0784	670.0201 ITS Documentation	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
0786	670.0201 ITS Documentation 001. FTMS	1.000 EACH	_____.____	_____.____
0788	671.0112 Conduit HDPE 1-Duct 2-Inch	1,557.000 LF	_____.____	_____.____
0790	671.0212 Conduit HDPE Directional Bore 1-Duct 2-Inch	286.000 LF	_____.____	_____.____
0792	673.0105 Communication Vault Type 1	2.000 EACH	_____.____	_____.____
0794	674.0300 Remove Cable	1,704.000 LF	_____.____	_____.____
0796	674.0400 Reinstall Cable	1,637.000 LF	_____.____	_____.____
0798	675.0300 Install Mounted Controller Microwave Detector Assembly	2.000 EACH	_____.____	_____.____
0800	677.0150 Install Camera Pole 50-FT	3.000 EACH	_____.____	_____.____
0802	677.0200 Install Camera Assembly	4.000 EACH	_____.____	_____.____
0804	677.9051.S Removing 50-FT Camera Pole	3.000 EACH	_____.____	_____.____
0806	677.9200.S Removing CCTV Camera	1.000 EACH	_____.____	_____.____
0808	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	252.000 LF	_____.____	_____.____
0810	678.0036 Install Fiber Optic Cable Outdoor Plant 36-CT	1,366.000 LF	_____.____	_____.____
0812	678.0100.S Install Overhead Freeway DMS Full Matrix	2.000 EACH	_____.____	_____.____
0814	678.0200 Fiber Optic Splice Enclosure	2.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0816	678.0300 Fiber Optic Splice	16.000 EACH	_____.____	_____.____
0818	678.0501 Communication System Testing	1.000 EACH	_____.____	_____.____
0820	678.0600 Install Ethernet Switches	2.000 EACH	_____.____	_____.____
0822	690.0150 Sawing Asphalt	707.000 LF	_____.____	_____.____
0824	690.0250 Sawing Concrete	145,972.000 LF	_____.____	_____.____
0826	715.0502 Incentive Strength Concrete Structures	14,118.000 DOL	1.00000	14,118.00
0828	715.0603 Incentive Strength Concrete Barrier	13,858.000 DOL	1.00000	13,858.00
0830	715.0715 Incentive Flexural Strength Concrete Pavement	5,016.000 DOL	1.00000	5,016.00
0832	715.0720 Incentive Compressive Strength Concrete Pavement	5,016.000 DOL	1.00000	5,016.00
0834	740.0440 Incentive IRI Ride	31,720.000 DOL	1.00000	31,720.00
0836	999.1501.S Crack and Damage Survey	1.000 EACH	_____.____	_____.____
0838	999.2000.S Installing and Maintaining Bird Deterrent System (station) 001. 87+50	1.000 EACH	_____.____	_____.____
0840	999.2000.S Installing and Maintaining Bird Deterrent System (station) 002. 96'EW'+10	1.000 EACH	_____.____	_____.____
0842	999.2000.S Installing and Maintaining Bird Deterrent System (station) 003. 202'EW'+78	1.000 EACH	_____.____	_____.____
0844	999.2000.S Installing and Maintaining Bird Deterrent System (station) 004. 257'EWW'+30	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0846	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	5,600.000 HRS	5.00000	28,000.00
0848	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	14,400.000 HRS	5.00000	72,000.00
0850	SPV.0035 Special 001. EBS Excavation	8,237.000 CY	_____._____	_____._____
0852	SPV.0035 Special 002. EBS Backfill	8,237.000 CY	_____._____	_____._____
0854	SPV.0035 Special 400. Rapid Set Deck Repair	4.000 CY	_____._____	_____._____
0856	SPV.0035 Special 801. Backfill Slurry	6,660.000 CY	_____._____	_____._____
0858	SPV.0060 Special 001. Baseline CPM Progress Schedule	1.000 EACH	_____._____	_____._____
0860	SPV.0060 Special 002. Monthly CPM Progress Schedule Updates	14.000 EACH	_____._____	_____._____
0862	SPV.0060 Special 003. Concrete Barrier Transition Type M1	1.000 EACH	_____._____	_____._____
0864	SPV.0060 Special 004. Concrete Barrier Transition Type M2	1.000 EACH	_____._____	_____._____
0866	SPV.0060 Special 005. Concrete Barrier Transition Type M3	1.000 EACH	_____._____	_____._____
0868	SPV.0060 Special 006. Concrete Barrier Transition Type M4	1.000 EACH	_____._____	_____._____
0870	SPV.0060 Special 007. Concrete Barrier Transition Type M5	1.000 EACH	_____._____	_____._____
0872	SPV.0060 Special 008. Concrete Barrier Transition Type M6	1.000 EACH	_____._____	_____._____

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0874	SPV.0060 Special 009. Concrete Barrier Transition Type M7	1.000 EACH	_____.____	_____.____
0876	SPV.0060 Special 010. Concrete Barrier Transition Type M8	1.000 EACH	_____.____	_____.____
0878	SPV.0060 Special 011. Concrete Barrier Transition Type M9	1.000 EACH	_____.____	_____.____
0880	SPV.0060 Special 012. Concrete Barrier Transition Type M10	1.000 EACH	_____.____	_____.____
0882	SPV.0060 Special 013. Concrete Barrier Transition Type M11	1.000 EACH	_____.____	_____.____
0884	SPV.0060 Special 014. Concrete Barrier Transition Type M12	1.000 EACH	_____.____	_____.____
0886	SPV.0060 Special 015. Concrete Barrier Type S42 Light Pole Base	31.000 EACH	_____.____	_____.____
0888	SPV.0060 Special 016. Concrete Barrier Type S42A Light Pole Base	31.000 EACH	_____.____	_____.____
0890	SPV.0060 Special 017. Concrete Barrier Type S56 Light Pole Base	2.000 EACH	_____.____	_____.____
0892	SPV.0060 Special 018. Concrete Barrier Type S56A Light Pole Base	1.000 EACH	_____.____	_____.____
0894	SPV.0060 Special 019. Curb Ramp Grading, Shaping and Finishing	4.000 EACH	_____.____	_____.____
0896	SPV.0060 Special 020. Field Facilities Office Space	1.000 EACH	_____.____	_____.____
0898	SPV.0060 Special 021. Mobilizations Emergency Pavement Repair	20.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0900	SPV.0060 Special 022. Traffic Control Close-Open Freeway Entrance Ramp	588.000 EACH	_____.____	_____.____
0902	SPV.0060 Special 023. Traffic Control Full Freeway Closure	25.000 EACH	_____.____	_____.____
0904	SPV.0060 Special 024. Traffic Control Local Road Lane Closures	30.000 EACH	_____.____	_____.____
0906	SPV.0060 Special 025. Emergency Response to Traffic Involving Concrete Barrier Temporary	5.000 EACH	_____.____	_____.____
0908	SPV.0060 Special 026. Emergency Response to Traffic Involving Crash Cushion	5.000 EACH	_____.____	_____.____
0910	SPV.0060 Special 027. Sand Bags	690.000 EACH	_____.____	_____.____
0912	SPV.0060 Special 028. Exposing Existing Infrastructure Paved Area	10.000 EACH	_____.____	_____.____
0914	SPV.0060 Special 029. Exposing Existing Infrastructure Unpaved Area	10.000 EACH	_____.____	_____.____
0916	SPV.0060 Special 030. Survey Project 1100-45-70	1.000 EACH	_____.____	_____.____
0918	SPV.0060 Special 031. Survey Project 1100-46-71	1.000 EACH	_____.____	_____.____
0920	SPV.0060 Special 101. Maintenance of Lighting Systems	1.000 EACH	_____.____	_____.____
0922	SPV.0060 Special 102. Lighting System Integrator	1.000 EACH	_____.____	_____.____
0924	SPV.0060 Special 103. Lighting Systems Survey	1.000 EACH	_____.____	_____.____
0926	SPV.0060 Special 107. Luminaire Arms Single Member 4-Inch Clamp 4-FT	140.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0928	SPV.0060 Special 108. Poles Wood 35-FT	2.000 EACH	_____.____	_____.____
0930	SPV.0060 Special 109. Wood Pole Lighting 60-FT	83.000 EACH	_____.____	_____.____
0932	SPV.0060 Special 110. Luminaire Utility LED Floodlight	86.000 EACH	_____.____	_____.____
0934	SPV.0060 Special 111. Lighting Equipment Painting, IH 41 & STH 36	1.000 EACH	_____.____	_____.____
0936	SPV.0060 Special 200. Removing Wireless Modem	1.000 EACH	_____.____	_____.____
0938	SPV.0060 Special 201. Removing Controller Cabinet	1.000 EACH	_____.____	_____.____
0940	SPV.0060 Special 202. Removing Controller Cabinet Base	1.000 EACH	_____.____	_____.____
0942	SPV.0060 Special 203. Removing Controller Ramp Meter Processor Assembly	1.000 EACH	_____.____	_____.____
0944	SPV.0060 Special 204. Ground Rod	5.000 EACH	_____.____	_____.____
0946	SPV.0060 Special 205. Refocus Vehicle Detector Assembly	20.000 EACH	_____.____	_____.____
0948	SPV.0060 Special 300. Install Poles Type 9	1.000 EACH	_____.____	_____.____
0950	SPV.0060 Special 301. Install Poles Special Type 9	3.000 EACH	_____.____	_____.____
0952	SPV.0060 Special 302. Install Poles Type 13	1.000 EACH	_____.____	_____.____
0954	SPV.0060 Special 303. Install Monotube Arms 25-ft	1.000 EACH	_____.____	_____.____
0956	SPV.0060 Special 304. Install Monotube Arms Special 45-ft	2.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0958	SPV.0060 Special 305. Install Monotube Arms 55-Ft	1.000 EACH	_____.____	_____.____
0960	SPV.0060 Special 306. Install Luminaire Arms Steel 15-Ft	1.000 EACH	_____.____	_____.____
0962	SPV.0060 Special 307. Install Monotube Arms Speical 35-ft	1.000 EACH	_____.____	_____.____
0964	SPV.0060 Special 308. Transport and Install State Furn Traffic Sig Cabinet, IH41 EB Ramps & STH36	1.000 EACH	_____.____	_____.____
0966	SPV.0060 Special 309. Transport and Install State Furn Traffic Sig Cabinet, IH41 WB Ramps & STH36	1.000 EACH	_____.____	_____.____
0968	SPV.0060 Special 310. Transport Signal and Intersection Lighting Materials, IH41 EB Ramps & STH36	1.000 EACH	_____.____	_____.____
0970	SPV.0060 Special 311. Transport Signal and Intersection Lighting Materials, IH41 WB Ramps & STH36	1.000 EACH	_____.____	_____.____
0972	SPV.0060 Special 312. Transport and Install State Furnished Video Detection, IH41EB Ramps & STH36	1.000 EACH	_____.____	_____.____
0974	SPV.0060 Special 313. Transport and Install State Furnished Video Detection, IH41WB Ramps & STH36	1.000 EACH	_____.____	_____.____
0976	SPV.0060 Special 314. Trnsprt and Install State Furnished EVP Detector Heads IH41EB Ramps & STH36	1.000 EACH	_____.____	_____.____
0978	SPV.0060 Special 315. Trnsprt and Install State Furnished EVP Detector Heads IH41WB Ramps & STH36	1.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0980	SPV.0060 Special 316. Traffic Signal and Lighting Equipment Painting IH 41 EB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0982	SPV.0060 Special 317. Traffic Signal and Lighting Equipment Painting IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0984	SPV.0060 Special 318. Install Fiber Optic Communications in Cabinet, IH 41 EB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0986	SPV.0060 Special 319. Install Fiber Optic Communications in Cabinet, IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0988	SPV.0060 Special 400. Girder Surface Repair	79.000 EACH	_____.____	_____.____
0990	SPV.0060 Special 401. Strapping B-40-321	3.000 EACH	_____.____	_____.____
0992	SPV.0060 Special 402. Sidewalk Cover Plate Resetting	1.000 EACH	_____.____	_____.____
0994	SPV.0060 Special 403. Concrete Channel Lining Repair	1.000 EACH	_____.____	_____.____
0996	SPV.0060 Special 404. Embedded Galvanic Anodes	72.000 EACH	_____.____	_____.____
0998	SPV.0060 Special 405. Cleaning and Sealing Concrete Girder Ends	32.000 EACH	_____.____	_____.____
1000	SPV.0060 Special 406. Cleaning and Painting Bearing	72.000 EACH	_____.____	_____.____
1002	SPV.0060 Special 450. Remove and Relocate Existing Sign Bridge S-40-410	1.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1004	SPV.0060 Special 455. Remove and Relocate Existing Sign Bridge S-40-413	1.000 EACH	_____.____	_____.____
1006	SPV.0060 Special 460. Remove and Relocate Existing Sign Bridge S-40-801	1.000 EACH	_____.____	_____.____
1008	SPV.0060 Special 465. Tension Chord Splice Connections (S-40-834)	1.000 EACH	_____.____	_____.____
1010	SPV.0060 Special 470. Remove and Relocate Existing 2-Chord Butterfly Sign Structure S-40-869	1.000 EACH	_____.____	_____.____
1012	SPV.0060 Special 475. Remove and Relocate Existing 4-Chord Butterfly Sign Structure S-40-870	1.000 EACH	_____.____	_____.____
1014	SPV.0060 Special 499. Remove and Reinstall Existing Noise Barrier Panels	1.000 EACH	_____.____	_____.____
1016	SPV.0060 Special 500. Utility Line Opening (ULO)	12.000 EACH	_____.____	_____.____
1018	SPV.0060 Special 501. Water Main Protection	5.000 EACH	_____.____	_____.____
1020	SPV.0060 Special 502. Adjusting Water Boxes	15.000 EACH	_____.____	_____.____
1022	SPV.0060 Special 503. Sanitary Manhole Internal/External Seal	5.000 EACH	_____.____	_____.____
1024	SPV.0060 Special 801. Inlet Covers Type 27-M	101.000 EACH	_____.____	_____.____
1026	SPV.0060 Special 802. Reconstructing Manhole Special	16.000 EACH	_____.____	_____.____
1028	SPV.0060 Special 803. Reconstructing Inlet Special	5.000 EACH	_____.____	_____.____
1030	SPV.0060 Special 804. Remove and Cap Existing Drainage Structure	20.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1032	SPV.0060 Special 805. Cap Proposed Drainage Structure	2.000 EACH	_____.____	_____.____
1034	SPV.0060 Special 806. Pipe Connection to Existing Structure	15.000 EACH	_____.____	_____.____
1036	SPV.0060 Special 807. Welded Existing Inlet Covers	55.000 EACH	_____.____	_____.____
1038	SPV.0060 Special 808. Welded Proposed Inlet Covers	139.000 EACH	_____.____	_____.____
1040	SPV.0075 Special 001. Pavement Cleanup Project 1100-45-70	200.000 HRS	_____.____	_____.____
1042	SPV.0075 Special 002. Pavement Cleanup Project 1100-46-71	100.000 HRS	_____.____	_____.____
1044	SPV.0090 Special 001. Concrete Barrier Vertical Back Type S56 Modified	1,136.000 LF	_____.____	_____.____
1046	SPV.0090 Special 002. Concrete Barrier Vertical Back Type S56 Modified with 24-Inch Pan	188.000 LF	_____.____	_____.____
1048	SPV.0090 Special 003. Marking Line Contrast Epoxy 4-Inch	362.000 LF	_____.____	_____.____
1050	SPV.0090 Special 004. Marking Line Contrast Epoxy 8-Inch	87.000 LF	_____.____	_____.____
1052	SPV.0090 Special 005. Maintain and Remove Concrete Barrier Temporary Precast	512.000 LF	_____.____	_____.____
1054	SPV.0090 Special 006. Temporary Marking Crosswalk Removable Tape 6-Inch	290.000 LF	_____.____	_____.____
1056	SPV.0090 Special 103. Cable Aerial Aluminum 4 AWG Quadruplex	7,472.000 LF	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1058	SPV.0090 Special 104. Cable Aerial Aluminum 2 AWG Quadruplex	2,163.000 LF	_____.____	_____.____
1060	SPV.0090 Special 105. Cable Aerial Aluminum 6 AWG Quadruplex	6,018.000 LF	_____.____	_____.____
1062	SPV.0090 Special 400. Expansion Joint Seal System	468.000 LF	_____.____	_____.____
1064	SPV.0090 Special 801. Cleaning Storm Sewer	725.000 LF	_____.____	_____.____
1066	SPV.0135 Special 001. Vibration Monitoring	9.000 MON	_____.____	_____.____
1068	SPV.0165 Special 400. Wall Concrete Panel Mechanically Stabilized Earth R-40-716	4,340.000 SF	_____.____	_____.____
1070	SPV.0165 Special 401. Wall Concrete Panel Mechanically Stabilized Earth R-40-717	3,690.000 SF	_____.____	_____.____
1072	SPV.0165 Special 402. Fiber Wrap Reinforcing Non-Structural	475.000 SF	_____.____	_____.____
1074	SPV.0165 Special 403. Removing Loose Concrete	100.000 SF	_____.____	_____.____
1076	SPV.0165 Special 499. Concrete Surface Repair-Special	240.000 SF	_____.____	_____.____
1078	SPV.0180 Special 001. Base Patching Concrete SHES Special	12,964.000 SY	_____.____	_____.____
1080	SPV.0180 Special 002. Removing Asphaltic Surface Milling Special	19,462.000 SY	_____.____	_____.____
1082	SPV.0180 Special 400. Slope Paving Crushed Aggregate Special	1,038.000 SY	_____.____	_____.____
1084	SPV.0180 Special 401. Abutment Seat Cleaning and Sealing	64.000 SY	_____.____	_____.____

Proposal ID: 20230214015 **Project(s):** 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1086	SPV.0180 Special 402. Concrete Bridge Deck Methacrylate Flood Seal	991.000 SY	_____._____	_____._____
1088	SPV.0180 Special 403. Polyester Polymer Concrete Overlay	4,354.000 SY	_____._____	_____._____
1090	SPV.0195 Special 001. HMA Longitudinal Joint Repair	2,540.000 TON	_____._____	_____._____
	Section: 0001		**Total:**	_____._____
			Total Bid:	**_____._____**

PLEASE ATTACH ADDENDA HERE

Wisconsin Department of Transportation

Division of Transportation Systems Development
Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

February 8, 2023

NOTICE TO ALL CONTRACTORS:

Federal Wage Rate Addendum #01

Letting of February 14, 2023

Attached is a copy of the revised WI 10 Highway Davis Bacon Prevailing Wage Rates that are included in proposals 02 – 04, 06 – 11, 15, 16, 18 – 24, 26, 29 – 32, 42, and 46 – 53; WI 8 Heavy (Sewer & Water Line & Tunnel) Davis Bacon Prevailing Wage Rates that are included in proposal 19; and WI 15 Heavy Davis Bacon Prevailing Wage Rates that are included in proposals 23 and 31. These wage rates are effective for all proposals they are included in in the February 14, 2023 letting. The updated wage rates are dated January 20, 2023, and are effective on or after January 30, 2023.

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: WI20230010 01/20/2023

Superseded General Decision Number: WI20220010

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)(2)-(60).

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:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $16.20 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 2023.
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:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.15 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 2023.

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	01/06/2023

1	01/13/2023
2	01/20/2023

BRWI0001-002 06/01/2022

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.96	25.13

BRWI0002-002 06/01/2022

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 45.87	23.91

BRWI0002-005 06/01/2022

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	$ 38.81	23.94

BRWI0003-002 06/01/2021

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.03	24.95

BRWI0004-002 06/01/2022

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 42.53	26.01

BRWI0006-002 06/01/2022

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.26	24.83

BRWI0007-002 06/01/2022

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.26	25.52

BRWI0008-002 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 44.08	24.42

BRWI0011-002 06/01/2022

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.00	25.09

BRWI0019-002 06/01/2022

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.36	25.73

BRWI0034-002 06/01/2022

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.56	25.22

CARP0068-011 05/02/2022

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 41.19	27.05

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0310-002 06/05/2022

Ashland, Bayfield, Forest, Iron, Langlade, Lincoln, Marathon, Oneida, Shawano, Taylor and Vilas

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0314-001 06/05/2022

Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk and Walworth

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

CARP0731-002 06/05/2022

Calumet (Eastern portion of the County), Fond Du Lac, Manitowoc and Sheboygan

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0804-001 06/05/2022

Adams, Juneau, Portage and Wood

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0955-002 06/01/2022

Calumet (western portion of County), Fond Du Lac, Green Lake, Marquette, Outagamie and Winnebago

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1056-002 06/05/2022

	Rates	Fringes
MILLWRIGHT	$ 38.00	26.78

CARP1074-002 06/01/2022

Barron, Burnett, Chippewa, Clark, Dunn, Eau Claire, Pepin, Pierce, Polk, Rusk, Sawyer, St. Croix and Washburn

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1143-002 06/01/2022

Crawford, Jackson, La Crosse, Monroe, Trempealeau and Vernon

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1146-002 06/01/2022

Brown, Door, Florence, Kewaunee, Marinette, Menominee and Shawano

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

* ELEC0014-002 12/25/2022

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, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 39.25	22.34

* ELEC0014-007 05/29/2022

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 29.63	3%+16.18

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 06/01/2021

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 43.16	30%+12.70

ELEC0158-002 05/30/2021

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 36.14	29.75%+10.26

ELEC0159-003 05/30/2021

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	$ 43.38	23.13

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 05/30/2021

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 41.37	69.25%

ELEC0388-002 05/30/2021

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:	$ 36.22	26%+11.24

ELEC0430-002 06/01/2022

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 45.02	24.35

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* ELEC0494-005 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 46.38	25.86

ELEC0494-006 06/01/2021

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 37.91	22.74

ELEC0494-013 06/01/2021

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer:	$ 22.39	18.80
Technician:	$ 32.49	20.26

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but

does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2021

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:	$ 35.66	29.50%+10.00

ELEC0890-003 06/01/2021

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 39.00	25.95%+11.17

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

ENGI0139-005 06/01/2022

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 43.27	25.95
Group 2	$ 42.77	25.95
Group 3	$ 42.27	25.95
Group 4	$ 42.01	25.95
Group 5	$ 41.72	25.95
Group 6	$ 35.82	25.95

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; bituminious 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 06/13/2022

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes

IRONWORKER.....$ 41.00 28.95

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2021

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 40.57	28.40

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/05/2022

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	$ 39.00	28.58

IRON0498-005 06/01/2021

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 41.37	44.41

IRON0512-008 05/01/2022

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 41.00	33.11

IRON0512-021 05/01/2022

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.94	33.11

LABO0113-002 06/01/2022

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 32.65	23.09
Group 2	$ 32.80	23.09
Group 3	$ 33.00	23.09
Group 4	$ 33.15	23.09
Group 5	$ 33.30	23.09
Group 6	$ 29.14	23.09

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 Sawer 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

LABO0113-003 06/01/2022

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.90	23.09
Group 2	$ 32.00	23.09
Group 3	$ 32.05	23.09
Group 4	$ 32.25	23.09
Group 5	$ 32.10	23.09
Group 6	$ 28.99	23.09

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 Sawer 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

LABO0113-011 06/01/2022

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.71	23.09
Group 2	$ 31.86	23.09
Group 3	$ 32.06	23.09
Group 4	$ 32.03	23.09
Group 5	$ 32.36	23.09
Group 6	$ 28.85	23.09

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 Sawer 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

LABO0140-002 06/01/2022

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, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 36.42	18.68
Group 2	$ 36.52	18.68
Group 3	$ 36.57	18.68
Group 4	$ 36.77	18.68
Group 5	$ 36.62	18.68
Group 6	$ 33.05	18.68

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; Bitminous 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 Sawer 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 Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2022

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 36.70	18.68
Group 2	$ 36.80	18.68
Group 3	$ 36.85	18.68
Group 4	$ 37.05	18.68
Group 5	$ 36.90	18.68
Group 6	$ 33.05	18.68

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; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer 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

PAIN0106-008 05/01/2022

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 33.99	22.70
Spray, Sandblast, Steel	$ 34.59	22.70
Repaint:		
Brush, Roller	$ 33.09	22.70
Spray, Sandblast, Steel	$ 32.49	22.70

PAIN0108-002 06/01/2022

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 39.60	21.79
Spray & Sandblast	$ 40.60	21.79

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

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2022

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 38.15	24.80
Brush	$ 37.40	24.80
Spray & Sandblast	$ 38.15	24.80

PAIN0802-002 06/01/2021

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 29.98	18.78

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2022

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	$ 34.68	18.94

PAIN0934-001 06/01/2022

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 36.70	24.69
Spray	$ 37.70	24.69
Structural Steel	$ 36.85	24.69

PAIN1011-002 06/06/2021

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 26.71	14.38

PLAS0599-010 06/01/2021

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 42.06	20.87
Area 2 (BAC)	$ 37.73	23.80
Area 3	$ 38.74	22.46
Area 4	$ 38.59	22.66
Area 5	$ 38.16	22.98
Area 6	$ 34.94	26.36

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET,

CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2021

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 32.57	23.81
3 or more Axles; Euclids, Dumptor & Articulated, Truck Mechanic	$ 32.72	23.81
WELL DRILLER	$ 16.52	3.70

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) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current

negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

"General Decision Number: WI20230008 01/20/2023

Superseded General Decision Number: WI20220008

State: Wisconsin

Construction Types: Heavy (Sewer and Water Line and Tunnel)

Counties: Wisconsin Statewide.

TUNNEL, SEWER & WATER LINE CONSTRUCTION PROJECTS

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)(2)-(60).

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:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $16.20 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 2023.
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:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.15 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 2023.

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	01/06/2023
1	01/13/2023

BRWI0001-002 06/01/2022

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.96	25.13

BRWI0002-002 06/01/2022

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 45.87	23.91

BRWI0002-005 06/01/2022

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	$ 38.81	23.94

BRWI0003-002 06/01/2021

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.03	24.95

BRWI0004-002 06/01/2022

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 42.53	26.01

BRWI0006-002 06/01/2022

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.26	24.83

BRWI0007-002 06/01/2022

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.26	25.52

BRWI0008-002 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 44.08	24.42

BRWI0009-001 06/01/2022

GREEN LAKE, MARQUETTE, OUTAGAMIE, SHAWANO, WAUPACA, WASHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.00	25.09

BRWI0011-002 06/01/2022

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.00	25.09

BRWI0013-002 06/01/2022

DANE, GRANT, IOWA, AND RICHLAND COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.56	25.22

BRWI0019-002 06/01/2022

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.36	25.73

BRWI0021-002 06/01/2022

DODGE AND JEFFERSON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.49	26.27

BRWI0034-002 06/01/2022

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.56	25.22

CARP0068-011 05/02/2022

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 41.19	27.05

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0310-002 06/05/2022

Ashland, Bayfield, Forest, Iron, Langlade, Lincoln, Marathon, Oneida, Shawano, Taylor and Vilas

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0314-001 06/05/2022

Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk and Walworth

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

CARP0731-002 06/05/2022

Calumet (Eastern portion of the County), Fond Du Lac, Manitowoc and Sheboygan

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0804-001 06/05/2022

Adams, Juneau, Portage and Wood

	Rates	Fringes

CARPENTER.....$ 36.80 26.12
Piledriver.....$ 37.37 25.96

CARP0955-002 06/01/2022

Calumet (western portion of County), Fond Du Lac, Green Lake, Marquette, Outagamie and Winnebago

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1056-002 06/05/2022

	Rates	Fringes
MILLWRIGHT	$ 38.00	26.78

CARP1074-002 06/01/2022

Barron, Burnett, Chippewa, Clark, Dunn, Eau Claire, Pepin, Pierce, Polk, Rusk, Sawyer, St. Croix and Washburn

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1143-002 06/01/2022

Crawford, Jackson, La Crosse, Monroe, Trempealeau and Vernon

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1146-002 06/01/2022

Brown, Door, Florence, Kewaunee, Marinette, Menominee and Shawano

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

CARP2337-003 06/01/2019

	Rates	Fringes
MILLWRIGHT		
Zone A	$ 33.58	21.53
Zone B	$ 33.58	21.53

ZONE DEFINITIONS

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON COUNTIES

ZONE B: KENOSHA & RACINE COUNTIES

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* ELEC0014-002 12/25/2022

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, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 39.25	22.34

ELEC0127-002 06/01/2021

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 43.16	30%+12.70

ELEC0158-002 05/30/2021

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 36.14	29.75%+10.26

ELEC0159-003 05/30/2021

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	$ 43.38	23.13

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 05/30/2021

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 41.37	69.25%

ELEC0388-002 05/30/2021

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:	$ 36.22	26%+11.24

ELEC0430-002 06/01/2022

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 45.02	24.35

* ELEC0494-005 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 46.38	25.86

ELEC0494-006 06/01/2021

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 37.91	22.74

ELEC0577-003 06/01/2021

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:	$ 35.66	29.50%+10.00

ELEC0890-003 06/01/2021

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 39.00	25.95%+11.17

ENGI0139-003 06/06/2022

REMAINING COUNTIES

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 45.22	24.85
Group 2	$ 43.97	24.85
Group 3	$ 41.57	24.85
Group 4	$ 41.04	24.85
Group 5	$ 38.97	24.85
Group 6	$ 37.44	24.85

HAZARDOUS WASTE PREMIUMS:
EPA Level ""A"" Protection: $3.00 per hour
EPA Level ""B"" Protection: $2.00 per hour
EPA Level ""C"" Protection: $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of over 100 tons; Cranes, Tower Cranes, and Derricks with boom, leads and/or jib lengths 176 ft or longer.

GROUP 2: Backhoes (Excavators) weighing 130,00 lbs and over; Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of 100 tons or less; Cranes, Tower Cranes, and Derricks with boom, leads, and/or jib lengths 175 ft or less; Caisson Rigs; Pile Driver

GROUP 3: Backhoes (Excavators) weighing under 130,000 lbs; Travelling Crane (bridge type); Milling Machine; Concrete Paver over 27 E; Concrete Spreader and Distributor; Concrete Laser Screed; Concrete Grinder and Planing Machine; Slipform Curb and Gutter Machine; Boring Machine (Directional); Dredge Operator; Skid Rigs; over 46 meter Concrete Pump.

