

# HIGHWAY WORK PROPOSAL

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

Proposal Number: **029**

<u>COUNTY</u>	<u>STATE PROJECT</u>	<u>FEDERAL</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Trempealeau	1022-00-79	N/A	Eau Claire - Osseo; Cth Nn To East County Line	IH 094

## 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: \$510,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: April 12, 2022 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code
Contract Completion Time November 15, 2024	<b>SAMPLE NOT FOR BIDDING PURPOSES</b>
Assigned Disadvantaged Business Enterprise Goal 0%	This contract is exempt from federal oversight.

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

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

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

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

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

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

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

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

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

Notary Seal

Type of Work: Excavation, Base, Concrete Pavement, HMA Pavement, Curb and Gutter, Sidewalk, Signs, Beam Guard, Pavement Marking, Fence, Culvert Pipes, Storm Sewer, Traffic Signals, Bridge Rehabilitation	For Department Use Only
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH  
PROPOSAL GUARANTY HERE**

**Effective with November 2007 Letting**

**PROPOSAL REQUIREMENTS AND CONDITIONS**

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

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

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

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

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

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

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

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

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

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

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

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

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

## Effective with August 2015 Letting

### BID PREPARATION

#### Preparing the Proposal Schedule of Items

##### A General

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

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

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

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

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

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

- (5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.
- (6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:  
<https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>

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

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

##### B Submitting Electronic Bids

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

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

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

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

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

**Bidder Name**

**BN00**

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

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

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

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

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

**PROPOSAL BID BOND**

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

**PRINCIPAL**

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

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

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

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

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

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

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

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

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

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

**NOTARY FOR PRINCIPAL**

\_\_\_\_\_  
(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

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

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

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





**DECEMBER 2000**

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

Instructions for Certification

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

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

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

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

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

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## STSP'S Revised July 8, 2021

### SPECIAL PROVISIONS

#### 1. General.

Perform the work under this construction contract for Project 1022-00-79, Eau Claire - Osseo, CTH NN to East County Line, IH 94, Trempealeau County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2022 Edition, as published by the department, and these special provisions.

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

100-005 (20210708)

#### 2. Scope of Work.

The work under this contract shall consist of removals, grading, base aggregate, concrete pavement, HMA pavement, asphaltic surface temporary, polymer overlay, culvert pipes, concrete barrier temporary precast, storm sewer, concrete curb and gutter, concrete sidewalk, MGS guardrail, erosion control, permanent signing, traffic control, pavement marking, traffic signals and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

#### 3. Prosecution and Progress.

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

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.

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

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

Anticipate cold weather and early spring HMA paving to complete the pavement and adjacent shoulders on the south end of project prior to Memorial Day or after Labor Day. Completion of this pavement will require extraordinary forces and equipment. There will be no adverse weather delay.

#### Pavement Sensors

To measure the structural response of the asphalt pavement, sensors will be installed into the pavement structure and base layers at two locations on IH 94, one west bound and one east bound. There will be specific time frames, following specific operations, when the contractor will be required to stop work at each sensor location. These time periods are required to allow WisDOT operations personnel time to install conduits and risers in the base material and time to install sensors in and on the finished base. The contractor is required to notify WisDOT at least 72 hours prior to the competition of tasks shown in the below Table 1. An estimate of the hours required for this operation for each pavement section is also provided in Table 1.

**Table 1. WisDOT Instrumentation Time Requirements**

Roadway	Estimated No. of Hours Required	Staging
East and West Bound	6-8 hours	Completed subgrade
East and West Bound	5-7 hours	Completed aggregate base layer
East and West Bound	5-7 hours	During asphalt paving

These sections of instrumentation will be approximately 200 feet long and will be located near the center of each pavement section. The required time for conduit installation and instrumentation are not concurrent. When the grading and compaction work on the subgrade is complete, WisDOT Staff will cut trenches in the subgrade and install 2" PVC conduits and risers for instrumentation array lead wires. Boreholes will also be drilled in the subgrade for installation of sensors in the subgrade. Contractor can work on other roadway (either East or West bound, whichever is not being used for sensor installation) while WisDOT Staff is placing conduit. When the base material is at finished grade and compacted to specifications, WisDOT staff will install sensors and extend risers to the pavement surface. All WisDOT staff work will be in the driving lane and shoulder.

There will be two fixed roadside cabinets on concrete pedestal with AC power for data collection system. Contractor is responsible for the installation of this cabinet. These cabinet should be installed as indicated in the plans. The power lines shall be underground and the outgoing 2" PVC conduit shall be terminated at a pull-box installed at the shoulder.

**Contractor Coordination**

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

Hold progress meetings once a week for Project 1022-00-79. The contractor's superintendent or designated representative and subcontractor's representatives for ongoing subcontract work or subcontractor work expected to begin within the next two weeks are to attend and provide a written schedule of the next week(s) operations. Include begin and end dates of specific prime and subcontractor work operations including lane closures and traffic switches. Agenda items at the meeting will include review of the contractor's schedule and subcontractors' schedule, utility conflicts and relocation schedule, evaluation of progress and pay items, and making revisions if necessary. Plans and specifications for upcoming work will be reviewed to prevent potential problems or conflicts between contractors.

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

**Schedule of Operations**

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

The work under this contract shall be completed in four primary stages with multiple substages within. The work is anticipated to be completed over the course of two construction seasons. The first full construction season will complete work required in Stages 1 and 2 with the remaining work to be completed the following year. Concrete temporary precast will be required to be placed or moved according to the plans in each of the stages. The department anticipates that the general schedule of operation for each stage is as follows:

## 2022 Construction Season

- Stage 1A
  - Fill existing rumble strips on median and outside shoulders.
  - Temporary asphalt widening on the westbound outside shoulder near the interchange.
  - SW and NW temporary ramps.
- Stage 1B
  - Complete construction of the IH 94 temporary roadway, north and south crossover.
  - Work in stream crossing IH 94 at 142+70EB (141+70WB) and stream crossing IH94 at 198+30EB, 196+70TR and 198+10WB must be completed prior to September 15, 2022.
  - Finish asphalt paving Stage 1B prior to October 15, 2022.

## 2022 Winter Suspension

Winter shutdown will commence with the completion of Stage 1 in the Fall of 2022. Do not resume work until March 12, 2023 unless approved by the engineer. Provide a start date in writing at least 14 days prior to the planned recommencement of work in 2023. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

## 2023 Construction Season

- Stage 2A
  - Construction of proposed concrete pavement and shoulders IH 94 EB Station 49+04EB – Station 61+00EB and Station 82+00EB – Station 232+00EB and proposed concrete pavement and shoulders for NW Ramp (EB off-ramp) and SW Ramp (EB on-ramp).
  - Station 48+00EB – Station 61+00EB construct temporary median widening to 6’.
  - Station 82+00EB – Station 92+00EB construct temporary median widening to 6’.
  - Construction of the temporary SWB Ramp (EB entrance ramp).
- Stage 2B
  - Construction of proposed concrete and shoulders IH 94 EB Station 61+00EB – Station 82+00EB and removal of Stage 2A temporary ramps.
  - Station 61+00EB – Station 82+00EB constr pavement uct temporary EB median 6’ widening.
- Stage 2C
  - Removing median temporary roadway from Station 50+00 WB – Station 96+00WB necessary to maintain drainage for winter shutdown
- Stage 2C1 (Concurrent with Stage 2C)
  - Work will include construction of outside lane HMA pavement, asphalt shoulders, from Station 232+00 EB to Station 237+40 EB and median lane and adjacent temporary crossover from Station 230+50 WB to Station 239+87 WB. Work will also include placement of temporary concrete barrier. Work during this stage will have to be completed with off-peak single lane closures between Sunday night and Friday morning after Labor Day but before Memorial Day.
- Stage 2C2 (Concurrent with Stage 2C)
  - Work will include construction of inside lane HMA pavement and asphalt shoulder from 232+00 EB to 237+40 EB and outside lane HMA pavement and shoulder Station 230+50 WB to Station 240+00 WB. Temporary concrete barrier will be reset on inside and outside shoulder in some areas. Work during this stage will have to be completed with off-peak single lane closures between Sunday night and Friday morning after Labor Day but before Memorial Day.

## 2023 Winter Suspension

Winter shutdown will commence with the completion of Stage 2 in the Fall of 2023. Do not resume work until March 11, 2024 unless approved by the engineer. Provide a start date in writing at least 14 days prior to the planned recommencement of work in 2024. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

## 2024 Construction Season

- Stage 3AP1
  - Complete construction of temporary widening (TRE) along EB median.
  - Construct NEA Ramp.
- Stage 3AP2
  - Complete construction of the temporary SEA Ramp (WB off-ramp).
  - Begin construction of IH 94 WB from 105+50WB to 230+50WB.
- Stage 3B
  - Construction of proposed concrete pavement and shoulders in the following areas:
    - IH 94 WB Station 49+36EB – Station 66+50WB
    - IH 94 WB Station 87+50WB – Station 230+50WB
    - NE Ramp (WB on-ramp)
    - SE Ramp (WB off-ramp)
  - Construct SEB ramp
  - USH 10 construction of the proposed right-turn lanes at both ramp terminal intersections and an epoxy overlay on the outside lane of the bridge.
- Stage 3C
  - Construction of proposed concrete pavement and shoulders IH 94 WB Station 66+50WB – Station 87+50WB and removal of SEA and NEA temporary ramps.
  - USH 10 construction will include an epoxy overlay of the inside lane of the bridge.
- Stage 4A
  - Removal of temporary road in median.
  - Work in stream crossing IH 94 at 142+70EB (141+70WB) and stream crossing IH94 at 198+30EB, 196+70TR and 198+10WB must be completed prior to September 15, 2023.
- Stage 4B
  - Removing temporary concrete barrier precast, completing remaining median shoulder work.

## Interim Completion and Liquidated Damages

### Stage 1 Work: November 17, 2022

Complete Stage 1 work as defined above by November 17, 2022.

If the contractor fails to complete Stage 1 work by November 17, 2022, the department will assess the contractor \$2175 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on November 18, 2022. 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.

After November 17, 2022 I-94 traffic shall be switched back to the normal four-lane configuration on existing pavement with no restrictions through the project during the subsequent over-winter suspension of work,

## Stage 2 Work: November 16, 2023

Complete Stage 2 work as defined above by November 17, 2022.

If the contractor fails to complete Stage 2 work by November 17, 2022, the department will assess the contractor \$2175 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on November 18, 2022. 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.

After November 16, 2023 I-94 traffic shall be switched back to the normal four-lane configuration on existing pavement, with eastbound traffic being two lanes on new construction and westbound traffic being two lanes on existing pavement, with no restrictions through the project during the subsequent over-winter suspension of work,

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

### **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 May 1 to August 31.

Either prevent active nests from becoming established or prevent birds from nesting by installing and/or maintaining a suitable deterrent device on the remaining structure prior to nesting activity under the bid item Installing and Maintaining Bird Deterrent System. 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.

### **Fish Spawning**

There shall be no instream disturbance of Unnamed creek 14-4 (Class III Trout waterway) crossing IH 94 at 142+70EB (141+70WB) and Unnamed Creek 13-15 (Class I Trout waterway) crossing IH94 at 198+30EB, 196+70TR and 198+10WB as a result of construction activity under or for this contract, from September 15 to May 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of trout.

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.

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

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. Roosts have been identified within 150 feet of the project limits. 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).

To avoid adverse impacts upon the NLEBs, no Clearing is allowed between June 1 and July 31, both dates inclusive.

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

Submit a schedule and description of Clearing 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. 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 Traffic article.

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

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

##### B Lane Rental Fee Assessment

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

- \$4,000 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-108-065 (20161130)

#### 5. Traffic

##### Wisconsin Lane Closure System Advance Notification

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

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

<b>Closure type with height, weight, or width restrictions (available width, all lanes in one direction &lt; 16 feet)</b>	<b>MINIMUM NOTIFICATION</b>
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Ramp closures	7 calendar days
Detours	7 calendar days

Closure type without height, weight, or width restrictions (available width, all lanes in one direction $\geq$ 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.

All lane and shoulder closures and duration are subject to the approval of the engineer based on operational needs and safety. Notify the engineer if there are any changes in the schedule, early completions, or cancellations of scheduled work.

### Temporary Regulatory Speed Limit Reduction

During engineer-approved regulatory speed limit reductions, install temporary speed limit signs on the inside and outside shoulders of divided roadways to enhance visibility. On two-lane, two-way roadways, install temporary speed limit signs on shoulders. When construction activities impede the location of a post-mounted regulatory speed limit sign, relocate the sign for maximum visibility to motorists. If work lasts less than seven days, mount the regulatory speed limit sign on a portable sign support.

Post temporary regulatory speed limit signs in work zone only during continuous worker activity. During periods of no work activity or when the traffic controls are removed from the roadway, cover or remove the temporary speed limit signs.

### Traffic Restrictions

IH 94 shall be open to two lanes of traffic in each direction at all times except during available off-peak single lane closure times. Single lane closures are not permitted during Peak times shown in the tables below. Full closures or flagging are not permitted on IH94 or USH 10.

Memorial Day to Labor Day Peak Hours		
	Eastbound	Westbound
Sunday	10:00 AM to 6:00 PM	11:00 AM to 8:00 PM
Monday	10:00 AM to 4:00 PM	2:00 PM to 5:00 PM
Tuesday	-	-
Wednesday	-	-
Thursday	11:00 AM to 5:00 PM	11:00 AM to 5:00 PM
Friday	10:00 AM to 8:00 PM	10:00 AM to 8:00 PM
Saturday	9:00 AM to 3:00 PM	10:00 AM to 3:00 PM
Pre-Memorial Day and Post Labor Day Peak Hours		
	Eastbound	Westbound
Sunday	10:00 AM to 6:00 PM	**11:00 AM to 8:00 PM
Monday	-	-
Tuesday	-	-
Wednesday	-	-
Thursday	-*	-
Friday	10:00 AM to 7:00 PM	12:00 PM to 7:00 PM
Saturday	-	-

\*10:00 AM to 5:00 PM for MEA in October

\*\*10:00 AM to 8:00 PM for MEA in October

Temporary single-lane closures will not be permitted during Minnesota Educator Academy (MEA) conference on the third weekend in October from 10:00 AM to 5:00 PM for Thursday eastbound and 10:00 AM to 8:00 PM for Sunday westbound.

Contact the State Patrol two weeks prior to the first lane closure. Contact Northwest Region State Highway Patrol, Sgt. Dean Haigh at (715) 839-3800, Ext. 6005, or PCS Denise Staff, at (715) 839-3800, Ext. 6010.

Conduct work operations in a manner that causes the least disruption to traffic movements on IH 94 and interchange ramps. Do not directly cross, unload materials from, stop in or otherwise interfere with traffic in any lane or ramp that is open to traffic with construction equipment or vehicles.

Do not perform work in the median concurrently with work in the outside lane or outside shoulder with IH 94 traffic running between work areas.

Provide the engineer with a hauling plan prior to the preconstruction conference. Include the proposed locations of points of entry and traffic control to be used. Obtain approval from the engineer for all arrangements for handling traffic during construction operations.

Do not use maintenance crossings connecting eastbound and westbound roadways of Interstate 94 during construction operations unless the median lanes are closed to traffic. The contractor is responsible for maintaining and restoring all maintenance crossings to their original condition upon completion of this contract.