GROUP 4: Hydraulic Backhoe (tractor or truck mounted); Hydraulic Crane, 10 tons or less; Tractor, Bulldozer, or End Loader (over 40 hp); Motor Patrol; Scraper Operator; Bituminous Plant and Paver Operator; Screed-Milling Machine; Roller over 5 tons; Concrete pumps 46 meter and

under; Grout Pumps; Rotec type machine; Hydro Blaster, 10,000 psi and over; Rotary Drill Operator; Percussion Drilling Machine; Air Track Drill with or without integral hammer; Blaster; Boring Machine (vertical or horizontal); Side Boom; Trencher, wheel type or chain type having 8 inch or larger bucket; Rail Leveling Machine (Railroad); Tie Placer; Tie Extractor; Tie Tamper; Stone Leveler; Straddle Carrier; Material Hoists; Stack Hoist; Man Hoists; Mechanic and Welder; Off Road Material Haulers.

GROUP 5: Tractor, Bulldozer, or Endloader (under 40 hp); Tampers -Compactors, riding type; Stump Chipper, large; Roller, Rubber Tire; Backfiller; Trencher, chain type (bucket under 8 inch); Concrete Auto Breaker, large; Concrete Finishing Machine (road type); Concrete Batch Hopper; Concrete Conveyor Systems; Concrete Mixers, 14S or over; Pumps, Screw Type and Gypsum); Hydrohammers, small; Brooms and Sweeeprs; Lift Slab Machine; Roller under 5 tons; Industrial Locomotives; Fireman (Pile Drivers and Derricks); Pumps (well points); Hoists, automatic; A-Frames and Winch Trucks; Hoists (tuggers); Boats (Tug, Safety, Work Barges and Launches); Assistant Engineer

GROUP 6: Shouldering Machine Operator; Farm or Industrial Tractor mounted equipment; Post Hole Digger; Auger (vertical and horizontal); Skid Steer Loader with or without attachments; Robotic Tool Carrier with or without attachments; Power Pack Vibratory/Ultra Sound Driver and Extractor; Fireman (Asphalt Plants); Screed Operator; Stone Crushers and Screening Plants; Air, Electric, Hydraulic Jacks (Slip Form); Prestress Machines; Air Compressor, 400 CFM or over; Refrigeration Plant/Freese Machine; Boiler Operators (temporary heat); Forklifts; Welding Machines; Generators; Pumps over 3""; Heaters, Mechanical; Combination small equipment operator; Winches, small electric; Oiler; Greaser; Rotary Drill Tender; Conveyor; Elevator Operator

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ENGI0139-007 06/05/2022

DODGE, FOND DU LAC, JEFFERSON, KENOSHA, MILWAUKEE, OZAUKEE, RACINE, SHEBOYGAN, WALWORTH, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 43.54	24.85
Group 2	$ 42.76	24.85
Group 3	$ 41.81	24.85
Group 4	$ 40.76	24.85
Group 5	$ 39.36	24.85

HAZARDOUS WASTE PREMIUMS:
EPA Level ""A"" Protection: $3.00 per hour
EPA Level ""B"" Protection: $2.00 per hour
EPA Level ""C"" Protection: $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, Tower Cranes, and Derricks with or without attachments, with a lifting capacity of over 100 tons; or Cranes, Tower Cranes, and Derricks with boom, leads, and/or jib lengths measuring 176 feet or longer; Backhoes (Excavators) 130,000 lbs and over; Caisson Rigs and Pile

Drivers

GROUP 2: Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of 100 tons or under; or Cranes, Tower Cranes, and Derricks with boom, lead, and\or jib lengths measuring 175 feet or under; Backhoes (Excavators) under 130,000 lbs; Skid Rigs; Dredge Operator: Traveling Crane (Bridge type); Concrete Paver over 27 E; Concrete Spreader and Distributor; Concrete Pumps and Boring Machines (directional)

GROUP 3: Material Hoists; Stack Hoists; Tractor or Truck mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane, 5 tons or under; Manhoist; Tractor over 40 hp; Bulldozer over 40 hp; Endloader over 40 hp; Forklift, 25 ft and over; Motor Patrol; Scraper Operator; Sideboom; Straddle Carrier; Mechanic and Welder; Bituminous Plant and Paver Operator; Roller over 5 tons; Percussion Drill Operator; Rotary Drill Operator; Blaster; Air Track Drill; Trencher (wheel type or chain type having over 8 inch bucket); Elevator; Milling Machine and Boring Machine (horizontal or vertical); Backhoe Mounted Compactor

GROUP 4: Backfiller; Concrete Auto Breaker (large); Concrete Finishing Machine (road type); Roller, Rubber Tire; Concrete Batch Hopper; Concrete Conveyor System; Concrete Mixers (14S or over); Screw type Pumps and Gypsum Pumps; Grout Pumps; Tractor, Bulldozer, End Loader, under 40 hp; Pumps (well points); Trencher (chain type 8 inch or smaller bucket; Industrial Locomotives; Roller under 5 tons; Fireman (Piledrivers and Derricks); Robotic Tool Carrier with or without attachments.

GROUP 5: Hoists (Automatic); Forklift, 12 ft to 25 ft; Tamper-Compactors, riding type; A-Frame andWinch Trucks; Concrete Auto Breaker; Hydrohammer, small; Brooms and Sweepers; Hoist (Tuggers); Stump Chipper, large; Boats (Tug, Safety, Work Barges and Launch); Shouldering Machine Operator; Screed Operator; Farm or Industrial Tractor; Post Hole Digger; Stone Crushers and Screening Plants; Firemen (Asphalt Plants); Air Compressor (400 CFM or over); Augers (vertical and horizontal); Generators, 150 KW and over; Air, Electric Hydraulic Jacks (Slipform); Prestress Machines; Skid Steer Loader with or without attachments; Boiler operators (temporary heat); Forklift, 12 ft and under; Screed Operator Milling Machine; Refrigeration Plant/Freeze Machine; Power Pack Vibratory/Ultra Sound Driver and Extractor; Generators under 150 KW; Combination small equipment operator; Compressors under 400 CFM; Welding Machines; Heaters, Mechanical; Pumps; Winches, Small Electric; Oiler and Greaser; Conveyor; High pressure utility locating machine (daylighting machine).

IRON0008-002 06/13/2022

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 41.00	28.95

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2021

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 40.57	28.40

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/05/2022

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	$ 39.00	28.58

IRON0498-005 06/01/2021

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 41.37	44.41

IRON0512-008 05/01/2022

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 41.00	33.11

IRON0512-021 05/01/2022

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.94	33.11

LABO0113-004 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Laborers: (Open Cut)		
Group 1	$ 17.62	21.98
Group 2	$ 19.89	21.98
Group 3	$ 23.43	21.98
Group 4	$ 32.80	21.98
Group 5	$ 32.94	21.98
Group 6	$ 33.00	21.98
Group 7	$ 36.85	21.98
Group 8	$ 39.67	21.98
Group 9	$ 40.31	21.98

LABORERS CLASSIFICATIONS [OPEN CUT]

GROUP 1: Yard Laborer

GROUP 2: Landscaper

GROUP 3: Flag Person

GROUP 4: Paving Laborer

GROUP 5: General Laborer on Surface; Top Man

GROUP 6: Mud Mixer

GROUP 7: Mucker; Form Stripper; Bottom Digger and Misc; Bottom Man and Welder on Surface

GROUP 8: Concrete Manhole Builder; Caisson Worker; Miner; Pipe Layer; Rock Driller and Joint Man; Timber Man and Concrete Brusher; Bracer in Trench Behind Machine & Tight Sheeting; Concrete Formsetter and Shoveler; Jackhammer Operator

GROUP 9: Blaster

LABO0113-005 06/06/2022

SEWER, TUNNEL & UNDERGROUND

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
Laborers:		
Group 1	$ 24.29	21.98
Group 2	$ 30.22	21.98
Group 3	$ 34.42	21.98
Group 4	$ 36.19	21.98

TUNNEL WORK UNDER COMPRESSED AIR: 0-15 lbs add $1.00, 15-30 lbs add $2.00, over 30 lbs add $3.00

LABORERS CLASSIFICATIONS

GROUP 1: Flagperson

GROUP 2: Top Man, General Laborer, Wellpoint Installation, Wire Mesh and Reinforcement, Concrete Worker, Form

Stripper, Strike-off Work

GROUP 3: Machine and Equipment Operator, Sheeting, Form Setting, Patch Finisher, Bottom Man, Joint Sawer, Gunnite Man, Manhole Builder, Welder-Torchman, Blaster, Caulker, Bracer, Bull Float, Conduit Worker, Mucker and Car Pusher, Raker and Luteman, Hydraulic Jacking of Shields, Shield Drivers, Mining Machine, Lock Tenders, Mucking Machine Operator, Motor Men & Gauge Tenders and operation of incidental Mechanical Equipment and all Power Driven Tools

GROUP 4: Pipelayer, Miner and Laser Operator

LABO0113-008 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON & WAUKESHA COUNTIES

	Rates	Fringes
Laborers: (Tunnel-Free Air)		
Group 1	$ 23.43	21.98
Group 2	$ 32.94	21.98
Group 3	$ 33.00	21.98
Group 4	$ 36.98	21.98
Group 5	$ 36.99	21.98
Group 6	$ 39.67	21.98
Group 7	$ 40.31	21.98

LABORERS CLASSIFICATIONS [TUNNEL - FREE AIR]:

GROUP 1: Flagperson

GROUP 2: General Laborer on surface; Tower Man

GROUP 3: Saw Man; Top Man

GROUP 4: Form Stripper; Car Pusher

GROUP 5: Mucker; Dinkey; Welder (rate on surface)

GROUP 6: Concrete Manhole Builder; Mucking Machine; Miner; Mining Machine; Welder; Rock Driller; Concrete Buster; Jack Hammer Operator; Caisson Worker; Pipelayer and Joint Man; Bracerman

GROUP 7: Blaster

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* LABO0113-009 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON & WAUKESHA COUNTIES

	Rates	Fringes
Laborers: (Tunnel - *COMPRESSED AIR 0 - 15 lbs.)		
Group 1	$ 23.43	21.98
Group 2	$ 32.94	21.98
Group 3	$ 37.39	21.98
Group 4	$ 38.19	21.98
Group 5	$ 38.31	21.98
Group 6	$ 41.01	21.98
Group 7	$ 41.63	21.98

LABORERS CLASSIFICATIONS [TUNNEL - COMPRESSED AIR]:

*Compressed Air 15 - 30 lbs add $2.00 to all classifications
*Compressed Air over 30 lbs add $3.00 to all classifcations

GROUP 1: Flagperson

GROUP 2: General Laborer on surface

GROUP 3: Lock Tender on surface

GROUP 4: Form Stripper; Car Pusher

GROUP 5: Mucker; Dinkey

GROUP 6: Mucking Machine; Miner; Mining Machine; Welder & Rock Driller; Lock Tender in tunnel; Concrete Buster; Jack Hammer Operator; Caisson Worker; Pielayer and Joint Man; Bracerman; Nozzle Man on Gunite; Timber Man; Concrete Brusher

GROUP 7: Blaster

NOTE: Hazardous & Toxic Waste Removal: add $0.15 per hour.

LABO0140-005 06/06/2022

ADAMS, ASHLAND, BARRON, BROWN, BUFFALO, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE,FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, JACKSON, JEFFERSON, JUNEAU, LACROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, ST CROIX, SAUK, SAWYER, SHAWANO, SHEBOYGAN, TAYLOR, TREMMPEALEAU, VERNON, VILAS, WALWWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER (SEWER & WATER)		
Group 1	$ 31.48	18.68
Group 2	$ 33.33	18.68
Group 3	$ 33.53	18.68
Group 4	$ 34.28	18.68

FOR ALL TUNNEL WORK UNDER COMPRESSED AIR: 0-15 lbs add $1.00, 15-30 lbs add $2.00, over 30 lbs add $3.00

LABORER CLASSIFICATIONS:

GROUP 1: Flagperson

GROUP 2: General Laborer, Wellpoint Installation; Form Stripper; Strike Off worker

GROUP 3: Sheeting Formsetting; Patch Finisher; Bottom Man; Joint Sawer; Gunnite Man; Manhole Builder; Welder; Torchman; Blaster; Caulker Bracer; Bull Float; Mucker and Car Pusher; Raker and Luteman; Hydraulic jacking of shields, Shield Drivers; Mining Machine; Lock Tenders; Mucking Machine Operators; Motor Men and Gauge Tenders;

Power Tool Operators

GROUP 4: Pipelayer, Miner, and Laser Operator

LABO0464-002 06/06/2022

DANE AND DOUGLAS COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.38	18.68
Group 2	$ 33.58	18.68
Group 3	$ 33.78	18.68
Group 4	$ 34.53	18.68

FOR ALL TUNNEL WORK UNDER COMPRESSED AIR: 0 - 15 lbs add $1.00, 15- 30 lbs add $2.00, over 30 lbs add $3.00

LABORERS CLASSIFICATIONS:

GROUP 1: Flagperson

GROUP 2: General Laborer; Wellpoint Installation; Concrete Worker; Form Stripper; Strike Off worker

GROUP 3: Sheeting Formsetting; Patch Finisher; Bottom Man; Joint Sawer; Gunnite Man; Manhole Builder; Welder; Torchman; Blaster; Caulker Bracer; Bull Float; Mucker and Car Pusher; Raker and Luteman; Hydraulic jacking of shields, Shield Dirvers; Mining Machine; Lock Tenders; Mucking Machine Operators; Motor Men and Gauge Tenders; Power Tool Operators

GROUP 4: Pipelayer, Miner, and Laser Operator

LABO1091-010 06/06/2022

BAYFIELD, BURNETT, IRON, SAWYER, AND WASHBURN COUNTIES

	Rates	Fringes
Laborers: (SEWER & WATER)		
Group 1	$ 31.17	18.68
Group 2	$ 33.23	18.68
Group 3	$ 33.43	18.68
Group 4	$ 34.18	18.68

FOR ALL TUNNEL WORK UNDER COMPRESSED AIR:
0 - 15 lbs add $1.00, 15-30 lbs add $2.00, over 30 lbs add $3.00

LABORERS CLASSIFICATIONS:

GROUP 1: Flagperson

GROUP 2: Laborers, Wellpoint Installation; Form Stripper; Strike Off worker

GROUP 3: Sheeting Formsetting; Patch Finisher; Bottom Man; Joint Sawer; Gunnite Man; Manhole Builder; Welder;

Torchman; Blaster; Caulker Bracer; Bull Float; Mucker and Car Pusher; Raker and Luteman; Hydraulic jacking of shields, Shield Dirvers; Mining Machine; Lock Tenders; Mucking Machine Operators; Motor Men and Gauge Tenders; Power Tool Operators

GROUP 4: Pipelayer, Miner, and Laser Operator

PLAS0599-010 06/01/2021

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 42.06	20.87
Area 2 (BAC)	$ 37.73	23.80
Area 3	$ 38.74	22.46
Area 4	$ 38.59	22.66
Area 5	$ 38.16	22.98
Area 6	$ 34.94	26.36

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2021

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 32.57	23.81
3 or more Axles; Euclids, Dumptor & Articulated, Truck Mechanic	$ 32.72	23.81
WELL DRILLER	$ 16.52	3.70

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) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all

rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator

(See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

"General Decision Number: WI20230015 01/20/2023

Superseded General Decision Number: WI20220015

State: Wisconsin

Construction Type: Heavy

Counties: Wisconsin Statewide.

HEAVY CONSTRUCTION PROJECTS (Excluding Tunnel, Sewer, and Water Lines).

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)(2)-(60).

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:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least $16.20 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 2023.
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:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least $12.15 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 2023.

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	01/06/2023
1	01/13/2023

BOIL0107-001 01/01/2021

	Rates	Fringes
BOILERMAKER		
Boilermaker	$ 39.52	31.50
Small Boiler Repair (under 25,000 lbs/hr)	$ 26.91	16.00

BRWI0001-002 06/01/2022

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.96	25.13

BRWI0002-002 06/01/2022

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 45.87	23.91

BRWI0002-005 06/01/2022

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	$ 38.81	23.94

BRWI0003-002 06/01/2021

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.03	24.95

BRWI0004-002 06/01/2022

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 42.53	26.01

BRWI0006-002 06/01/2022

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.26	24.83

BRWI0007-002 06/01/2022

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.26	25.52

BRWI0008-002 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 44.08	24.42

BRWI0009-001 06/01/2022

GREEN LAKE, MARQUETTE, OUTAGAMIE, SHAWANO, WAUPACA, WASHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.00	25.09

BRWI0011-002 06/01/2022

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.00	25.09

BRWI0013-002 06/01/2022

DANE, GRANT, IOWA, AND RICHLAND COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.56	25.22

BRWI0019-002 06/01/2022

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.36	25.73

BRWI0021-002 06/01/2022

DODGE AND JEFFERSON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.49	26.27

BRWI0034-002 06/01/2022

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.56	25.22

CARP0068-011 05/02/2022

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 41.19	27.05

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0310-002 06/05/2022

Ashland, Bayfield, Forest, Iron, Langlade, Lincoln, Marathon, Oneida, Shawano, Taylor and Vilas

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0314-001 06/05/2022

Columbia, Dane, Dodge, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk and Walworth

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

CARP0731-002 06/05/2022

Calumet (Eastern portion of the County), Fond Du Lac, Manitowoc and Sheboygan

	Rates	Fringes

CARPENTER.....$ 36.80 26.12
Piledriver.....$ 37.37 25.96

CARP0804-001 06/05/2022

Adams, Juneau, Portage and Wood

	Rates	Fringes
CARPENTER	$ 36.80	26.12
Piledriver	$ 37.37	25.96

CARP0955-002 06/01/2022

Calumet (western portion of County), Fond Du Lac, Green Lake, Marquette, Outagamie and Winnebago

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1056-002 06/05/2022

	Rates	Fringes
MILLWRIGHT	$ 38.00	26.78

CARP1074-002 06/01/2022

Barron, Burnett, Chippewa, Clark, Dunn, Eau Claire, Pepin, Pierce, Polk, Rusk, Sawyer, St. Croix and Washburn

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1143-002 06/01/2022

Crawford, Jackson, La Crosse, Monroe, Trempealeau and Vernon

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP1146-002 06/01/2022

Brown, Door, Florence, Kewaunee, Marinette, Menominee and Shawano

	Rates	Fringes
CARPENTER	$ 36.80	26.12
PILEDRIVER	$ 37.37	25.96

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

CARP2337-003 06/01/2019

	Rates	Fringes
MILLWRIGHT		
Zone A	$ 33.58	21.53
Zone B	$ 33.58	21.53

ZONE DEFINITIONS

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON COUNTIES

ZONE B: KENOSHA & RACINE COUNTIES

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* ELEC0014-002 12/25/2022

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, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 39.25	22.34

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* ELEC0014-007 05/29/2022

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 29.63	3%+16.18

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 06/01/2021

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 43.16	30%+12.70

ELEC0158-002 05/30/2021

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 36.14	29.75%+10.26

ELEC0159-003 05/30/2021

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	$ 43.38	23.13

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 05/30/2021

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 41.37	69.25%

ELEC0388-002 05/30/2021

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:	$ 36.22	26%+11.24

ELEC0430-002 06/01/2022

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 45.02	24.35

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* ELEC0494-005 06/01/2022

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 46.38	25.86

ELEC0494-006 06/01/2021

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 37.91	22.74

ELEC0494-013 06/01/2021

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer	$ 22.39	18.80
Technician	$ 32.49	20.26

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2021

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:	$ 35.66	29.50%+10.00

ELEC0890-003 06/01/2021

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 39.00	25.95%+11.17

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

ENGI0139-001 06/01/2022

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 49.01	25.30
Group 2	$ 48.51	25.30
Group 3	$ 48.01	25.30
Group 4	$ 47.17	25.30
Group 5	$ 43.39	25.30
Group 6	$ 38.24	25.30

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, Pedestal Tower Cranes and Derricks with or w/o attachments with a lifting capacity of over 100 tons; or Cranes, Tower Cranes, Pedestal Tower Cranes and Derricks with boom, leads, and/or jib lengths measuring 176 feet or longer; Self-Erecting Tower Cranes over 4000 lbs lifting capacity; All Cranes with Boom Dollies; Boring Machines (directional); Master Mechanic. $0.50 additional per hour per 100 tons or 100 ft of boom over 200 ft or lifting capacity of crane over 200 tons to a maximum of 300 tons or 300 ft. Thereafter an increase of $0.01 per ft or ton, whichever is greater.

GROUP 2: Cranes, Tower Cranes, Pedestal Tower Cranes and Derricks with or without attachments with a lifting

capacity of 100 tons or less; or Cranes, Tower Cranes Portable Tower Cranes, Pedestal Tower Cranes and Derricks with boom, leadsand/or jib lengths measuring 175 feet or less; Backhoes (excavators) 130,000 lbs and over; Caisson Rigs; Pile Drivers; Boring Machines (vertical or horizontal), Versi-Lift, Tri-Lift, Gantry 20,000 lbs & over.

GROUP 3: Backhoe (excavator) under 130,000 lbs;Self-erecting Tower Crane 4000 lbs & under lifting capacity;Traveling Crane (bridge type); Skid Rigs; Dredge Operator; Mechanic; Concrete Paver (over 27E); Concrete Spreader and Distributor; Forklift/ Telehandler (machinery- moving / steel erection); Hydro Blaster, 10,000 psi and over

GROUP 4: Material Hoists; Stack Hoists; Hydraulic Backhoe (tractor or truck mounted); Hydraulic Crane, 5 tons or under (tractor or truck mounted); Hoist (tuggers 5 tons & over); Hydro-Excavators/Daylighters; Concrete Pumps Rotec type Conveyors; Tractor/Bulldozer/End Loader (over 40 hp); Motor Patrol; Scraper Operator; Sideboom; Straddle Carrier; Welder; Bituminous Plant and Paver Operator; Roller over 5 tons; Rail Leveling Machine (Railroad); Tie Placer; Tie Extractor; Tie Tamper; Stone Leveler; Rotary Drill Operator and Blaster; Percussion Drill Operator; Air Track Drill and/or Hammers; Gantrys (under 20,000 lbs); Tencher (wheel type or chain type having 8 inch or larger bucket); Milling Machine; Off-Road Material Haulers.

GROUP 5: Backfiller; Concrete Auto Breaker (large); Concrete Finishing Machines (road type); Rubber Tired Roller; Concrete Batch Hopper; Concrete Conveyor Systems; Grout Pumps; Concrete Mixers (14S or over); Screw Type Pumps and Gypsum Pumps; Tractor, Bulldozer, End Loader (under 40 hp); Trencher (chain type, bucket under 8 inch); Industrial Locomotives; Rollers under 5 tons; Stump Grinder/Chipper (Large); Timber Equipment; Firemen (pile drivers and derricks); Personnel Hoist, Telehandler over 8000 lbs; Robotic Tool Carrier with or without attachments

GROUP 6: Tampers - Compactors (riding type); Assistant Engineer; A-Frames and Winch Trucks; Concrete Auto Breaker; Hydrohammers (small); Brooms and Sweepers; Hoist (tuggers under 5 tons); Boats (Tug, Safety, Work Barges, Launch); Shouldering Machine Operator; Prestress Machines; Screed Operator; Stone Crushers and Screening Plants; Screed Operators (milling machine), Farm or Industrial Tractor Mounted Equipment; Post Hole Digger; Fireman (asphalt plants); Air Compressors over 400 CFM; Generators, over 150 KW; Augers (vertical and horizontal); Air, Electric, Hydraulic Jacks (slipform); Skid Steer Loaders (with or without attachments); Boiler Operators (temporary heat); Refrigeration Plant/Freeze Machines; Power Pack Vibratory/Ultra Sound Drivers and Extractors; Welding Machines; Heaters (mechanical); Pumps; Winches (small electric); Oiler and Greaser; Rotary Drill Tender; Conveyor; Forklifts/Telehandler 8000 lbs & under; Elevators: Automatic Hoists; Pumps (well points); Combination Small Equipment Operators

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ENGI0139-003 06/06/2022

REMAINING COUNTIES

	Rates	Fringes

Power Equipment Operator

Group 1	$ 45.22	24.85
Group 2	$ 43.97	24.85
Group 3	$ 41.57	24.85
Group 4	$ 41.04	24.85
Group 5	$ 38.97	24.85
Group 6	$ 37.44	24.85

HAZARDOUS WASTE PREMIUMS:
EPA Level ""A"" Protection: $3.00 per hour
EPA Level ""B"" Protection: $2.00 per hour
EPA Level ""C"" Protection: $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of over 100 tons; Cranes, Tower Cranes, and Derricks with boom, leads and/or jib lengths 176 ft or longer.

GROUP 2: Backhoes (Excavators) weighing 130,00 lbs and over; Cranes, Tower Cranes and Derricks with or without attachments with a lifting capacity of 100 tons or less; Cranes, Tower Cranes, and Derricks with boom, leads, and/or jib lengths 175 ft or less; Caisson Rigs; Pile Driver

GROUP 3: Backhoes (Excavators) weighing under 130,000 lbs; Travelling Crane (bridge type); Milling Machine; Concrete Paver over 27 E; Concrete Spreader and Distributor; Concrete Laser Screed; Concrete Grinder and Planing Machine; Slipform Curb and Gutter Machine; Boring Machine (Directional); Dredge Operator; Skid Rigs; over 46 meter Concrete Pump.

GROUP 4: Hydraulic Backhoe (tractor or truck mounted); Hydraulic Crane, 10 tons or less; Tractor, Bulldozer, or End Loader (over 40 hp); Motor Patrol; Scraper Operator; Bituminous Plant and Paver Operator; Screed-Milling Machine; Roller over 5 tons; Concrete pumps 46 meter and under; Grout Pumps; Rotec type machine; Hydro Blaster, 10,000 psi and over; Rotary Drill Operator; Percussion Drilling Machine; Air Track Drill with or without integral hammer; Blaster; Boring Machine (vertical or horizontal); Side Boom; Trencher, wheel type or chain type having 8 inch or larger bucket; Rail Leveling Machine (Railroad); Tie Placer; Tie Extractor; Tie Tamper; Stone Leveler; Straddle Carrier; Material Hoists; Stack Hoist; Man Hoists; Mechanic and Welder; Off Road Material Haulers.

GROUP 5: Tractor, Bulldozer, or Endloader (under 40 hp); Tampers -Compactors, riding type; Stump Chipper, large; Roller, Rubber Tire; Backfiller; Trencher, chain type (bucket under 8 inch); Concrete Auto Breaker, large; Concrete Finishing Machine (road type); Concrete Batch Hopper; Concrete Conveyor Systems; Concrete Mixers, 14S or over; Pumps, Screw Type and Gypsum); Hydrohammers, small; Brooms and Sweeeprs; Lift Slab Machine; Roller under 5 tons; Industrial Locomotives; Fireman (Pile Drivers and Derricks); Pumps (well points); Hoists, automatic; A-Frames and Winch Trucks; Hoists (tuggers); Boats (Tug, Safety, Work Barges and Launches); Assistant Engineer

GROUP 6: Shouldering Machine Operator; Farm or Industrial Tractor mounted equipment; Post Hole Digger; Auger

(vertical and horizontal); Skid Steer Loader with or without attachments; Robotic Tool Carrier with or without attachments; Power Pack Vibratory/Ultra Sound Driver and Extractor; Fireman (Asphalt Plants); Screed Operator; Stone Crushers and Screening Plants; Air, Electric, Hydraulic Jacks (Slip Form); Prestress Machines; Air Compressor, 400 CFM or over; Refrigeration Plant/Freese Machine; Boiler Operators (temporary heat); Forklifts; Welding Machines; Generators; Pumps over 3""; Heaters, Mechanical; Combination small equipment operator; Winches, small electric; Oiler; Greaser; Rotary Drill Tender; Conveyor; Elevator Operator

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IRON0008-002 06/13/2022

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 41.00	28.95

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2021

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 40.57	28.40

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/05/2022

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	$ 39.00	28.58

IRON0512-008 05/01/2022

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes

IRONWORKER.....$ 41.00 33.11

IRON0512-021 05/01/2022

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.94	33.11

LABO0113-002 06/01/2022

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 32.65	23.09
Group 2	$ 32.80	23.09
Group 3	$ 33.00	23.09
Group 4	$ 33.15	23.09
Group 5	$ 33.30	23.09
Group 6	$ 29.14	23.09

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 Sawer 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

LABO0113-003 06/01/2022

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.90	23.09
Group 2	$ 32.00	23.09
Group 3	$ 32.05	23.09
Group 4	$ 32.25	23.09
Group 5	$ 32.10	23.09
Group 6	$ 28.99	23.09

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 Sawer 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

LABO0113-011 06/01/2022

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 31.71	23.09
Group 2	$ 31.86	23.09
Group 3	$ 32.06	23.09
Group 4	$ 32.03	23.09
Group 5	$ 32.36	23.09
Group 6	$ 28.85	23.09

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 Sawer 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

LABO0140-002 06/01/2022

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, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 36.42	18.68
Group 2	$ 36.52	18.68
Group 3	$ 36.57	18.68
Group 4	$ 36.77	18.68
Group 5	$ 36.62	18.68
Group 6	$ 33.05	18.68

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; Bitminous 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 Sawer 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 Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2022

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 36.70	18.68
Group 2	$ 36.80	18.68
Group 3	$ 36.85	18.68
Group 4	$ 37.05	18.68
Group 5	$ 36.90	18.68
Group 6	$ 33.05	18.68

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; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer 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

PAIN0106-008 05/01/2022

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 33.99	22.70
Spray, Sandblast, Steel	$ 34.59	22.70
Repaint:		
Brush, Roller	$ 33.09	22.70
Spray, Sandblast, Steel	$ 32.49	22.70

PAIN0108-002 06/01/2022

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 39.60	21.79
Spray & Sandblast	$ 40.60	21.79

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

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2022

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 38.15	24.80
Brush	$ 37.40	24.80
Spray & Sandblast	$ 38.15	24.80

PAIN0802-002 06/01/2021

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 29.98	18.78

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2022

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	$ 34.68	18.94

PAIN0934-001 06/01/2022

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 36.70	24.69
Spray	$ 37.70	24.69
Structural Steel	$ 36.85	24.69

PAIN1011-002 06/06/2021

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 26.71	14.38

PLAS0599-010 06/01/2021

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 42.06	20.87

Area 2 (BAC)	$ 37.73	23.80
Area 3	$ 38.74	22.46
Area 4	$ 38.59	22.66
Area 5	$ 38.16	22.98
Area 6	$ 34.94	26.36

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

PLUM0011-003 05/07/2018

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, SAWYER, AND WASHBURN COUNTIES

	Rates	Fringes
PLUMBER	$ 40.63	20.72

PLUM0075-002 06/01/2016

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
PLUMBER	$ 40.27	21.47

PLUM0075-004 06/01/2016

DODGE (Watertown), GREEN, JEFFERSON, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
PLUMBER	$ 40.52	21.47

PLUM0075-009 06/01/2016

COLUMBIA, DANE, IOWA, MARQUETTE, RICHLAND AND SAUK COUNTIES

	Rates	Fringes
PLUMBER	$ 38.82	20.12

PLUM0111-007 05/28/2018

MARINETTE COUNTY (Niagara only)

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 33.33	24.48

PLUM0118-002 06/01/2022

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
Plumber and Steamfitter	$ 47.50	25.92

PLUM0400-003 05/29/2022

ADAMS,BROWN, CALUMET, DODGE (except Watertown), DOOR, FOND DU LAC, GREEN LAKE,KEWAUNEE, MANITOWOC, MARINETTE (except Niagara), MENOMINEE, OCONTO, OUTAGAMIE, SHAWANO, SHEBOYGAN, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER	$ 46.37	20.96

PLUM0434-002 05/30/2021

BARON, BUFFALO, CHIPPEWA, CLARK, CRAWFORD, DUNN, EAU CLAIRE, FLORENCE, FOREST, GRANT, JACKSON, JUNEAU, LA CROSSE, LANGLADE, LINCOLN, MARATHON, MONROE, ONEIDA, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RUSK, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILAS, AND WOOD COUNTIES

	Rates	Fringes
PIPEFITTER	$ 44.65	20.72

PLUM0601-003 06/01/2022

DODGE (Watertown), GREEN, JEFFERSON, LAFAYETTE, MILWAUKEE, OZAUKEE, ROCK, WASHINGTON AND WAUKESHA COUNTIES

	Rates	Fringes
PIPEFITTER	$ 50.00	28.93

PLUM0601-009 06/01/2022

COLUMBIA, DANE, IOWA, MARQUETTE, RICHLAND AND SAUK COUNTIES

	Rates	Fringes
PIPEFITTER	$ 52.06	26.86

TEAM0039-002 06/01/2021

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axle Trucks	$ 32.57	23.81
3 or more axles; Euclids or Dumptor, Articulated Truck, Mechanic	$ 32.72	23.81

SUWI2011-001 11/16/2011

	Rates	Fringes
WELL DRILLER	$ 16.52	

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) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this

classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests

for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"

Wisconsin Department of Transportation

Division of Transportation Systems Development
Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

January 30, 2023

NOTICE TO ALL CONTRACTORS:

ASP-5 Addendum #01

Letting of February 14, 2023

Attached is a copy of the revised ASP-5 Fuel Cost Adjustment that are included in proposals 09, 15, 19, 22, 51, and 53. This will be effective with the February 14, 2023 letting.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractors.

Sincerely,

Mike Coleman
Proposal Development Specialist
Proposal Management Section

ADDITIONAL SPECIAL PROVISIONS 5
FUEL COST ADJUSTMENT

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $3.20 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1\right) x\ Q\ x\ BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

Wisconsin Department of Transportation

Division of Transportation Systems Development
Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
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February 8, 2023

NOTICE TO ALL CONTRACTORS:

Proposal #15:

1100-45-70, WISC2023222
IH 41 Airport Freeway
84th Street to 35th Street (Mainline)
IH 41
Milwaukee County

1100-46-71, WISC2023223
IH 41 Airport Freeway
STH 36 (Loomis Rd) Bridge
IH 41
Milwaukee County

Letting of February 14, 2023

This is Addendum No. 01, which provides for the following:

Special Provisions:

Revised Special Provisions	
Article No.	Description
3	Prosecution and Progress
5	Lane Rental Fee Assessment
6	Holiday and Special Event Work Restrictions
7	Utilities
27	Traffic Meetings and Traffic Control Scheduling
37	Removing Distribution Center, Item 204.9060.S.101
38	Removing Lighting Units, Item 204.9060.S.102
64	Structure Repainting Recycled Abrasive B-40-197, Item 517.1801.400; Structure Repainting Recycled Abrasive B-40-198, Item 517.1801.401
138	Concrete Channel Lining Repair, Item SPV.0060.403

Added Special Provisions	
Article No.	Description
178	Pipe Grates, 42-Inch, Item 611.9800.S.001; Pipe Grates, 84-Inch, Item 611.9800.S.002
179	Traffic Control Close-Open Freeway to Freeway System Ramp, Item SPV.0060.032
180	Sanitary Manhole Internal/External Seal, Item SPV.0060.503

Deleted Special Provisions	
Article No.	Description
39	Removing Luminaires, Item 204.9060.S.104
70	Pipe Grates, Item 611.9800.S

Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum
643.0300	Traffic Control Drums	DAY	189,579	98,427	288,006
643.0420	Traffic Control Barricades Type III	DAY	19,829	18,730	38,559
643.0705	Traffic Control Warning Lights Type A	DAY	36,191	37,458	73,649
643.0715	Traffic Control Warning Lights Type C	DAY	42,622	29,053	71,675
643.0800	Traffic Control Arrow Boards	DAY	1,903	658	2,561
643.0900	Traffic Control Signs	DAY	127,985	32,612	160,597
643.1050	Traffic Control Signs PCMS	DAY	2,545	250	2,795
643.4100	Traffic Control Interim Lane Closure	EACH	706	90	796
659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	51	225	276
SPV.0060.501	Water Main Protection	EACH	5	10	15

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum
611.9800.S.001	Pipe Grates, 42-Inch	EACH	0	1	1
611.9800.S.002	Pipe Grates, 84-Inch	EACH	0	1	1
SPV.0060.032	Traffic Control Close-Open Freeway to Freeway System Ramp	EACH	0	250	250

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum
204.9060.S.104	Removing Luminaires	EACH	225	-225	0
611.9800.S	Pipe Grates	EACH	2	-2	0

Plan Sheets:

Revised Plan Sheets – ID 1100-45-70	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
385	Miscellaneous Quantities (Added Water Main Protection item quantities)
436-444	Miscellaneous Quantities – Lighting (Revised quantities)
474-477	Miscellaneous Quantities – Traffic Control (Added Traffic Control Close-Open Freeway to Freeway System Ramp item quantities, added IH 41 NB Ramp and Ramp NW Detour quantities, and revised traffic control quantities)
539	SDD Concrete Barrier Temporary Precast, 12’-6” (Added specific information about drilling pilot holes)
706	Structure B-40-321 Cross Section and Quantities (Revised quantities)

Revised Plan Sheets – ID 1100-46-71	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
15	Construction Details (Updated Project Number)

Added Plan Sheets – 1100-45-70	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
79A	Construction Detail – Water Main Protection (Required for storm sewer construction near water mains)
304A-304G	Traffic Control – Nighttime Closure Details (Required for freeway nighttime closures)
335A-335B	Detour – IH 43 NB Ramp (Required for freeway nighttime closures) Detour – Ramp NW (Required for freeway nighttime closures)
625A	SDD Traffic Control, System Ramp Closure (Required for freeway nighttime closures)

Added Plan Sheets1100-46-71	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
140A-B	Traffic Control – Full Closure Detail (Required for closure of STH 36/Loomis Road)

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

1100-45-70, 1100-46-71

February 8, 2023

Special Provisions

3. Prosecution and Progress.

Replace entire section titled **Freeway and Ramp Work Restrictions***:*

Freeway and Ramp Work Restrictions

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**

Weekday Peak Hours

5:30 AM – 9:30 PM	Monday, Tuesday, Wednesday, Thursday
5:30 AM – 11:00 PM	Friday

Weekend Peak Hours

8:00 AM – 11:00 PM	Saturday
8:00 AM – 9:30 PM	Sunday

Nighttime and System Ramp Closure 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

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

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

Do not close freeway lanes or shoulders and ensure that the freeways are entirely clear of traffic during Weekday Peak Hours and Weekend Peak Hours, except as shown in the traffic control plans. Provide a minimum of one lane in each direction of the freeway that is entirely clear for traffic during Nighttime Hours except as allowed during full closure. Close service ramps only during Service Ramp Closure Hours, unless otherwise specified in the plan, or unless otherwise approved by the engineer for safety or operational reasons associated with other adjacent lane or freeway closures.

Follow plan details for closures. Lane restrictions of the freeway beyond that shown on the traffic control plans are subject to lane rental fee assessments and must be approved by the engineer. If plan details are not provided in the traffic control plan, furnish plans for review by the engineer. Once approved, allow at least three business days prior to the closure of roadway, lane, and ramp as identified in Contractor Coordination.

Obtain prior acceptance from the engineer for Ramp Closures. Long-term ramp closures shown on the traffic control plans shall be posted 10 business days in advance of their closure with dates and time of closure. Post all short-term entrance and exit ramps three business days in advance of their closure with dates and time of closure.

No two consecutive entrance ramps or consecutive exit ramps may be closed unless it is approved by the engineer.

Full closure and detouring of freeway roads will be restricted to Full Freeway Closure Hours unless otherwise specified. The freeway may be closed to facilitate the removal of full span sign structures, erection of full span sign structures, removal of structures, erection of girders, and other work approved by the engineer. Provide signed detour routes, as shown in the plans, fully open and free of construction during all full freeway and system ramp closures.

Add the following under subsection titled **Definitions** *under section titled* **Local Road Work Restrictions***:*

The following definitions apply to this contract for WIS 36/Loomis Road closure restrictions:

Single Lane Closure

Mon-Thur PM: 8:00 PM – 6:00 AM

Fri PM: 9:00 PM – 11:00 AM

Sat PM: 9:00 PM – 11:00 AM

Sun PM: 9:00 PM – 6:00 AM

5. Lane Rental Fee Assessment.

Add the following to the bulleted list of Lane Rental Fee Assessments after the third main bullet:

- System Ramp - $1,000 per ramp, per hour broken into 15-minute increments

6. Holiday and Special Event Work Restrictions.

Replace the entire section titled **Freeway Special Event Restrictions** *with the following:*

During Summerfest, June 22-24, June 29-July 1, and July 6-8, 2023, maintain one open lane on IH 41/43/894 until one hour after the event closes each night.

During the Wisconsin State Fair, August 3 to August 13, 2023, maintain one open lane on IH 41/43/894 until one hour after the event closes each night.

During the Harley-Davidson Homecoming Anniversary, July 13-16, 2023, on or near 60th Street and Layton Avenue, maintain two open lanes on IH 41/43/894 until one hour after the event closes each night.

7. Utilities

Replace the entire section titled **Project 1100-46-71** *with the following:*

Project 1100-46-71

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area, as required per statutes. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities.

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 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. 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.

Contact each utility company listed in the plans, prior to preparing bids, to obtain current information on the status of existing and any new utility relocation work. The location of utility installations as described in this article are approximate.

The following utility owners have facilities in the project area: They will relocate their facilities prior to or during construction.

AT&T Wisconsin has both underground and overhead facilities and proposes the following relocation and removals, prior construction.

AT&T to remove pedestal and pole at STA 95+75,53 RT

AT&T to remove pedestal at STA 93+87,53 RT

AT&T to remove Overhead cable from pole at STA 95+75,53 RT to pole at STA 96+02, 104 RT

AT&T to remove all overhead cable from pole at STA 97+49, 52 RT to pole at STA 92+34,87 RT

AT&T to discontinue buried 100 pair cable from STA 97+49, 52 RT to STA 92+34,87 RT

AT&T proposes to bore new 4-inch inner duct from pedestal at STA 97+49,52 RT to joint use

duct at STA 94+75 71.5 RT 2 feet off proposed R/W line at a minimum depth of 7 feet to

avoid new storm sewer.

Contact for the AT&T Wisconsin is Nathan Gibert (262-720-8235)

City of Greenfield – Sewer has existing facilities within the project limits.

The installation of internal/external sanitary manhole seals are included with the project. The two manhole locations are:

- 96+03, 40’ RT (MH ID 10-070)
- 96+03, 43.5’ LT (MH ID 10-068)

Three additional sanitary manholes will be abandoned as well as the 8” diameter sanitary sewer pipes connecting the manholes. The three manhole locations are:

- 92+50, 53’ LT (MH ID 10-075)
- 92+62, 40’ RT (MH ID 10-077)
- 93+54, 39’ RT (MH ID 10-078)

A new sanitary manhole will be installed within the cul du sac of the S. 43rd St Service Dr and the 3 sanitary manholes and 8” diameter sanitary sewer pipe upstream from this location will be abandoned. Work will be performed by a utility contractor under contract with the City of Greenfield. Abandonment will follow specifications in the Standard Specifications for Sewer & Water Construction in Wisconsin, latest edition and Section 204 of the Wisconsin Department of Transportation Standard Specifications for Highway and

Structure Condition, latest edition. This work may have to be performed in stages depending on the project traffic staging.

Contact for the City of Greenfield is Jeff Katz at (414) 939-8322.

City of Milwaukee – Water (manhole adjustments and water main protection)

City of Milwaukee - Water has existing facilities within the project limits.

Construct, reconstruct, relocate, remove, City of Milwaukee - Water as shown in the plans and in the bid items for this project.

Hydrant at approximately station 85+00, 37' LT conflicts with the proposed curb. Hydrant will be altered to avoid conflict with proposed curb and sidewalk. Proposed hydrant will be approximately at station 85+00 at proposed back of walk.

Hydrant at approximately station 93+00, 32' LT conflicts with the proposed curb. Hydrant will be altered to avoid conflict with proposed curb and sidewalk. Proposed hydrant will be approximately at station 91+40 at proposed back of walk.

Valves boxes may need to be adjusted after paving.

Contact for City of Milwaukee is MWW Control Center at (414) 286-3710

Everstream has a handhole in conflict near Sta 95+73 NB, 57.3' RT. Everstream plans to relocate their HH to near Sta 95+70 NB, 74.6' RT, oriented where edge is parallel to future sidewalk. The fiber cable and conduit from the existing handhole location will be moved to the proposed location. Additionally, Everstream will pothole their existing fiber optic facilities from near Sta 95+73 NB to near Sta 97+00 NB to verify that their existing depth will not impact the new access road or the proposed storm sewer between Sta 97+03 NB. 33.7' RT to Sta 96+54 NB, 66.7' RT. Notify Everstream 14 days in advance to coordinate locations and any excavation near their facilities. Everstream needs 5 working days to complete their work.

Contact for Everstream is Shad Garcia at (414) 409-1708.

Level 3 has both underground and overhead facilities and proposes the following relocation, prior to construction. Bury fiber from intersection of 43 St and 43 St bury fiber along N side of S 43 St to Loomis Rd thence North along Loomis Rd to St 99+34, Bore Loomis Rd to Pole on South Side of Loomis Rd, remove aerial fiber that crosses Loomis Rd near St 93+90 all the way to St 99+34.

Contact for Level 3 is Brahim Gaddour at (414) 908-1027

Spectrum Communications has both underground and overhead facilities and proposes the following relocation, prior to construction. Spectrum will use joint conduit with we energies from station 92+56, 71'RT to 94+75, 71.5' RT as per we energies relocation plan. Spectrum will bore from Station 94+75, 71.5 RT to 96+75, 66' RT and 96+78, 60'RT to 97+53, 58' RT.

Contact for Charter Communications is Beau Abuya at (414) 758-9241

T-Mobile Central LIC has leased cable from Everstream. Everstream relocation covers any reaction needs to be done for T-Mobile.

Contact for T-Mobile is George Myers at (316) 377-0101

WE Energies – Electric has electric facilities housed in a 6-4" duct package attached to the underside of the existing bridge B-40-198 that contains transite. The duct, which likely contains asbestos, will be removed during this contract, but prior to bridge demolition. The facilities will be removed by a licensed environmental contract, Balestrieri. The following is outlined in the work plan:

- The contractor shall notify WE Energies Jacob Schoenung at (414) 416-3365 a minimum of 14 days prior to the start of construction. This notification must include the name of the demolition sub-contractor, if applicable. WE Energies will provide the Wisconsin DNR with a 14-day notification, as required in the permit for asbestos removal.
- The contractor shall coordinate with WE Energies for required traffic control devices.

- WE Energies' environmental contractor will require access to the project site for a minimum of 6 days, starting from the time the traffic control is set up, to remove the facilities. WE Energies' environmental contractor will coordinate with the contractor in cases where other work can be done in conjunction with facilities removal.

Above and underground electric facilities are located within the construction limits; however, no adjustments are anticipated. It is imperative that the 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. The contractor must call the 24-hour WE Energies Electrical Dispatch line at 1-800-662-4797 to arrange for this verification.

Contact for WE Energies – Electric is Dan Bandor at (262) 884-6718.

The following utilities have facilities within the construction limits; however, no adjustments are anticipated:

AT&T Legacy

ATC Management, Inc

Midwest Fiber Networks, LLC.

Verizon Wireless

WE Energies – Gas has facilities located in the project area. It is imperative that the contractor contact WE Energies before removing any gas facilities, to verify that they have been discontinued and carry no natural gas. 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. The contractor must call the 24-hour WE Energies Gas Dispatch line at 1-800-261-5325 to arrange for this verification, gas valve box adjustments.

Contact the 24-hour WE Energies Gas Dispatch line at 1-800-261-5325 for gas emergencies.

27. Traffic Meetings and Traffic Control Scheduling.

Replace the entire article text with the following:

Every Wednesday by 9:00 AM, submit a detailed proposed 2-week look-ahead traffic closure schedule to the engineer. Type the detailed proposed 2-week look-ahead closure schedule into an excel spreadsheet provided by the engineer. Enter information such as closure dates, duration, work causing the closure and detours to be used. Also enter information such as ongoing long-term closures, emergency contacts and general 2-month look-ahead closure information into the excel spreadsheet.

Meet with the engineer between 10:00 AM – 11:30 AM on Wednesdays at the Zoo Interchange North Leg project office on 2515 N. 124th Street; Brookfield to discuss and answer questions on the proposed schedule. Edit, delete and add closures to the detailed proposed 2-week look-ahead schedule, as directed by the engineer, so that proposed closures meet specification requirements. Other edits, deletions or additions unrelated to meeting specification requirements may also be agreed upon with the engineer during the 10:00 AM meeting.

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

37. Removing Distribution Center, Item 204.9060.S.101.

Replace entire section titled **E Payment** *with the following:*

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.101	Removing Distribution Center	EACH

Payment is full compensation for removal of the distribution center, electrical service pedestal, and for utility coordination for the services.

The department will pay separately for the removal and packaging of lamp, ballast, LEDs, and mercury containing switches located in an existing lighting distribution center.

38. Removing Lighting Units, Item 204.9060.S.102.

Replace entire section titled **A Description** *with the following:*

A Description

This special provision describes the removing lighting units as shown on the plans, according to the pertinent provisions of standard spec 204, and hereinafter provided.

39. Deleted

64. Structure Repainting Recycled Abrasive B-40-196, Item 517.1801.S.400; Structure Repainting Recycled Abrasive B-40-197, Item 517.1801.S.401.

Replace paragraph two under section titled **B.1 Coating System** *with the following:*

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 any paint.

Replace paragraph one under section titled **C.1 Surface Preparation** *with the following:*

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.

Replace paragraph three under section titled **C.1 Surface Preparation** *with the following:*

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 *$1.6x10^{-6}$ oz/in^2 (*7ug/cm^2), 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.

Replace the paragraph four under section titled **C.2 Coating Application** *with the following:*

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.

Add the following section:

C.3 Quality Control

C.3.1 Quality Control Plan

Submit a Quality Control Plan to the Engineer for review and acceptance14 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.

70. DELETED

138. Concrete Channel Lining Repair, Item SPV.0060.403.

Replace entire section titled **B Materials** *with the following:*

Provide concrete fill according to standard spec 501.

Provide Grade A, Class II concrete.

178. Pipe Grates, 42-Inch, Item 611.9800.S.001; Pipe Grates, 84-Inch, Item 611.9800.S.002.

A Description

This special provision describes providing pipe grates for pipe apron endwalls as detailed in the plans.

B Materials

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

Furnish pipe grates galvanized according to ASTM A123.

Furnish angles and brackets galvanized according to ASTM A123.

Furnish required hardware galvanized according to ASTM A153.

C Construction

Repair pipes, rods, angles and brackets on which the galvanized coating has been damaged according to the requirements of AASHTO M36.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.9800.S.001	Pipe Grates, 42-Inch	EACH
611.9800.S.002	Pipe Grates, 84-Inch	EACH

Payment is full compensation for furnishing and installing all materials; and for drilling and connecting grates to apron endwalls.

stp-611-010 (20230113)

179. Traffic Control Close-Open Freeway to Freeway System Ramp, Item SPV.0060.032.

A Description

This special provision describes closing and re-opening a freeway to freeway system ramp.

B (Vacant)

C Construction

Install or reposition traffic control devices required for closing a freeway system 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 to Freeway System Ramp by each individual 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
SPV.0060.032	Traffic Control Close-Open Freeway to Freeway System Ramp	EACH

Payment is full compensation for closing and re-opening a freeway to freeway system ramp. Traffic Control devices will be paid separately.

sef-643-002 (20180627)

180. Sanitary Manhole Internal/External Seal, Item SPV.0060.503.

A Description

The work under this item shall consist of furnishing and installing internal/external seals for all existing sanitary manholes. The work shall conform to the pertinent requirements of the Standard Specifications for Sewer and Water Construction in Wisconsin, latest edition, as detailed in File No. 12A including sealing the outside of the manhole chimney from the frame down to the corbel.

B Materials

Internal/External Adaptor Seal, as manufactured by Adaptor, Inc., or approved equal, shall meet the material requirements of Chapter 8.42.0 and the performance requirements of Section 8.42.4 and 8.42.5 of the Standard Specifications for Sewer and Water Construction in Wisconsin, latest edition.

C Construction

The Internal/External Seals shall be installed according to the manufacturer's recommended installation procedures.

D Measurement

The department will measure Sanitary Manhole Internal/External Seal 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.0060.503	Sanitary Manhole Internal/External Seal	EACH

Payment is full compensation for furnishing all labor, tools, equipment, materials, excavation, backfilling, disposal of surplus materials, and incidentals necessary to complete the work.

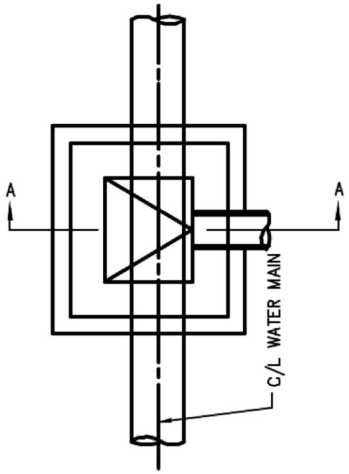
Schedule of Items
Attached, dated February 8, 2023, are the revised Schedule of Items Pages 1 - 38.

Plan Sheets
The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised:
Project 1100-45-70: 385,436-444, 474-477, 539 and 706.
Project 1100-46-71: 15.

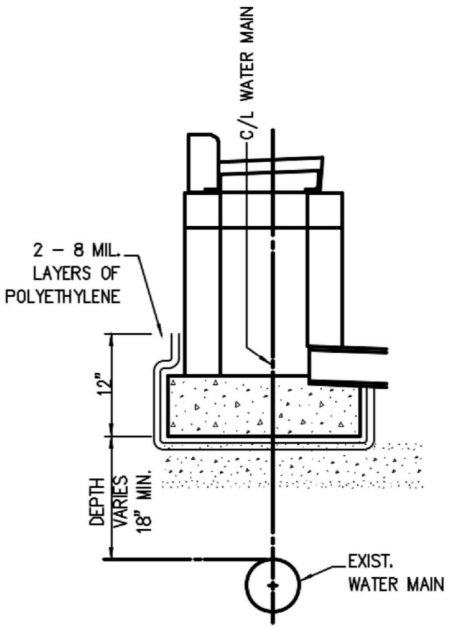
Added:
Project 1100-45-70: 79A, 304A-G, 335A-B and 625A.
Project 1100-46-71: 140A-B.

END OF ADDENDUM

2



PLAN VIEW



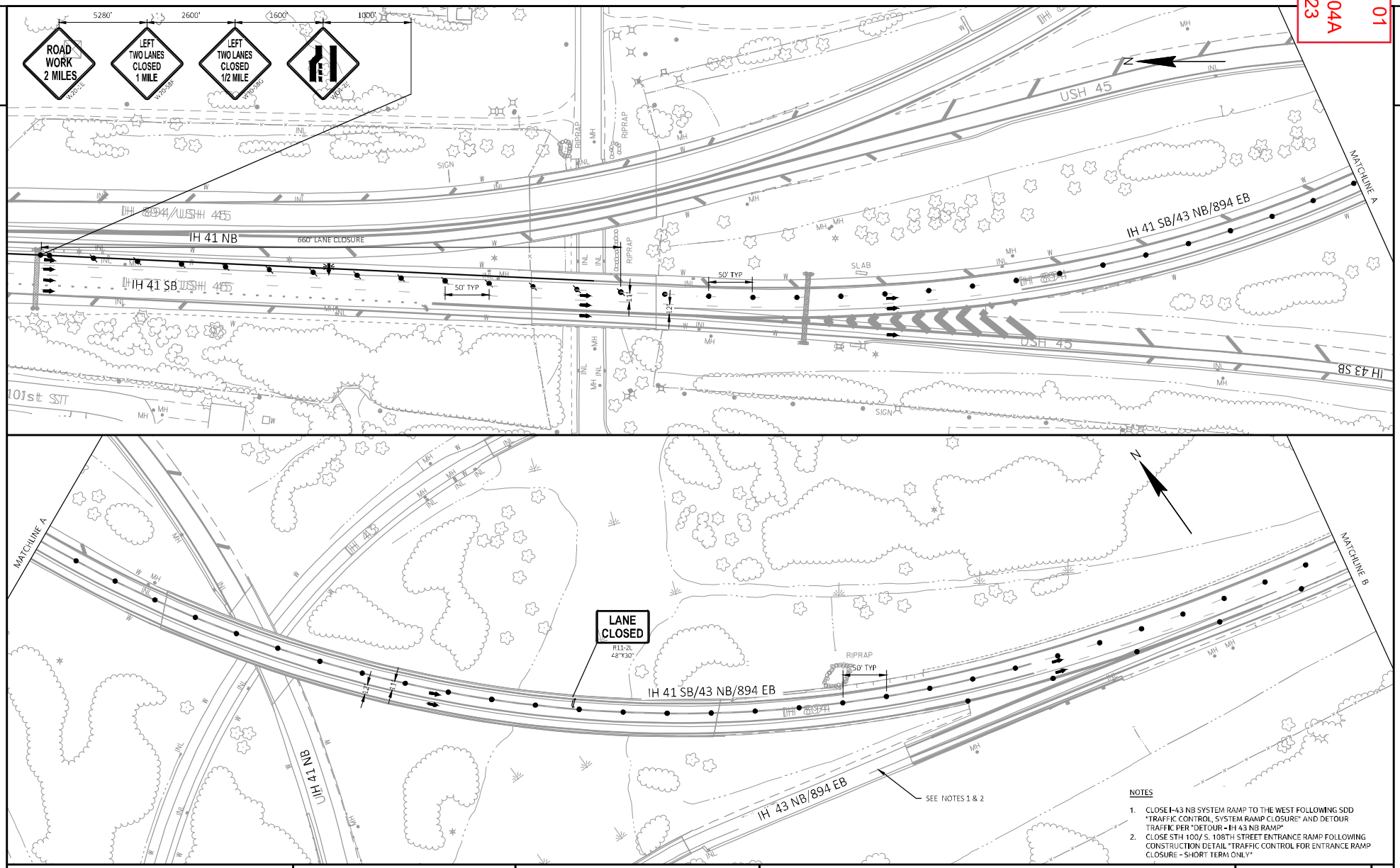
SECTION A–A

WATER MAIN PROTECTION

INSTALL ON ALL CATCH BASINS OR INLETS WITH LESS THAN 24" HORIZONTAL OUT-TO-OUT CLEARANCE FROM STRUCTURE TO WATER MAIN

Addendum No. 01
ID 1100-45-70
Added Sheet 79A
February 8, 2023

Addendum No. 01
ID 1100-45-70
Added Sheet 304A
February 8, 2023



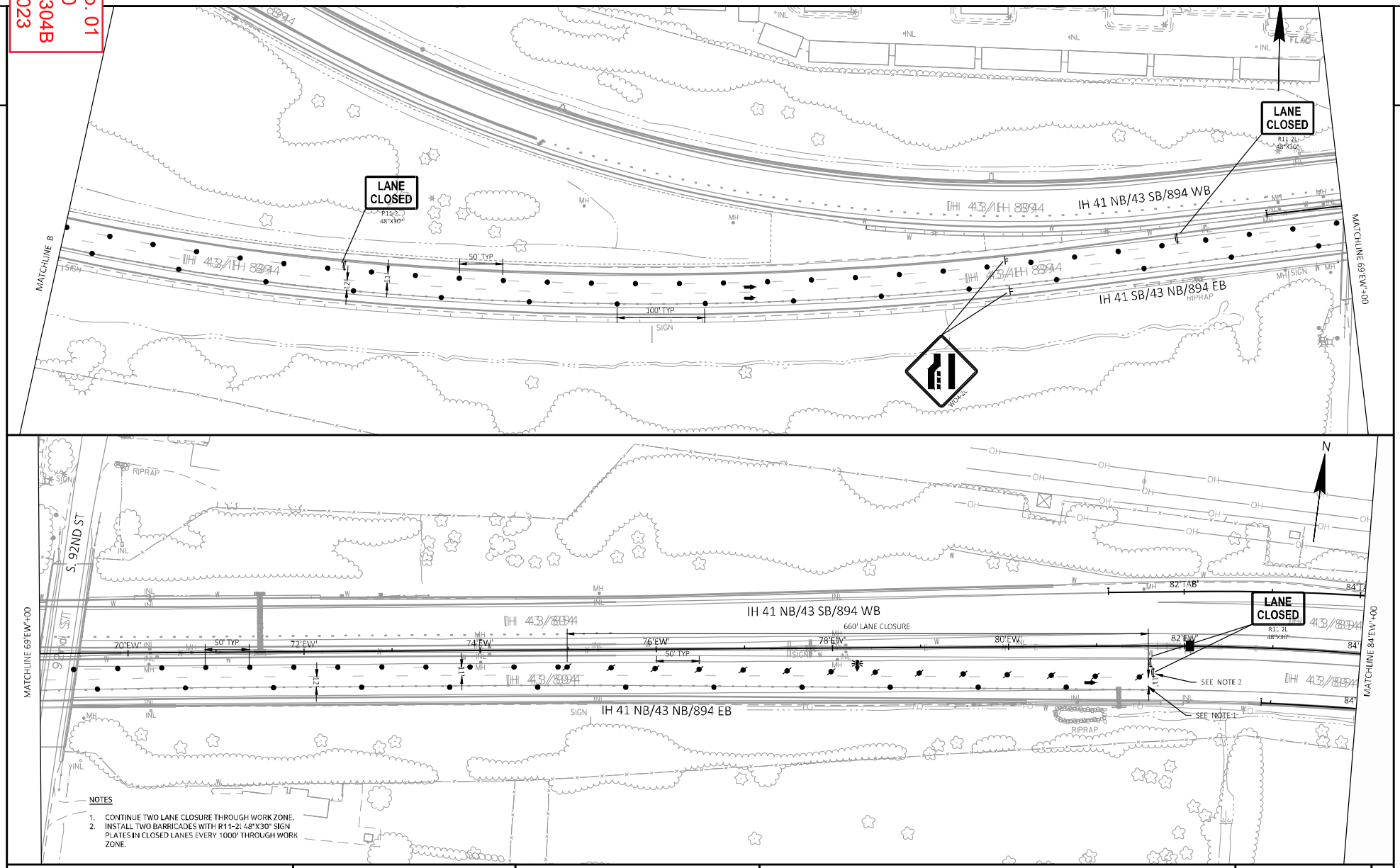
NOTES

1. CLOSE I-43 NB SYSTEM RAMP TO THE WEST FOLLOWING SDD "TRAFFIC CONTROL, SYSTEM RAMP CLOSURE" AND DETOUR TRAFFIC PER "DETOUR - IH 43 NB RAMP"
2. CLOSE 5TH 100/ S. 108TH STREET ENTRANCE RAMP FOLLOWING CONSTRUCTION DETAIL "TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE - SHORT TERM ONLY"

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - NIGHTTIME EB SINGLE LANE CONFIGURATION	SHEET 304A	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065s98\D0951536\1100-45-70 02s002_IC.DWG
LAYOUT NAME - 00
PLOT DATE : 2/2/2023 1:45 PM
PLOT BY : GIBSON MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WSDOT/CADDS SHEET 44

Addendum No. 01
ID 1100-45-70
Added Sheet 304B
February 8, 2023



NOTES

1. CONTINUE TWO LANE CLOSURE THROUGH WORK ZONE.
2. INSTALL TWO BARRICADES WITH R11-2L 48"X30" SIGN PLATES IN CLOSED LANES EVERY 1000' THROUGH WORK ZONE.