Construction traffic cannot travel counter-directional adjacent to IH 94 through traffic except for removal of traffic control devices for lane opening operations.

Equip all construction vehicles and equipment entering or leaving live traffic lanes with a hazard identification beam (flashing yellow signal). The beam shall be activated when merging into or exiting a live traffic lane.

The traffic control contractor must review the project once every day as per the standard spec 643.3.1(5).

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

Prior to opening lane closures to traffic, place temporary or permanent pavement marking, including all lane lines and edge lines removed or covered by milling and paving operations.

Do not park or store any equipment, vehicles, or construction materials within 30 feet of the edge of traffic lane carrying Interstate 94 traffic or within the median during non-working hours unless protected by temporary barrier wall in which case the distance is decreased to 6'. In the event of an emergency, protect any equipment, vehicles, or construction materials which remain within this area during non-working hours with temporary roadside barrier according to the standard specifications and meeting the requirements of the AASHTO Roadside Design Guide.

Coordinate the location of traffic control devices for Over-Winter Suspension with the engineer and Trempealeau County Highway Department Patrol Superintendent Rollin Gjestvang at (715) 538-4799 at least one month prior to the installation of these devices.

### **Traffic Switching**

At the beginning of each stage of traffic control requiring a traffic switch on IH 94, all temporary crossovers and temporary widening shall be open to traffic a minimum of three calendar days prior to starting any subsequent removal of existing pavement or structures that would preclude placing traffic onto existing lanes if unforeseen circumstances should arise.

Do not switch traffic over to the next construction stage until all signing, pavement marking, reflectors, lighting, tubular marker posts, barricades, barrier wall and traffic control drums for the stage are in place, and conflicting pavement markings and signs are removed as shown in the traffic control and temporary signal plans and as directed by the engineer.

### **Temporary Single-Lane Closures**

Project staging requires roadside work zone, construction vehicle and/or traffic control device encroachments within 6-foot horizontal and/or vertical, from the edge of the shoulder side of a lane. These encroachments require a temporary single-lane closure of the IH 94 lane closest to construction.

The temporary single-lane closures shall be limited to the working hours, as defined in the Lane Rental Fee Assessment Article. During non-working hours and applicable Holiday Work Restrictions, the IH 94 traveled way and shoulders shall be entirely clear of equipment, barricades, signs, lights, or any other materials that may impede the free flow of two-lanes of IH 94 through traffic in each direction. Single-lane closures shall be limited to areas of actual construction operations. Minimize the actual time that lane closures are used.

### **Shoulder Closures**

The contractor will be allowed to perform work on items that are located beyond 6-foot horizontal and/or vertical, from the edge of an open lane of traffic, utilizing a shoulder closure with the approval of the engineer. Construction vehicles and equipment shall be located outside of the 6-foot encroachment area. Shoulder closures shall only occur on one shoulder at a time. The existing roadway shall be open to two lanes of traffic in each direction. The lane closure restrictions outlined in this article will not apply to work that can be completed with an approved shoulder closure. All shoulder closures shall be removed during applicable Holiday Work Restrictions.

### **Traffic Switching**

At the beginning of each stage of traffic control requiring a traffic switch on IH 94, all temporary crossovers and temporary widening shall be open to traffic a minimum of three calendar days prior to starting any subsequent removal of existing pavement or structures that would preclude placing traffic onto existing lanes if unforeseen circumstances should arise.

Do not switch traffic over to the next construction stage until all signing, pavement marking, reflectors, lighting, tubular marker posts, barricades, barrier wall and traffic control drums for the stage are in place, and conflicting pavement markings and signs are removed as shown in the traffic control and temporary signal plans and as directed by the engineer.

## **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 94 or USH 10 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

### **2022**

- From noon Friday, May 27, 2022 to 6:00 AM Tuesday, May 31, 2022 for Memorial Day;
- From noon Friday, July 1, 2022 to 6:00 AM Tuesday, July 5, 2022 for Independence Day;
- From noon Friday, September 2, 2022 to 6:00 AM Tuesday, September 6, 2022 for Labor Day;
- From noon Friday, November 18, 2022 to 6:00 AM Monday, November 21, 2022 for Deer Hunting;
- From noon Wednesday, November 23, 2022 to 6:00 AM Monday, November 28, 2022 for Thanksgiving.

### **2023**

- From noon Friday, April 7, 2023 to 6:00 AM Monday, April 10, 2023 for Easter;
- 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 Friday, November 17, 2023 to 6:00 AM Monday, November 20, 2023 for Deer Hunting;
- From noon Wednesday, November 22, 2023 to 6:00 AM Monday, November 27, 2023 for Thanksgiving.

### **2024**

- From noon Friday, March 29, 2024 to 6:00 AM Monday, April 1, 2024 for Easter;
- From noon Friday, May 24, 2024 to 6:00 AM Tuesday, May 28, 2024 for Memorial Day;
- From noon Wednesday, July 3, 2024 to 6:00 AM Monday, July 8, 2024 for Independence Day;
- From noon Friday, August 30, 2024 to 6:00 AM Tuesday, September 3, 2024 for Labor Day.

stp-107-005 (20210113)

## 7. Utilities.

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

stp-107-065 (20080501)

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

### **AT&T Legacy – Communication**

AT&T Legacy has underground communication facilities throughout the project.

Please notify Brad Kempf at (715) 254-5238 prior to working within 5' of AT&T Legacy's underground fiberoptic package. AT&T Legacy has facilities at the following locations:

- Station 36+00WB LT – Station 66+00WB LT, Westbound IH 94: Underground fiber duct package located inside the right-of-way fence along the eastern right-of-way will remain.
- Station 106+00NE LT – Station 114+50NE LT, Westbound IH 94 ON RAMP: Underground fiber duct package located inside the right-of-way fence along the eastern right-of-way will remain.
- Station 34+75W, USH 10 Crossing: Underground fiber duct package crosses under USH 10 at this location and will remain. Proposed USH 10 WB right turn lane slope will fill over this line.
- Station 121+00SE LT – Station 131+50SE LT, Westbound IH 94 Off Ramp: Underground fiber duct package located inside the right-of-way fence along the eastern right-of-way will remain.
- Station 36+00WB LT – Station 66+00WB LT, Westbound IH 94: Underground fiber duct package located inside the right-of-way fence along the eastern right-of-way will remain.
- Station 87+00WB LT – Station 240+00WB LT. Westbound IH 94: Underground fiber duct package located inside the right-of-way fence along the eastern right-of-way will remain.

### **CenturyLink – Communication**

CenturyLink has communication facilities along the south side of USH 10 through the length of the project. No conflicts anticipated.

### **CINC – Communication**

CINC has underground communication facilities inside the southernmost right-of-way along USH 10 for the length of the project and inside the easternmost right-of-way along WB IH94 from USH 10 to CTH NN. No conflicts anticipated.

### **City of Osseo – Water Main**

City of Osseo has water facilities crossing IH 94 at locations throughout the project. No conflicts anticipated.

### **City of Osseo –Sanitary Sewer**

City of Osseo has sanitary sewer facilities crossing IH 94 at locations throughout the project. No conflicts anticipated.

### **Dairyland Power Cooperative – Electric Distribution**

Dairyland Power Cooperative has electric distribution facilities crossing IH 94 at Station 165+90EB\WB that will remain. No conflicts anticipated.

### **Eau Claire Energy Cooperative – Electric Distribution**

Eau Claire Energy Cooperative has electric distribution facilities crossing over IH94 at two locations. No conflicts anticipated.

### **Tri-County Communications Cooperative – Communication**

Tri-County Communications Cooperative has communication facilities inside the northernmost right-of-way along USH 10 through the length of the project. No conflicts anticipated.

### **We Energies – Gas/Petroleum**

We Energies has gas/petroleum facilities along the south side of EB USH 10 through the length the project that will remain in place. No conflicts anticipated.

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. Contractor must call the We Energies 24-hour Dispatch lines to arrange for this verification. We Energies Gas Dispatch, #1 (800) 261-5325

### **Windstream KDL, Inc. – Communication**

Windstream KDL, Inc. has communication facilities that will remain inside the northernmost and easternmost right-of-way along IH94 and US 10 from USH 10 to CTH NN. No conflicts anticipated.

### **Xcel Energy – Electric Distribution**

Xcel Energy has an underground electric distribution line between Station 89+15EB RT – Station 89+20WB LT, IH 94 electric distribution line will be relocated to a depth of 6' below existing ground prior to construction and the existing line discontinued in place.

Xcel Energy has overhead electric distribution through the length of the project. Existing facilities to remain.

## **8. Hauling Restrictions.**

Access points to roadways, including openings in the Interstate 94 right-of-way fence, for the delivery or hauling of construction materials for this project shall be approved by the engineer before work is started. Access through the Interstate 94 right-of-way fence will not be permitted unless the nearest Interstate 94 travel lanes are closed to traffic.

Do not haul construction materials longitudinally along the project inside the Interstate 94 right-of-way within 30 feet of the live traffic lanes unless the work zone is protected by concrete barrier.

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

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Nick Schaff at (715) 836-2068.

stp-107-054 (20210708)

## **10. 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 Jesse Larson at (715) 830-8101; [Jesse.Larson@dot.wi.gov](mailto:Jesse.Larson@dot.wi.gov). Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

## 11. Environmental Protection, Aquatic Exotic Species Control.

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

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

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

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

Use the following inspection and removal procedures:

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

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

stp-107-055 (20130615)

## 12. Environmental Protection.

**Burning.** If burning of brush will occur as part of this project, it is illegal to burn materials other than clean wood. It is also illegal to start or maintain fires using oily substances, or other materials prohibited under chapter NR 429, Wis. Adm. Code. All necessary burning permits will be obtained prior to construction, as required under local and state fire protection regulations, in order to comply with NR 429 (Malodorous Emissions & Open Burning).

**Oak Wilt.** The project may involve cutting or wounding of oak trees. To prevent the spread of oak wilt disease, the project will avoid cutting or pruning of oak trees from April 15th through July 15th.

<https://dnr.wisconsin.gov/topic/foresthealth/oakwilt>

### 13. Notice to Contractor, Preserving and Maintaining Geodetic Survey Control Station.

#### Preserving and Maintaining Geodetic Survey Control Station

There are two geodetic survey control stations included in the Wisconsin Geodetic Survey Control Network and published in the National Spatial Reference System (NSRS) database managed by NOAA's National Geodetic Survey (NGS) located within the project limits.

- OSSEO GPS at an approximate location of Station 86+00SW, 83' RT.
- OSSEO GPS AZ MK at an approximate location of Station 66+44WB, 98' LT

WisDOT Facilities Development Manual (FDM) 9-5-1 defines a geodetic survey control station as the following:

“A survey monument with either a precise latitude and longitude used for horizontal control, or a precise elevation used for vertical control, or both that has been determined by the most rigorous of surveying methods to meet the specifications set forth by NGS.”

OSSEO GPS is a High Accuracy Reference Network (HARN) station consisting of a primary GPS base station with a leveled orthometric height. The estimated cost to replace OSSEO GPS is more than \$25,000.

OSSEO GPS AZ MK is a benchmark with a leveled orthometric height. The estimated cost to replace OSSEO GPS AZ MK is \$8,000 - \$10,000.

WisDOT Central Office Geodetic Surveys Unit staff will install safety fence around the guard posts surrounding the GPS monuments on this project. Please notify Jacob Rockweiler, P.E., WisDOT Wisconsin Height Modernization Program Manager, phone number is (608) 243-5992; email [jacob.rockweiler@dot.wi.gov](mailto:jacob.rockweiler@dot.wi.gov) two weeks prior to any construction operations for the project to schedule fence installation.

Ensure that the monuments are not damaged, disturbed, bumped or moved throughout the duration of the project. If either of the monuments are accidentally disturbed in any way, notify Jacob Rockweiler, P.E., WisDOT Wisconsin Height Modernization Program Manager whose phone number is (608) 243-5992 and email is [jacob.rockweiler@dot.wi.gov](mailto:jacob.rockweiler@dot.wi.gov).

WisDOT Central Office Geodetic Surveys Unit staff will remove the safety fence around the orange guard posts surrounding OSSEO GPS when the station is no longer in danger of being damaged, disturbed, bumped or moved by construction activities. The safety fence may be removed prior to project completion (or as a punch list item) by construction staff to perform final landscaping if necessary.

For additional information regarding geodetic survey control stations, please refer to WisDOT Construction Materials Manual (CMM) 7-85.2 at the following:

<https://roadwaystandards.dot.wi.gov/standards/cmm/cm-07-85.pdf>.

### 14. Notice to Contractor, Verification of Asbestos Inspection, No Asbestos Found.

John Roelke, License Number All-119523, inspected Structure B-51-0156 for asbestos on July 10, 2017. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Jesse Larson at (715) 830-8101; [Jesse.Larson@dot.wi.gov](mailto:Jesse.Larson@dot.wi.gov).

stp-107-127 (20120615)

### 15. Erosion Control

Add the following to standard spec 107.20:

Perform construction operations in a timely and diligent manner, continuing all construction operations methodically from the initial topsoil stripping operation through the subsequent grading and finishing to minimize the period of exposure to erosion.

Immediately re-topsoil graded areas, as designated by the engineer, after grading is completed within those areas. Seed, fertilize, and mulch or erosion mat all topsoiled areas within five working days after placement of topsoil.

**16. Excavation Below Subgrade (EBS).**

All PC Stabilized base coarse is to be removed. Excavation below subgrade may be required in locations to remove the existing PC stabilized base course located underneath the existing pavement. EBS areas shall be backfilled with Select Borrow.

**17. Temporary Roads.**

Construct and maintain the temporary crossovers, roadways, and widening necessary to maintain traffic according to details shown on the plans and as hereinafter provided.

The temporary road between Station 137+50 TR and 143+50 TR shall be removed to an elevation at or below the pre-existing ground elevation, the temporary ramps located in the gore areas shall be restored to the existing elevation, removal will be paid as Common Excavation. Temporary roadways in other areas outside of the normal grading limits will have the pavement removed, paid as removing asphaltic surface, and shaped to drain towards the median, incidental to Finishing Roadway. All areas will be finished with Seeding Mixture No. 30, Fertilizer Type B, and Mulching.

**18. Removing Masonry Endwalls, Item 204.9060.S.001.**

**A Description**

This special provision describes removing Masonry Endwalls conforming to standard spec 204.

**B (Vacant)**

**C (Vacant)**

**D Measurement**

The department will measure Removing Masonry Endwalls in each, acceptably completed.

**E Payment**

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.001	Removing Masonry Endwalls	EACH
stp-204-025 (20150630)		

**19. Removing Apron Endwall, Item 204.9060.S.002**

**A Description**

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

**B (Vacant)**

**C (Vacant)**

**D Measurement**

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

**E Payment**

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.002	Removing Apron Endwall	EACH
stp-204-025 (20150630)		

**20. Temporary Emergency Pullouts, Item 205.3000.S.**

**A Description**

This special provision describes grading, furnishing, and placing crushed aggregate base course and signs to construct temporary emergency pullouts. This item also includes the removal of the pullouts including furnishing and placing finishing items as the plans show.

**B (Vacant)**

**C Construction**

Dispose of all surplus and unsuitable material as specified in standard spec 205.3.12.

**D Measurement**

The department will measure Temporary Emergency Pullouts, acceptably completed, by the unit.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
205.3000.S	Temporary Emergency Pullouts	EACH

Payment is full compensation for grading, shaping, and compacting; providing and placing crushed aggregate base course; providing and placing signs; removing as required; and for providing and placing topsoil, fertilizer, seed, and mulch.

stp-205-020 (20080902)

**21. 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: Granular Backfill Grade 1.

stp-208-005 (20031103)

**22. Concrete.**

*Replace the last sentence of 501.2.5.4.1(2) with the following:*

“Do not use coarse aggregates obtained from crushing concrete in concrete for bridges, culverts, pavement or retaining walls.”

**23. 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://wisconsin.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://wisconsin.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

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

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

- (1) Compare QC and QV nuclear gauges according to 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 subplot 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 subplot 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 subplot. Testing in a previously accepted subplot will not be used to recalculate a new lot density.
- (3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full subplot width within the traffic lanes or shoulders.
- (4) Retesting and acceptance of replaced pavement will be as specified in standard spec 105.3.
- (5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the subplot and lot densities.
- (6) If two consecutive subplot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

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

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

- (1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one subplot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.
- (2) The QV tester will test each selected subplot using the same testing requirements and frequencies as the QC tester.
- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft<sup>3</sup> of the QC subplot average, use the QC tests for acceptance.

- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft<sup>3</sup> each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft<sup>3</sup>, use the original QC tests for acceptance.
- (6) If the QV and QC subplot averages differ by more than 1.0 lb/ft<sup>3</sup> after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

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

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

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

- (1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge comparison according to B.3.2.1.
- (2) The testers may use comparison monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.
- (3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV subplot density test results or retesting of the subplot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.
- (4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

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

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

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

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

#### **E Payment**

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

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

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

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

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

- (1) The department will administer density incentives as specified in standard spec 460.5.2.3.

stp-460-020 (20181119)

## **24. 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)

## 25. Polymer Overlay, Item 509.5100.S.

### A Description

This special provision describes providing two layers of a two-component polymer overlay system to the bridge decks the plans show.

### B Materials

#### B.1 General

Furnish materials specifically designed for use over concrete bridge decks. Furnish polymer liquid binders from the department's approved product list.

#### B.2 Polymer Resin

Furnish a polymer resin base and hardener composed of two-component, 100 percent solids, 100 percent reactive, thermosetting compound with the following properties:

Property	Requirements	Test Method
Gel Time <sup>[1]</sup>	15 - 45 minutes @ 73° to 75° F	ASTM C881
Viscosity <sup>[1]</sup>	7 - 70 poises	ASTM D2393, Brookfield RVT, Spindle No. 3, 20 rpm
Shore D Hardness <sup>[2]</sup>	60-75	ASTM D2240
Absorption <sup>[2]</sup>	1% maximum at 24 hr	ASTM D570
Tensile Elongation <sup>[2]</sup>	30% - 70% @ 7 days	ASTM D638
Tensile Strength <sup>[2]</sup>	2000 to 5000 psi @ 7 days	ASTM D638
Chloride Permeability <sup>[2]</sup>	<100 coulombs @ 28 days	AASHTO T277

<sup>[1]</sup> Uncured, mixed polymer binder

<sup>[2]</sup> Cured, mixed polymer binder

Ensure that the polymer resin when mixed with aggregate has the following properties:

Property	Requirement <sup>[1]</sup>	Test Method
Minimum Compressive Strength	1,000 psi @ 8 hrs 5,000 psi @ 24 hrs	ASTM C579 Method B, Modified <sup>[2]</sup>
Thermal Compatibility	No Delaminations	ASTM C884
Minimum Pull-off Strength	250 psi @ 24 hrs	ASTM C1583

<sup>[1]</sup> Based on samples cured or aged and tested at 75°F

<sup>[2]</sup> Plastic inserts that will provide 2-inch by 2-inch cubes shall be placed in the oversized brass molds.

### B.3 Aggregates

Furnish natural or synthetic aggregate that is non-polishing; clean; free of surface moisture; fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and conform to the following:

#### Aggregate Properties

Property	Requirement	Test Method
Moisture Content <sup>[1]</sup>	1/2 of the measured aggregate absorption, %	ASTM C566
Hardness	≥6.5	Mohs Scale
Fractured Faces	100% with at least 1 fractured face and 80% with at least 2 fractured faces of material retained on No.16	ASTM D5821
Absorption	≤1%	ASTM C128

<sup>[1]</sup> Sampled and tested by the department before placement.

#### Gradation

Sieve Size	% Passing by Weight
No. 4	100
No. 8	30 – 75
No. 16	0 – 5
No. 30	0 – 1

### B.4 Approval of Bridge Deck Polymer Overlay System

A minimum of 20 working days before application, submit product data sheets and specifications from the manufacturer, and a certified report of test or analysis from an independent laboratory to the engineer for approval. The department will sample and test the aggregates for gradation and moisture content before placement. If requested, supply the department with samples of the polymer for the purpose of acceptance testing.

#### B.4.1 Product Data Sheets and Specifications

Product data sheets and specifications from the manufacture consists of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, general instructions, or any other applicable information.

#### B.4.2 Certified Report of Test or Analysis

Conform to the following:

Polymer Binder: Submit a certified report of test or analysis from an independent laboratory dated less than 3 years before the date of the project letting showing the polymer binder meets the requirements of section B.2.

Aggregates: Submit a certified report of test or analysis from an independent laboratory dated less than 6 months before the date of the project letting showing the aggregates meet the requirements of section B.3.

## **C Construction**

### **C.1 General**

Ensure that the overlay system is 1/4 inch thick or thicker.

Conform to the following:

*Field Review:* Conduct a field review of the existing deck to identify any possible surface preparation and material compatibility issues.

*Pre-Installation Meeting:* Conduct a pre-installation meeting with the manufacturer's representative and the engineer before construction. Discuss the field review findings, verification testing of the surface preparation and establish procedures for maintaining optimum working conditions and coordination of work. Furnish the engineer a copy of the recommended procedures and apply the overlay system according to the manufacturer's instructions. Supply for the engineer's use for the duration of the project, a Concrete Surface Profile (CSP) chip set of 10 from the International Concrete Repair Institute (ICRI).

*Manufacturer's Representative:* An experienced 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 requirement may be reduced at the engineer's discretion.

*Material Storage:* Store and handle materials according to the manufacturer's recommendations. Store resin materials in their original containers in a dry area. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

### **C.2 Deck Preparation**

#### **C.2.1 Deck Repair**

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 Structures Design Section. 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 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 profile meeting CSP 5 (medium-heavy shotblast) according to the ICRI Technical Guideline No. 310.2. If the engineer requires additional verification of the surface preparation, test the tensile bond strength according to ASTM C1593. The surface preparation will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or the failure area at a depth of 1/4 inches or more is greater than 50 percent of the test area. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the engineer or a passing test result is obtained.

Prepare the entire deck using the final accepted adjustments to the shotblasting machine as determined above. Thoroughly blast clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours before the application of the overlay system.

Protect drains, expansion joints, access hatches, or other appurtenances on the deck from damage by the shot and sand blasting operations and from materials adhering and entering. Tape or form all construction joints to provide a clean straight edge.

Before shot blasting, remove pavement markings within the treatment area using an approved mechanical or blasting method.

Prepare the vertical concrete surfaces adjacent to the deck a minimum of 2" above the overlay according to SSPC-SP 13 (free of contaminants, dust, and loose concrete) by sand blasting, using wire wheels, or other approved method.

Just before overlay placement, clean all dust, debris, and concrete fines from the prepared surfaces including the vertical surfaces with compressed air. When using compressed air, the air stream must be free of oil. Any grease, oil, or other foreign matter that rests on or has absorbed into the concrete shall be removed completely. If prepared surfaces (including the first layer of the polymer overlay) are exposed to rain or dew, lightly sandblast (brush/breeze blast) the exposed surfaces.

The engineer may consider alternate surface preparation methods per the overlay system manufacturer's recommendations. The engineer will approve the final surface profile and deck cleanliness before the contractor placing the polymer overlay.

### **C.2.3 Transitional Area**

If the plans show, create a transitional area approaching transverse expansion joints and ends of the deck using an approved mechanical or blasting method. Remove 1/4 inch to 5/16 inch of concrete adjacent to the joint or end of deck and taper a distance of 3 feet.

If the plans show, create a transitional area on the approach pavement. Prep and place the first lift 3 feet beyond the end of the deck the same width as the deck. Prep and place the second lift 6 feet beyond the end of the deck the same width as the deck.

### **C.3 Overlay Application**

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. Do not apply the overlay system if any of the following exists:

1. Ambient air temperature is below 50 F or above 100 F.
2. Deck temperature is below 50 F.
3. Moisture content in the deck exceeds 4.5 percent when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured according to ASTM D4263.
4. Rain is forecasted during the minimum curing periods listed under C.5.
5. Materials component temperatures below 65 F or above 99 F.
6. Concrete deck age is less than 28 days.
7. The deck temperature exceeds 100 F.
8. If the gel time is 10 minutes or less at the predicted high air temperature for the day.

After the deck has been shotblasted or during the overlay curing period, only necessary surface preparation and overlay application equipment will be allowed on the deck. Provide appropriate protective measures to prevent contamination from equipment allowed on the deck during preparation and application operations. Begin overlay placement as soon as possible after surface preparation operations.

The polymer overlay shall consist of a two-course application of polymer and aggregate. Each of the two courses shall consist of a layer of polymer covered with a layer of aggregate in sufficient quantity to completely cover the polymer. Apply the polymer and aggregate according to the manufacturer's requirements. Apply the overlay using equipment designed for this purpose. The application machine shall feature positive displacement volumetric metering and be capable of storing and mixing the polymer resins at the proper mix ratio. Disperse the aggregate using a method that provides a uniform, consistent coverage of aggregate and minimizes aggregate rolling or bouncing into final position. First course applications that do not receive enough aggregate before the polymer gels shall be removed and replaced. A second course applied with insufficient aggregate may be left in place but will require additional applications before opening to traffic.

After completion of each course, cure the overlay according to the manufacturer's instructions. Follow the minimum cure times listed under C.5 or as prescribed by the manufacturer. Remove the excess aggregate from the surface treatment by sweeping, blowing, or vacuuming without tearing or damaging the surface; the material may be re-used if approved by the engineer and manufacturer. Apply all courses of the overlay system before opening the area to traffic. Do not allow equipment or traffic on the treated area until directed by the engineer.

After the first layer of coating has cured to the point where the aggregate cannot be pulled out, apply the second layer. Before applying the second layer, broom and blow off the first layer with compressed air to remove all loose excess aggregate.

Before opening to traffic, clean expansion joints and joint seals of all debris and polymer. A minimum of 3 days following opening to traffic, remove loosened aggregates from the deck, expansion joints, and approach pavement.

#### C.4 Application Rates

Apply the polymer overlay in two separate courses according to the manufacturer's instructions, but not less than the following rate of application.

Course	Minimum Polymer Rate <sup>[1]</sup> (GAL/100 SF)	Aggregate <sup>[2]</sup> (LBS/SY)
1	2.5	10+
2	5.0	14+

<sup>[1]</sup> The minimum total applications rate is 7.5 GAL/100 SF.

<sup>[2]</sup> Application of aggregate shall be of sufficient quantity to completely cover the polymer.

#### C.5 Minimum Curing Periods

As a minimum, cure the coating as follows:

Course	Average temperature of deck, polymer and aggregate components in degrees F							
	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-99
1	6 hrs.	5 hrs.	4 hrs.	3 hrs.	2.5 hrs	2 hrs	1.5 hrs.	1 hr.
2	8 hrs.	6.5 hrs.	6.5 hrs.	5 hrs.	4 hrs.	3 hrs.	3 hrs.	3 hrs.

If faster cure times are desired and achievable, submit to the engineer a certified test report from an independent laboratory showing the material is able to reach a compressive strength of 1000 psi as tested per ASTM C 579 Method B within the temperature ranges and cure times for which the product is proposed to be placed. Establish ambient air, material, and substrate temperatures from the manufacturer for field applications. Field applications will not be allowed below the documented temperatures.

#### C.6 Repair of Polymer Overlay

Repair all areas of unbonded, uncured, or damaged polymer overlay for no additional compensation. Submit repair procedures from the manufacturer to the engineer for approval. Absent a manufacturer's repair procedures and with the approval of the engineer, complete repairs according to the following: Saw 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 before placement of polymer overlay; and place the polymer overlay according to section C.3.

#### D Measurement

The department will measure Polymer Overlay 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
509.5100.S	Polymer Overlay	SY

Payment is full compensation for preparing the surface; for tensile bond testing; for creating the transitional area; for providing the overlay; for cleanup; and for sweeping/vacuuming and disposing of excess materials.

The department will pay separately for deck repairs.

stp-509-030 (20200629)

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

**A Description**

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

**B Materials**

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

**C (Vacant)**

**D Measurement**

The department will measure Cover Plates Temporary as each individual unit, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	EACH

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

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

stp-611-006 (20151210)

**27. 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)

**28. Salvaged Rail**

Perform this work according to the pertinent requirements of standard spec 204 and standard spec 614 and as hereinafter provided.

Completely disassemble the existing beam guard and carefully remove all salvageable posts, blocks, guardrail and hardware (brackets, reflectors, nuts, washers, bolts and other appurtenances) in a manner that will preclude any damage (cutting or destructive measures are not allowed). Store the salvaged materials on the right-of-way, outside the limits of construction at a location approved by the engineer. Store salvaged materials as follows:

- Posts – Banded and neatly stacked on pallets
- Blocks - Banded and neatly stacked on pallets
- Beams - Banded and neatly stacked on pallets
- Hardware – In 5-gallon pails or burlap sacks

Upon completion of the removal and storage of salvageable materials, contact Rollin Gjestvang, Trempealeau County Patrol Superintendent at (715) 538-4799. Trempealeau County will inspect the materials and will have the right to reject any damaged or otherwise unacceptable materials.

Remove all other materials from the right-of-way and properly dispose of them, including items rejected by Trempealeau County.

This work also includes entirely removing the posts and backfilling their hole as necessary.

**29. Seeding.**

*Add the following to standard spec spec 630.2.1.5.1.1:*

Due to a temporary shortage in some fescue species, Table 630-3 may be used for the mixtures provided in the table:

**TABLE 630-3 (OPTIONAL SEED MIXTURES)**

SPECIES COMMON NAME (Acceptable Varieties)	SPECIES BOTANICAL NAME	PURITY minimum %	GERMINATION minimum %	MIXTURE PROPORTIONS (in percent)			
				NO.10	NO.20	NO.30	NO.40
Kentucky Bluegrass (Low Maintenance)	Poa pratensis	98	85	40	6	10	35
Red Fescue (Creeping)	Festuca rubra	97	85	10	5	15	10
Hard Fescue (Improved)	Festuca ovina var. duriuscula	97	85		24	25	20
Tall Fescue (Improved Turf Type)	Festuca arundinacea	98	85		40		
Salt Grass (Fult's or Salty)	Puccinella distans	98	85			15	
Redtop	Agrostis alba	92	85	5			
Perennial Ryegrass	Lolium perenne	96	85	25	25	25	25
White Clover	Triflium repens	95	90	10			
Chewings Fescue	Festuca rubra var. commutata	98	85	10		10	10

**30. Removing Signs Type II, Item 638.2602**

This work shall be according to the pertinent requirements of standard spec 638 and as provided here.