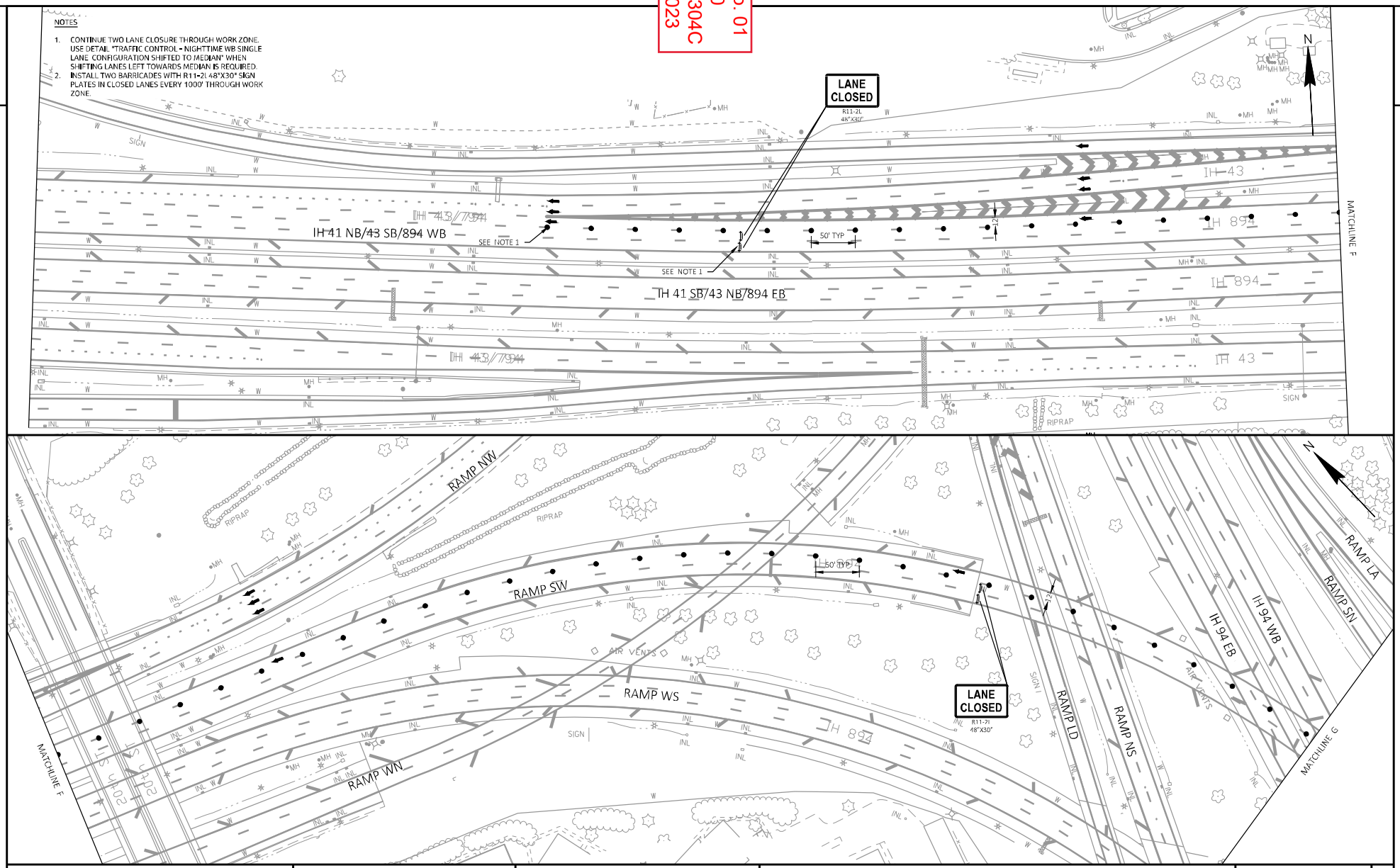
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - NIGHTTIME EB SINGLE LANE CONFIGURATION	SHEET 304B	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065s98\D0951536\1100457O 02s002_IC.DWG
LAYOUT NAME - 01
PLOT DATE : 2/2/2023 1:51 PM
PLOT BY : GIBSON MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WSDOT/CADDS SHEET 44

Addendum No. 01
ID 1100-45-70
Added Sheet 304C
February 8, 2023

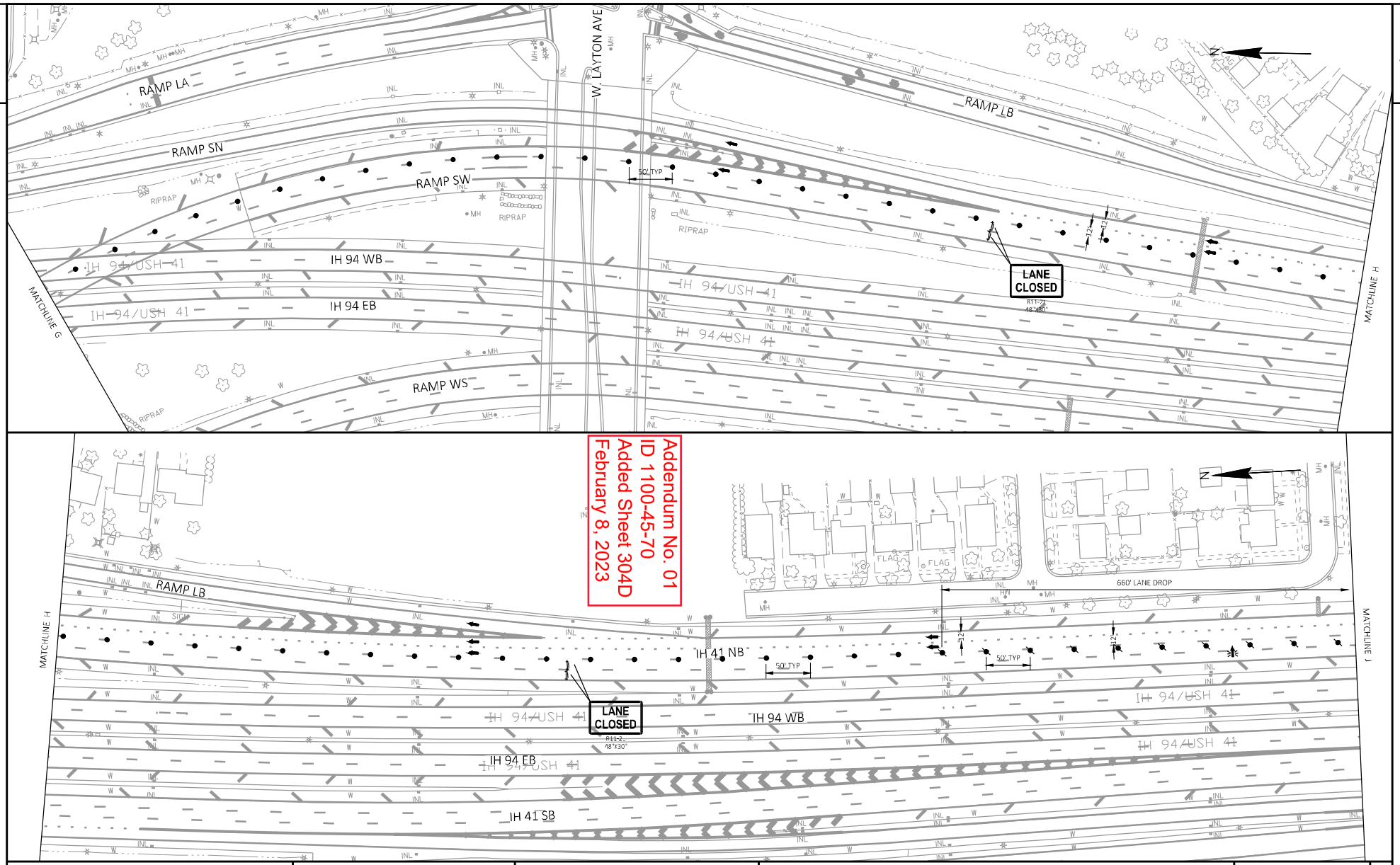
NOTES

1. CONTINUE TWO LANE CLOSURE THROUGH WORK ZONE. USE DETAIL "TRAFFIC CONTROL - NIGHTTIME WB SINGLE LANE CONFIGURATION SHIFTED TO MEDIAN" WHEN SHIFTING LANES LEFT TOWARDS MEDIAN IS REQUIRED.
2. INSTALL TWO BARRICADES WITH R11-2L 48"X30" SIGN PLATES IN CLOSED LANES EVERY 1000' THROUGH WORK ZONE.



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTOL - NIGHTTIME WB SINGLE LANE CONFIGURATION	SHEET 304C	E

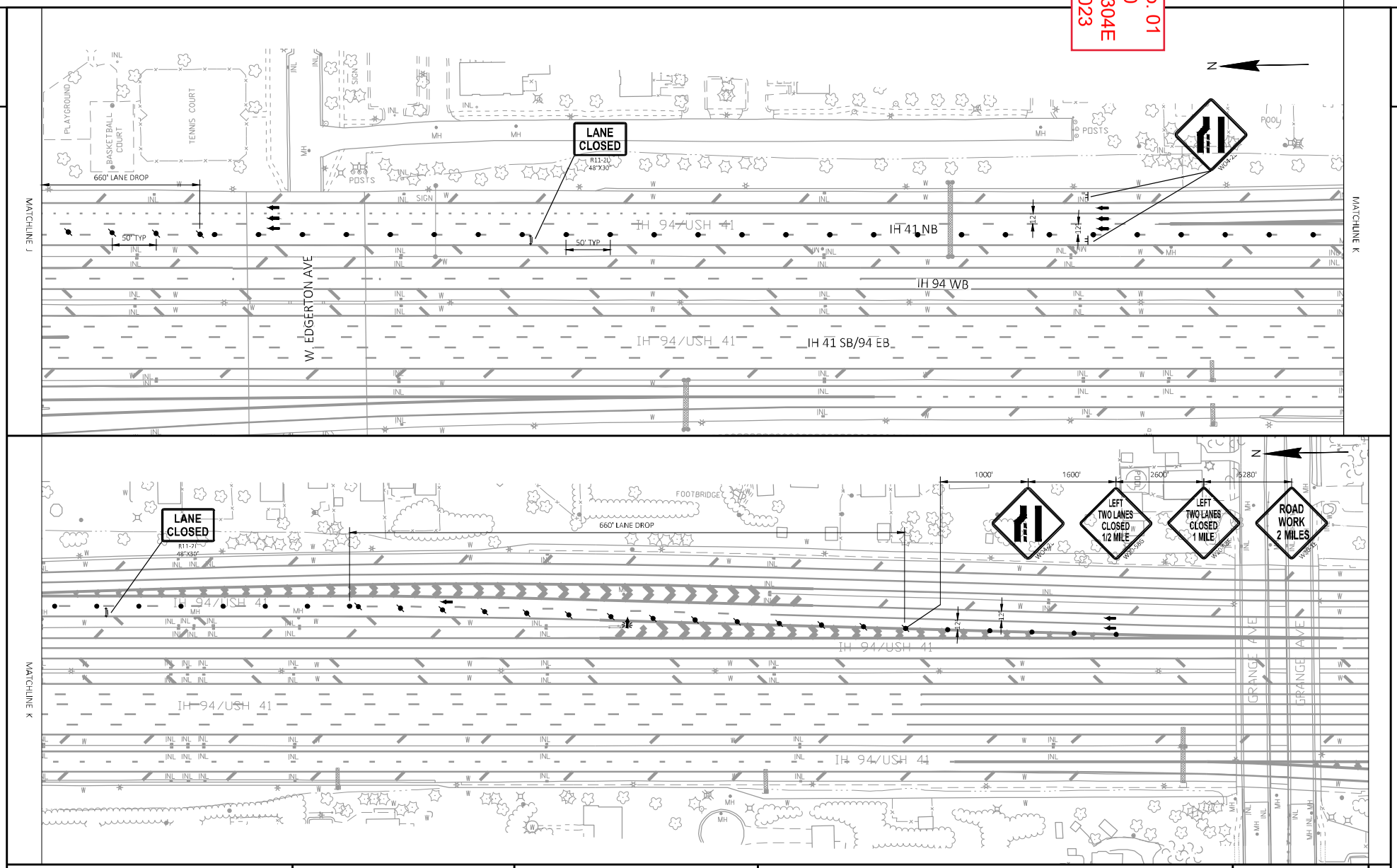
FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065s98\D0951536\1100450 02s002_IC.DWG
LAYOUT NAME - 09
PLOT DATE : 2/2/2023 1:58 PM
PLOT BY : GIBSON MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : ##########
WSDOT/CADDS SHEET 44



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTOL - NIGHTTIME WB SINGLE LANE CONFIGURATION	SHEET 304D	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065s98\D095t536\1100t570 02s002_IC.DWG
LAYOUT NAME - 10
PLOT DATE : 2/2/2023 2:05 PM
PLOT BY : GIBSON MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : ##########
W SDOT/CADDS SHEET 44

Addendum No. 01
ID 1100-45-70
Added Sheet 304E
February 8, 2023



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTOL - NIGHTTIME WB SINGLE LANE CONFIGURATION	SHEET 304E	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065s98\D0951536\1100-45-70 02s002_IC.DWG
LAYOUT NAME - 11
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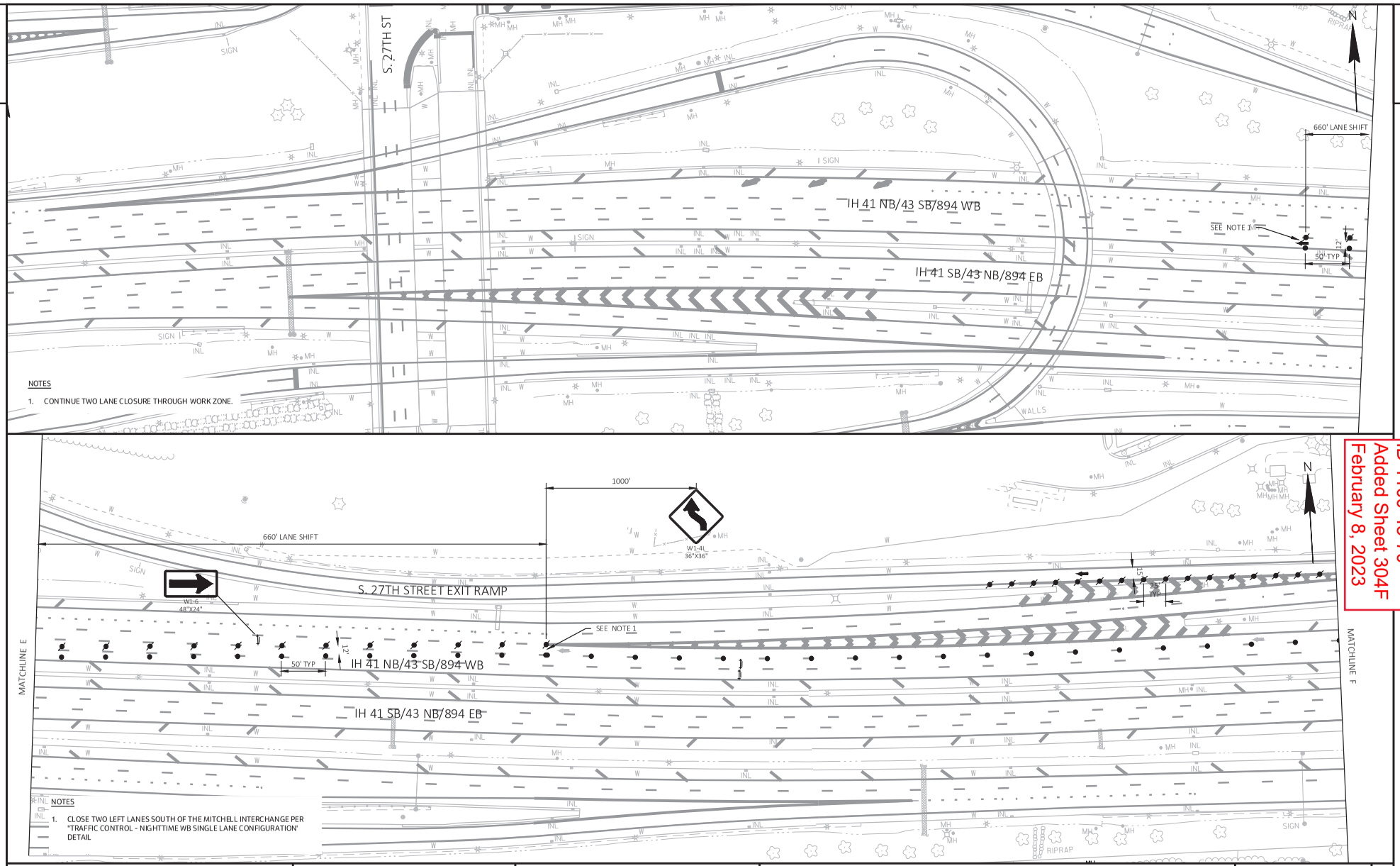
PLOT BY : GIBSON MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : ##########
W SDOT/CADDS SHEET 44



Addendum No. 01
ID 1100-45-70
Added Sheet 304F
February 8, 2023

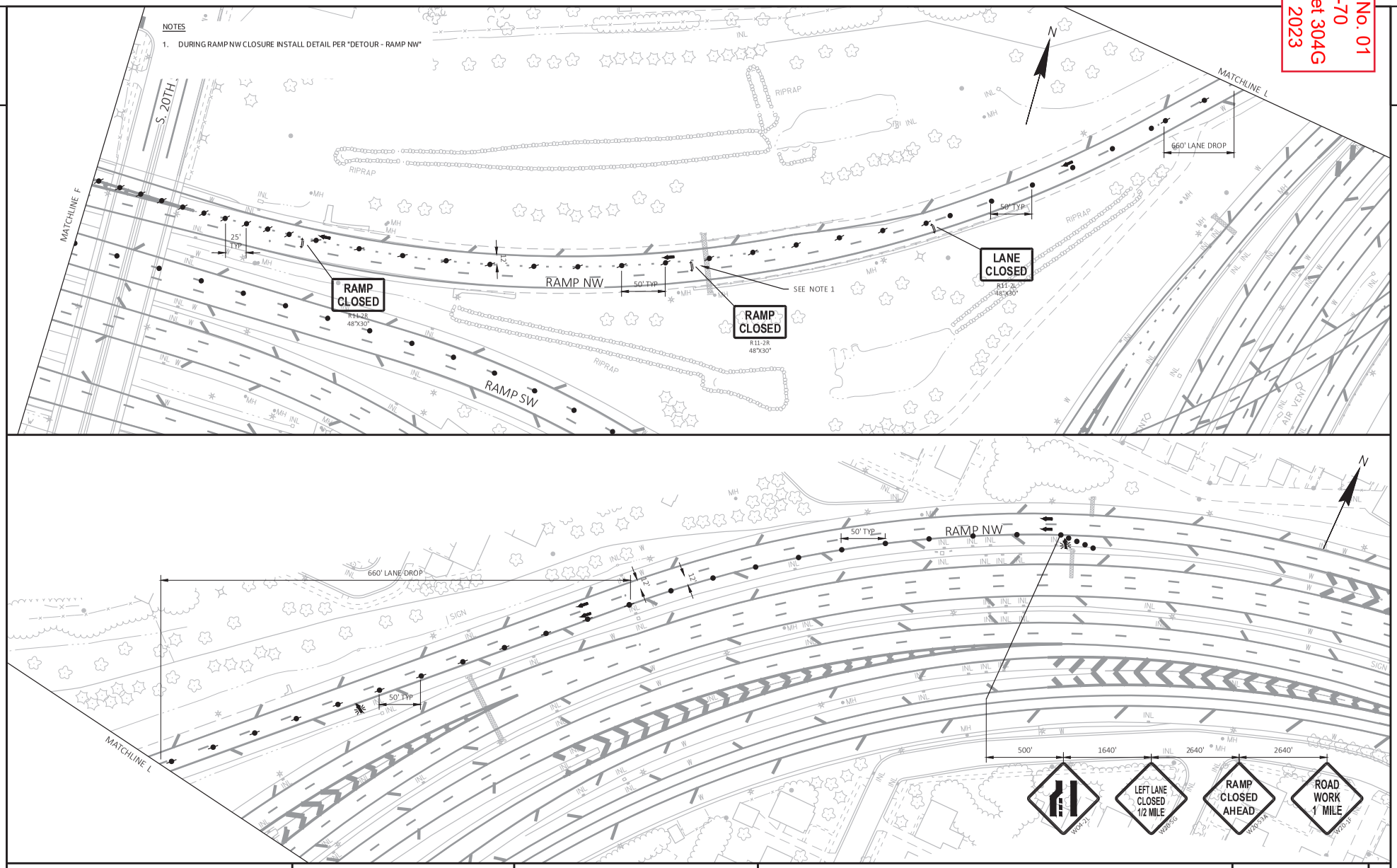
PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - NIGHTTIME WB SINGLE LANE CONFIGURATION SHIFTED TO MEDIAN	SHEET 304F	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\1100457O-025004_TC.DWG
LAYOUT NAME - 09
PLOT DATE : 2/2/2023 4:41 PM
PLOT BY : GIBSON-MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : ##########

Addendum No. 01
ID 1100-45-70
Added Sheet 304G
February 8, 2023

NOTES

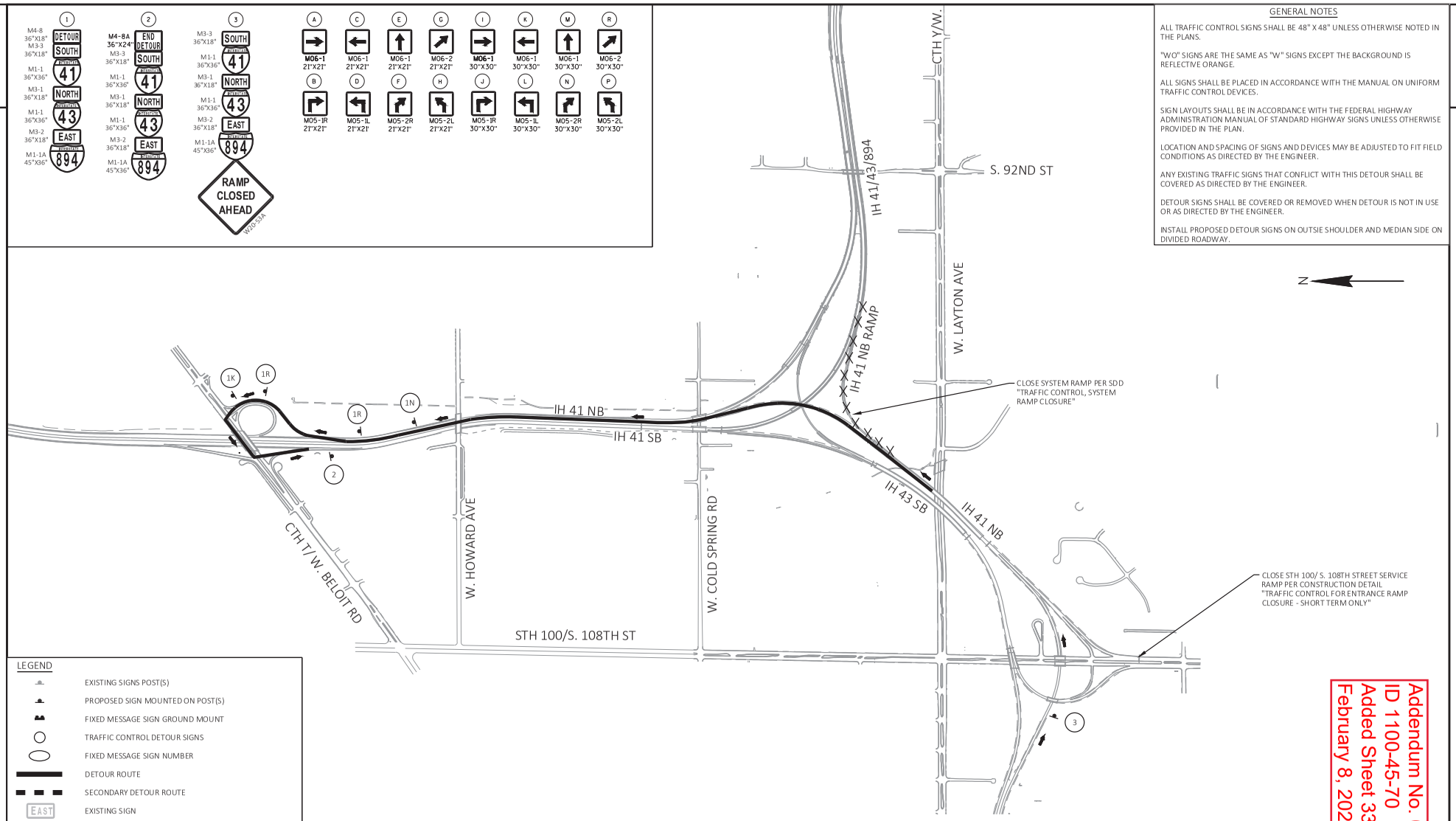
1. DURING RAMP NW CLOSURE INSTALL DETAIL PER "DETOUR - RAMP NW"



PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - NIGHTTIME WB SINGLE LANE CONFIGURATION SHIFTED TO MEDIAN	SHEET 304G	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\1100457O-025004_TC.DWG
LAYOUT NAME - 12
PLOT DATE : 2/2/2023 5:02 PM
PLOT BY : GIBSON-MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

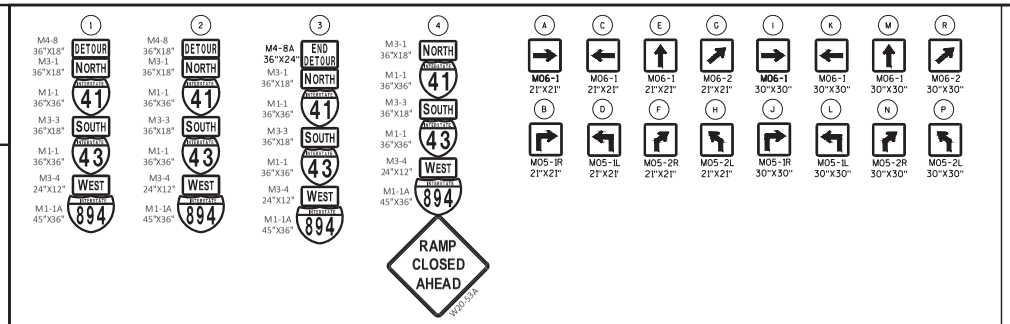
WISDOT/CADDS SHEET 44

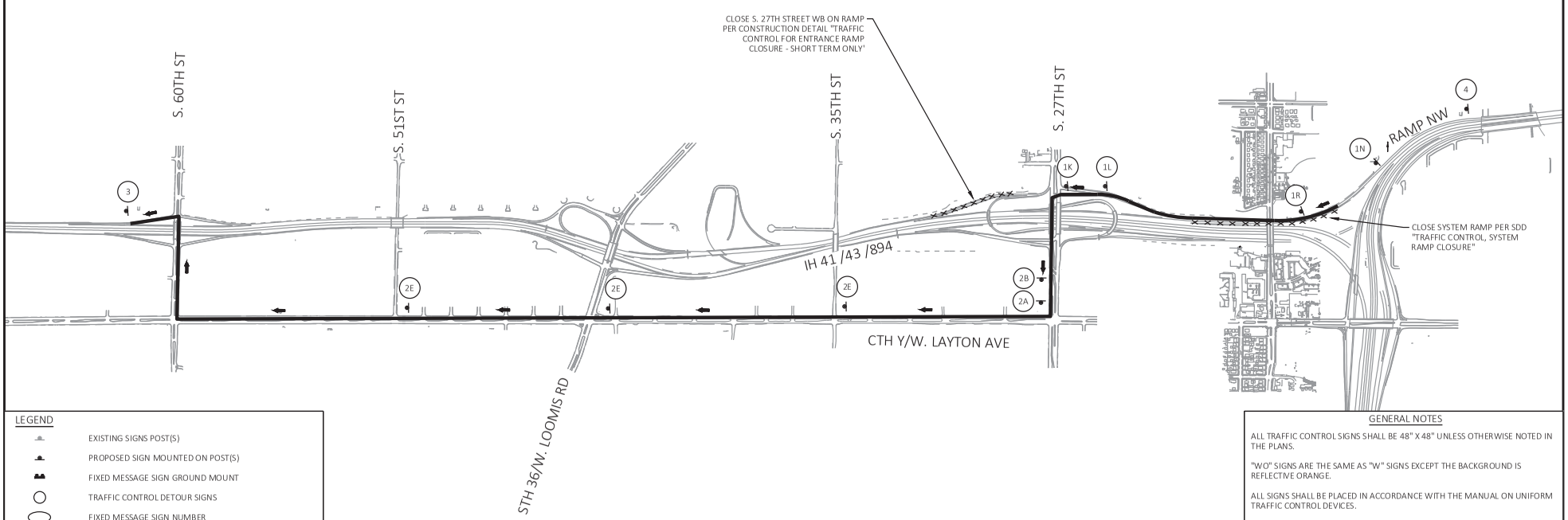


PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - IH 43 NB RAMP	SHEET 335A	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\1100457O-027005-DT.DWG
LAYOUT NAME - 01
PLOT DATE : 2/1/2023 2:15 PM
PLOT BY : GIBSON-MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : 1 IN:1000 FT

Addendum No. 01
ID 1100-45-70
Added Sheet 335B
February 8, 2023





LEGEND

- EXISTING SIGNS POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL DETOUR SIGNS
- FIXED MESSAGE SIGN NUMBER
- DETOUR ROUTE
- SECONDARY DETOUR ROUTE
- EAST — EXISTING SIGN
- WORK AREA
- DIRECTION OF TRAFFIC
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

ALL TRAFFIC CONTROL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED IN THE PLANS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

INSTALL PROPOSED DETOUR SIGNS ON OUTSIE SHOULDER AND MEDIAN SIDE ON DIVIDED ROADWAY.

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR - RAMP NW	SHEET 335B	E

FILE NAME : C:\PW_WORKDIR\DEN003\CH2MHILL_NG065598\D0951536\1100457O-027006-DT.DWG
LAYOUT NAME - 01
PLOT DATE : 2/1/2023 4:36 PM
PLOT BY : GIBSON-MURPHY, NIKKI
PLOT NAME :
PLOT SCALE : 1 IN:1200 FT

BASELINE CPM PROGRESS SCHEDULE

CATEGORY	PROJECT	SPV.0060.001 BASELINE CPM PROGRESS SCHEDULE EACH	SPV.0060.002 MONTHLY CPM PROGRESS SCHEDULE UPDATES EACH
1000	1100-45-70	0.8	7
	TOTAL	0.8	7

PAVEMENT REPAIR

CATEGORY	LOCATION	SPV.0060.021 MOBILIZATIONS EMERGENCY PAVEMENT REPAIR EACH	SPV.0180.001* BASE PATCHING CONCRETE SHES SPECIAL SY	SPV.0195.001 HMA LONGITUDINAL JOINT REPAIR TON
1000	UNDISTRIBUTED	20	1,200	2,540
	TOTAL	20	1,200	2,540

*ADDITIONAL QUANTITIES ELSEWHERE

PAVEMENT CLEANUP

CATEGORY	LOCATION	SPV.0075.001 PAVEMENT CLEANUP PROJECT 1100-45-70 HRS
1000	1100-45-70	200
	TOTAL	200

FIELD OFFICE

CATEGORY	STAGE	LOCATION	SPV.0060.020 FIELD FACILITIES OFFICE SPACE EACH
1000	ALL	1100-45-70	0.8
		TOTAL	0.8

SURVEY PROJECT

CATEGORY	LOCATION	SPV.0060.030 SURVEY PROJECT 1100-45-70 EACH
1000	1100-45-70	1
	CONTRACT TOTAL	1

EXPOSING EXISTING UTILITY

CATEGORY	LOCATION	SPV.0060.028 EXPOSING EXISTING INFRASTRUCTURE PAVED AREA EACH	SPV.0060.029 EXPOSING EXISTING INFRASTRUCTURE UNPAVED AREA EACH
1000	UNDISTRIBUTED	10	10
	TOTAL	10	10

WATER MAIN PROTECTION

CATEGORY	LOCATION	SPV.0060.501 WATER MAIN PROTECTION EACH
7000	**UNDISTRIBUTED**	10
	TOTAL	10

ADJUSTING WATER BOXES

CATEGORY	STAGE	LOCATION	STATION	OFFSET	690.0250* SAWING CONCRETE LF	SPV.0060.502 ADJUSTING WATER BOXES EACH
7000	2	**84TH STREET**				
			18TA+52	45.0' RT	6	1
			22TA+85	60.2' RT	6	1
			23TA+00	46.2' RT	6	1
			23TA+03	42.6' RT	6	1
		SUBTOTAL STAGE 2			24	4
		TOTAL			24	4

*ADDITIONAL QUANTITIES ELSEWHERE

Addendum No. 01
ID 1100-45-70
Revised Sheet 385
February 8, 2023

LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-EH	AEH5/BEH5	82EW+40	1	--	1	2	--	
	2	HL-40-EH	AEH6/BEH6	84EW+90	1	--	1	2	--	
	2	HL-40-EH	AEH7/BEH7	87EW+70	1	--	1	2	--	
	3	HL-40-EH	AEH11	88TAB+09	--	--	1	1	--	
	3	HL-40-EH	AEH16	88TAA+60	--	--	1	1	--	
	3	HL-40-EH	LPB-EH-5	89TAA+71	--	--	--	--	1	
	3	HL-40-EH	LPB-EH-4	89EW+57	--	--	--	--	1	
	3	HL-40-EH	LPB-EH-3	89EW+58	--	--	--	--	1	
	3	HL-40-EH	LPB-EH-6	89EW+58	--	--	--	--	1	
	3	HL-40-EH	LPB-EH-7	89EW+58	--	--	--	--	1	
	2	HL-40-EH	AEH8/BEH8	89EW+75	1	--	1	2	--	
	3	HL-40-EH	BEH11	89TAB+89	--	--	1	1	--	
	3	HL-40-EH	BEH15	90TAA+77	--	--	1	1	--	
	3	HL-40-EH	AEH12	91TAB+27	--	--	1	1	--	
	3	HL-40-EH	AEH15	92TAA+30	--	--	1	1	--	
	2	HL-40-EH	AEH9/BEH9	92EW+25	1	--	1	2	--	
	3	HL-40-EH	BEH12	92TAB+70	--	--	1	1	--	
	3	HL-40-EH	BEH14	93TAA+71	--	--	1	1	--	
	3	HL-40-EH	AEH13	94TAB+09	--	--	1	1	--	
	3	HL-40-EH	LPB-EH-8	94EW+52	--	--	--	--	1	
	2	HL-40-EH	AEH10/BEH10	94EW+75	1	--	1	2	--	
	3	HL-40-EH	AEH14	95TAA+28	--	--	1	1	--	
	3	HL-40-EH	BEH13	95TAB+44	--	--	1	1	--	
	2	HL-40-FO	AFO1/BFO1	97EW+37	1	--	1	2	--	
	2	HL-40-FO	AFO2/BFO2	99EW+55	1	--	1	2	--	
				SUBTOTAL	8	0	19	27	6	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

Addendum No. 01
ID 1100-45-70
Revised Sheet 436
February 8, 2023

LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-FO	AFO3/BFO3	101EW+74	1	--	1	2	--	
	2	HL-40-FO	AFO4/BFO4	103EW+95	1	--	1	2	--	
	2	HL-40-FO	AFO5/BFO5	106EW+15	1	--	1	2	--	
	2	HL-40-FO	AFO6/BFO6	108EW+35	1	--	1	2	--	
	3	HL-40-FO	LPB-FO-1	109EW+55	--	--	--	--	1	
	3	HL-40-FO	LPB-FO-2	109EW+55	--	--	--	--	1	
	3	HL-40-FO	HL-40-FO	109EW+92	--	1	--	--	--	
	2	HL-40-FO	CFO11/DFO11	110EW+44	1	--	1	2	--	
	3	HL-40-FO	CFO10	110FHA+15	--	--	1	1	--	
	3	HL-40-FO	CFO9	107FHA+84	--	--	1	1	--	
	3	HL-40-FO	CFO8	106FHA+78	--	--	1	1	--	
	3	HL-40-FO	CFO6	104FHA+45	--	--	1	1	--	
	3	HL-40-FO	CFO5	103FHA+16	--	--	1	1	--	
	3	HL-40-FO	CFO4	101FHA+66	--	--	1	1	--	
	3	HL-40-FO	CFO3	100FHA+32	--	--	1	1	--	
	3	HL-40-FO	CFO2	99FHA+18	--	--	1	1	--	
	3	HL-40-FO	CFO1	98FHA+10	--	--	1	1	--	
	3	HL-40-FO	DFO1	110FHB+95	--	--	1	1	--	
	3	HL-40-FO	DFO2	112FHB+47	--	--	1	1	--	
	3	HL-40-FO	DFO3	113FHB+93	--	--	1	1	--	
	2	HL-40-FO	CFO12/DFO12	114EW+95	1	--	1	2	--	
	3	HL-40-FO	LPB-FO-3	115EW+49	--	--	--	--	1	
	3	HL-40-FO	DFO4	115FHB+93	--	--	1	1	--	
	2	HL-40-FO	CFO13/DFO13	117EW+11	1	--	1	2	--	
	2	HL-40-FO	CFO14/DFO14	119EW+21	1	--	1	2	--	
				SUBTOTAL	8	1	21	29	3	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

Addendum No. 01
ID 1100-45-70
Revised Sheet 437
February 8, 2023

PROJECT NO: 1100-45-70	HWY: IH 41	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 437	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_OGORMAN\D0951536\11004570-033701-MQ-LP.DWG
LAYOUT NAME - 02
PLOT DATE : 1/27/2023 10:25 AM PLOT BY : O'GORMAN, NICHOLAS PLOT NAME : PLOT SCALE : 1" = 1'
WISDOT/CADDS SHEET 42

LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-FO	CFO15/DFO15	121EW+36	1	--	1	2	--	
	3	HL-40-AL	DAL12	123TBB+33	--	--	1	1	--	
	2	HL-40-AL	CAL41/DAL41	124EW+09	1	--	1	2	--	
	3	HL-40-AL	DAL11	124TBB+62	--	--	1	1	--	
	3	HL-40-AL	CAL22	124TBA+79	--	--	1	1	--	
	3	HL-40-AL	DAL10	125TBB+93	--	--	1	1	--	
	2	HL-40-AL	CAL40/DAL40	126EW+37	1	--	1	2	--	
	3	HL-40-AL	LPB-AL-6	126TBB+69	--	--	--	--	1	
	3	HL-40-AL	CAL26	126TBA+73	--	--	1	1	--	
	3	HL-40-AL	LPB-AL-5	126EW+86	--	--	--	--	1	
	3	HL-40-AL	DAL9	127TBB+22	--	--	1	1	--	
	2	HL-40-AL	CAL39/DAL39	128EW+83	1	--	1	2	--	
	3	HL-40-AL	CAL27	128TBA+76	--	--	1	1	--	
	3	HL-40-AL	DAL13	129TBB+20	--	--	1	1	--	
	3	HL-40-AL	LPB-AL-4	129TBA+17	--	--	--	--	1	
	3	HL-40-AL	LPB-AL-3	129EW+39	--	--	--	--	1	
	3	HL-40-AL	CAL28	130TBA+65	--	--	1	1	--	
	2	HL-40-AL	CAL38/DAL38	131EW+27	1	--	1	2	--	
	3	HL-40-AL	CAL25	132TBA+55	--	--	1	1	--	
	2	HL-40-AL	CAL37/DAL37	133EW+76	1	--	1	2	--	
	2	HL-40-AL	CAL36/DAL36	136EW+21	1	--	1	2	--	
	2	HL-40-AL	CAL35/DAL35	138EW+67	1	--	1	2	--	
	2	HL-40-AL	CAL34/DAL34	141EW+16	1	--	1	2	--	
	2	HL-40-AL	CAL33/DAL33	143EW+57	1	--	1	2	--	
	2	HL-40-AL	CAL32/DAL32	145EW+89	1	--	1	2	--	
				SUBTOTAL	11	0	21	32	4	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-AL	CAL31/DAL31	148EW+44	1	--	1	2	--	
	3	HL-40-AL	LPB-AL-2	148EW+76	--	--	--	--	1	
	3	HL-40-AL	LPB-AL-1	148EW+76	--	--	--	--	1	
	3	HL-40-AL	HL-40-AL	148EW+93	--	1	--	--	--	
	2	HL-40-AL	AAL21/BAL21	150EW+52	1	--	1	2	--	
	2	HL-40-AL	AAL22/BAL22	152EW+94	1	--	1	2	--	
	2	HL-40-AL	AAL23/BAL23	155EW+39	1	--	1	2	--	
	2	HL-40-AL	AAL24/BAL24	157EW+84	1	--	1	2	--	
	2	HL-40-AL	AAL25/BAL25	160EW+29	1	--	1	2	--	
	2	HL-40-AL	AAL26/BAL26	162EW+72	1	--	1	2	--	
	2	HL-40-AL	AAL27/BAL27	165EW+12	1	--	1	2	--	
	2	HL-40-AL	AAL28/BAL28	167EW+52	1	--	1	2	--	
	3	HL-40-AL	BAL10	168TCA+7	--	--	1	1	--	
	3	HL-40-AL	AAL11	169TCB+02	--	--	1	1	--	
	2	HL-40-AL	AAL29/BAL29	169EW+96	1	--	1	2	--	
	3	HL-40-AL	LPB-AL-9	170TCB+09	--	--	--	--	1	
	3	HL-40-AL	BAL6	170TCA+56	--	--	1	1	--	
	3	HL-40-AL	LPB-AL-7	170TCA+62	--	--	--	--	1	
	3	HL-40-AL	AAL7	170TCB+97	--	--	1	1	--	
	3	HL-40-AL	LPB-AL-8	171TCA+82	--	--	--	--	1	
	3	HL-40-AL	BAL7	172TCA+06	--	--	1	1	--	
	2	HL-40-AL	AAL30/BAL30	172EW+33	1	--	1	2	--	
	3	HL-40-AL	AAL8	172TCB+42	--	--	1	1	--	
	3	HL-40-AL	BAL8	173TCA+64	--	--	1	1	--	
	3	HL-40-AL	AAL9	174TCB+07	--	--	1	1	--	
				SUBTOTAL	11	1	19	30	5	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-AL	AAL31/BAL31	174EW+77	1	--	1	2	--	
	3	HL-40-AL	BAL9	175TCA+30	--	--	1	1	--	
	3	HL-40-AL	AAL10	175TCB+78	--	--	1	1	--	
	3	HL-40-BO	DBO10	176TCD+70	--	--	1	1	--	
	3	HL-40-BO	CBO11	176TCC+90	--	--	1	1	--	
	2	HL-40-BO	CBO31/DBO31	177EW+57	1	--	1	2	--	
	3	HL-40-BO	DBO9	178TCD+11	--	--	1	1	--	
	3	HL-40-BO	CBO10	178TCC+40	--	--	1	1	--	
	3	HL-40-BO	DBO8	179TDB+50	--	--	1	1	--	
	3	HL-40-BO	CBO9	179TCC+97	--	--	1	1	--	
	2	HL-40-BO	CBO30/DBO30	179EW+97	1	--	1	2	--	
	3	HL-40-BO	LPB-BO-6	180EW+88	--	--	--	--	1	
	3	HL-40-BO	DBO6	180TCD+89	--	--	1	1	--	
	3	HL-40-BO	LPB-BO-7	181EW+07	--	--	--	--	1	
	3	HL-40-BO	CBO7	181TCC+54	--	--	1	1	--	
	2	HL-40-BO	CBO29/DBO29	182EW+37	1	--	1	2	--	
	3	HL-40-BO	DBO7	182TCD+79	--	--	1	1	--	
	3	HL-40-BO	CBO8	183TCC+53	--	--	1	1	--	
	2	HL-40-BO	CBO28/DBO28	184EW+84	1	--	1	2	--	
	2	HL-40-BO	CBO27/DBO27	187EW+23	1	--	1	2	--	
	2	HL-40-BO	CBO26/DBO26	189EW+62	1	--	1	2	--	
	2	HL-40-BO	CBO25/DBO25	192EW+01	1	--	1	2	--	
	2	HL-40-BO	CBO24/DBO24	194EW+41	1	--	1	2	--	
	2	HL-40-BO	CBO23/DBO23	196EW+81	1	--	1	2	--	
	2	HL-40-BO	CBO22/DBO22	199EW+21	1	--	1	2	--	
				SUBTOTAL	11	0	23	34	2	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES EACH	204.9060.S.101 REMOVING DISTRIBUTION CENTER EACH	204.9060.S.102 REMOVING LIGHTING UNITS EACH	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH	653.0905* REMOVING PULL BOXES EACH	COMMENTS
1100	2	HL-40-BO	LPB-BO-4	201EW+24	--	--	--	--	1	
	3	HL-40-BO	LPB-BO-3	201EW+38	--	--	--	--	1	
	2	HL-40-BO	CBO21/DBO21	201EW+63	1	--	1	2	--	
	3	HL-40-BO	LPB-BO-2	201EW+73	--	--	--	--	1	
	3	HL-40-BO	LPB-BO-1	201EW+89	--	--	--	--	1	
	3	HL-40-BO	HL-40-BO	201EW+92	--	1	--	--	--	
	2	HL-40-BO	ABO1/BBO1	203EW+95	1	--	1	2	--	
	2	HL-40-BO	ABO2/BBO2	206EW+28	1	--	1	2	--	
	2	HL-40-BO	ABO3/BBO3	208EW+66	1	--	1	2	--	
	2	HL-40-BO	ABO4/BBO4	211EW+03	1	--	1	2	--	
	2	HL-40-BO	ABO5/BBO5	213EW+41	1	--	1	2	--	
	2	HL-40-BO	ABO6/BBO6	215EW+76	1	--	1	2	--	
	3	HL-40-LM	BLM20	217LRA+60	--	--	1	1	--	
	2	HL-40-LM	ABO7/BBO7	218EW+19	1	--	1	2	--	
	3	HL-40-LM	LPB-LM-6	219LRA+72	--	--	--	--	1	
	3	HL-40-LM	LPB-LM-5	219EW+65	--	--	--	--	1	
	3	HL-40-LM	ELM1	219LRB+60	--	--	1	1	--	
	3	HL-40-LM	ALM20	220LRA+28	--	--	1	1	--	
	2	HL-40-LM	ALM1/BLM1	220EW+50	1	--	1	2	--	
	3	HL-40-LM	BLM21	222LRA+00	--	--	1	1	--	
	3	HL-40-LM	ELM2	221LRB+54	--	--	1	1	--	
	3	HL-40-LM	HL-40-LM	221LRB+83	--	1	--	--	--	
	3	HL-40-LM	LPB-LM-1	221LRB+83	--	--	--	--	1	
	3	HL-40-LM	LPB-LM2	221LRB+83	--	--	--	--	1	
	3	HL-40-LM	LPB-LM-3	221LRB+83	--	--	--	--	1	
				SUBTOTAL	9	2	14	23	9	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-LM	LPB-LM-4	222EW+12	–	–	--	--	1	
	3	HL-40-LM	ALM22	222EW+41	–	–	1	1	--	
	2	HL-40-LM	CLM1/DLM1	222EW+83	1	–	1	2	--	
	3	HL-40-LM	ELM3	223LRB+18	–	–	1	1	--	
	3	HL-40-LM	BLM4	223EW+75	–	–	1	1	--	
	3	HL-40-LM	ELM4	224LRB+85	–	–	1	1	--	
	2	HL-40-LM	CLM2/DLM2	225EW+17	1	–	1	2	--	
	3	HL-40-LM	LPB-LM-7	227LRA+61	–	–	--	--	1	
	3	HL-40-LM	BLM9	228LRA+06	–	–	1	1	--	
	3	HL-40-LM	BLM13	225EW+98	–	–	1	1	--	
	3	HL-40-LM	ELM5	226LRB+45	–	–	1	1	--	
	3	HL-40-LM	BLM10	229LRA+46	–	–	1	1	--	
	3	HL-40-LM	ALM9	229LRA+60	–	–	1	1	--	
	3	HL-40-LM	LPB-LM-8	230LRA+16	–	–	--	--	1	
	3	HL-40-LM	ALM11	230LRA+32	–	–	1	1	--	
	3	HL-40-LM	ALM10	230LRA+46	–	–	1	1	--	
	2	HL-40-LM	CLM3/DLM3	227EW+46	1	–	1	2	--	
	3	HL-40-LM	ELM6	228LRB+12	–	–	1	1	--	
	3	HL-40-LM	BLM12	228EW+51	–	–	1	1	--	
	3	HL-40-AR	FAR20	229LRE+70	–	–	1	1	--	
	3	HL-40-AR	EAR31	230LRD+85	–	–	1	1	--	
	2	HL-40-AR	CLM4/DLM4	231EWE+01	1	–	1	2	--	
	3	HL-40-AR	FAR32	232LRD+52	–	–	1	1	--	
	3	HL-40-AR	FAR21	231LRE+86	–	–	1	1	--	
	2	HL-40-AR	EAR15	233EWW+31	–	–	1	1	--	
				SUBTOTAL	4	0	22	26	3	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-AR	EAR7	233EWE+45	–	–	1	1	--	
	3	HL-40-AR	FAR22	233LRE+92	–	–	1	1	--	
	3	HL-40-AR	EAR33	234LRD+50	–	–	1	1	--	
	3	HL-40-AR	FAR6	235LRE+89	–	–	1	1	--	
	2	HL-40-AR	FAR8	236EWE+11	–	–	1	1	--	
	2	HL-40-AR	FAR16	235EWW+88	–	–	1	1	--	
	3	HL-40-AR	FAR34	237LRD+03	–	–	1	1	--	
	3	HL-40-AR	LPB-AR-7	237LRE+30	–	–	--	--	1	
	2	HL-40-AR	LPB-AR-6	237EWE+53	–	–	--	--	1	
	2	HL-40-AR	EAR9	238EWE+68	–	–	1	1	--	
	2	HL-40-AR	EAR17	238EWW+32	–	–	1	1	--	
	2	HL-40-AR	EAR11	241EWE+28	–	–	1	1	--	
	2	HL-40-AR	FAR18	240EWW+83	–	–	1	1	--	
	2	HL-40-AR	FAR10	243EWE+88	–	–	1	1	--	
	3	HL-40-AR	LPB-AR-5	243LRE+90	–	–	--	--	1	
	2	HL-40-AR	CAR5	243EWW+42	–	–	1	1	--	
	3	HL-40-AR	FAR12	246LRE+30	–	–	1	1	--	
	2	HL-40-AR	CAR4	245EWW+83	–	–	1	1	--	
	2	HL-40-AR	CAR3	248EWW+22	–	–	1	1	--	
	3	HL-40-AR	EAR13	248EWE+98	–	–	1	1	--	
	3	HL-40-AR	LPB-AR-1	248EWW+41	–	–	--	--	1	
	3	HL-40-AR	HL-40-AR	248EWW+71	–	1	--	--	--	
	3	HL-40-AR	LPB-AR-2	249EWW+86	–	–	--	--	1	
	3	HL-40-AR	CAR30	249EWW+86	–	–	1	1	--	
	2	HL-40-AR	LPB-AR-3	250EWW+00	–	–	--	--	1	
				SUBTOTAL	0	1	18	18	6	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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LIGHTING - REMOVALS

204.0195	REMOVING CONCRETE BASES
204.9060.S.101	REMOVING DISTRIBUTION CENTER
204.9060.S.102	REMOVING LIGHTING UNITS
204.9060.S.104	REMOVING LUMINAIRES
653.0905	REMOVING PULL BOXES*

CATEGORY	STAGE	SYSTEM	DESCRIPTION	LOCATION	204.0195 REMOVING CONCRETE BASES	204.9060.S.101 REMOVING DISTRIBUTION CENTER	204.9060.S.102 REMOVING LIGHTING UNITS	659.5000.S LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR	653.0905* REMOVING PULL BOXES	COMMENTS
					EACH	EACH	EACH	EACH	EACH	
1100	2	HL-40-AR	LPB-AR-4	250EWE+73	--	--	--	--	1	
	2	HL-40-AR	DAR2	250EWW+61	--	--	1	1	--	
	2	HL-40-AR	FAR14	251EWE+71	--	--	1	1	--	
	2	HL-40-TF	CTF1/DTF1	252EWW+85	--	--	1	2	--	
	2	HL-40-TF	CTF2/DTF2	255EWW+07	1	--	1	2	--	
	2	HL-40-TF	LPB-TF-2	255EWW+14	--	--	--	--	1	
	2	HL-40-TF	LPB-TF-1	255EWE+90	--	--	--	--	1	
	2	HL-40-TF	HL-40-TF	255EWE+90	--	1	--	--	--	
				SUBTOTAL	1	1	4	6	3	
				TOTAL	63	6	161	225	41	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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MOVING SIGNS

CATEGORY	STAGE	LOCATION	* 634.0622 POST WOODS 4X6-INCH X 22-FT EACH	* 638.2102 MOVING SIGNS TYPE I EACH
1000	2	RAMP TBB	3	1
	STAGE 2 SUBTOTAL		3	1
	TOTAL		3	1

* ADDITIONAL QUANTITIES ELSEWHERE

TRAFFIC CONTROL CLOSURE ITEMS

CATEGORY	STAGE	LOCATION	643.4100 TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	SPV.0060.022 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH	SPV.0060.024 TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES EACH	SPV.0060.023 TRAFFIC CONTROL FULL FREEWAY CLOSURE EACH	SPV.0060.032 TRAFFIC CONTROL CLOSE-OPEN FREEWAY TO FREEWAY SYSTEM RAMP EACH
1000	ALL	VARIOUS	700	560	30	5	250
	TOTAL		700	560	30	5	250

TRAFFIC CONTROL

CATEGORY	STAGE	LOCATION	643.5000 TRAFFIC CONTROL EACH
1000	ALL	1100-45-70	0.8
	TOTAL		0.8

TRAFFIC CONTROL DETOUR ITEMS

CATEGORY	STAGE	ROADWAY	DETOUR DURATION DAYS	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH**	DAY	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY
1000	2,3 & 4	**FULL CLOSURE**																	
		IH 43 NB RAMP	200	130	26,000	12	2,400	24	4,800	84	16,800	--	--	95	19,000	--	--	1	200
		RAMP NW	50	80	4,000	5	250	10	500	50	2,500	2	100	133	6,650	--	--	1	50
1000	2 & 3	**FULL CLOSURE**	2																
		IH 41 NB/43 SB/894 WB		115	230	15	30	30	60	80	160	4	8	380	760	3	6	4	36
		IH 41 SB/43 NB/894 EB		115	230	15	30	30	60	80	160	4	8	310	620	--	--	4	36
1000	2 & 3	**FULL CLOSURE**	15																
		35TH STREET		115	1,725	16	240	32	480	--	--	--	--	156	2,340	--	--	2	44
1000	3	**FULL CLOSURE**	14																
		51ST STREET		--	--	10	140	20	280	--	--	--	--	134	1,876	--	--	2	42
		UNDISTRIBUTED			219		44		88		32		2		560		1		16
		SUBTOTAL			32,404		3,134		6,268		19,652		118		31,806		7		424
		CONTRACT TOTAL			32,404		3,134		6,268		19,652		118		31,806		7		424

* ADDITIONAL QUANTITIES ELSEWHERE
** FOR INFORMATION ONLY
NOTES: PLACE PCMS SIGNS WITH CLOSURE DATES 7 DAYS PRIOR TO FULL CLOSURES