Type II signs are the department's property. All DOT signs removed, and not identified for reuse, shall be separated, plywood from aluminum signs, and the aluminum signs shall be palletized for shipment and handling with a forklift. Contact DTSD Sign Shop Coordinator Steve Allard at (715) 577-1259 at least three business days prior to delivery to coordinate shipment to be delivered to the DTSD Sign Shop Distribution Center at one of the following locations:

- Dunn County Highway Shop, 3303 USH 12 East, Menomonie, WI 54751
- LaCrosse County Highway Shop, 301 Carlson Road, West Salem, WI 54669
- Price County Highway Shop, 704 N. Lake Avenue, Phillips, WI 54555
- Washburn County Highway Shop, 1600 CTH H, Spooner, WI 54801
- Wood County Highway Shop, 555 17<sup>th</sup> Avenue North, Wisconsin Rapids, WI 54495

### **31. Blue Specific Service Signs.**

*Add the following to standard spec 638.3.4:*

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

The contractor is responsible for damage done to these signs due to contractor operations.

stp-638-010 (20150630)

### **32. 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)

## **33. Basic Traffic Queue Warning System, Item 643.1205.S.**

### **A Description**

This special provision describes providing, repositioning, operating, maintaining, monitoring, calibrating, testing and removing a basic traffic queue warning system (QWS) capable of measuring vehicular speeds at downstream sections of a roadway, and activating the system.

### **B Materials**

Provide Basic Traffic QWS components and software that is National Transportation Communications for ITS Protocol (NCTIP) compliant.

#### **B.1 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.

## **B.2 Static Traffic Control Signs with Temporary Flashing Beacon Signs (FBS)**

Provide static traffic control signs with temporary flashing beacon signs conforming to standard spec 658.2(2) for Traffic Signal Faces. Ensure each FBS is integrated with a modem, and other equipment (e.g., automated system manager) mounted on it, and acts as a single device for communicating with similarly integrated devices and displaying real-time traffic conditions.

## **B.3 Automated System Manager (ASM)**

Provide an ASM that assesses current traffic data captured by the PTS and activates/deactivates the FBS based on predetermined speed thresholds.

## **B.4 System Communications**

Ensure Basic Traffic QWS communications meet the following requirements:

1. Perform required configuration of the Basic Traffic QWS's communication system automatically during system initialization.
2. Communication between the server and any individual FBS or PTS are independent through the full range of deployed locations, and do not rely upon communications with any other FBS or PTS.
3. Incorporate an error detection/correction mechanism into the Basic Traffic QWS communication system to ensure the integrity of all traffic condition data.

## **B.5 System Acceptance**

Submit vendor verification to the engineer and Bureau of Traffic Operations ([DOTBTOworkzone@dot.wi.gov](mailto:DOTBTOworkzone@dot.wi.gov)) 14 calendar days before the pre-construction meeting that the system will adequately perform the functions specified in this special provision. 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 Basic Traffic Queue Warning System per plan or as the engineer directs. Provide plan to the engineer and Bureau of Traffic Operations ([DOTBTOworkzone@dot.wi.gov](mailto:DOTBTOworkzone@dot.wi.gov)) 14 calendar days before the pre-construction meeting.

PTS may be mounted on FBS, arrow board or other trailer devices.

Install PTS at the following locations:

1. Place first PTS within the lane closure taper.
2. Place second PTS 5,700 feet upstream of the lane closure taper or on FBS #3.
3. Place third PTS 2 miles upstream of the lane closure taper or on FBS #2.

Install FBS at the following locations, delineated by 5 drums:

1. Place first FBS (FBS #3) 5,700 feet upstream of the lane closure taper.
2. Place second FBS (FBS #2) 2 miles upstream of the lane closure taper.
3. Place third FBS (FBS #1) 3 miles upstream of the lane closure taper.

If there are more than 2 lanes or specified in the plans, place FBS on both sides of the roadway.

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 Basic Traffic QWS and demonstrate to the department that the Basic Traffic QWS is operational.

Maintain the Basic Traffic 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 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 Basic Traffic 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 FBS to reflect current traffic flow status updated every 60 seconds for congestion. 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 FBS activate based on pre-determined speed thresholds from the next downstream sensor.
  - FBS #3 shall activate based on traffic speeds at the PTS located within the lane closure taper.
  - FBS #2 shall activate based on traffic speeds at the PTS located approximately 1 mile upstream of lane closure taper, or at FBS #3.
  - FBS #1 shall activate based on traffic speeds at the PTS located 2 miles upstream of lane closure taper, or at FBS #2.
4. 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
  - FBS triggers
  - Device locations
5. Archive all traffic data in a Microsoft Excel format with date and time stamps.
6. Configure the website to quantify system failures which includes communication disruption between any devices in the system configuration, FBS malfunctioning, PTS malfunction, loss of power, low battery, etc.
7. Automatically generate and send an email alert any time a user specified queue is detected by the system.
8. Ensure the system autonomously restarts in case of any power failure.

### **C.4.2 System Operation Strategy**

Arrange for the vendor/manufacturer to coordinate system operation, detection, and trends/thresholds with the engineer.

The sequences below are a minimum requirement, but can be adjusted at the discretion of the engineer, are as follows:

#### **Free Flow:**

If the current PTS speed on a downstream section is at or above 40 mph, the next upstream FBS will not flash.

#### **Slow or Stopped Traffic:**

If the current PTS speed on a downstream section of the roadway is between the 39 mph and 0 mph (for example, 35 mph), the next upstream FBS shall flash.

## **C.5 Calibration and Testing**

At the beginning of the project perform a successful field test and calibration at the Basic Traffic QWS location to verify the system is detecting accurate vehicle speeds, and accurately relaying the information to the ASM and the FBS.

Send email of successful calibration and testing to the engineer.

**D Measurement**

The department will measure Basic 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
643.1205.S	Basic Traffic Queue Warning System	DAY

Payment is full compensation for providing, repositioning, operating, maintaining, monitoring, calibrating, testing, and removing the complete system consisting of FBS, PTS, ASM, and system communications.

Failure to correct a deficiency to the FBS, 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 Basic Traffic QWS.

stp-643-046 (20210113)

**34. Traffic Control Interim Lane Closure, Item 643.4100.S.**

**A Description**

This special provision describes closing a freeway/expressway traffic lane.

**B (Vacant)**

**C Construction**

Install and reposition traffic control devices as required to close a traffic lane. Remove and return the devices to their previous configuration when the closure is no longer required.

**D Measurement**

The department will measure Traffic Control Interim Lane Closure as each individual reposition/return cycle, acceptably completed. The department will not measure additional moves or configuration changes as might be required solely to accommodate the contractor's operations.

The department will measure the closures by traffic lane and roadway. The department will not measure multiple closures in the same traffic lane on a project.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
643.4100.S	Traffic Control Interim Lane Closure	EACH

Payment is full compensation for closing and re-opening the affected traffic lane.

stp-643-030 (20170615)

**35. General Requirements for Electrical Work.**

*Append standard spec 651.3.3 (3) with the following:*

Electrical item inspections are required at the following times: after the staking of all electrical underground items, islands, curb and gutter and medians; during loop detector placement; before the pouring of all lighting, signal, and cabinet bases; before cable and wire are pulled; during field terminations at signal and lighting bases; and prior to the installation of any poles, standard, or other above ground electrical items.

Request electrical inspections of the completed signal and lighting work to the engineer at least five working days prior to the time of the required inspection. Notify the Northwest Region – Electrical Field Unit at (715) 577-3854 to coordinate the inspection. The department’s Region Electrical personnel will perform the inspection.

**36. Traffic Signals, General**

Note that failure to comply with the state standards and specifications may result in the cost of the corrections to be made at the contractor’s expense. Also, any additional disruption of State-owned facilities shall be repaired or relocated as needed at the contractor’s expense.

Notify the department’s Electrical Field Unit at (715) 577-3854 at least three weeks prior to the beginning of the traffic signal work.

**37. 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 Nonmetallic Conduit 3-Inch, 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)

**38. Concrete Control Cabinet Bases ITS, Item 654.1239.**

This article describes modifications to item 654.1239 of the standard specifications and QPL.

*Amend standard spec 654.2, Bases, by modifying the following paragraph:*

- (6) Use schedule 40 PVC electrical conduit conforming to 652. Furnish and install four 3-inch conduit in addition to what is required for the service lateral and grounding. Two of the 3-inch conduit shall be installed between the cabinet and nearest pull box as shown on the plans. Two of the 3-inch conduit shall be stubbed and capped underground outside the footprint of the concrete base.

**39. Electrical Service Meter Breaker Pedestal (CB100), Item 656.0200.001;  
Electrical Service Meter Breaker Pedestal (CB200), Item 656.0200.002.**

*Replace standard spec 656.2.3(1) with the following::*

- (1) Furnish an engineer-approved service having a meter breaker pedestal with grounding electrodes, connections, conduit, fittings, necessary conductors and equipment required by the WSEC and the utility for a service connection. Use 2-pole 120/240V circuit breakers with an amperage capacity 50 AMPS, unless specified otherwise in the contract. Breakers shall have a 22,000-AIC rating unless the local utility requires otherwise. When the meter breaker pedestal is energized, install an engineer-approved meter seal at access points on the meter trough.

**40. Electrical Service Breaker Disconnect Box (CB100), Item 656.0500.001;  
Electrical Service Breaker Disconnect Box (CB200), Item 656.0500.002.**

*Replace standard spec 656.2.6 (1) with the following:*

- (1) Furnish a 100 A outside rated breaker box with space for 6 circuits, but no main breaker; with 3-20A single pole circuit breakers, conduit fittings, grounding electrodes, and connections and necessary conductors and equipment required to provide power to the cabinet.

**41. Temporary Traffic Signal for Intersections USH 10 & IH 94 Eastbound Ramps, Item 661.0200.01.**

*Add the following to standard spec 661.2.1:*

- (6) Furnish and install all temporary traffic signal equipment and connect into the existing traffic signal system as shown on the plans. All wood poles shall be plumb and level.

*Replace standard spec 661.3.1 (2) with the following:*

- (2) Request a signal inspection of the complete temporary traffic signal installation. Make this request to the engineer at least five working days before the requested inspection. Notify the department's electrical field unit at (715) 577-3854 to coordinate the inspection. The department's region electrical personnel will perform the inspection.

*Add the following to standard spec 661.3.1:*

- (4) All connections in the signal cabinet and timing changes will be completed by the department. Contact WisDOT Northwest Region's electrical field unit at (715) 577-3854 to make arrangements.
- (5) Do not drill holes or otherwise damage any permanent signal equipment. The engineer shall approve all temporary cabling and mounting using permanent signal equipment prior to installation.

*Add the following to standard spec 661.3.1.4:*

- (4) Arrange for monthly inspections with the engineer to check the height of the span wire above the roadways. Ensure the bottom of the traffic signal heads remain within the minimum and maximum heights allowed above the roadway. Make all height adjustments within 24-hours of an inspection indicating that adjustments are required. Notify the engineer in writing upon completion of all necessary adjustments. Maintain a written log to properly document the date of each monthly inspection, the heights above the roadway, the roadway clearance after adjustments have been made and acceptance by the engineer. Provide to the engineer all documentation related to the monthly span wire height checks and all records related to maintenance performed on the temporary traffic signal installations to the engineer.

**42. Ramp Closure Gates 24-FT, Item 662.1024.S;  
Ramp Closure Gates 30-FT, Item 662.1030.S.**

**A Description**

This special provision describes providing freeway on-ramp closure gates on type 5 steel luminaire poles. This special provision also describes furnishing and delivering spare gate arms.

## **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**

### **C.1 Ramp Closure Gates**

Under the Ramp Closure Gates bid items, 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.

Jennifer Leech  
WisDOT NW Region  
(715) 836-2853

### **C.2 Furnishing Gate Arms**

Under the Ramp Closure Gate Arms Stockpile bid items, furnish and deliver spare arms of the nominal length the bid item indicates conforming to B.2. Deliver spare gate arms to an address provided by:

Jennifer Leech  
WisDOT NW Region  
(715) 836-2853

**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
662.1024.S	Ramp Closure Gates 24-FT	EACH
662.1030.S	Ramp Closure Gates 30-FT	EACH

Payment for the Ramp Closure Gate bid items 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. Payment for the Ramp Closure Gate Arms Stockpile is full compensation for furnishing and delivering spare ramp closure gate arms.

stp-662-005 (20191121)

**43. Rapid Set Deck Repair, Item SPV.0035.001.**

**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**

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 10 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.

**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 is not to 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.

Submit certified test results from an independent lab showing that the patch material obtained 3000 psi within 3 hours of placement.

**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.0035.001	Rapid Set Deck Repair	CY

Payment is full compensation for furnishing, hauling, preparing, placing, finishing, curing, and protecting all materials.

**44. Traffic Control, One Sided Vertical Panels, Item SPV.0060.001.**

**A Description**

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

**B Materials**

Provide one sided vertical panels and flexible supporting posts made of non-metallic material that have a reactive spring so as to be resistant to direct wheel impacts with speeds up to 70 mph and have the capability of immediately restoring itself to a vertical position when stuck by a standard vehicle.

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

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

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

Attach one sided vertical panels and supporting posts to the bases according to the manufacturer's recommendations. Fasten the bases to the pavement according to manufacturer recommendation.

**C (Vacant)**

**D Measurement**

The department will measure Traffic Control, One Sided Vertical Panels by 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.0060.001	Traffic Control, One Sided Vertical Panels	EACH

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

**45. Reconstruct Median Inlet Special, Item SPV.0060.002.**

**A Description**

This special provision describes work according to standard spec 611 and 645, and as hereinafter provided.

**B Materials**

Conform to standard spec 611.2 and 645.2.

**C Construction**

Conform to standard spec 611.3 and 645.3. Reconstruct existing median inlets to accommodate drainage of the Interstate 94 median during stage construction at locations shown in the plans, according to pertinent plan details, and as directed by the engineer.

Cut an appropriate opening in the side of the existing inlet masonry to receive the 18-inch temporary culvert pipe. Ensure that the temporary culvert pipe is placed at an appropriate elevation to drain the adjacent temporary manhole. Mortar the temporary pipe in place and repair the structural integrity of the existing inlet.

Provide 0.25-inch minimum thickness steel cover plates that extend to the outside edge of the existing masonry. Provide geotextile fabric Type HR over the steel cover plate with sufficient size to wrap the entire top of the inlet structure, extending down the sides a minimum of one foot so that no fill material can enter the inlet.

When the temporary culvert pipe is no longer needed in the contract work, remove the conduit connection and repair the inlet wall to its original condition. Remove the geotextile fabric and temporary cover plate. Clean out any sediment or fill material that may have entered the inlet box. Ensure that the existing inlet grates are in place and in good condition.