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February 8, 2023

TRAFFIC CONTROL ITEMS

CATEGORY	ROADWAY	STAGE DURATION DAYS	* 614.0905 CRASH CUSHION TEMPORARY EACH	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH**	DAY	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM EACH**	DAY
1000	**STAGE 1**	12																			
	IH 41 NB/43 SB/894 WB		--	180	2,160	10	120	20	240	15	180	2	24	22	264	--	--	1	19	1	12
	IH 41 SB/43 NB/894 EB		--	210	2,520	14	168	28	336	15	180	2	24	26	312	--	--	1	19	--	--
	UNDISTRIBUTED		--		468		29		58		36		5		58		--		4		2
	STAGE 1A SUBTOTAL		--		5,148		317		634		396		53		634		--		42		14
1000	**STAGE 2A/2B**	77																			
	IH 41 NB/43 SB/894 WB		3	360	27,720	58	4,466	116	8,932	50	3,850	3	231	80	6,160	--	--	1	84	1	77
	IH 41 SB/43 NB/894 EB		3	310	23,870	59	4,543	118	9,086	50	3,850	3	231	72	5,544	3	42	1	84	1	77
	RAMP TAA		--											1	77	--	--	--	--	--	--
	RAMP TAB		--	15	1,155	--	--	--	--	15	1,155	--	--	3	231	--	--	--	--	--	--
	RAMP FHA		--	--	--	--	--	--	--	--	--	--	--	2	154	--	--	--	--	--	--
	RAMP FHB		--	--	--	--	--	--	--	--	--	--	--	2	154	--	--	--	--	--	--
	RAMP TBA		--	12	924	1	77	2	154	--	--	--	--	4	308	--	--	--	--	--	--
	RAMP TBB		--	--	--	--	--	--	--	--	--	--	--	1	77	--	--	--	--	--	--
	RAMP TCA		--	--	--	--	--	--	--	--	--	--	--	3	231	--	--	--	--	--	--
	RAMP TCB		--	--	--	--	--	--	--	--	--	--	--	2	154	--	--	--	--	--	--
	RAMP TCC		--	--	--	--	--	--	--	--	--	--	--	3	231	--	--	--	--	--	--
	RAMP TCD		--	--	--	--	--	--	--	--	--	--	--	2	154	--	--	--	--	--	--
	RAMP LRA		--	--	--	1	77	2	154	--	--	--	--	2	154	--	--	--	--	--	--
	RAMP LRC		--	12	924	--	--	--	--	--	--	--	--	1	77	--	--	--	--	--	--
	RAMP LRE		--	12	924	--	--	--	--	--	--	--	--	1	77	--	--	--	--	--	--
	LOCAL ROADS	10																			
	84TH STREET		--	174	1,740	11	110	22	220	8	80	1	10	25	250	--	--	1	13	--	--
	NIGHTTIME CLOSURES	15																			
	RAMP TAA		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TAB		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP FHA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP FHB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TBA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TBB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TCA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TCB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TCC		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TCD		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP LRA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP LRB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP LRC		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP LRD		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	UNDISTRIBUTED		1		6,094		1,012		2,023		894		48		1,992		5		65		16
	STAGE 2 SUBTOTAL		7		67,026		11,125		22,249		9,829		520		21,905		47		708		170

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TRAFFIC CONTROL ITEMS

CATEGORY	ROADWAY	STAGE DURATION DAYS	* 614.0905 CRASH CUSHION TEMPORARY EACH	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH**	DAY	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM EACH**	DAY
1000	**STAGE 3**	46																			
	IH 41 NB/43 SB/894 WB		--	360	16,560	49	2,254	98	4,508	50	2,300	3	138	44	2,024	--	--	1	53	1	46
	IH 41 SB/43 NB/894 EB		--	310	14,260	50	2,300	100	4,600	50	2,300	3	138	36	1,656	--	--	1	53	1	46
	RAMP TAA		--	54	2,484	--	--	--	--	--	--	--	--	1	46	--	--	--	--	--	--
	RAMP TAB		--	--	--	--	--	--	--	--	--	--	--	1	46	--	--	--	--	--	--
	RAMP FHA		--	27	1,242	--	--	--	--	21	966	--	--	2	92	--	--	--	--	--	--
	RAMP FHB		--	14	644	--	--	--	--	14	644	--	--	2	92	--	--	--	--	--	--
	RAMP TBA		--	48	2,208	1	46	2	92	22	1,012	--	--	4	184	--	--	--	--	--	--
	RAMP TBB		--	17	782	--	--	--	--	9	414	--	--	2	92	--	--	--	--	--	--
	RAMP TCA		--	31	1,426	--	--	--	--	25	1,150	--	--	3	138	--	--	--	--	--	--
	RAMP TCB		--	18	828	--	--	--	--	9	414	--	--	2	92	--	--	--	--	--	--
	RAMP TCC		--	36	1,656	--	--	--	--	30	1,380	--	--	3	138	--	--	--	--	--	--
	RAMP TCD		--	20	920	--	--	--	--	12	552	--	--	2	92	--	--	--	--	--	--
	RAMP LRA		--	36	1,656	1	46	2	92	24	1,104	--	--	3	138	--	--	--	--	--	--
	RAMP LRB		--	17	782	--	--	--	--	9	414	--	--	--	--	--	--	--	--	--	--
	RAMP LRC		--	54	2,484	--	--	--	--	13	598	--	--	3	138	--	--	--	--	--	--
	RAMP LRE		--	17	782	--	--	--	--	24	1,104	--	--	3	138	--	--	--	--	--	--
	LOCAL ROADS	4																			
	68TH STREET		--	24	96	2	8	4	16	5	20	--	--	8	32	--	--	2	14	--	--
	35TH STREET		--	24	96	2	8	4	16	5	20	--	--	8	32	--	--	2	14	--	--
	NIGHTTIME CLOSURES	15																			
	RAMP TAA		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TAB		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP FHA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP FHB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TBA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TBB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TCA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TCB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP TCC		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP TCD		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP LRA		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP LRB		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	RAMP LRC		--	15	225	4	60	8	120	--	--	--	--	50	750	--	--	2	44	--	--
	RAMP LRD		--	20	300	4	60	8	120	--	--	--	--	6	90	--	--	1	22	--	--
	UNDISTRIBUTED		--		5,259		551		1,101		1,440		28		1,105	--			60		10
	STAGE 3 SUBTOTAL		--		57,840		6,053		12,105		15,832		304		12,155	--			656		102

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TRAFFIC CONTROL ITEMS

CATEGORY	ROADWAY	STAGE DURATION DAYS	* 614.0905 CRASH CUSHION TEMPORARY EACH	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY	* 643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH**	DAY	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM EACH**	DAY
1000	**STAGE 4**	80																			
	IH 41 NB/43 SB/894 WB		--	360	28,800	49	3,920	98	7,840	50	4,000	3	240	44	3,520	--	--	1	87	--	--
	IH 41 SB/43 NB/894 EB		--	310	24,800	50	4,000	100	8,000	50	4,000	3	240	36	2,880	--	--	1	87	--	--
	NIGHTTIME CLOSURES	10																			
	RAMP TAA		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP TAB		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP FHA		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP FHB		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP TBA		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP TBB		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP TCA		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP TCB		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP TCC		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP TCD		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP LRA		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP LRB		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	RAMP LRC		--	15	150	4	40	8	80	--	--	--	--	50	500	--	--	2	34	--	--
	RAMP LRD		--	20	200	4	40	8	80	--	--	--	--	6	60	--	--	1	17	--	--
	UNDISTRIBUTED		--		5,605		848		1,696		800		48		1,032		--		54		--
	STAGE 4 SUBTOTAL		--		61,655		9,328		18,656		8,800		528		11,352		--		585		--
	CONTRACT TOTAL		7		191,669		26,823		53,644		34,857		1,405		46,046		47		1,991		286

* ADDITIONAL QUANTITIES ELSEWHERE

** FOR INFORMATION ONLY

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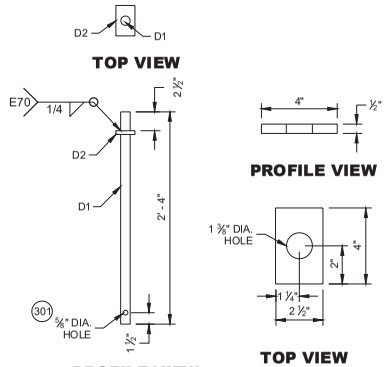
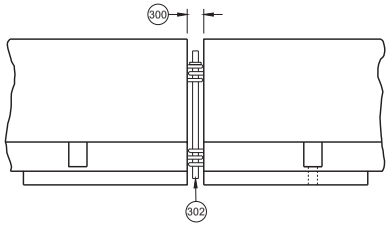
ID 1100-45-70
Revised Sheet 477
February 8, 2023



CONNECTOR PIN ASSEMBLY



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

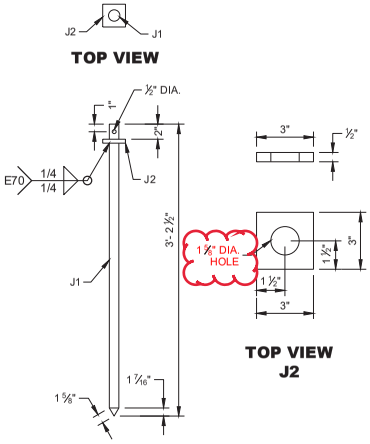
304 CONCRETE DECK.

305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

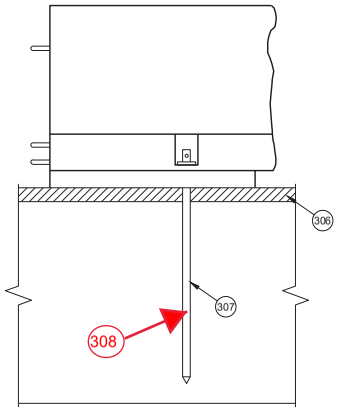
307 ASPHALT ANCHOR PIN ASSEMBLY

308 IF DRILLING A PILOT HOLE, THE MAX DIA. OF THE PILOT HOLE IS 3/4"



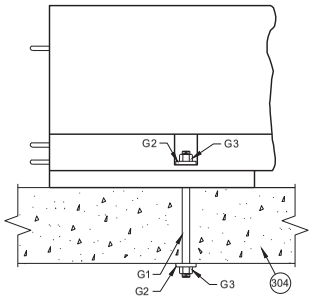
PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY



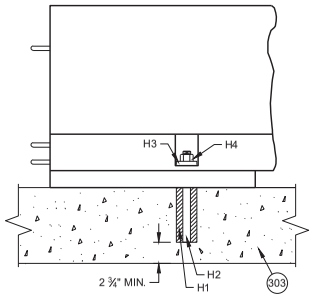
SIDE VIEW

ASPHALT ANCHOR INSTALLATION



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION (305)



SIDE VIEW

ADHESIVE ANCHOR INSTALLATION (305)

Addendum No. 01
ID 1100-45-70
Revised Sheet 539
February 8, 2023

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16c

SDD 15D49 Traffic Control, System Ramp Closure

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS, INCLUDING PCMS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED SIGNS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

REMOVE ALL ARROW BOARDS AND DEVICES BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS.

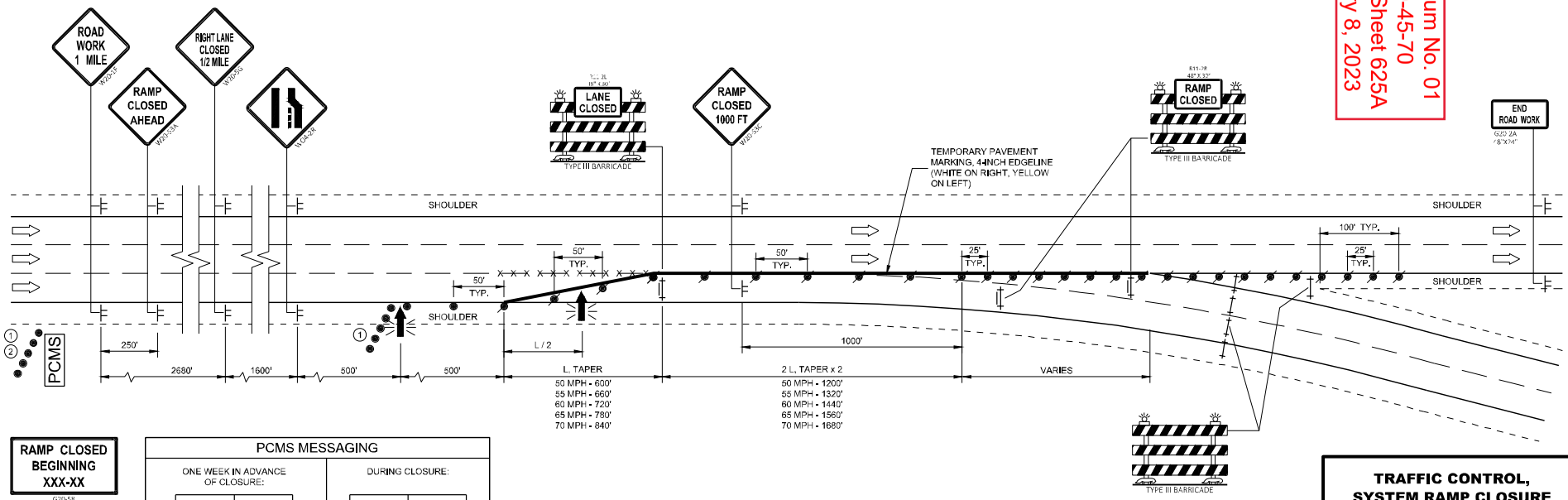
REFER TO SDD 15C2 FOR SETTING DETOUR SIGNAGE.

ADD FREEWAY SHIELD AND DIRECTION IF APPLICABLE. COVER EXISTING RAMP AND LANE SIGNS IF APPLICABLE.

① 5 DRUMS SPACED AT 10 FOOT INTERVALS.

② DURING THE PRE-WARNING PERIOD, PLACE THE PCMS AT THE SYSTEM RAMP THAT IS TO BE CLOSED. DURING CLOSURE PERIOD, PLACE PCMS OR FMS AT LAST AVAILABLE EXIT IN ADVANCE OF SYSTEM RAMP CLOSURE. IF DYNAMIC MESSAGE SIGNS (DMS) ARE AVAILABLE, COORDINATE POTENTIAL SIGN MESSAGES WITH THE TRAFFIC MANAGEMENT CENTER (TMC).

Addendum No. 01
ID 1100-45-70
Added Sheet 625A
February 8, 2023



RAMP CLOSED BEGINNING XXX-XX
G20-5S

PCMS MESSAGING

ONE WEEK IN ADVANCE OF CLOSURE:		DURING CLOSURE:	
FRAME 1	FRAME 2	FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX	HWY XX RAMP CLOSED	USE ALT ROUTE

SEE SDD 15C2 (SHEET "b"), DETAIL "D" "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" PLACE BARRICADES TO FULLY SEAL OFF ROAD

TRAFFIC CONTROL, SYSTEM RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

625A

6

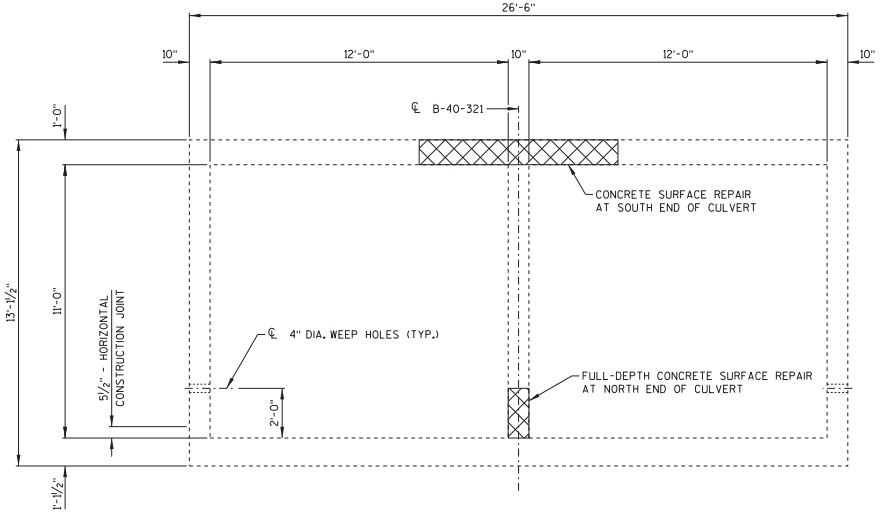
SDD 15D49 - 01

6

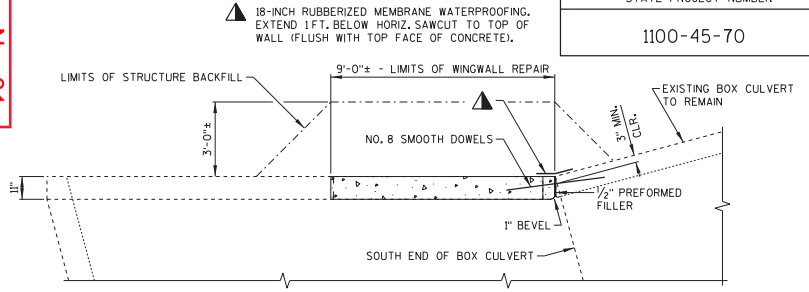
SDD 15D49 - 01

Addendum No. 01
ID 1100-45-70
Revised Sheet 706
February 8, 2023

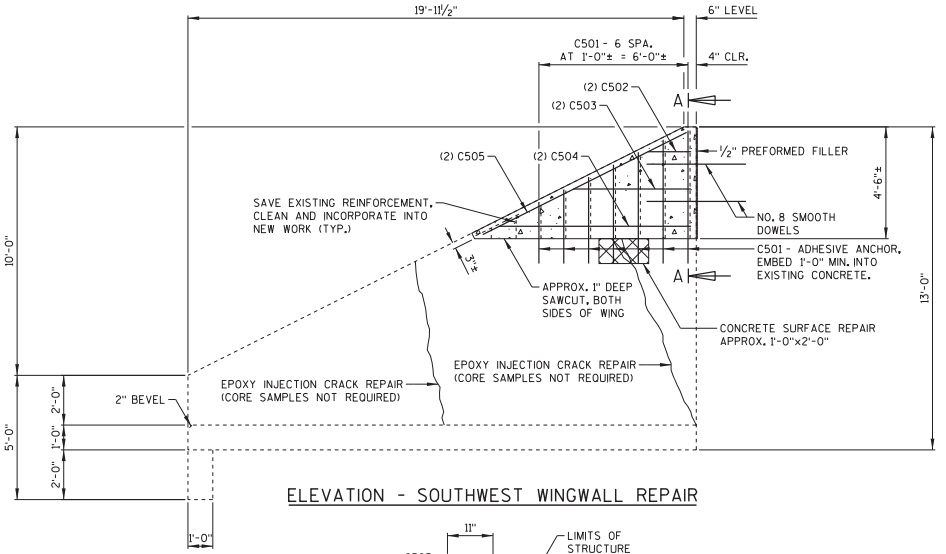
STATE PROJECT NUMBER
1100-45-70



TYPICAL CROSS SECTION THRU CULVERT



PLAN - SOUTHWEST WINGWALL REPAIR



ELEVATION - SOUTHWEST WINGWALL REPAIR

BILL OF BARS

BAR MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
COATED BARS						TOTAL WEIGHT = 80 LBS
C501	7	3-10		Δ	SW WINGWALL - OUTSIDE FACE - ADHESIVE ANCHOR	VERT.
C502	2	1-9			SW WINGWALL - EACH FACE	HORIZ.
C503	2	4-9			SW WINGWALL - EACH FACE	HORIZ.
C504	2	7-9			SW WINGWALL - EACH FACE	HORIZ.
C505	2	9-4			SW WINGWALL - EACH FACE - TOP	HORIZ.

BAR SERIES

MARK	NO. REQ'D	LENGTH
C501	1 SET OF 7	2'-4" TO 5'-4"

SDR
01/31/23

WISCONSIN
MICHAEL J. ARNOLD
E-41717
LUTZ
FL
PROFESSIONAL ENGINEER
01/27/2023

TOTAL ESTIMATED QUANTITIES

	BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
*	203.0220.401	REMOVING STRUCTURE B-40-321	EACH	1
	206.2001.401	EXCAVATION FOR STRUCTURES CULVERTS B-40-321	EACH	1
	210.2500	BACKFILL STRUCTURE TYPE B	TON	5
	416.0620	DRILLED DOWEL BARS	EACH	2
	502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	7
	504.0100	CONCRETE MASONRY CULVERTS	CY	1
	505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	80
	509.1500	CONCRETE SURFACE REPAIR	SF	48
	509.9020.S	EPOXY CRACK SEALING	LF	155
	509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	15
	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	1
	611.9800.S.001	PIPE GRATES, 42-INCH	EACH	1
	611.9800.S.002	PIPE GRATES, 84-INCH	EACH	1
	SPV.0060.401	STRAPPING B-40-321	EACH	3
	SPV.0060.403	CONCRETE CHANNEL LINING REPAIR	EACH	1
		NON-BID ITEMS		
		FILLER	SIZE	1/2"

*THIS BID ITEM INCLUDES PAYMENT FOR PARTIAL REMOVAL AND DISPOSAL OF THE SOUTHWEST WINGWALL, INCLUDING SAW CUTTING, AND REMOVAL AND DISPOSAL OF THE DAMAGED PIPE GRATE AT THE NORTHWEST WINGWALL.

ALL ITEMS ARE CATEGORY 2060

GENERAL NOTES

THE PROPOSED WORK INCLUDES CONCRETE SURFACE REPAIRS, PARTIAL REPLACEMENT OF THE SOUTHWEST WINGWALL, WING STRAPPING, EPOXY CRACK SEALING, AND STORM SEWER PIPE GRATE REPLACEMENT.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS AND ELEVATIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED WITH 2" CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED.

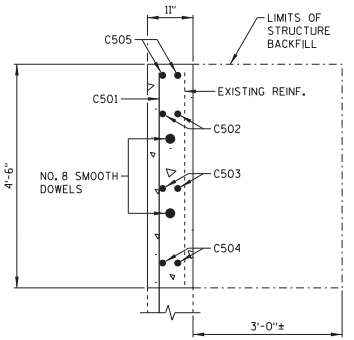
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE TO MATCH THE EXISTING BEVELS, UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

LOCATIONS OF "CONCRETE SURFACE REPAIR" AND "EPOXY CRACK SEALING" SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER. QUANTITIES SHOWN FOR THIS BID ITEM ARE APPROXIMATE.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF THE UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.



SECTION A-A

NO.	DATE	REVISION	BY
1	1/25/23	REVISED BID ITEMS	DNJ

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-321

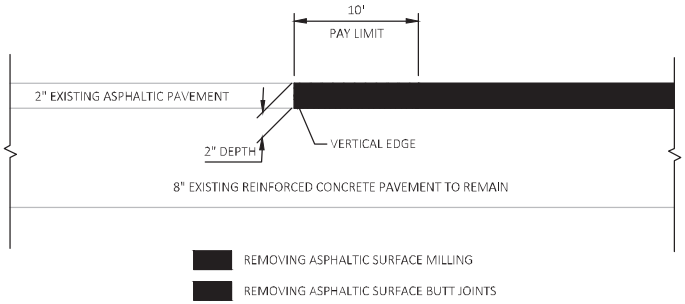
DRAWN BY DNJ | PLANS CK'D. MJA

CROSS SECTION AND QUANTITIES

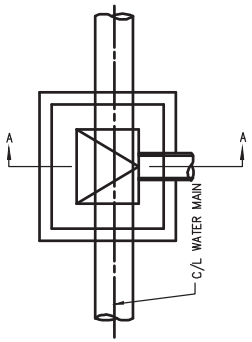
SHEET 2 OF 6

706

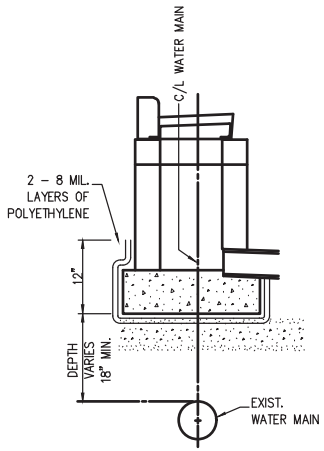
PRINTER DRIVER: A:\CLIENT\AMER-USA-WI-WisDOT\dev\WisDOTBridgeVer#\Plotdrv\AE.PDF.11 x 17.plt
PEN TABLE: C:\Users\jacobsond\OneDrive - AECOM\Documents\CADD REFERENCE\Pen Tables\PW_AECOM_USA Wisconsin\AE_WisDOT_structure.tbl
FILE NAME: L:\Legacy\Projects\Transportation\IH 43-894 Airport Freeway\CADD\Sheets\B-40-321\2 B-40-321 Cross Sectionsdgn
PLOT DATE: 1/25/2023
PLOT TIME: 7:37:49 PM
BATCH PRINT SHEET 2 OF 6



REMOVING ASPHALTIC SURFACE BUTT JOINTS



PLAN VIEW



SECTION A–A

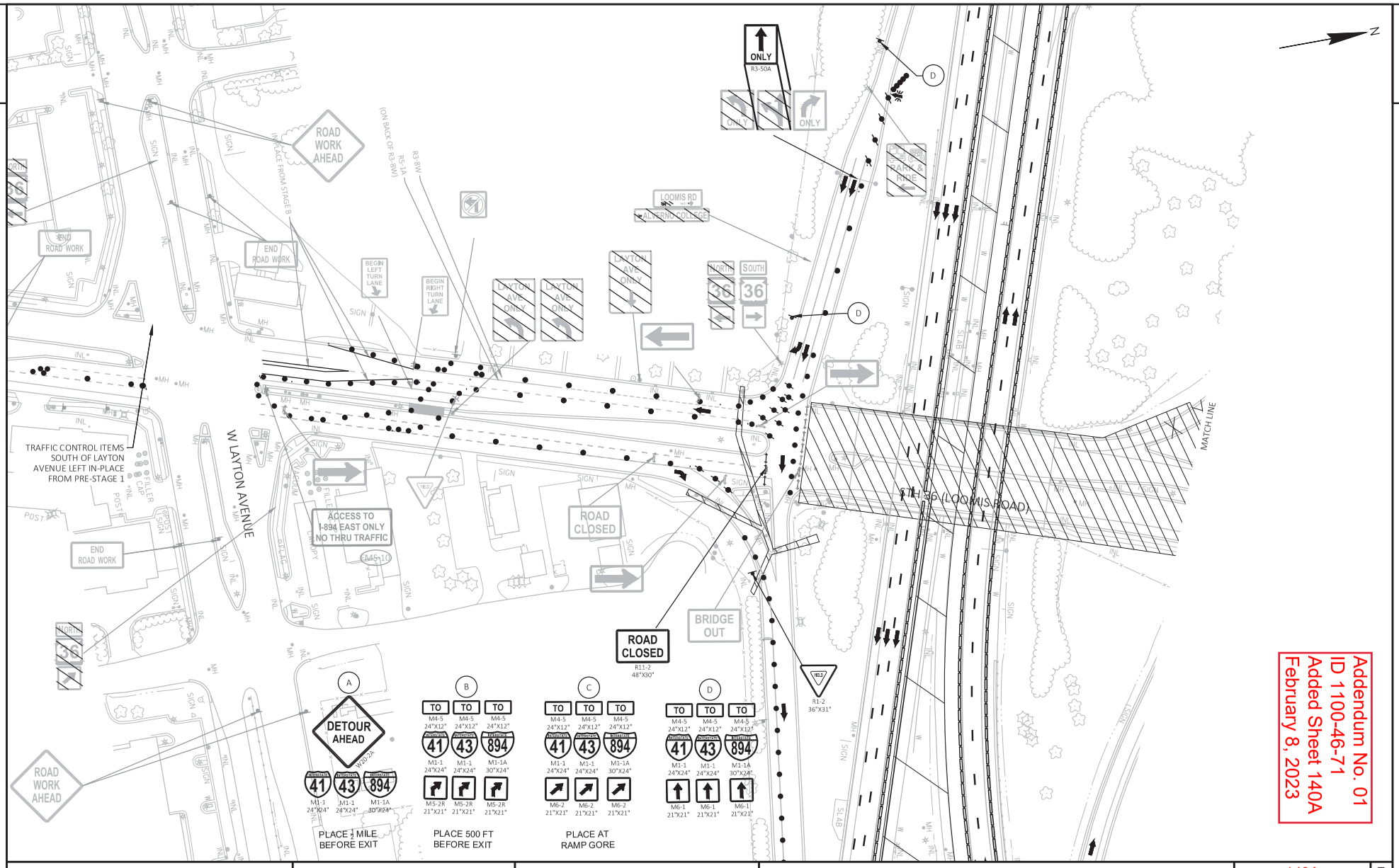
WATER MAIN PROTECTION

INSTALL ON ALL CATCH BASINS OR INLETS WITH LESS THAN 24" HORIZONTAL OUT-TO-OUT CLEARANCE FROM STRUCTURE TO WATER MAIN

SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS

Addendum No. 01
ID 1100-46-71
Revised Sheet 15
February 8, 2023

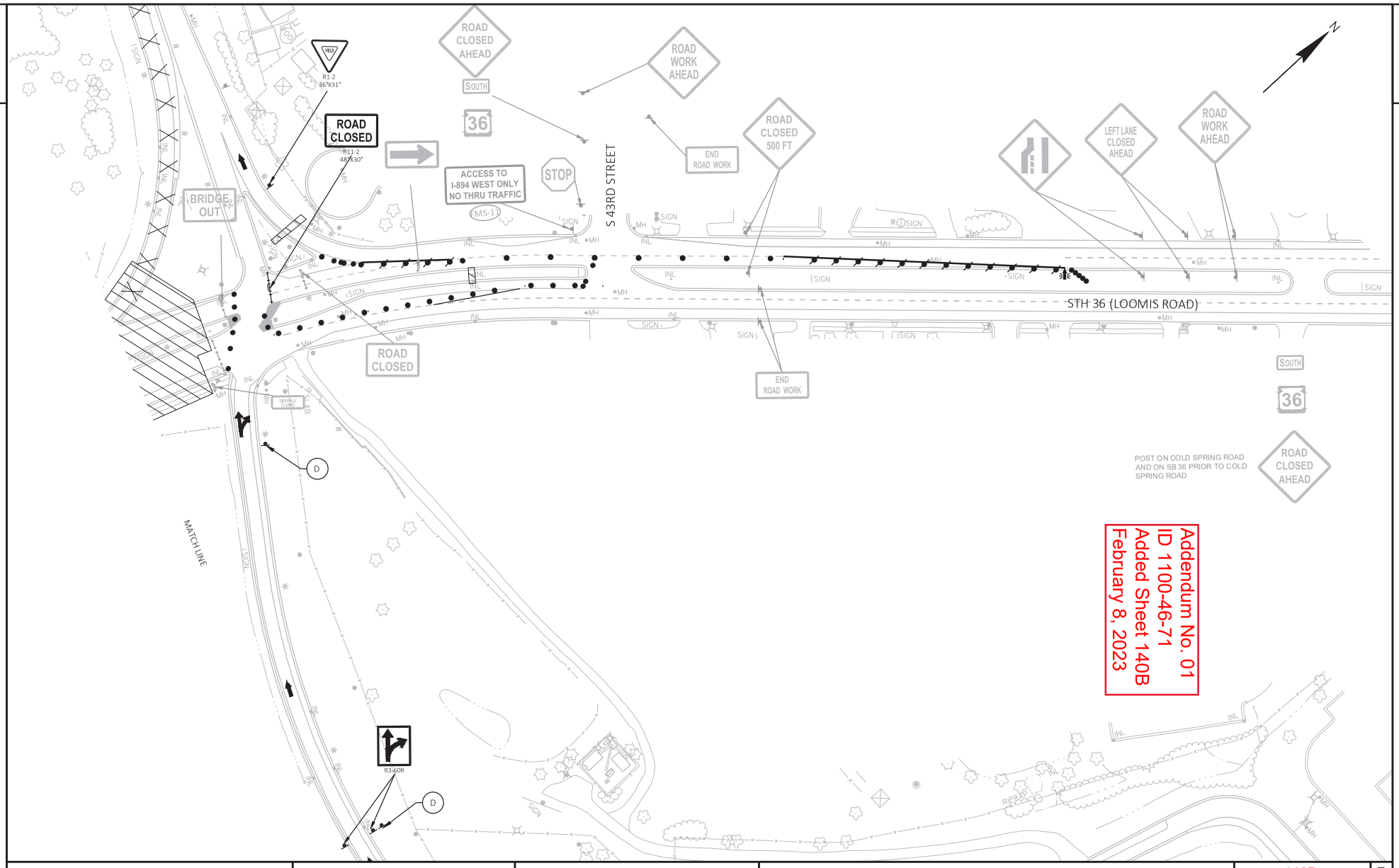
FILE NAME : C:\PWWORKING\AECOM_DS20_NA_2019\ZACHARY.MROZ@AECOM.COM\DMS24447\021001-CD.DWG
LAYOUT NAME - 021001-CD - 021006-CD
PLOT DATE : 2/1/2023 9:05 AM PLOT BY : MROZ, ZACHARY PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE DETAIL	SHEET 140A	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_D.DWG
LAYOUT NAME - 025111_tc
PLOT DATE : 1/25/2023 3:13 PM PLOT BY : MADHUR KHADE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 1100-46-71	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FULL CLOSURE DETAIL	SHEET 140B	E

FILE NAME : L:\DESIGN PROJECTS\1100-46-00 I-894 LOOMIS RD IC\10. ROADWAY\CADD\SHEETSPLAN\025112_TC_D.DWG
LAYOUT NAME - 025112_tc
PLOT DATE : 1/25/2023 3:14 PM PLOT BY : MADHUR KHADE PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	29.000 STA	_____.____	_____.____
0004	201.0120 Clearing	82.000 ID	_____.____	_____.____
0006	201.0205 Grubbing	27.000 STA	_____.____	_____.____
0008	201.0220 Grubbing	82.000 ID	_____.____	_____.____
0010	203.0211.S Abatement of Asbestos Containing Material (structure) 400. B-40-0198	1.000 EACH	_____.____	_____.____
0012	203.0220 Removing Structure (structure) 400. B-40-0198	1.000 EACH	_____.____	_____.____
0014	203.0220 Removing Structure (structure) 401. B-40-321	1.000 EACH	_____.____	_____.____
0016	203.0330 Debris Containment (structure) 400. B-40-0198	1.000 EACH	_____.____	_____.____
0018	204.0100 Removing Concrete Pavement	43,726.000 SY	_____.____	_____.____
0020	204.0105 Removing Concrete Pavement Butt Joints	168.000 SY	_____.____	_____.____
0022	204.0109.S Removing Concrete Surface Partial Depth	60,519.000 SF	_____.____	_____.____
0024	204.0115 Removing Asphaltic Surface Butt Joints	4,504.000 SY	_____.____	_____.____
0026	204.0120 Removing Asphaltic Surface Milling	253,619.000 SY	_____.____	_____.____
0028	204.0150 Removing Curb & Gutter	22,847.000 LF	_____.____	_____.____
0030	204.0155 Removing Concrete Sidewalk	701.000 SY	_____.____	_____.____

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0032	204.0157 Removing Concrete Barrier	36,173.000 LF	_____.____	_____.____
0034	204.0165 Removing Guardrail	1,487.000 LF	_____.____	_____.____
0036	204.0170 Removing Fence	504.000 LF	_____.____	_____.____
0038	204.0175 Removing Concrete Slope Paving	452.000 SY	_____.____	_____.____
0040	204.0195 Removing Concrete Bases	88.000 EACH	_____.____	_____.____
0042	204.0210 Removing Manholes	70.000 EACH	_____.____	_____.____
0044	204.0220 Removing Inlets	225.000 EACH	_____.____	_____.____
0046	204.0245 Removing Storm Sewer (size) 801. 12-Inch	2,177.000 LF	_____.____	_____.____
0048	204.0245 Removing Storm Sewer (size) 802. 15-Inch	853.000 LF	_____.____	_____.____
0050	204.0245 Removing Storm Sewer (size) 803. 18-Inch	1,066.000 LF	_____.____	_____.____
0052	204.0245 Removing Storm Sewer (size) 804. 21-Inch	576.000 LF	_____.____	_____.____
0054	204.0245 Removing Storm Sewer (size) 805. 24-Inch	783.000 LF	_____.____	_____.____
0056	204.0245 Removing Storm Sewer (size) 806. 30-Inch	534.000 LF	_____.____	_____.____
0058	204.0245 Removing Storm Sewer (size) 807. 36-Inch	9.000 LF	_____.____	_____.____
0060	204.0245 Removing Storm Sewer (size) 808. 42-Inch	21.000 LF	_____.____	_____.____

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0062	204.9060.S Removing (item description) 001. Ramp Gate	2.000 EACH	_____.____	_____.____
0064	204.9060.S Removing (item description) 002. Subsurface Structure	1.000 EACH	_____.____	_____.____
0066	204.9060.S Removing (item description) 100. Underdeck Lighting B-40-198	1.000 EACH	_____.____	_____.____
0068	204.9060.S Removing (item description) 101. Distribution Center	6.000 EACH	_____.____	_____.____
0070	204.9060.S Removing (item description) 102. Lighting Units	161.000 EACH	_____.____	_____.____
0074	204.9060.S Removing (item description) 106. Poles Wood 60-FT and Floodlights	83.000 EACH	_____.____	_____.____
0076	204.9060.S Removing (item description) 107. Poles Wood 35-FT	2.000 EACH	_____.____	_____.____
0078	204.9060.S Removing (item description) 200. Overhead Freeway DMS	2.000 EACH	_____.____	_____.____
0080	204.9060.S Removing (item description) 300. Electrical Service Meter Breaker Pedestal	2.000 EACH	_____.____	_____.____
0082	204.9060.S Removing (item description) 301. Communication Vault	1.000 EACH	_____.____	_____.____
0084	204.9060.S Removing (item description) 302. Traffic Signals IH 41 EB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0086	204.9060.S Removing (item description) 303. Traffic Signals IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0088	204.9060.S Removing (item description) 304. Traffic Signals I-894 EB Ramps & S 84TH St	1.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0090	204.9060.S Removing (item description) 305. Loop Detector Wire and Lead-In Cable, IH 41 EB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0092	204.9060.S Removing (item description) 306. Loop Detector Wire and Lead-In Cable, IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0094	204.9060.S Removing (item description) 307. Loop Detector Wire and Lead-In Cable STH 36 & Layton	1.000 EACH	_____.____	_____.____
0096	204.9060.S Removing (item description) 480. Old Sign Structure S-40-109	1.000 EACH	_____.____	_____.____
0098	204.9060.S Removing (item description) 485. Old Sign Structure S-40-009	1.000 EACH	_____.____	_____.____
0100	204.9060.S Removing (item description) 490. Old Sign Structure S-40-221	1.000 EACH	_____.____	_____.____
0102	204.9060.S Removing (item description) 495. Old Sign Structure S-40-219	1.000 EACH	_____.____	_____.____
0104	205.0100 Excavation Common	99,426.000 CY	_____.____	_____.____
0106	206.1001 Excavation for Structures Bridges (structure) 400. B-40-1025	1.000 EACH	_____.____	_____.____
0108	206.2001 Excavation for Structures Culverts (structure) 401. B-40-321	1.000 EACH	_____.____	_____.____
0110	208.1100 Select Borrow	2,895.000 CY	_____.____	_____.____
0112	210.2500 Backfill Structure Type B	179.000 TON	_____.____	_____.____
0114	213.0100 Finishing Roadway (project) 001. 1100-45-70	1.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0116	213.0100 Finishing Roadway (project) 002. 1100-46-71	1.000 EACH	_____.____	_____.____
0118	214.0100 Obliterating Old Road	6.000 STA	_____.____	_____.____
0120	305.0110 Base Aggregate Dense 3/4-Inch	47.000 TON	_____.____	_____.____
0122	305.0120 Base Aggregate Dense 1 1/4-Inch	43,225.000 TON	_____.____	_____.____
0124	312.0110 Select Crushed Material	100,185.000 TON	_____.____	_____.____
0126	390.0403 Base Patching Concrete Shes	2,210.000 SY	_____.____	_____.____
0128	415.0080 Concrete Pavement 8-Inch	2,258.000 SY	_____.____	_____.____
0130	415.0085 Concrete Pavement 8 1/2-Inch	13,779.000 SY	_____.____	_____.____
0132	415.0410 Concrete Pavement Approach Slab	680.000 SY	_____.____	_____.____
0134	416.0160 Concrete Driveway 6-Inch	21.000 SY	_____.____	_____.____
0136	416.0260 Concrete Driveway HES 6-Inch	14.000 SY	_____.____	_____.____
0138	416.0610 Drilled Tie Bars	10,296.000 EACH	_____.____	_____.____
0140	416.0620 Drilled Dowel Bars	4,718.000 EACH	_____.____	_____.____
0142	450.4000 HMA Cold Weather Paving	9,761.000 TON	_____.____	_____.____
0144	455.0605 Tack Coat	50,790.000 GAL	_____.____	_____.____
0146	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	1.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0148	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.____	_____.____
0150	460.0115.S HMA Pavement Test Strips Volumetrics	1.000 EACH	_____.____	_____.____
0152	460.0120.S HMA Pavement Test Strips Density	1.000 EACH	_____.____	_____.____
0154	460.2000 Incentive Density HMA Pavement	1,910.000 DOL	1.00000	1,910.00
0156	460.2005 Incentive Density PWL HMA Pavement	13,740.000 DOL	1.00000	13,740.00
0158	460.2007 Incentive Density HMA Pavement Longitudinal Joints	25,960.000 DOL	1.00000	25,960.00
0160	460.2010 Incentive Air Voids HMA Pavement	61,200.000 DOL	1.00000	61,200.00
0162	460.6224 HMA Pavement 4 MT 58-28 S	2,963.000 TON	_____.____	_____.____
0164	460.7423 HMA Pavement 3 HT 58-28 H	63,532.000 TON	_____.____	_____.____
0166	460.8624 HMA Pavement 4 SMA 58-28 V	26,445.000 TON	_____.____	_____.____
0168	460.9000.S Material Transfer Vehicle	1.000 EACH	_____.____	_____.____
0170	465.0120 Asphaltic Surface Driveways and Field Entrances	6.000 TON	_____.____	_____.____
0172	465.0125 Asphaltic Surface Temporary	4,521.000 TON	_____.____	_____.____
0174	502.0100 Concrete Masonry Bridges	2,353.000 CY	_____.____	_____.____
0176	502.3200 Protective Surface Treatment	4,382.000 SY	_____.____	_____.____
0178	502.3205 Pigmented Surface Sealer Reseal	7,806.000 SY	_____.____	_____.____

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0180	502.3210 Pigmented Surface Sealer	410.000 SY	_____.____	_____.____
0182	502.3215 Protective Surface Treatment Reseal	3,426.000 SY	_____.____	_____.____
0184	502.4205 Adhesive Anchors No. 5 Bar	7.000 EACH	_____.____	_____.____
0186	503.0146 Prestressed Girder Type I 45W-Inch	3,614.000 LF	_____.____	_____.____
0188	504.0100 Concrete Masonry Culverts	1.000 CY	_____.____	_____.____
0190	505.0400 Bar Steel Reinforcement HS Structures	28,260.000 LB	_____.____	_____.____
0192	505.0600 Bar Steel Reinforcement HS Coated Structures	423,870.000 LB	_____.____	_____.____
0194	505.0800.S Bar Steel Reinforcement HS Stainless Structures	5,410.000 LB	_____.____	_____.____
0196	506.2605 Bearing Pads Elastomeric Non-Laminated	72.000 EACH	_____.____	_____.____
0198	506.4000 Steel Diaphragms (structure) 400. B-40-1025	68.000 EACH	_____.____	_____.____
0200	509.0301 Preparation Decks Type 1	28.000 SY	_____.____	_____.____
0202	509.0302 Preparation Decks Type 2	14.000 SY	_____.____	_____.____
0204	509.0310.S Sawing Pavement Deck Preparation Areas	286.000 LF	_____.____	_____.____
0206	509.0500 Cleaning Decks	4,354.000 SY	_____.____	_____.____
0208	509.1200 Curb Repair	8.000 LF	_____.____	_____.____

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0210	509.1500 Concrete Surface Repair	836.000 SF	_____.____	_____.____
0212	509.2000 Full-Depth Deck Repair	3.000 SY	_____.____	_____.____
0214	509.9020.S Epoxy Crack Sealing	320.000 LF	_____.____	_____.____
0216	509.9025.S Epoxy Injection Crack Repair	15.000 LF	_____.____	_____.____
0218	511.1200 Temporary Shoring (structure) 400. B-40-1025	3,276.000 SF	_____.____	_____.____
0220	511.1200 Temporary Shoring (structure) 401. R-40-716	210.000 SF	_____.____	_____.____
0222	511.2200 Temporary Shoring Left in Place (structure) 400. R-40-717	210.000 SF	_____.____	_____.____
0224	513.2001 Railing Pipe	318.000 LF	_____.____	_____.____
0226	513.4091 Railing Tubular Screening	484.000 LF	_____.____	_____.____
0228	516.0500 Rubberized Membrane Waterproofing	71.000 SY	_____.____	_____.____
0230	517.1801.S Structure Repainting Recycled Abrasive (structure) 400. B-40-196	1.000 EACH	_____.____	_____.____
0232	517.1801.S Structure Repainting Recycled Abrasive (structure) 401. B-40-197	1.000 EACH	_____.____	_____.____
0234	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 400. B-40-196	1.000 EACH	_____.____	_____.____
0236	517.4501.S Negative Pressure Containment and Collection of Waste Materials (structure) 401. B-40-197	1.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0238	517.6001.S Portable Decontamination Facility	2.000 EACH	_____.____	_____.____
0240	520.8000 Concrete Collars for Pipe	161.000 EACH	_____.____	_____.____
0242	521.2005.S Surface Drain Pipe Corrugated Metal Slotted (inch) 001. 15-Inch	4,795.000 LF	_____.____	_____.____
0244	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	1.000 EACH	_____.____	_____.____
0246	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	2.000 EACH	_____.____	_____.____
0248	531.1100 Concrete Masonry Ancillary Structures Type NS	265.000 CY	_____.____	_____.____
0250	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	22,605.000 LB	_____.____	_____.____
0252	531.1160 Steel Reinforcement HS Coated Ancillary Structures Type NS	13,460.000 LB	_____.____	_____.____
0254	531.2024 Drilling Shaft 24-Inch	20.000 LF	_____.____	_____.____
0256	531.2036 Drilling Shaft 36-Inch	250.000 LF	_____.____	_____.____
0258	531.2042 Drilling Shaft 42-Inch	184.000 LF	_____.____	_____.____
0260	531.2048 Drilling Shaft 48-Inch	23.000 LF	_____.____	_____.____
0262	531.4050 Foundation Camera Pole 50-FT	3.000 EACH	_____.____	_____.____
0264	531.5310 Foundation Single-Shaft Type TC-I (structure) 400. S-40-3095	1.000 EACH	_____.____	_____.____
0266	531.5310 Foundation Single-Shaft Type TC-I (structure) 401. S-40-3097	1.000 EACH	_____.____	_____.____

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0268	531.5330 Foundation Single-Shaft Type TC-III (structure) 400. S-40-3096	1.000 EACH	_____.____	_____.____
0270	531.6010 Foundation Two-Shaft Type FC-I (structure) 480. S-40-3099	1.000 EACH	_____.____	_____.____
0272	531.6010 Foundation Two-Shaft Type FC-I (structure) 485. S-40-3100	1.000 EACH	_____.____	_____.____
0274	531.8990 Anchor Assemblies Poles on Structures	14.000 EACH	_____.____	_____.____
0276	532.5020 Butterfly 2-Chord NS (structure) 490. S-40-3101	1.000 EACH	_____.____	_____.____
0278	532.5020 Butterfly 2-Chord NS (structure) 495. S-40-3102	1.000 EACH	_____.____	_____.____
0280	532.5310 Truss Cantilever 2-Chord Type I (structure) 400. S-40-3095	1.000 EACH	_____.____	_____.____
0282	532.5310 Truss Cantilever 2-Chord Type I (structure) 402. S-40-3097	1.000 EACH	_____.____	_____.____
0284	532.5330 Truss Cantilever 2-Chord Type III (structure) 401. S-40-3096	1.000 EACH	_____.____	_____.____
0286	532.6000 Truss Cantilever 4-Chord Type NS (structure) 480. S-40-3099	1.000 EACH	_____.____	_____.____
0288	532.6000 Truss Cantilever 4-Chord Type NS (structure) 485. S-40-3100	1.000 EACH	_____.____	_____.____
0290	550.0600 Pile Redriving	27.000 EACH	_____.____	_____.____
0292	550.1100 Piling Steel HP 10-Inch X 42 Lb	12,160.000 LF	_____.____	_____.____
0294	601.0319 Concrete Curb & Gutter 19-Inch	68.000 LF	_____.____	_____.____

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0296	601.0331 Concrete Curb & Gutter 31-Inch	14,953.000 LF	_____.____	_____.____
0298	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	33,006.000 LF	_____.____	_____.____
0300	601.0600 Concrete Curb Pedestrian	350.000 LF	_____.____	_____.____
0302	602.0410 Concrete Sidewalk 5-Inch	20,525.000 SF	_____.____	_____.____
0304	602.0505 Curb Ramp Detectable Warning Field Yellow	20.000 SF	_____.____	_____.____
0306	602.0515 Curb Ramp Detectable Warning Field Natural Patina	380.000 SF	_____.____	_____.____
0308	602.0605 Curb Ramp Detectable Warning Field Radial Yellow	45.000 SF	_____.____	_____.____
0310	602.0615 Curb Ramp Detectable Warning Field Radial Natural Patina	56.000 SF	_____.____	_____.____
0312	602.1500 Concrete Steps	309.000 SF	_____.____	_____.____
0314	603.1132 Concrete Barrier Type S32	64.000 LF	_____.____	_____.____
0316	603.1142 Concrete Barrier Type S42	11,184.000 LF	_____.____	_____.____
0318	603.1156 Concrete Barrier Type S56	1,379.000 LF	_____.____	_____.____
0320	603.1242 Concrete Barrier Type S42A	5,368.000 LF	_____.____	_____.____
0322	603.1342 Concrete Barrier Type S42B	81.000 LF	_____.____	_____.____
0324	603.1356 Concrete Barrier Type S56B	53.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0326	603.1442 Concrete Barrier Type S42C	265.000 LF	_____.____	_____.____
0328	603.1456 Concrete Barrier Type S56C	740.000 LF	_____.____	_____.____
0330	603.3113 Concrete Barrier Transition Type NJ32SF to S36	11.000 EACH	_____.____	_____.____
0332	603.3513 Concrete Barrier Transition Type S32 to S36	3.000 EACH	_____.____	_____.____
0334	603.3535 Concrete Barrier Transition Type S36 to S42	14.000 EACH	_____.____	_____.____
0336	603.3559 Concrete Barrier Transition Type S42 to S56	26.000 EACH	_____.____	_____.____
0338	603.8000 Concrete Barrier Temporary Precast Delivered	62,975.000 LF	_____.____	_____.____
0340	603.8125 Concrete Barrier Temporary Precast Installed	64,563.000 LF	_____.____	_____.____
0342	604.0400 Slope Paving Concrete	540.000 SY	_____.____	_____.____
0344	606.0200 Riprap Medium	170.000 CY	_____.____	_____.____
0346	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	844.000 LF	_____.____	_____.____
0348	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	1,760.000 LF	_____.____	_____.____
0350	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	167.000 LF	_____.____	_____.____
0352	608.0321 Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	13.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0354	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	2,439.000 LF	_____.____	_____.____
0356	608.0327 Storm Sewer Pipe Reinforced Concrete Class III 27-Inch	180.000 LF	_____.____	_____.____
0358	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	746.000 LF	_____.____	_____.____
0360	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	206.000 LF	_____.____	_____.____
0362	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	338.000 LF	_____.____	_____.____
0364	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	386.000 LF	_____.____	_____.____
0366	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	130.000 LF	_____.____	_____.____
0368	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	158.000 LF	_____.____	_____.____
0370	608.0442 Storm Sewer Pipe Reinforced Concrete Class IV 42-Inch	16.000 LF	_____.____	_____.____
0372	608.0512 Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	153.000 LF	_____.____	_____.____
0374	608.3612 Storm Sewer Pipe Class III-B 12-Inch	167.000 LF	_____.____	_____.____
0376	608.3615 Storm Sewer Pipe Class III-B 15-Inch	221.000 LF	_____.____	_____.____
0378	608.3618 Storm Sewer Pipe Class III-B 18-Inch	184.000 LF	_____.____	_____.____
0380	608.3621 Storm Sewer Pipe Class III-B 21-Inch	40.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0382	611.0420 Reconstructing Manholes	2.000 EACH	_____.____	_____.____
0384	611.0430 Reconstructing Inlets	58.000 EACH	_____.____	_____.____
0386	611.0530 Manhole Covers Type J	8.000 EACH	_____.____	_____.____
0388	611.0535 Manhole Covers Type J-Special	1.000 EACH	_____.____	_____.____
0390	611.0606 Inlet Covers Type B	1.000 EACH	_____.____	_____.____
0392	611.0612 Inlet Covers Type C	2.000 EACH	_____.____	_____.____
0394	611.0624 Inlet Covers Type H	26.000 EACH	_____.____	_____.____
0396	611.0627 Inlet Covers Type HM	72.000 EACH	_____.____	_____.____
0398	611.0639 Inlet Covers Type H-S	3.000 EACH	_____.____	_____.____
0400	611.0642 Inlet Covers Type MS	47.000 EACH	_____.____	_____.____
0402	611.0654 Inlet Covers Type V	35.000 EACH	_____.____	_____.____
0404	611.2004 Manholes 4-FT Diameter	5.000 EACH	_____.____	_____.____
0406	611.2005 Manholes 5-FT Diameter	100.000 EACH	_____.____	_____.____
0408	611.2006 Manholes 6-FT Diameter	6.000 EACH	_____.____	_____.____
0410	611.2008 Manholes 8-FT Diameter	5.000 EACH	_____.____	_____.____
0412	611.3004 Inlets 4-FT Diameter	87.000 EACH	_____.____	_____.____
0414	611.3220 Inlets 2x2-FT	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0416	611.3225 Inlets 2x2.5-FT	1.000 EACH	_____.____	_____.____
0418	611.3230 Inlets 2x3-FT	22.000 EACH	_____.____	_____.____
0420	611.3901 Inlets Median 1 Grate	35.000 EACH	_____.____	_____.____
0422	611.3902 Inlets Median 2 Grate	6.000 EACH	_____.____	_____.____
0424	611.8110 Adjusting Manhole Covers	10.000 EACH	_____.____	_____.____
0426	611.8115 Adjusting Inlet Covers	15.000 EACH	_____.____	_____.____
0430	612.0106 Pipe Underdrain 6-Inch	60,446.000 LF	_____.____	_____.____
0432	612.0206 Pipe Underdrain Unperforated 6-Inch	95.000 LF	_____.____	_____.____
0434	612.0406 Pipe Underdrain Wrapped 6-Inch	430.000 LF	_____.____	_____.____
0436	614.0905 Crash Cushions Temporary	23.000 EACH	_____.____	_____.____
0438	614.2500 MGS Thrie Beam Transition	560.000 LF	_____.____	_____.____
0440	614.2610 MGS Guardrail Terminal EAT	14.000 EACH	_____.____	_____.____
0442	616.0206 Fence Chain Link 6-FT	440.000 LF	_____.____	_____.____
0444	616.0329 Gates Chain Link (width) 001. 12-FT	2.000 EACH	_____.____	_____.____
0446	616.0700.S Fence Safety	650.000 LF	_____.____	_____.____
0448	618.0100 Maintenance And Repair of Haul Roads (project) 001. 1100-45-70	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0450	618.0100 Maintenance And Repair of Haul Roads (project) 002. 1100-46-71	1.000 EACH	_____.____	_____.____
0452	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0454	620.0300 Concrete Median Sloped Nose	477.000 SF	_____.____	_____.____
0456	623.0200 Dust Control Surface Treatment	104,043.000 SY	_____.____	_____.____
0458	624.0100 Water	956.000 MGAL	_____.____	_____.____
0460	625.0100 Topsoil	54,065.000 SY	_____.____	_____.____
0462	628.1504 Silt Fence	10,314.000 LF	_____.____	_____.____
0464	628.1520 Silt Fence Maintenance	5,584.000 LF	_____.____	_____.____
0466	628.1905 Mobilizations Erosion Control	28.000 EACH	_____.____	_____.____
0468	628.1910 Mobilizations Emergency Erosion Control	16.000 EACH	_____.____	_____.____
0470	628.2002 Erosion Mat Class I Type A	14,586.000 SY	_____.____	_____.____
0472	628.2004 Erosion Mat Class I Type B	4,298.000 SY	_____.____	_____.____
0474	628.2008 Erosion Mat Urban Class I Type B	263.000 SY	_____.____	_____.____
0476	628.2023 Erosion Mat Class II Type B	1,324.000 SY	_____.____	_____.____
0478	628.7005 Inlet Protection Type A	215.000 EACH	_____.____	_____.____
0480	628.7010 Inlet Protection Type B	337.000 EACH	_____.____	_____.____

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0482	628.7015 Inlet Protection Type C	72.000 EACH	_____.____	_____.____
0484	628.7020 Inlet Protection Type D	169.000 EACH	_____.____	_____.____
0486	628.7560 Tracking Pads	39.000 EACH	_____.____	_____.____
0488	628.7570 Rock Bags	200.000 EACH	_____.____	_____.____
0490	629.0210 Fertilizer Type B	43.100 CWT	_____.____	_____.____
0492	630.0120 Seeding Mixture No. 20	202.000 LB	_____.____	_____.____
0494	630.0160 Seeding Mixture No. 60	0.500 LB	_____.____	_____.____
0496	630.0200 Seeding Temporary	94.000 LB	_____.____	_____.____
0498	630.0500 Seed Water	138.000 MGAL	_____.____	_____.____
0500	631.0300 Sod Water	100.000 MGAL	_____.____	_____.____
0502	631.1000 Sod Lawn	4,270.000 SY	_____.____	_____.____
0504	633.1000 Delineators Barrier Wall	32.000 EACH	_____.____	_____.____
0506	634.0618 Posts Wood 4x6-Inch X 18-FT	91.000 EACH	_____.____	_____.____
0508	634.0622 Posts Wood 4x6-Inch X 22-FT	25.000 EACH	_____.____	_____.____
0510	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	7.000 EACH	_____.____	_____.____
0512	634.0885 Posts Tubular Steel 2x2-Inch X 8.5-FT	4.000 EACH	_____.____	_____.____
0514	635.0200 Sign Supports Structural Steel HS	2,000.000 LB	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0516	635.0300 Sign Supports Replacing Base Connection Bolts	19.000 EACH	_____.____	_____.____
0518	637.1220 Signs Type I Reflective SH	3,005.000 SF	_____.____	_____.____
0520	637.2210 Signs Type II Reflective H	1,861.773 SF	_____.____	_____.____
0522	637.2215 Signs Type II Reflective H Folding	149.520 SF	_____.____	_____.____
0524	637.2230 Signs Type II Reflective F	172.750 SF	_____.____	_____.____
0526	638.2101 Moving Signs Type I	7.000 EACH	_____.____	_____.____
0528	638.2102 Moving Signs Type II	8.000 EACH	_____.____	_____.____
0530	638.2601 Removing Signs Type I	19.000 EACH	_____.____	_____.____
0532	638.2602 Removing Signs Type II	153.000 EACH	_____.____	_____.____
0534	638.3000 Removing Small Sign Supports	92.000 EACH	_____.____	_____.____
0536	643.0300 Traffic Control Drums	288,006.000 DAY	_____.____	_____.____
0538	643.0420 Traffic Control Barricades Type III	38,559.000 DAY	_____.____	_____.____
0540	643.0705 Traffic Control Warning Lights Type A	73,649.000 DAY	_____.____	_____.____
0542	643.0715 Traffic Control Warning Lights Type C	71,675.000 DAY	_____.____	_____.____
0544	643.0800 Traffic Control Arrow Boards	2,561.000 DAY	_____.____	_____.____
0546	643.0900 Traffic Control Signs	160,597.000 DAY	_____.____	_____.____