**D Measurement**

The department will measure Reconstructing Median Inlets Special as each individual inlet, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.002	Reconstructing Median Inlets Special	EACH

Payment is full compensation for providing materials, including masonry, steel cover plate, geotextile fabric Type HR, conduit connections, and other fittings as required; for excavating, backfilling, and disposing of surplus material; for cutting an appropriate opening in the existing masonry to receive the temporary 18-inch pipe; for making repairs to the existing inlet wall during installation and removal of the temporary pipe; for removing the steel cover plate and geotextile fabric when no longer needed in the contract work; for cleaning any sediment or fill material that may have entered the inlet box.

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

**46. Manholes Special 4-FT Diameter Temporary, Item SPV.0060.003.**

**A Description**

This special provision describes work according to standard spec 611, and as hereinafter provided.

**B Materials**

Conform to standard spec 611.2.

**C Construction**

Conform to standard spec 611.3. Construct temporary 4-foot diameter manholes to accommodate drainage of the Interstate 94 median during stage construction at locations shown in the plans, according to pertinent plan details, and as directed by the engineer.

Provide a minimum 8-inch precast reinforced concrete flat slab cover with no opening, as the temporary manholes will be buried during various stages of the project. No frames, grates, or lids are required. Make inlet connections to temporary culvert pipes draining the temporary median ditches. Make outlet connections to temporary culvert pipes draining to existing median inlets. Adjust or reconstruct the temporary manholes as necessary to accommodate each successive construction stage for as long as the manhole is needed in the contract work.

**D Measurement**

The department will measure Manholes Special 4-FT Diameter Temporary as each individual manhole, 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.0060.003	Manholes Special 4-FT Diameter Temporary	EACH

Payment is full compensation for staking, providing materials, including masonry, concrete cover, conduit connections, and other fittings as required; for excavating, backfilling, and disposing of surplus material; for adjusting or reconstructing the manhole as necessary during contract work; and for removing the manhole and cover when no longer needed in the contract work.

**47. Temporary Inlets Median 1 Grate, Item SPV.0060.004.**

**A Description**

This special provision describes work according to standard spec 611, and as hereinafter provided.

**B Materials**

Conform to standard spec 611.2.

**C Construction**

Conform to standard spec 611.3. Construct temporary inlets to accommodate drainage of the Interstate 94 median during stage construction at locations shown in the plans, according to pertinent plan details, and as directed by the engineer.

Provide one inlet cover Type MS for each inlet constructed. Make outlet connections to temporary culvert pipes draining to temporary median ditches.

**D Measurement**

The department will measure Temporary Inlets Median 1 Grate as each individual inlet, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.004	Temporary Inlets Median 1 Grate	EACH

Payment is full compensation for staking, providing materials, including masonry, inlet covers Type MS, conduit connections, and other fittings as required; for excavating, backfilling, and disposing of surplus material; and for removing the inlet and cover when no longer needed in the contract work.

**48. Temporary Concrete Pipe Collar, Item SPV.0060.005.**

**A Description**

This special provision describes furnishing, installing and removing a temporary concrete pipe collar between a temporary drainage pipe and a permanent drainage pipe using a concrete pipe collar as described in standard spec 520 and herein provided.

**C Construction**

Construction of the connection between the culvert pipe temporary and existing culverts is to be done to facilitate the drainage pathway and maintain a water tight seal between the two pipes. The connection is to be constructed in such a manner to allow for removal of the concrete pipe collar without damaging existing items that are to remain upon completion. When temporary pipe collar is no longer required, remove the temporary concrete pipe collar in such a way as to not damage the existing pipe, damage to the existing culvert will be repaired or replaced at the contractor's expense.

**D Measurement**

The department will measure Temporary Concrete Pipe Collar as each connection, 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.0060.005	Temporary Concrete Pipe Collar	EACH

Payment is full compensation for providing materials, excavating, backfilling, and disposing of surplus material; and for removing and disposing of the associated materials when no longer needed for the contract work.

**49. Salvage & Reinstall Traffic Signal Equipment USH 10 & IH 94 Eastbound Ramps, Item SPV.0060.006;  
Salvage & Reinstall Traffic Signal Equipment USH 10 & IH 94 Westbound Ramps, Item SPV.0060.007.**

**A Description**

This special provision describes salvaging and reinstalling existing traffic signal equipment at the intersections of USH 10 & IH 94 Eastbound Ramps and USH 10 & IH 94 Westbound Ramps. Specific removal items are noted in the plan. Concrete bases and pull box removals are paid for separately.

**B Materials**

Furnish any signal mounting hardware, tools, and any other incidents required for the reinstallation of traffic signal equipment.

**C Construction**

Salvage traffic signal standards and poles per plan from their concrete footing and disassemble out of traffic. Remove the pedestal bases and transformer bases from each pole. Remove the signal heads, mast arms, luminaire arms, LED luminaires, wiring / cabling, and traffic signal mounting devices from signal standard, arm, or pole per plan. Ensure that access handhole doors and hardware remain intact. Make a reasonable effort to inspect salvaged equipment for damage or defects.

If damage or defects discovered prior to removal, contact the Northwest Region – Electrical Field Unit at (715) 577-3854. Any damaged or defective item not identified as damaged or defective prior to removal is to be replaced at the expense of the contractor. If any luminaires are damaged and need to be disposed of, the contractor shall be responsible for disposal via environmentally friendly standards for hazardous waste disposal and shall be responsible for any associated fees.

Reinstall the salvaged traffic signal equipment at the new locations shown on the plan and according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3. Return all other salvaged traffic signal equipment to the department’s Electrical Shop located at 5009 USH 53 South, Eau Claire, WI 54701. Notify the department’s Electrical Field Unit at (715) 577-3854 to make arrangements at least five working days prior to drop-off of equipment.

The department will be responsible for all connections in the signal cabinet and any updated programming of the traffic signal controller. Contact WisDOT Northwest Region Electrical Unit at (715) 577-3854 to make arrangements.

At the USH 10 & IH 94 Eastbound Ramps intersection, traffic signal modifications shall be operational prior to the start of Traffic Control - Stage 3C. At the USH 10 & IH 94 Westbound Ramps intersection, traffic signal modifications shall be operational prior to the start of Traffic Control - Stage 3B.

**D Measurement**

The department will measure Salvage and Reinstall Traffic Signal Equipment USH 10 & IH 94 Eastbound Ramps and USH 10 & IH 94 Westbound Ramps as each individual unit, in place and acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.006	Salvage & Reinstall Traffic Signal Equipment USH 10 & IH 94 Eastbound Ramps	EACH
SPV.0060.007	Salvage & Reinstall Traffic Signal Equipment USH 10 & IH 94 Westbound Ramps	EACH

Payment is full compensation for removing, disassembling traffic signal & lighting equipment, scrapping of some materials, disposing of scrap material, salvaging the equipment, and reinstalling the signal equipment at the new locations specified in the plan.

**50. Salvage & Reinstall Ramp Closure Gates USH 10 & IH 94 Eastbound Ramps, Item SPV.0060.009.**

**A Description**

This special provision describes salvaging and reinstalling existing freeway on-ramp closure gates and transformer bases and removing solar power system as shown on plans.

**B Materials**

Furnish any hardware, tools, and any other incidents for the reinstallation of ramp closure gates.

**C Construction**

Salvage ramp closure gates, poles, and transformer bases per plan from their concrete footings. Make a reasonable effort to inspect salvaged equipment for damage or defects. If damage or defects discovered, contact WisDOT’s NW Region electrical field unit at (715) 577-3854.

Remove gate flashers and solar power system and battery. Existing conduit runs no longer used to be abandoned in place. Remove any conductors remaining in abandoned conduit. Coordinate with WisDOT’s NW Region electrical field unit at (715) 577-3854 to identify all items to be salvaged and returned to the department. Dispose of all remaining equipment not being reinstalled or salvaged.

Reinstall the salvaged ramp closure gate equipment at the locations directed by the WisDOT Northwest Electrical Field Unit. Contact WisDOT Northwest Region at (715) 577-3854 at least five business days prior to pouring the ramp gate concrete bases. Apply corrosion protection material from the department’s approved products list 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.

**D Measurement**

The department will measure Salvage and Reinstall Ramp Closure Gates USH 10 & IH 94 Eastbound Ramps as each individual unit, in place and 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.0060.009	Salvage & Reinstall Ramp Closure Gates USH 10 & IH 94 Eastbound Ramps	EACH

Payment is full compensation for removing, disassembling, salvaging, disposing of scrap material, and reinstalling the ramp closure gate equipment at new locations as specified in the plans.

**51. State Furnished EVP Detector Heads USH 10 & IH 94 Eastbound Ramps, Item SPV.0060.010; State Furnished EVP Detector Heads USH 10 & IH 94 Westbound Ramps, Item SPV.0060.011.**

**A Description**

This special provision describes the transporting and installing of department furnished Emergency Vehicle Preemption (EVP) Detector Heads.

**B Materials**

Use materials furnished by the department including: Emergency Vehicle Preemption (EVP) Detector Heads.

Pick up the department furnished materials at the department’s Electrical Shop located at 5009 USH 53 South, Eau Claire, WI 54701. Notify the department’s Electrical Field Unit at (715) 577-3854 and make arrangements for picking up the department furnished materials at least five working days prior to picking the materials up.

**C Construction**

Install the EVP detector heads and terminate the EVP cable ends at 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. The department will terminate the EVP cable ends at the cabinet and will install the discriminator and card rack in the cabinet.

Notify the department’s Electrical shop at (715) 577-3854 upon completion of the installation of the Emergency Vehicle Preemption (EVP) Detector Heads.

**D Measurement**

The department will State Furnished EVP Detector Heads (intersection) by each intersection installation, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.010	State Furnished EVP Detector Heads USH 10 & IH 94 Eastbound Ramps	EACH
SPV.0060.011	State Furnished EVP Detector Heads USH 10 & IH 94 Westbound Ramps	EACH

Payment is full compensation for transporting and installing of department furnished Emergency Vehicle Preemption (EVP) Detector Heads and terminating the EVP cable ends at the detector heads; and for all labor, tools, equipment, and incidentals necessary to complete this item of work.

**52. State Furnished ITS Control Cabinet (CB100), Item SPV.0060.012;  
State Furnished ITS Control Cabinet (CB200), Item SPV.0060.013.**

**A Description**

This special provision describes the transportation and installation of WisDOT furnished cabinets and equipment for pavement sensors on IH 94.

**B Materials**

WisDOT will provide notification at the preconstruction meeting of the cabinet vendor and provide the vendor's contact information. Pick up the cabinet at the electrical shop at 2401 West St. Paul Avenue; Milwaukee, WI 53233. Notify the department's Electrical Field Unit at (715) 577-3854 and make arrangements for picking up the department furnished materials at least five working days prior to picking the materials up.

Provide Cabinet ID plaques as required, obtain plaque ID numbers from WisDOT.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 655.2 and 656.2.

**C Construction**

Perform work according to standard spec 651.3, 652.3, 655.3 and 656.3 except as specified below.

This work includes participation with the vendor and WisDOT for the purpose of cabinet assembly, testing and adjusting for field conditions.

Install cabinet on a new base and terminate all field wiring. Provide additional masonry anchors as required to secure the cabinet to the base.

Contractor shall be responsible for installation of the state furnished cabinet and equipment only. All terminations and connections required for operations after cabinet installation shall be furnished and installed by others.

**D Measurement**

The department will measure State Furnished ITS Control Cabinet (location) by each unit, acceptably completed.

**E Payment**

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.012	State Furnished ITS Control Cabinet (CB100)	EACH
SPV.0060.013	State Furnished ITS Control Cabinet (CB200)	EACH

Payment is full compensation for transporting and installing the state furnished ITS Control Cabinet; for installing all other state furnished components; and for clean-up and waste disposal. New concrete bases shall be paid for under a separate bid item.

**53. Fill Existing Rumble Strips, Item SPV.0090.001.**

**A Description**

This special provision describes providing filling the existing asphaltic shoulder rumble strips with hot mix asphaltic surface prior to shifting traffic. Perform the work according to the pertinent requirements of standard spec 465, as shown on the plans, and as hereinafter provided.

**B Materials**

Use hot mix asphaltic surface meeting the requirements of standard spec 465.2. Use tack coat conforming to the requirements of standard spec 455.2.5.

**C Construction**

Before filling the existing rumble strip depressions, clean the depressions by sweeping or using a stream of compressed air. After cleaning, coat the depressions with tack coat. Fill in the depressions with hot mix asphaltic surface and compact using a plate tamper or static roller so that the final compacted surface is flush with the existing pavement.

**D Measurement**

The department will measure Fill Existing Rumble Strips by the linear foot, acceptably completed, measured as the length along the side of the traveled way, from the beginning of a rumble strip groove filled in a segment to the end of the rumble strip groove filled in the segment.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.001	Fill Existing Rumble Strips	LF

Payment is full compensation for furnishing all work under this item including cleaning the rumble strip depressions; furnishing and applying tack coat; and for furnishing and placing asphaltic surface.

**54. Temporary Wall Wire Faced Mechanically Stabilized Earth, Item SPV.0165.001.**

**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.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

This special provision describes contractor quality control (QC) sampling and testing for backfill density testing, documenting those results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

**B Materials**

**B.1 Proprietary Wall Systems**

The supplied wall system must be from the department's approved list of Temporary Wire Faced Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared 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 Hill Farms State Transportation Building in Madison or by calling (608) 266-8494.

## **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 electronically to the engineer and Bureau of Structures for review and acceptance. 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 1/2 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. 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 in 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 used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facings shall be designed according to AASHTO 11.10.2.3. A fine metallic screen and a geotextile shall be used at the front face of the wall to retain the fines of the soil mass.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement shall be the same length from the bottom to the top of the wall. All soil reinforcement layers shall be connected to wire facing panels. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 24 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 12 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

The nominal long term design strength to be used in steel reinforcement and connector design shall consider the corrosion losses and based upon conditions at the end of the design life, as described in Chapter 14 of the WisDOT LRFD Bridge Manual and AASHTO LRFD Section 11.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3" shall be maintained between any obstruction and reinforcement, and splicing steel reinforcement is not allowed.

The minimum embedment of the MSE wall shall be 1 foot 6 inches, or as given on the contract plan. Step the wall to follow the general slope of the ground line. Frost depth shall not be considered.

### **B.3 Wall System Components**

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

#### **B.3.1 Steel Components**

Provide steel reinforcement that meets the following requirements:

##### **Welded Wire Fabric Soil Reinforcement**

Provide shop fabricated welded wire reinforcement from cold drawn steel wire that has a yield stress of 65,000 psi and conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration according to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

##### **Steel Reinforcing Strips and Tie Strips**

As an alternate to welded wire reinforcing mesh, provide steel reinforcing strips or ladder reinforcing strips or equal, hot-rolled from bars, to the required shape and dimensions meeting the requirements of ASTM A572 Grade 65 minimum. Tie strips shall be shop fabricated of hot-rolled steel meeting the requirements of ASTM A1011 Grade 50.

##### **Welded Wire Fabric Facing Panels**

Provide welded wire fabric that is used to fabricate the facings of the wire-faced wall that has a yield stress of 65,000 psi. All steel shall be shop fabricated of cold drawn steel wire conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration according to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

##### **Fasteners**

High strength bolts meeting the requirements of AASHTO M164 or equivalent.

##### **Connector Pins and Mat Bars**

Connector pins and mat bars fabricated from cold drawn steel wire meeting the requirements of ASTM A82.