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0548	643.0910 Traffic Control Covering Signs Type I	15.000 EACH	_____.____	_____.____
0550	643.0920 Traffic Control Covering Signs Type II	75.000 EACH	_____.____	_____.____
0552	643.1000 Traffic Control Signs Fixed Message	970.000 SF	_____.____	_____.____
0554	643.1050 Traffic Control Signs PCMS	2,795.000 DAY	_____.____	_____.____
0556	643.1200.S Portable Automated Real-Time Traffic Queue Warning System	272.000 DAY	_____.____	_____.____
0558	643.3105 Temporary Marking Line Paint 4-Inch	2,089.000 LF	_____.____	_____.____
0560	643.3120 Temporary Marking Line Epoxy 4-Inch	343,912.000 LF	_____.____	_____.____
0562	643.3150 Temporary Marking Line Removable Tape 4-Inch	121,569.000 LF	_____.____	_____.____
0564	643.3205 Temporary Marking Line Paint 8-Inch	1,028.000 LF	_____.____	_____.____
0566	643.3220 Temporary Marking Line Epoxy 8-Inch	46,433.000 LF	_____.____	_____.____
0568	643.3250 Temporary Marking Line Removable Tape 8-Inch	22,948.000 LF	_____.____	_____.____
0570	643.3505 Temporary Marking Arrow Paint	2.000 EACH	_____.____	_____.____
0572	643.3605 Temporary Marking Word Paint	1.000 EACH	_____.____	_____.____
0574	643.3760 Temporary Marking Raised Pavement Marker Type I	184.000 EACH	_____.____	_____.____
0576	643.4100 Traffic Control Interim Lane Closure	796.000 EACH	_____.____	_____.____
0578	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____

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0580	644.1430 Temporary Pedestrian Surface Plate	460.000 SF	_____.____	_____.____
0582	644.1601 Temporary Pedestrian Curb Ramp	38.000 DAY	_____.____	_____.____
0584	644.1605 Temporary Pedestrian Detectable Warning Field	60.000 SF	_____.____	_____.____
0586	644.1810 Temporary Pedestrian Barricade	960.000 LF	_____.____	_____.____
0588	645.0111 Geotextile Type DF Schedule A	30,239.000 SY	_____.____	_____.____
0590	645.0120 Geotextile Type HR	14.000 SY	_____.____	_____.____
0592	646.1020 Marking Line Epoxy 4-Inch	35,513.000 LF	_____.____	_____.____
0594	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	65,200.000 LF	_____.____	_____.____
0596	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	1,246.000 LF	_____.____	_____.____
0598	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	17,849.000 LF	_____.____	_____.____
0600	646.3020 Marking Line Epoxy 8-Inch	223.000 LF	_____.____	_____.____
0602	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	8,053.000 LF	_____.____	_____.____
0604	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	17,892.000 LF	_____.____	_____.____
0606	646.5020 Marking Arrow Epoxy	48.000 EACH	_____.____	_____.____
0608	646.5120 Marking Word Epoxy	20.000 EACH	_____.____	_____.____

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0610	646.5220 Marking Symbol Epoxy	15.000 EACH	_____.____	_____.____
0612	646.6120 Marking Stop Line Epoxy 18-Inch	618.000 LF	_____.____	_____.____
0614	646.7120 Marking Diagonal Epoxy 12-Inch	9,826.000 LF	_____.____	_____.____
0616	646.7220 Marking Chevron Epoxy 24-Inch	1,165.000 LF	_____.____	_____.____
0618	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	1,682.000 LF	_____.____	_____.____
0620	646.8120 Marking Curb Epoxy	370.000 LF	_____.____	_____.____
0622	646.8220 Marking Island Nose Epoxy	5.000 EACH	_____.____	_____.____
0624	646.9000 Marking Removal Line 4-Inch	98,295.000 LF	_____.____	_____.____
0626	646.9100 Marking Removal Line 8-Inch	17,180.000 LF	_____.____	_____.____
0628	646.9200 Marking Removal Line Wide	9,963.000 LF	_____.____	_____.____
0630	652.0125 Conduit Rigid Metallic 2-Inch	48.000 LF	_____.____	_____.____
0632	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	32,612.000 LF	_____.____	_____.____
0634	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	4,797.000 LF	_____.____	_____.____
0636	652.0605 Conduit Special 2-Inch	403.000 LF	_____.____	_____.____
0638	652.0615 Conduit Special 3-Inch	5,683.000 LF	_____.____	_____.____
0640	652.0700.S Install Conduit into Existing Item	5.000 EACH	_____.____	_____.____

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0642	652.0800 Conduit Loop Detector	2,466.000 LF	_____.____	_____.____
0644	653.0135 Pull Boxes Steel 24x36-Inch	13.000 EACH	_____.____	_____.____
0646	653.0140 Pull Boxes Steel 24x42-Inch	63.000 EACH	_____.____	_____.____
0648	653.0222 Junction Boxes 18x12x6-Inch	18.000 EACH	_____.____	_____.____
0650	653.0905 Removing Pull Boxes	84.000 EACH	_____.____	_____.____
0652	654.0101 Concrete Bases Type 1	16.000 EACH	_____.____	_____.____
0654	654.0102 Concrete Bases Type 2	2.000 EACH	_____.____	_____.____
0656	654.0105 Concrete Bases Type 5	85.000 EACH	_____.____	_____.____
0658	654.0108 Concrete Bases Type 8	18.000 EACH	_____.____	_____.____
0660	654.0110 Concrete Bases Type 10	1.000 EACH	_____.____	_____.____
0662	654.0113 Concrete Bases Type 13	1.000 EACH	_____.____	_____.____
0664	654.0120 Concrete Bases Type 10-Special	3.000 EACH	_____.____	_____.____
0666	654.0217 Concrete Control Cabinet Bases Type 9 Special	2.000 EACH	_____.____	_____.____
0668	654.0230 Concrete Control Cabinet Bases Type L30	6.000 EACH	_____.____	_____.____
0670	655.0230 Cable Traffic Signal 5-14 AWG	1,189.000 LF	_____.____	_____.____
0672	655.0235 Cable Traffic Signal 7-12 AWG	281.000 LF	_____.____	_____.____

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0674	655.0240 Cable Traffic Signal 7-14 AWG	2,590.000 LF	_____.____	_____.____
0676	655.0260 Cable Traffic Signal 12-14 AWG	2,985.000 LF	_____.____	_____.____
0678	655.0320 Cable Type UF 2-10 AWG Grounded	1,208.000 LF	_____.____	_____.____
0680	655.0515 Electrical Wire Traffic Signals 10 AWG	7,233.000 LF	_____.____	_____.____
0682	655.0610 Electrical Wire Lighting 12 AWG	38,835.000 LF	_____.____	_____.____
0684	655.0615 Electrical Wire Lighting 10 AWG	3,075.000 LF	_____.____	_____.____
0686	655.0620 Electrical Wire Lighting 8 AWG	50,223.000 LF	_____.____	_____.____
0688	655.0625 Electrical Wire Lighting 6 AWG	29,222.000 LF	_____.____	_____.____
0690	655.0630 Electrical Wire Lighting 4 AWG	64,565.000 LF	_____.____	_____.____
0692	655.0635 Electrical Wire Lighting 2 AWG	1,524.000 LF	_____.____	_____.____
0694	655.0640 Electrical Wire Lighting 1 AWG	108.000 LF	_____.____	_____.____
0696	655.0700 Loop Detector Lead In Cable	9,811.000 LF	_____.____	_____.____
0698	655.0800 Loop Detector Wire	8,930.000 LF	_____.____	_____.____
0700	655.0900 Traffic Signal EVP Detector Cable	1,815.000 LF	_____.____	_____.____
0702	656.0201 Electrical Service Meter Breaker Pedestal (location) 300. IH 41 EB Ramps & STH 36	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
0704	656.0201 Electrical Service Meter Breaker Pedestal (location) 301. IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0706	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 101. HL-40-FO	1.000 EACH	_____.____	_____.____
0708	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 102. HL-40-AL	1.000 EACH	_____.____	_____.____
0710	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 103. HL-40-BO	1.000 EACH	_____.____	_____.____
0712	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 104. HL-40-LM	1.000 EACH	_____.____	_____.____
0714	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 105. HL-40-AR	1.000 EACH	_____.____	_____.____
0716	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 106. HL-40-TF	1.000 EACH	_____.____	_____.____
0718	657.0100 Pedestal Bases	17.000 EACH	_____.____	_____.____
0720	657.0210 Transformer Bases Breakaway 15-17 Inch Bolt Circle	18.000 EACH	_____.____	_____.____
0722	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	89.000 EACH	_____.____	_____.____
0724	657.0310 Poles Type 3	2.000 EACH	_____.____	_____.____
0726	657.0322 Poles Type 5-Aluminum	87.000 EACH	_____.____	_____.____
0728	657.0380 Poles Type E	18.000 EACH	_____.____	_____.____
0730	657.0381 Poles Type F	70.000 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
0732	657.0420 Traffic Signal Standards Aluminum 13-FT	6.000 EACH	_____.____	_____.____
0734	657.0425 Traffic Signal Standards Aluminum 15-FT	6.000 EACH	_____.____	_____.____
0736	657.0430 Traffic Signal Standards Aluminum 10-FT	5.000 EACH	_____.____	_____.____
0738	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	1.000 EACH	_____.____	_____.____
0740	657.0610 Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	96.000 EACH	_____.____	_____.____
0742	657.0614 Luminaire Arms Single Member 4-Inch Clamp 8-FT	1.000 EACH	_____.____	_____.____
0744	657.0615 Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	12.000 EACH	_____.____	_____.____
0746	658.0173 Traffic Signal Face 3S 12-Inch	29.000 EACH	_____.____	_____.____
0748	658.0174 Traffic Signal Face 4S 12-Inch	8.000 EACH	_____.____	_____.____
0750	658.0175 Traffic Signal Face 5S 12-Inch	2.000 EACH	_____.____	_____.____
0752	658.0416 Pedestrian Signal Face 16-Inch	15.000 EACH	_____.____	_____.____
0754	658.0500 Pedestrian Push Buttons	16.000 EACH	_____.____	_____.____
0756	658.5070 Signal Mounting Hardware (location) 300. IH 41 EB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0758	658.5070 Signal Mounting Hardware (location) 301. IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0760	658.5070 Signal Mounting Hardware (location) 302. I-894 EB Ramps & S 84TH St	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0762	659.0601 Underdeck Lighting (structure) 001. B-40-1025	1.000 EACH	_____.____	_____.____
0764	659.1125 Luminaires Utility LED C	93.000 EACH	_____.____	_____.____
0766	659.1130 Luminaires Utility LED D	158.000 EACH	_____.____	_____.____
0768	659.1210 Luminaires Underdeck LED B	4.000 EACH	_____.____	_____.____
0770	659.2230 Lighting Control Cabinets 240/480 30-Inch	6.000 EACH	_____.____	_____.____
0772	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor	276.000 EACH	_____.____	_____.____
0774	662.1028.S Ramp Closure Gates 28-FT	2.000 EACH	_____.____	_____.____
0776	662.1030.S Ramp Closure Gates 30-FT	1.000 EACH	_____.____	_____.____
0778	662.1032.S Ramp Closure Gates 32-FT	1.000 EACH	_____.____	_____.____
0780	670.0101 Field System Integrator	1.000 EACH	_____.____	_____.____
0782	670.0101 Field System Integrator 001. FTMS	1.000 EACH	_____.____	_____.____
0784	670.0201 ITS Documentation	1.000 EACH	_____.____	_____.____
0786	670.0201 ITS Documentation 001. FTMS	1.000 EACH	_____.____	_____.____
0788	671.0112 Conduit HDPE 1-Duct 2-Inch	1,557.000 LF	_____.____	_____.____
0790	671.0212 Conduit HDPE Directional Bore 1-Duct 2-Inch	286.000 LF	_____.____	_____.____
0792	673.0105 Communication Vault Type 1	2.000 EACH	_____.____	_____.____

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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0794	674.0300 Remove Cable	1,704.000 LF	_____.____	_____.____
0796	674.0400 Reinstall Cable	1,637.000 LF	_____.____	_____.____
0798	675.0300 Install Mounted Controller Microwave Detector Assembly	2.000 EACH	_____.____	_____.____
0800	677.0150 Install Camera Pole 50-FT	3.000 EACH	_____.____	_____.____
0802	677.0200 Install Camera Assembly	4.000 EACH	_____.____	_____.____
0804	677.9051.S Removing 50-FT Camera Pole	3.000 EACH	_____.____	_____.____
0806	677.9200.S Removing CCTV Camera	1.000 EACH	_____.____	_____.____
0808	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	252.000 LF	_____.____	_____.____
0810	678.0036 Install Fiber Optic Cable Outdoor Plant 36-CT	1,366.000 LF	_____.____	_____.____
0812	678.0100.S Install Overhead Freeway DMS Full Matrix	2.000 EACH	_____.____	_____.____
0814	678.0200 Fiber Optic Splice Enclosure	2.000 EACH	_____.____	_____.____
0816	678.0300 Fiber Optic Splice	16.000 EACH	_____.____	_____.____
0818	678.0501 Communication System Testing	1.000 EACH	_____.____	_____.____
0820	678.0600 Install Ethernet Switches	2.000 EACH	_____.____	_____.____
0822	690.0150 Sawing Asphalt	707.000 LF	_____.____	_____.____
0824	690.0250 Sawing Concrete	145,972.000 LF	_____.____	_____.____

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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0826	715.0502 Incentive Strength Concrete Structures	14,118.000 DOL	1.00000	14,118.00
0828	715.0603 Incentive Strength Concrete Barrier	13,858.000 DOL	1.00000	13,858.00
0830	715.0715 Incentive Flexural Strength Concrete Pavement	5,016.000 DOL	1.00000	5,016.00
0832	715.0720 Incentive Compressive Strength Concrete Pavement	5,016.000 DOL	1.00000	5,016.00
0834	740.0440 Incentive IRI Ride	31,720.000 DOL	1.00000	31,720.00
0836	999.1501.S Crack and Damage Survey	1.000 EACH	_____._____	_____._____
0838	999.2000.S Installing and Maintaining Bird Deterrent System (station) 001. 87+50	1.000 EACH	_____._____	_____._____
0840	999.2000.S Installing and Maintaining Bird Deterrent System (station) 002. 96'EW'+10	1.000 EACH	_____._____	_____._____
0842	999.2000.S Installing and Maintaining Bird Deterrent System (station) 003. 202'EW'+78	1.000 EACH	_____._____	_____._____
0844	999.2000.S Installing and Maintaining Bird Deterrent System (station) 004. 257'EWW'+30	1.000 EACH	_____._____	_____._____
0846	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	5,600.000 HRS	5.00000	28,000.00
0848	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	14,400.000 HRS	5.00000	72,000.00
0850	SPV.0035 Special 001. EBS Excavation	8,237.000 CY	_____._____	_____._____
0852	SPV.0035 Special 002. EBS Backfill	8,237.000 CY	_____._____	_____._____
0854	SPV.0035 Special 400. Rapid Set Deck Repair	4.000 CY	_____._____	_____._____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0856	SPV.0035 Special 801. Backfill Slurry	6,660.000 CY	_____.____	_____.____
0858	SPV.0060 Special 001. Baseline CPM Progress Schedule	1.000 EACH	_____.____	_____.____
0860	SPV.0060 Special 002. Monthly CPM Progress Schedule Updates	14.000 EACH	_____.____	_____.____
0862	SPV.0060 Special 003. Concrete Barrier Transition Type M1	1.000 EACH	_____.____	_____.____
0864	SPV.0060 Special 004. Concrete Barrier Transition Type M2	1.000 EACH	_____.____	_____.____
0866	SPV.0060 Special 005. Concrete Barrier Transition Type M3	1.000 EACH	_____.____	_____.____
0868	SPV.0060 Special 006. Concrete Barrier Transition Type M4	1.000 EACH	_____.____	_____.____
0870	SPV.0060 Special 007. Concrete Barrier Transition Type M5	1.000 EACH	_____.____	_____.____
0872	SPV.0060 Special 008. Concrete Barrier Transition Type M6	1.000 EACH	_____.____	_____.____
0874	SPV.0060 Special 009. Concrete Barrier Transition Type M7	1.000 EACH	_____.____	_____.____
0876	SPV.0060 Special 010. Concrete Barrier Transition Type M8	1.000 EACH	_____.____	_____.____
0878	SPV.0060 Special 011. Concrete Barrier Transition Type M9	1.000 EACH	_____.____	_____.____
0880	SPV.0060 Special 012. Concrete Barrier Transition Type M10	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
0882	SPV.0060 Special 013. Concrete Barrier Transition Type M11	1.000 EACH	_____.____	_____.____
0884	SPV.0060 Special 014. Concrete Barrier Transition Type M12	1.000 EACH	_____.____	_____.____
0886	SPV.0060 Special 015. Concrete Barrier Type S42 Light Pole Base	31.000 EACH	_____.____	_____.____
0888	SPV.0060 Special 016. Concrete Barrier Type S42A Light Pole Base	31.000 EACH	_____.____	_____.____
0890	SPV.0060 Special 017. Concrete Barrier Type S56 Light Pole Base	2.000 EACH	_____.____	_____.____
0892	SPV.0060 Special 018. Concrete Barrier Type S56A Light Pole Base	1.000 EACH	_____.____	_____.____
0894	SPV.0060 Special 019. Curb Ramp Grading, Shaping and Finishing	4.000 EACH	_____.____	_____.____
0896	SPV.0060 Special 020. Field Facilities Office Space	1.000 EACH	_____.____	_____.____
0898	SPV.0060 Special 021. Mobilizations Emergency Pavement Repair	20.000 EACH	_____.____	_____.____
0900	SPV.0060 Special 022. Traffic Control Close-Open Freeway Entrance Ramp	588.000 EACH	_____.____	_____.____
0902	SPV.0060 Special 023. Traffic Control Full Freeway Closure	25.000 EACH	_____.____	_____.____
0904	SPV.0060 Special 024. Traffic Control Local Road Lane Closures	30.000 EACH	_____.____	_____.____
0906	SPV.0060 Special 025. Emergency Response to Traffic Involving Concrete Barrier Temporary	5.000 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
0908	SPV.0060 Special 026. Emergency Response to Traffic Involving Crash Cushion	5.000 EACH	_____.____	_____.____
0910	SPV.0060 Special 027. Sand Bags	690.000 EACH	_____.____	_____.____
0912	SPV.0060 Special 028. Exposing Existing Infrastructure Paved Area	10.000 EACH	_____.____	_____.____
0914	SPV.0060 Special 029. Exposing Existing Infrastructure Unpaved Area	10.000 EACH	_____.____	_____.____
0916	SPV.0060 Special 030. Survey Project 1100-45-70	1.000 EACH	_____.____	_____.____
0918	SPV.0060 Special 031. Survey Project 1100-46-71	1.000 EACH	_____.____	_____.____
0920	SPV.0060 Special 101. Maintenance of Lighting Systems	1.000 EACH	_____.____	_____.____
0922	SPV.0060 Special 102. Lighting System Integrator	1.000 EACH	_____.____	_____.____
0924	SPV.0060 Special 103. Lighting Systems Survey	1.000 EACH	_____.____	_____.____
0926	SPV.0060 Special 107. Luminaire Arms Single Member 4-Inch Clamp 4-FT	140.000 EACH	_____.____	_____.____
0928	SPV.0060 Special 108. Poles Wood 35-FT	2.000 EACH	_____.____	_____.____
0930	SPV.0060 Special 109. Wood Pole Lighting 60-FT	83.000 EACH	_____.____	_____.____
0932	SPV.0060 Special 110. Luminaire Utility LED Floodlight	86.000 EACH	_____.____	_____.____
0934	SPV.0060 Special 111. Lighting Equipment Painting, IH 41 & STH 36	1.000 EACH	_____.____	_____.____
0936	SPV.0060 Special 200. Removing Wireless Modem	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
0938	SPV.0060 Special 201. Removing Controller Cabinet	1.000 EACH	_____.____	_____.____
0940	SPV.0060 Special 202. Removing Controller Cabinet Base	1.000 EACH	_____.____	_____.____
0942	SPV.0060 Special 203. Removing Controller Ramp Meter Processor Assembly	1.000 EACH	_____.____	_____.____
0944	SPV.0060 Special 204. Ground Rod	5.000 EACH	_____.____	_____.____
0946	SPV.0060 Special 205. Refocus Vehicle Detector Assembly	20.000 EACH	_____.____	_____.____
0948	SPV.0060 Special 300. Install Poles Type 9	1.000 EACH	_____.____	_____.____
0950	SPV.0060 Special 301. Install Poles Special Type 9	3.000 EACH	_____.____	_____.____
0952	SPV.0060 Special 302. Install Poles Type 13	1.000 EACH	_____.____	_____.____
0954	SPV.0060 Special 303. Install Monotube Arms 25-ft	1.000 EACH	_____.____	_____.____
0956	SPV.0060 Special 304. Install Monotube Arms Special 45-ft	2.000 EACH	_____.____	_____.____
0958	SPV.0060 Special 305. Install Monotube Arms 55-Ft	1.000 EACH	_____.____	_____.____
0960	SPV.0060 Special 306. Install Luminaire Arms Steel 15-Ft	1.000 EACH	_____.____	_____.____
0962	SPV.0060 Special 307. Install Monotube Arms Speical 35-ft	1.000 EACH	_____.____	_____.____
0964	SPV.0060 Special 308. Transport and Install State Furn Traffic Sig Cabinet, IH41 EB Ramps & STH36	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
0966	SPV.0060 Special 309. Transport and Install State Furn Traffic Sig Cabinet, IH41 WB Ramps & STH36	1.000 EACH	_____._____	_____._____
0968	SPV.0060 Special 310. Transport Signal and Intersection Lighting Materials, IH41 EB Ramps & STH36	1.000 EACH	_____._____	_____._____
0970	SPV.0060 Special 311. Transport Signal and Intersection Lighting Materials, IH41 WB Ramps & STH36	1.000 EACH	_____._____	_____._____
0972	SPV.0060 Special 312. Transport and Install State Furnished Video Detection, IH41EB Ramps & STH36	1.000 EACH	_____._____	_____._____
0974	SPV.0060 Special 313. Transport and Install State Furnished Video Detection, IH41WB Ramps & STH36	1.000 EACH	_____._____	_____._____
0976	SPV.0060 Special 314. Trnsprt and Install State Furnished EVP Detector Heads IH41EB Ramps & STH36	1.000 EACH	_____._____	_____._____
0978	SPV.0060 Special 315. Trnsprt and Install State Furnished EVP Detector Heads IH41WB Ramps & STH36	1.000 EACH	_____._____	_____._____
0980	SPV.0060 Special 316. Traffic Signal and Lighting Equipment Painting IH 41 EB Ramps & STH 36	1.000 EACH	_____._____	_____._____
0982	SPV.0060 Special 317. Traffic Signal and Lighting Equipment Painting IH 41 WB Ramps & STH 36	1.000 EACH	_____._____	_____._____
0984	SPV.0060 Special 318. Install Fiber Optic Communications in Cabinet, IH 41 EB Ramps & STH 36	1.000 EACH	_____._____	_____._____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0986	SPV.0060 Special 319. Install Fiber Optic Communications in Cabinet, IH 41 WB Ramps & STH 36	1.000 EACH	_____.____	_____.____
0988	SPV.0060 Special 400. Girder Surface Repair	79.000 EACH	_____.____	_____.____
0990	SPV.0060 Special 401. Strapping B-40-321	3.000 EACH	_____.____	_____.____
0992	SPV.0060 Special 402. Sidewalk Cover Plate Resetting	1.000 EACH	_____.____	_____.____
0994	SPV.0060 Special 403. Concrete Channel Lining Repair	1.000 EACH	_____.____	_____.____
0996	SPV.0060 Special 404. Embedded Galvanic Anodes	72.000 EACH	_____.____	_____.____
0998	SPV.0060 Special 405. Cleaning and Sealing Concrete Girder Ends	32.000 EACH	_____.____	_____.____
1000	SPV.0060 Special 406. Cleaning and Painting Bearing	72.000 EACH	_____.____	_____.____
1002	SPV.0060 Special 450. Remove and Relocate Existing Sign Bridge S-40-410	1.000 EACH	_____.____	_____.____
1004	SPV.0060 Special 455. Remove and Relocate Existing Sign Bridge S-40-413	1.000 EACH	_____.____	_____.____
1006	SPV.0060 Special 460. Remove and Relocate Existing Sign Bridge S-40-801	1.000 EACH	_____.____	_____.____
1008	SPV.0060 Special 465. Tension Chord Splice Connections (S-40-834)	1.000 EACH	_____.____	_____.____
1010	SPV.0060 Special 470. Remove and Relocate Existing 2-Chord Butterfly Sign Structure S-40-869	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1012	SPV.0060 Special 475. Remove and Relocate Existing 4-Chord Butterfly Sign Structure S-40-870	1.000 EACH	_____.____	_____.____
1014	SPV.0060 Special 499. Remove and Reinstall Existing Noise Barrier Panels	1.000 EACH	_____.____	_____.____
1016	SPV.0060 Special 500. Utility Line Opening (ULO)	12.000 EACH	_____.____	_____.____
1018	SPV.0060 Special 501. Water Main Protection	15.000 EACH	_____.____	_____.____
1020	SPV.0060 Special 502. Adjusting Water Boxes	15.000 EACH	_____.____	_____.____
1022	SPV.0060 Special 503. Sanitary Manhole Internal/External Seal	5.000 EACH	_____.____	_____.____
1024	SPV.0060 Special 801. Inlet Covers Type 27-M	101.000 EACH	_____.____	_____.____
1026	SPV.0060 Special 802. Reconstructing Manhole Special	16.000 EACH	_____.____	_____.____
1028	SPV.0060 Special 803. Reconstructing Inlet Special	5.000 EACH	_____.____	_____.____
1030	SPV.0060 Special 804. Remove and Cap Existing Drainage Structure	20.000 EACH	_____.____	_____.____
1032	SPV.0060 Special 805. Cap Proposed Drainage Structure	2.000 EACH	_____.____	_____.____
1034	SPV.0060 Special 806. Pipe Connection to Existing Structure	15.000 EACH	_____.____	_____.____
1036	SPV.0060 Special 807. Welded Existing Inlet Covers	55.000 EACH	_____.____	_____.____
1038	SPV.0060 Special 808. Welded Proposed Inlet Covers	139.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1040	SPV.0075 Special 001. Pavement Cleanup Project 1100-45-70	200.000 HRS	_____.____	_____.____
1042	SPV.0075 Special 002. Pavement Cleanup Project 1100-46-71	100.000 HRS	_____.____	_____.____
1044	SPV.0090 Special 001. Concrete Barrier Vertical Back Type S56 Modified	1,136.000 LF	_____.____	_____.____
1046	SPV.0090 Special 002. Concrete Barrier Vertical Back Type S56 Modified with 24-Inch Pan	188.000 LF	_____.____	_____.____
1048	SPV.0090 Special 003. Marking Line Contrast Epoxy 4-Inch	362.000 LF	_____.____	_____.____
1050	SPV.0090 Special 004. Marking Line Contrast Epoxy 8-Inch	87.000 LF	_____.____	_____.____
1052	SPV.0090 Special 005. Maintain and Remove Concrete Barrier Temporary Precast	512.000 LF	_____.____	_____.____
1054	SPV.0090 Special 006. Temporary Marking Crosswalk Removable Tape 6-Inch	290.000 LF	_____.____	_____.____
1056	SPV.0090 Special 103. Cable Aerial Aluminum 4 AWG Quadruplex	7,472.000 LF	_____.____	_____.____
1058	SPV.0090 Special 104. Cable Aerial Aluminum 2 AWG Quadruplex	2,163.000 LF	_____.____	_____.____
1060	SPV.0090 Special 105. Cable Aerial Aluminum 6 AWG Quadruplex	6,018.000 LF	_____.____	_____.____
1062	SPV.0090 Special 400. Expansion Joint Seal System	468.000 LF	_____.____	_____.____
1064	SPV.0090 Special 801. Cleaning Storm Sewer	725.000 LF	_____.____	_____.____

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1066	SPV.0135 Special 001. Vibration Monitoring	9.000 MON	_____.____	_____.____
1068	SPV.0165 Special 400. Wall Concrete Panel Mechanically Stabilized Earth R-40-716	4,340.000 SF	_____.____	_____.____
1070	SPV.0165 Special 401. Wall Concrete Panel Mechanically Stabilized Earth R-40-717	3,690.000 SF	_____.____	_____.____
1072	SPV.0165 Special 402. Fiber Wrap Reinforcing Non-Structural	475.000 SF	_____.____	_____.____
1074	SPV.0165 Special 403. Removing Loose Concrete	100.000 SF	_____.____	_____.____
1076	SPV.0165 Special 499. Concrete Surface Repair-Special	240.000 SF	_____.____	_____.____
1078	SPV.0180 Special 001. Base Patching Concrete SHES Special	12,964.000 SY	_____.____	_____.____
1080	SPV.0180 Special 002. Removing Asphaltic Surface Milling Special	19,462.000 SY	_____.____	_____.____
1082	SPV.0180 Special 400. Slope Paving Crushed Aggregate Special	1,038.000 SY	_____.____	_____.____
1084	SPV.0180 Special 401. Abutment Seat Cleaning and Sealing	64.000 SY	_____.____	_____.____
1086	SPV.0180 Special 402. Concrete Bridge Deck Methacrylate Flood Seal	991.000 SY	_____.____	_____.____
1088	SPV.0180 Special 403. Polyester Polymer Concrete Overlay	4,354.000 SY	_____.____	_____.____
1090	SPV.0195 Special 001. HMA Longitudinal Joint Repair	2,540.000 TON	_____.____	_____.____
1092	611.9800.S Pipe Grates (size) 001. 42-Inch	1.000 EACH	_____.____	_____.____

Proposal ID: 20230214015 Project(s): 1100-45-70, 1100-46-71

Federal ID(s): WISC 2023222, WISC 2023223

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1094	611.9800.S Pipe Grates (size) 002. 84-Inch	1.000 EACH	_____._____	_____._____
1096	SPV.0060 Special 032. Traffic Control Close-Open Freeway to Freeway System Ramp	250.000 EACH	_____._____	_____._____
	Section: 0001		Total:	_____._____

Total Bid: _____._____