##### **Metallic Screen**

Provide a steel metallic screen. The metallic screen should have an approximate opening of 1/4" and be made of 0.025" (minimum) gauge wire.

### B.3.2 Geotextile

Geotextile shall be used behind the metallic screen. Use geotextile as recommended by the wall manufacturer. If none is recommended, use Type DF (schedule B) as shown in standard spec 645 or as specified on the contract plans. Deliver in a protective wrap and keep protected from ultraviolet light until incorporated into the work.

### B.3.3 Backfill

Furnish and place backfill for wall as shown on the plans and as herein provided.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material that conforms to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0-60
No. 200	0-15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material shall meet the following requirements.

Test	Method	Value
pH	AASHTO T-289	5.0 – 10.0
Sulfate content	AASHTO T-290	200 ppm max.
Chloride content	AASHTO T-291	100 ppm max.
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236 <sup>[1]</sup>	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2)

<sup>[1]</sup> If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM 5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications, and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests (except Angle of Internal Friction test) are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. All certified report of these test results shall be less than 6 months old and performed by a certified independent laboratory.

## **C Construction**

### **C.1 Excavation and Backfill**

Excavation and preparation of the foundation for the MSE wall shall be 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 bottom of the wall unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store any materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facings, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back wall facing. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing.

### **C.2 Compaction**

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the wall face. Do not use 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 welded wire facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place remaining courses in vertical or battered positions as shown on the contract plans.

The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstruction in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

When using a temporary wall for four (4) months or more or when the installation of a permanent wall facing will not occur for four (4) months or more after placement of any geotextile material, cover the exposed geotextile material in the wall as quickly as practical, to prevent damage caused by exposure to ultraviolet light.

### **C.3.2 Tolerances**

The overall vertical tolerance of the wall and the horizontal alignment tolerance shall not exceed 3 inches per 10 feet for permanent installations.

For battered wire facing, the final deviation from the design batter shall be within  $\pm 1$  inch for each 10 feet of battered wall height.

## **C.4 Quality Management Program**

### **C.4.1 Quality Control Plan**

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

### **C.4.2 Quality Control Personnel**

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

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

### **C.4.3 Equipment**

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

Furnish nuclear gauges from the department's approved product list at <http://www.atwoodsystems.com/>. Ensure that the 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 ASTM D6938 and CMM 8-15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

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 five business days after results are available.
- (3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

#### **C.4.5 Quality Control (QC) Testing**

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.1) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

#### **C.4.6 Department Testing**

##### **C.4.6.1 General**

- (1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project and provide test results to the contractor within 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.3.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.
- (3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.
- (4) The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

### C.4.6.3 Independent Assurance (IA)

- (1) Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
  1. Split sample testing.
  2. Proficiency sample testing.
  3. Witnessing sampling and testing.
  4. Test equipment calibration checks.
  5. Reviewing required worksheets and control charts.
  6. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

### C.4.6.4 Dispute Resolution

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E178 to evaluate potential statistically outlying data.
- (2) Production test results, and results from other process control testing, may be considered when resolving a dispute.
- (3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

## C.5 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

### D Measurement

The department will measure the Temporary Wall Wire Faced Mechanically Stabilized Earth bid items by the square foot acceptably completed at locations the plans show, measured as the area of exposed face in the plane of the wall from the front face ground line of the wall to the retained grade. Temporary Walls used for staged construction in multiple configurations will be measured once based on the configuration with the largest area of exposed face.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.001	Temporary Wall Wire Faced Mechanically Stabilized Earth	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system, constructing the retaining system including drainage system; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, performing compaction testing; covering geotextile, and for furnishing all tools, labor, equipment, and incidentals necessary to complete the contract work.

Payment limit for all walls is the line of minimum embedment per section B.2. No payment will be made for additional embedment detailed for construction purposes.

Parapets, railings, vehicle barriers and its support, abutment bodies and other items above the wall will be paid for separately. Concrete facings, facing leveling pads or footings, and copings will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price for those items.

**55. Concrete Pavement 12-Inch Special, Item SPV.0180.001.**

**A Description**

This special provision describes specialized material and construction requirements to utilize on the mainline pavement and shoulders.

Conform to standard spec 106, 415, 501, 710, 715 and as modified in this special provision.

Concrete pavement mixes from standard spec 501 may not be used. Provide an independent contractor developed mix design.

**B Materials**

**B.1 Reinforcement**

*Supplement standard spec 415 and 501 with the following:*

Furnish High Performance Dowel Bars from the Approved Products List.

**B.2 Coarse Aggregates**

**B.2.1 General**

*Supplement standard spec section 501.2.7.3 Coarse Aggregates with the following:*

- (1) Contact the engineer a minimum of 4 weeks prior to paving to collect a sample of the aggregates proposed for the project. The engineer will obtain the sample, or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates. Perform tests in section 106.3.4.2.2.
- (2) Use clean, hard, durable crushed stone free of any excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious.
- (3) Use virgin aggregates only.
- (4) Replace Standard Spec Table 501-2 with the following:

AGGREGATE QUALITY TEST	MAXIMUM PERCENT (by weight)
LA Wear	30
Sodium sulfate soundness	6
Freeze-thaw soundness	10

### B.3 Deleterious Substances

Replace standard spec TABLE 501-3 DELETERIOUS SUBSTANCES with the following:

The amount of deleterious substances shall not exceed the following percentages:

DELETERIOUS SUBSTANCE .....	PERCENT BY WEIGHT
Shale.....	1.0
Coal.....	1.0
Clay lumps .....	0.3
Soft fragments .....	3.0
Any combination of above .....	3.0
Flat & elongated pieces based on a 3:1 ratio <sup>(1)</sup> .....	15.0
Materials passing the No. 200 (75 µm) sieve .....	1.5
Lightweight pieces <sup>(2)</sup> for concrete not for prestressed concrete members .....	3.0

(1) As modified in CMM 860.

(2) Material having a saturated surface-dry bulk specific gravity of less than 2.45, tested according to AASHTO T113. Determine the percentage of lightweight pieces by dividing the weight of lightweight pieces in the sample retained on a 3/8-inch sieve by the weight of the total sample.

### C Construction

#### C.1 Jointing

##### C.1.1 General

Add the following to standard spec 415.3.7.1:

Treat sawed surfaces of transverse and longitudinal joints with a silane joint sealant found on the departments approved products list for Concrete Protective Surface Treatments. Prior to opening to traffic, clean the saw cut by water blast and air to thoroughly remove cutting residue. When dry, apply the silane treatment to the saw cut faces. Application rates for the treating material shall be according to the manufacturer's specifications. The contractor shall also set up a small field trial to demonstrate the application method for the silane treatment is covering the joint face and at least one inch on both sides of the saw cut. The field trial can be done with bricks or cinder blocks and should be constructed in a way that represents a sawed concrete joint.

#### C.2 Curing Concrete

##### C.2.1 General

Add standard spec 415.3.12.1 with the following:

Cure all concrete within 75 minutes from the time concrete is discharged from the truck, unless the contractor can show the engineer there is still free water on the surface.

#### C.3 Extended Delivery Time

Delete standard spec 501.3.2.4.3.3(1)

#### C.4 Ready-Mixed Concrete

##### C.5.1 General

Replace standard spec 501.3.5.1 with the following:

Use central-mixed concrete for all work under this special provision. Central-mixed concrete is completely mixed in a stationary mixer and transported to the point of delivery with or without mechanical agitation in the transporting vehicle.

## **C.6 Hot Weather Concreting**

### **C.6.1 General**

*Replace standard spec 501.3.8.2.1 with the following:*

Take the following steps to ensure that the concrete will cure during hot weather conditions. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions to control concrete temperature if the concrete temperature at the point of placement exceeds 80° F (27° C). Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

If the concrete temperature at the point of placement exceeds 90° F (32° C), do not place concrete for items covered in this special provision.

Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80° F (27° C). If project information is not available, obtain information from similar mixes placed for other nearby work.

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

### **D Measurement**

The department will measure Concrete Pavement 12-Inch Special by area in square yards acceptably completed according to standard spec 415 and as modified in this special provision.

### **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	Concrete Pavement 12-Inch Special	SY

The department will pay separately for the following bid items: 715.0715 Incentive Flexural Strength Concrete Pavement.

**ADDITIONAL SPECIAL PROVISION 4**

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

**Payment to First-Tier Subcontractors**

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor is not allowed to withhold retainage from payments due subcontractors.

**Payment to Lower-Tier Subcontractors**

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

## ADDITIONAL SPECIAL 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 \$2.70 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:

$$FA = \left( \frac{CFI}{BFI} - 1 \right) \times Q \times BFI$$

(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:*

**415.3.16 Tolerance in Pavement Thickness**

*Replace the entire text with the following effective with the November 2021 letting:*

**415.3.16.1 General**

- (1) Construct the plan thickness or thicker. The department will accept pavement thickness based on the results of department-performed acceptance testing conforming to:

Magnetic Pulse Induction .....	CMM 870: ASTM E3209 WTM
Probing.....	CMM 870: WTP C-002
Preplacement Measurement .....	CMM 870: WTP C-003

**415.3.16.2 Pavement Units****415.3.16.2.1 Basic Units**

- (1) Basic unit is defined as a slip formed, single lane, with a minimum lane width of 10 feet, measured, from the pavement edge to the adjacent longitudinal joint; from one longitudinal joint to the next; or between pavement edges if there is no longitudinal joint.

**415.3.16.2.2 Special Units**

- (2) Establish special units for areas of fillets, intersections, gaps, gores, shoulders, ramps, pavement lanes less than 10 feet wide and other areas not included in basic units.

**415.3.16.3 Test Plate Locations**

- (1) Place department-furnished test plates. Within 5 business days after paving, enter the sequential number and associated position data into MRS available at:

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

- (2) Contractor will maintain plate location markings for 10 business days after paving.

**415.3.16.4 Acceptance Testing****415.3.16.4.1 Basic Units****415.3.16.4.1.2 Magnetic Pulse Induction**

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable. Department will determine limits of unacceptable pavement by performing the following:
- The engineer will test each consecutive plate stationed ahead and behind until the thickness test result is plan thickness or greater.
  - The engineer will direct the contractor to core the hardened concrete to determine the extent of the unacceptable area. In each direction, the contractor shall take cores at points approximately 20 feet from the furthest out of specification plate towards the plate that is plan thickness of greater. Once a core is within 80 to 100 percent pay range, the coring is complete and the limits of unacceptable pavement extend from the stationing between the core test results of 80 to 100 percent payment, inclusive of all unacceptable core and plate test results.
  - The contractor shall perform coring according to AASHTO T24. The department will evaluate the results according to AASHTO T148
  - The contractor shall fill core holes with concrete or mortar.

**415.3.16.4.2 Special Units****415.3.16.4.2.1 Magnetic Pulse Induction**

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the department will measure the second plate in that unit. If both plates are required to be measured, then all six thickness measurements will be averaged for that unit. If the average of the six measurements is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable.

**415.3.16.4.2.2 Probing**

- (1) The department will measure slip form special units during concrete placement. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will probe 2 random locations within the special unit. The average of the two readings will be the reported measurement for the special unit.

**415.3.16.4.2.3 Preplacement Measurement**

- (1) The department will measure non-slip form special units before concrete placement.
- (2) Thickness corrections will be made to a conforming thickness by reshaping the base aggregate before the pavement is placed.

**415.5.2 Adjusting Pay for Thickness**

Replace the entire text with the following effective with the November 2021 letting:

- (1) The department will adjust pay for pavement thickness under the Nonconforming Thickness Concrete Pavement administrative item as follows:

FOR PAVEMENT THINNER THAN PLAN THICKNESS BY:	PERCENT OF THE CONTRACT UNIT PRICE
> 1/4 inch but <= 1/2 inch	80
> 1/2 inch but <= 3/4 inch	60
> 3/4 inch but <= 1 inch	50

- (2) When pavement of unacceptable final thickness is determined, as specified in 415.3.16.4, the department will direct the contractor to either:
  1. Remove and replace unacceptable concrete pavement to the nearest joint with new concrete pavement of conforming thickness. The department will pay once for the area at the full contract price.
  2. If the unacceptable pavement is less than 100 LF, the department may allow the concrete to remain in place without payment for the unacceptable area.

**460.2.6 Recovered Asphaltic Binders**

Replace paragraph two with the following effective with the November 2021 letting:

- (2) The contractor may replace virgin binder with recovered binder up to the maximum percentage allowed under 460.2.5 without further testing. When the design percent asphalt binder replaced exceeds the allowable limits in 460.2.5, the contractor must:
  - Document adjustments made to the mix design in the mix design submittal.
  - Submit test results that indicate the mixture's asphaltic binder meets or exceeds the upper and lower temperature grade requirements the bid item designates.
    - If only one recycled asphaltic material source is used, furnish one of the following:
      - Test results from extracted and recovered binder from the resultant mixture.
      - Blending charts that indicate the resultant mixture's high and low temperature PG as an interpolation of the percent binder replaced between the virgin binder's and the recycled asphaltic material source binder's high and low temperature PG.
    - If two or more recycled asphaltic material sources are used, furnish test results from extracted and

recovered binder from the resultant mixture.

**501.2.6 Water**

*Retitle with the following effective with the November 2021 letting:*

**501.2.6 Mixing Water**

**501.2.6.2 Requirements**

*Replace paragraph two with the following effective with the November 2021 letting:*

(2) Water from other sources must comply with the following:

Acidity, maximum of 0.1N NaOH to neutralize 200 mL of water; CMM 870: WTP C-001.....	2 mL
Alkalinity, maximum of 0.1N HCL to neutralize 200 mL of water; CMM 870: WTP C-001.....	15 mL
Maximum sulphate (SO <sub>4</sub> ); CMM 870: WTP C-001.....	0.05 percent
Maximum chloride; CMM 870: WTP C-001.....	0.10 percent
Maximum total solids; CMM 870: WTP C-001	
Organic.....	0.04 percent
Inorganic.....	0.15 percent

**501.3.2.4.2 Air Entrainment**

*Replace paragraph two with the following effective with the November 2021 letting:*

(2) Test fresh concrete air content according to AASHTO T152 or AASHTO TP118 at the contract-required frequency and as the engineer directs. Test concrete placed by pumping or belting at the point of discharge from the pump line or belt.

**501.3.7.1 Slump**

*Replace paragraph one with the following effective with the November 2021 letting:*

- (1) Use a 1-inch to 4-inch slump for concrete used in structures or placed in forms, except as follows:
- Do not exceed a slump of 2 inches for grade E concrete.
  - Increase slump as specified in 502.3.5.3 for concrete placed underwater.
  - If BTS approves a concrete mixture using a superplasticizer, the contractor may increase slump for that mixture to a maximum of 9 inches without exceeding the maximum mix water allowed for that grade.

**531.5 Payment**

*Replace paragraph two with the following effective with the November 2021 letting:*

(2) Payment for Concrete Masonry Ancillary Structures Type NS is full compensation for providing concrete for non-standard sign structure foundations; and for anchor rod assemblies. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

*Replace paragraph five with the following effective with the November 2021 letting:*

(5) Payment for the Foundation bid items is full compensation for providing concrete foundations; for anchor rod assemblies; for reinforcing steel; and for embedded conduit and electrical components. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

**642.2.2.1 General**

*Replace paragraph one with the following effective with the November 2021 letting:*

(1) Provide each field office with two rooms, separated by an interior door with a padlock. Ensure that each room has a separate exterior door and its own air conditioner. Locate the office where a quality internet connection can be achieved. Ensure quality cell phone reception is achievable inside the field office.

**701.3.1 General**

*Replace table 701-1 with the following effective with the November 2021 letting:*

**TABLE 701-1 TESTING AND CERTIFICATION STANDARDS**

TEST	TEST STANDARD	MINIMUM REQUIRED CERTIFICATION (any one of the certifications listed for each test)
Random Sampling	CMM 830.9.2	Transportation Materials Sampling Technician (TMS) TMS Assistant Certified Technician (ACT-TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT-GRADING)
Sampling Aggregates	AASHTO T2 <sup>[1]</sup> <sup>[4]</sup>	TMS, ACT-TMS, AGGTEC-1, ACT-AGG
Percent passing the No. 200 sieve	AASHTO T11 <sup>[1]</sup>	AGGTEC-I, ACT-AGG
Fine & coarse aggregate gradation	AASHTO T27 <sup>[1]</sup>	
Aggregate moisture content	AASHTO T255 <sup>[1]</sup>	
Fractured faces	ASTM D5821 <sup>[1]</sup>	
Liquid limit	AASHTO T89	
Plasticity index	AASHTO T90 <sup>[3]</sup>	Aggregate Testing for Transportation Systems (ATTS) GRADINGTEC-I, or ACT-GRADING
Sampling freshly mixed concrete	AASHTO R60	PCCTEC-1 ACT-PCC
Air content of fresh concrete	AASHTO T152 <sup>[2]</sup> AASHTO TP118 <sup>[5]</sup>	
Air void system of fresh concrete	AASHTO TP118 <sup>[5]</sup>	
Concrete slump	AASHTO T119 <sup>[2]</sup>	
Concrete temperature	ASTM C1064	
Making and curing concrete specimens	AASHTO T23	
Moist curing for concrete specimens	AASHTO M201	
Concrete compressive strength	AASHTO T22	
Concrete flexural strength	AASHTO T97	
Concrete surface resistivity <sup>[2]</sup>	AASHTO T358	
Voids in aggregate	AASHTO T19	Concrete Strength Tester (CST) CST Assistant Certified Technician (ACT-CST)
Profiling	—	PCCTEC-II PROFILER

<sup>[1]</sup> As modified in CMM 860.

<sup>[2]</sup> As modified in CMM 870.

<sup>[3]</sup> A plasticity check, if required under individual QMP specifications, may be performed by an AGGTEC-I in addition to the certifications listed for liquid limit and plasticity index tests.

<sup>[4]</sup> Plant personnel may operate equipment to obtain samples under the direct observation of a TMS or higher.

<sup>[5]</sup> Consolidate by rodding.

## 710.2 Small Quantities

*Replace the entire text with the following effective with the November 2021 letting:*

- (1) The department defines small quantities as follows:
  - As specified in 715.1.1.2 for class I concrete.
  - Less than 50 cubic yards of class II ancillary concrete placed under a single bid item.
- (2) For contracts with only small quantities of material subject to testing, modify the requirements of 710 as follows:
  1. The contractor may submit an abbreviated quality control plan as allowed in 701.1.2.3.
  2. Provide one of the following for aggregate process control:
    - Documented previous testing dated within 120 calendar days. Provide gradation test results to the engineer before placing material.
    - Non-random start-up gradation testing.

## 710.4 Concrete Mixes

*Replace paragraph two with the following effective with the November 2021 letting:*

- (2) At least 7 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:

1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and SAM number.
2. For cementitious materials and admixtures: type, brand, and source.
3. For aggregates: absorption, SSD bulk specific gravity, wear, soundness, freeze thaw test results if required, and air correction factor. Also include aggregate production records dated within 2 years if using those results in the design. Submit component aggregate gradations, aggregate proportions, and target combined blended aggregate gradations using the following:
  - DT2220 for combined aggregate gradations.
  - DT2221 for optimized aggregate gradations.
4. For optimized concrete mixtures:
  - Complete the worksheets within DT2221 according to the directions.
  - Ensure the optimized aggregate gradations and the optimized mix design conform to WisDOT specifications and pass the built-in tests within DT2221.
  - Verify slip-form mixture workability according to AASHTO TP137 and conformance to specifications through required trial batching.
  - Submit the completed DT2221 to the engineer electronically. Include the trial batch test results with the mix design submittal.

Replace paragraph four with the following effective with the November 2021 letting:

- (4) Prepare and submit modifications to a concrete mix to the engineer for approval 3 business days before using that modified mix. Modifications requiring the engineer's approval include changes in:
  1. Source of any material. For paving and barrier mixes, a source change for fly ash of the same class does not constitute a mix design change.
  2. Quantities of cementitious materials.
  3. Addition or deletion of admixtures. Minor admixture dosage adjustments required to maintain air content or slump do not require engineer review or approval.

### 710.5.5 Strength

Replace paragraph one with the following effective with the November 2021 letting:

- (1) Cast all 6" x 12" cylinders or all 6" x 6" x 21" beams in a set from the same sample. Do not cast more than one set of specimens from a single truckload of concrete. Mark each specimen to identify the lot and subplot or location on the project it represents.

### 710.5.6 Aggregate Testing

Retitle and replace the entire text with the following effective with the November 2021 letting:

#### 710.5.6 Aggregate Testing During Concrete Production

##### 710.5.6.1 General

- (1) The department will accept gradation based on the results of department-performed acceptance testing.
- (2) The department and contractor will obtain samples using the same method. When belt sampling, contractor personnel shall obtain samples for the department under the direct observation of the department personnel. Contractor will define sampling method in the QMP or abbreviated QMP.

##### 710.5.6.2 Contractor Control Charts

###### 710.5.6.2.1 General

- (1) Test aggregate gradations during concrete production except as allowed for small quantities under 710.2. Required contractor testing will be performed using non-random samples.
- (2) Sample aggregates from either the conveyor belt or from the working face of the stockpiles.
- (3) Sample aggregates within 2 business days before placement for each mix design. Include this gradation on the control charts.
- (4) Report gradation test results and provide control charts to the engineer within 1 business day of obtaining the sample. Submit results to the engineer and electronically into MRS as specified in 701.1.2.7.
- (5) Conduct aggregate testing at the minimum frequency shown based on the anticipated daily cumulative plant production for each mix design. The contractor's concrete production tests can be used for the same mix design on multiple contracts.

#### TABLE 710-1 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS I

DAILY PLANT PRODUCTION RATE FOR WisDOT WORK	MINIMUM FREQUENCY
Gradation Report Before Placement	
1000 cubic yards or less	one test per day
more than 1000 cubic yards	two tests per day

**TABLE 710-2 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS II**

MINIMUM FREQUENCY
Gradation Report Before Placement
One test per calendar week of production

**710.5.6.2.2 Optimized Aggregate Gradation Control Charts**

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the following:
  - 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
  - Sum of volumetric percentages retained on No. 8, No. 16, and No. 30 sieves.
  - Sum of volumetric percentages retained on No. 30, No. 50, No. 100, and No. 200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the volumetric percent retained of the optimized aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the volumetric percent retained for each sieve to determine if the blended aggregate gradation is within the tarantula curve limits specified in table 501-4.

**710.5.6.2.3 Combined Aggregate Gradation Control Charts**

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the percent passing by weight requirements of the combined aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the percent passing by weight for each sieve to determine if the blended aggregate gradation is within the combined aggregate gradation limits specified in table 501-4.

**710.5.6.3 Department Acceptance Testing**

- (1) Department testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract.
- (2) The department will split each sample, test for acceptance, and retain the remainder for a minimum of 10 calendar days.
- (3) The department will obtain the sample and deliver to regional testing lab in the same day. Department will report gradation test results to the contractor within 1 business day of being delivered to the lab. Department and contractor can agree to an alternative test result reporting timeframe; alternative timeframe is required to be documented in the QMP.
- (4) Additional samples may be taken at the engineer's discretion due to change in condition.

**TABLE 710-3 DEPARTMENT GRADATION TESTING FREQUENCY**

CONCRETE CLASSIFICATION	MINIMUM DEPARTMENT FREQUENCY
Class I: Pavement	1 test per placement day for first 5 days of placement. If all samples are passing, reduced frequency is applied.
	Reduced frequency: 1 test per calendar week of placement
Class I: Structures	1 test per 250 CY placed <ul style="list-style-type: none"> <li>- Minimum of 1 test per substructure</li> <li>- Minimum of 1 test per superstructure</li> </ul>

Class I: Cast-in-Place Barrier	1 test per 500 CY placed
Class II	No minimum testing

### 710.5.7 Corrective Action

*Replace the entire text with the following effective with the November 2021 letting:*

#### 710.5.7.1 Optimized Aggregate Gradations

- (1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size, do the following:
  1. Notify the other party immediately.
  2. Perform corrective action documented in the QC plan or as the engineer approves.
  3. Document and provide corrective action results to the engineer as soon as they are available.
  4. Department will conduct two tests within the next business day after corrective action is complete.
  5. If blended aggregate gradations are within the tarantula curve limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.
    - For Class I: Pavements, department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
  6. If blended aggregate gradations are not within the tarantula curve limits by the second department test:
    - Provide a new mix design with an increased cementitious content.
    - If the mix design already has a cementitious content of 565 or more pounds per cubic yard, provide a new mix design.
    - If the contract requires optimized aggregate gradations under 501.2.7.4.2.1(2), stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

#### 710.5.7.2 Combined Aggregate Gradations

- (1) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by less than or equal to 1.0 percent on a single sieve size, do the following:
  1. Notify the other party immediately.
  2. Perform corrective action documented in the QC plan or as the engineer approves.
  3. Document and provide corrective action results to the engineer as soon as they are available.
  4. Department will conduct two tests within the next business day after corrective action is complete.
  5. If blended aggregate gradations are within the combined aggregate gradation limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.
    - For Class I: Pavements, department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
  6. If blended aggregate gradations are not within the combined aggregate gradation limits by the second department test, stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

**715.3.1.1 General**

Replace paragraphs three and four with the following effective with the November 2021 letting:

- (3) Cast a set of 3 additional 6"x12" cylinders and test the concrete surface resistivity according to AASHTO T358. Perform this testing at least once per lot if total contract quantities are greater than or equal to the following:

- 20,000 square yards for pavements.
- 5,000 linear feet for barriers.
- 500 cubic yards for structure concrete.

Submit the resistivity to the nearest tenth into MRS for information only. Resistivity testing is not required for the following:

- Lot with less than 3 sublots.
  - Concrete items classified as ancillary.
  - Concrete placed under the following bid items:
    - Concrete Pavement Approach Slab
    - Concrete Masonry Culverts
    - Concrete Masonry Retaining Walls
- (4) Test the air void system at least once per lot and enter the SAM number in MRS for information only. SAM testing is not required for the following:
- For lots with less than 3 sublots.
  - High early strength (HES) concrete.
  - Special high early strength (SHES) concrete.
  - Concrete placed under the following bid items:
    - Concrete Pavement Approach Slab
    - Concrete Masonry Culverts
    - Concrete Masonry Retaining Walls
    - Steel Grid Floor Concrete Filled
    - Crash Cushions Permanent
    - Crash Cushions Permanent Low Maintenance
    - Crash Cushions Temporary

**715.3.1.2.3 Lots by Cubic Yard**

Replace the entire text with the following effective with the November 2021 letting:

- (1) Define standard lots and sublots conforming to the following:

**TABLE 715-1 CLASS I - LOT AND SUBLot SIZES**

CONCRETE CLASSIFICATION	LOT SIZE	SUBLot SIZE	NUMBER OF SUBLots PER LOT
Class I: Pavement	1250 cubic yards	250 cubic yards	5
Class I: Structures	250 cubic yards	50 cubic yards	5
Class I: Cast-in-Place Barrier	500 cubic yards	100 cubic yards	5

- (2) The contractor may include sublots less than or equal to 25 percent of the standard volume in the previous subplot. For partial sublots exceeding 25 percent of the standard volume, notify the engineer who will direct additional testing to represent that partial subplot.
- (3) An undersized lot is eligible for incentive payment under 715.5 if the lot has 3 or more sublots for that lot.

**715.3.2 Strength Evaluation**

Replace the entire text with the following effective with the November 2021 letting:

**715.3.2.1 General**

- (1) The department will make pay adjustments for strength on a lot-by-lot basis using the compressive strength of contractor QC cylinders or the flexural strength of contractor QC beams.

- 
- (2) Randomly select 2 QC specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day subplot average strength as follows:
- If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
  - If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

### **715.3.2.2 Removal and Replacement**

#### **715.3.2.2.1 Pavement**

- (1) If a subplot strength is less than 2500 psi in compressive strength or 500 psi in flexural strength, the department may direct the contractor to core that subplot to determine its structural adequacy and whether to direct removal.
- (2) If the engineer directs coring, obtain three cores from the subplot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24.
- (3) Have an independent consultant test cores according to AASHTO T24.
- (4) The department will assess concrete for removal and replacement based on a subplot-by-subplot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (5) The subplot pavement is conforming if the compressive strengths of all cores from the subplot are 2500 psi or greater.
- (6) The subplot pavement is nonconforming if the compressive strengths of any core from the subplot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

#### **715.3.2.2.2 Structures and Cast-in-Place Barrier**

- (1) The department will evaluate the subplot for possible removal and replacement if the 28-day subplot average compressive strength is lower than  $f'c$  minus 500 psi. The value of  $f'c$  is the design stress the plans show. The department may assess further strength price reductions or require removal and replacement only after coring the subplot.
- (2) The engineer may initially evaluate the subplot strength using a non-destructive method. Based on the results of non-destructive testing, the department may accept the subplot at the previously determined pay for the lot, or direct the contractor to core the subplot.
- (3) If the engineer directs coring, obtain three cores from the subplot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24. Determine core locations, subject to the engineer's approval, that do not interfere with structural steel.
- (4) Have an independent consultant test cores according to AASHTO T24.
- (5) The department will assess concrete for removal and replacement based on a subplot-by-subplot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (6) If the 3-core average is greater than or equal to 85 percent of  $f'c$ , and no individual core is less than 75 percent of  $f'c$ , the engineer will accept the subplot at the previously determined pay for the lot. If the 3-core average is less than 85 percent of  $f'c$ , or an individual core is less than 75 percent of  $f'c$ , the engineer may require the contractor to remove and replace the subplot. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

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### **715.3.3 Aggregate**

*Replace the entire text with the following effective with the November 2021 letting:*

#### **715.3.3.1 General**

- (1) Except as allowed for small quantities in 710.2, test aggregate conforming to 710.5.6.

#### **715.3.3.2 Structures**

- (1) In addition to the aggregate testing required under 710.5.6, determine the fine and coarse aggregate moisture content for each sample.
- (2) Calculate target batch weights for each mix when production of that mix begins. Whenever the moisture content of the fine or coarse aggregate changes by more than 0.5 percent, adjust the batch weights to maintain the design w/cm ratio.

**715.5 Payment**

*Replace the entire text with the following effective with the November 2021 letting:*

**715.5.1 General**

- (1) The department will pay incentive for compressive strength under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL

- (2) Incentive payment may be more or less than the amount the schedule of items shows.
- (3) The department will administer disincentives for strength under the Disincentive Strength Concrete Structures, Disincentive Strength Concrete Barrier, Disincentive Flexural Strength Concrete Pavement, and Disincentive Compressive Strength Concrete Pavement, administrative items.
- (4) The pay factor that is calculated from the equations in 715.5.2(2) and 715.5.3(2) will be applied to the unit costs listed below:
- Pavement: \$45 per SY.
  - Structure: \$635 per CY.
  - Cast-in-place barrier: \$75 per LF.
- (5) 28-day strength average for a lot is the average of the individual subplot strengths within the given lot.
- (6) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.
- (7) Submit test results to the department electronically using MRS software. The department will validate contractor data before determining pay adjustments.
- (8) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

**715.5.2 Compressive Strength**

- (1) The department will measure PWL relative to strength lower specification limits as follows:
- Compressive strength of 3700 psi for pavements.
  - Compressive strength of 4000 psi for structures and cast-in-place barrier.

- (2) The department will adjust pay for each lot using equation "Comp2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
>= 90 to 100	$(1/5 \times \text{PWL}) + 82$
>= 85 to < 90	100
>= 50 to < 85	$(5/7 \times \text{PWL}) + (275/7)$
< 50	50 <sup>[1]</sup>

<sup>[1]</sup> Any material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

- (3) The department will not pay incentive if the lot standard deviation is greater than the following:
- 400 psi for pavement.
  - 350 psi for structure and cast-in-place barrier
- (4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average compressive strength below the following:
- 3700 psi for pavements.
  - 4000 psi for structures and cast-in-place barrier.

**715.5.3 Flexural Strength**

- (1) The department will measure PWL relative to strength lower specification limits as follows:
- Flexural strength of 650 psi for pavements.

- (2) The department will adjust pay for each lot using equation "Flex2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
>= 90 to 100	$(2/5 \times \text{PWL}) + 64$
>= 85 to < 90	100

>= 50 to < 85  
< 50

$(5/7 \times \text{PWL}) + (275/7)$   
 $50^{[1]}$

<sup>[1]</sup> Material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

- (3) The department will not pay incentive if the lot standard deviation is greater than 60 psi.
  - (4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average flexural strength below 650 psi.
-

**ERRATA**

**460.2.2.3 Aggregate Gradation Master Range**

**Correct errata by adding US Standard equivalent sieve sizes.**

- (1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

**TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS**

SIEVE	PERCENT PASSING DESIGNATED SIEVES							
	NOMINAL SIZE							
	No. 1 (37.5 mm) (1 1/2 inch)	No. 2 (25.0 mm) (1 inch)	No.3 (19.0 mm) (3/4 inch)	No. 4 (12.5 mm) (1/2 inch)	No. 5 (9.5 mm) (3/8 inch)	No. 6 (4.75 mm) (3/16 inch)	SMA No. 4 (12.5 mm) (1/2 inch)	SMA No. 5 (9.5 mm) (3/8 inch)
50.0-mm (2-inch)	100							
37.5-mm (1 1/2-inch)	90 - 100	100						
25.0-mm (1-inch)	90 max	90 - 100	100					
19.0-mm (3/4-inch)	—	90 max	90 - 100	100			100	
12.5-mm (1/2-inch)	—	—	90 max	90 - 100	100		90 - 97	100
9.5-mm (3/8-inch)	—	—	—	90 max	90 - 100	100	58 - 80	90 - 100
4.75-mm (No. 4)	—	—	—	—	90 max	90 - 100	25 - 35	35 - 45
2.36-mm (No. 8)	15 - 41	19 - 45	23 - 49	28 - 58	32 - 67	90 max	15 - 25	18 - 28
1.18-mm (No. 16)	—	—	—	—	—	30 - 55	—	—
0.60-mm (No. 30)	—	—	—	—	—	—	18 max	18 max
0.075-mm (No. 200)	0 - 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	6.0 - 13.0	8.0 - 11.0	8.0 - 12.0
% VMA	11.0 min	12.0 min	13.0 min	14.0 min <sup>[1]</sup>	15.0 min <sup>[2]</sup>	16.0 - 17.5	16.0 min	17.0 min

<sup>[1]</sup> 14.5 for LT and MT mixes.

<sup>[2]</sup> 15.5 for LT and MT mixes.

**715.5.1 General**

Correct the bid item number for Incentive Compressive Strength Concrete Pavement.

- (1) The department will pay incentive for compressive strength under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL

**ADDITIONAL SPECIAL PROVISION 7**

- A. Reporting 1<sup>st</sup> Tier and DBE Payments During Construction
1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
  2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
  3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
  4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
  5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
  6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.
- B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to [paul.ndon@dot.wi.gov](mailto:paul.ndon@dot.wi.gov) within 5 days of payment receipt to be logged manually.

\*\*\*Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

<https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf>

## **ADDITIONAL SPECIAL PROVISION 9**

### **Electronic Certified Payroll or Labor Data Submittal**

(1) Use the department's Civil Rights Compliance System (CRCS) to electronically submit certified payroll reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

<https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx>

(2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS. These payrolls or labor data are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin their submittals. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.

(4) The department will reject all paper submittals for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll/labor data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at [paul.ndon@dot.wi.gov](mailto:paul.ndon@dot.wi.gov). Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:

<https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf>

## **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).

**Effective November 2020 letting**

### **BUY AMERICA PROVISION**

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or \$2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this "Buy America" provision.

<https://wisconsin.gov/rdwy/cmm/cm-02-28.pdf>

Upon completion of the project certify to the engineer, in writing using department form DT4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form DT4567 is available at:

<https://wisconsin.gov/Documents/formdocs/dt4567.docx>



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	120.000 STA	_____.	_____.
0004	201.0205 Grubbing	120.000 STA	_____.	_____.
0006	203.0100 Removing Small Pipe Culverts	5.000 EACH	_____.	_____.
0008	204.0100 Removing Concrete Pavement	105,700.000 SY	_____.	_____.
0010	204.0110 Removing Asphaltic Surface	16,000.000 SY	_____.	_____.
0012	204.0115 Removing Asphaltic Surface Butt Joints	300.000 SY	_____.	_____.
0014	204.0120 Removing Asphaltic Surface Milling	4,000.000 SY	_____.	_____.
0016	204.0150 Removing Curb & Gutter	775.000 LF	_____.	_____.
0018	204.0155 Removing Concrete Sidewalk	225.000 SY	_____.	_____.
0020	204.0170 Removing Fence	1,160.000 LF	_____.	_____.
0022	204.0180 Removing Delineators and Markers	210.000 EACH	_____.	_____.
0024	204.0195 Removing Concrete Bases	7.000 EACH	_____.	_____.
0026	204.0220 Removing Inlets	1.000 EACH	_____.	_____.
0028	204.0245 Removing Storm Sewer (size) 001. 15-Inch	73.000 LF	_____.	_____.
0030	204.9060.S Removing (item description) 001. Removing Masonry Endwalls	2.000 EACH	_____.	_____.
0032	204.9060.S Removing (item description) 002. Removing Apron Endwall	20.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	205.0100 Excavation Common	260,000.000 CY	_____.	_____.
0036	205.3000.S Temporary Emergency Pullouts	3.000 EACH	_____.	_____.
0038	208.1100 Select Borrow	68,000.000 CY	_____.	_____.
0040	211.0400 Prepare Foundation for Asphaltic Shoulders	6.000 STA	_____.	_____.
0042	213.0100 Finishing Roadway (project) 001. 1022-00-79	1.000 EACH	_____.	_____.
0044	305.0110 Base Aggregate Dense 3/4-Inch	7,700.000 TON	_____.	_____.
0046	305.0120 Base Aggregate Dense 1 1/4-Inch	182,000.000 TON	_____.	_____.
0048	415.0100 Concrete Pavement 10-Inch	6,990.000 SY	_____.	_____.
0050	415.0210 Concrete Pavement Gaps	2.000 EACH	_____.	_____.
0052	416.0610 Drilled Tie Bars	400.000 EACH	_____.	_____.
0054	416.0620 Drilled Dowel Bars	115.000 EACH	_____.	_____.
0056	416.1015 Concrete Surface Drains HES	3.000 CY	_____.	_____.
0058	416.1110 Concrete Shoulder Rumble Strips	34,533.000 LF	_____.	_____.
0060	450.4000 HMA Cold Weather Paving	9,100.000 TON	_____.	_____.
0062	455.0605 Tack Coat	5,500.000 GAL	_____.	_____.
0064	460.2000 Incentive Density HMA Pavement	10,300.000 DOL	1.00000	10,300.00



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0066	460.6244 HMA Pavement 4 MT 58-34 S	13,300.000 TON	_____.	_____.
0068	460.7644 HMA Pavement 4 HT 58-34 V	2,800.000 TON	_____.	_____.
0070	465.0125 Asphaltic Surface Temporary	35,000.000 TON	_____.	_____.
0072	465.0310 Asphaltic Curb	330.000 LF	_____.	_____.
0074	465.0315 Asphaltic Flumes	27.000 SY	_____.	_____.
0076	465.0400 Asphaltic Shoulder Rumble Strips	41,130.000 LF	_____.	_____.
0078	509.0301 Preparation Decks Type 1	1.000 SY	_____.	_____.
0080	509.0310.S Sawing Pavement Deck Preparation Areas	10.000 LF	_____.	_____.
0082	509.5100.S Polymer Overlay	2,022.000 SY	_____.	_____.
0084	520.1012 Apron Endwalls for Culvert Pipe 12-Inch	1.000 EACH	_____.	_____.
0086	520.1015 Apron Endwalls for Culvert Pipe 15-Inch	2.000 EACH	_____.	_____.
0088	520.2015 Culvert Pipe Temporary 15-Inch	1,212.000 LF	_____.	_____.
0090	520.2018 Culvert Pipe Temporary 18-Inch	307.000 LF	_____.	_____.
0092	520.2024 Culvert Pipe Temporary 24-Inch	18.000 LF	_____.	_____.
0094	520.2030 Culvert Pipe Temporary 30-Inch	28.000 LF	_____.	_____.
0096	520.2036 Culvert Pipe Temporary 36-Inch	100.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0098	520.2042 Culvert Pipe Temporary 42-Inch	30.000 LF	_____.	_____.
0100	520.2048 Culvert Pipe Temporary 48-Inch	60.000 LF	_____.	_____.
0102	520.2072 Culvert Pipe Temporary 72-Inch	156.000 LF	_____.	_____.
0104	520.8000 Concrete Collars for Pipe	63.000 EACH	_____.	_____.
0106	520.8700 Cleaning Culvert Pipes	16.000 EACH	_____.	_____.
0108	521.0336 Apron Endwalls for Culvert Pipe Sloped Cross Drains Steel 36-Inch 4 to 1	1.000 EACH	_____.	_____.
0110	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	2.000 EACH	_____.	_____.
0112	521.1524 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 24-Inch 6 to 1	1.000 EACH	_____.	_____.
0114	521.1709 Apron Endwalls for Pipe Arch Sloped Side Drains Steel 42x29-Inch 4 to 1	1.000 EACH	_____.	_____.
0116	522.0124 Culvert Pipe Reinforced Concrete Class III 24-Inch	160.000 LF	_____.	_____.
0118	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	87.000 LF	_____.	_____.
0120	522.0136 Culvert Pipe Reinforced Concrete Class III 36-Inch	111.000 LF	_____.	_____.
0122	522.0142 Culvert Pipe Reinforced Concrete Class III 42-Inch	18.000 LF	_____.	_____.
0124	522.0148 Culvert Pipe Reinforced Concrete Class III 48-Inch	62.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0126	522.0160 Culvert Pipe Reinforced Concrete Class III 60-Inch	50.000 LF	_____.	_____.
0128	522.0172 Culvert Pipe Reinforced Concrete Class III 72-Inch	6.000 LF	_____.	_____.
0130	522.0418 Culvert Pipe Reinforced Concrete Class IV 18-Inch	170.000 LF	_____.	_____.
0132	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	8.000 EACH	_____.	_____.
0134	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	1.000 EACH	_____.	_____.
0136	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	7.000 EACH	_____.	_____.
0138	522.1042 Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	2.000 EACH	_____.	_____.
0140	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	2.000 EACH	_____.	_____.
0142	522.1060 Apron Endwalls for Culvert Pipe Reinforced Concrete 60-Inch	1.000 EACH	_____.	_____.
0144	522.1072 Apron Endwalls for Culvert Pipe Reinforced Concrete 72-Inch	2.000 EACH	_____.	_____.
0146	522.2429 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	163.000 LF	_____.	_____.
0148	522.2629 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	1.000 EACH	_____.	_____.
0150	524.0130 Culvert Pipe Salvaged 30-Inch	8.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0152	524.0136 Culvert Pipe Salvaged 36-Inch	24.000 LF	_____.	_____.
0154	524.0148 Culvert Pipe Salvaged 48-Inch	36.000 LF	_____.	_____.
0156	524.0624 Apron Endwalls for Culvert Pipe Salvaged 24-Inch	2.000 EACH	_____.	_____.
0158	524.0630 Apron Endwalls for Culvert Pipe Salvaged 30-Inch	8.000 EACH	_____.	_____.
0160	524.0636 Apron Endwalls for Culvert Pipe Salvaged 36-Inch	4.000 EACH	_____.	_____.
0162	524.0642 Apron Endwalls for Culvert Pipe Salvaged 42-Inch	1.000 EACH	_____.	_____.
0164	524.0648 Apron Endwalls for Culvert Pipe Salvaged 48-Inch	9.000 EACH	_____.	_____.
0166	531.1100 Concrete Masonry Ancillary Structures Type NS	3.000 CY	_____.	_____.
0168	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	453.000 LB	_____.	_____.
0170	601.0409 Concrete Curb & Gutter 30-Inch Type A	920.000 LF	_____.	_____.
0172	602.0410 Concrete Sidewalk 5-Inch	2,075.000 SF	_____.	_____.
0174	602.0505 Curb Ramp Detectable Warning Field Yellow	30.000 SF	_____.	_____.
0176	603.8000 Concrete Barrier Temporary Precast Delivered	63,886.500 LF	_____.	_____.
0178	603.8125 Concrete Barrier Temporary Precast Installed	127,824.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0180	603.8500 Anchoring Concrete Barrier Temporary Precast	2,000.000 LF	_____.	_____.
0182	606.0200 Riprap Medium	700.000 CY	_____.	_____.
0184	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	23.000 LF	_____.	_____.
0186	608.3012 Storm Sewer Pipe Class III-A 12-Inch	14.000 LF	_____.	_____.
0188	608.3015 Storm Sewer Pipe Class III-A 15-Inch	42.000 LF	_____.	_____.
0190	611.0430 Reconstructing Inlets	2.000 EACH	_____.	_____.
0192	611.0530 Manhole Covers Type J	2.000 EACH	_____.	_____.
0194	611.0624 Inlet Covers Type H	1.000 EACH	_____.	_____.
0196	611.0642 Inlet Covers Type MS	2.000 EACH	_____.	_____.
0198	611.3230 Inlets 2x3-FT	3.000 EACH	_____.	_____.
0200	611.3902 Inlets Median 2 Gate	1.000 EACH	_____.	_____.
0202	611.8120.S Cover Plates Temporary	7.000 EACH	_____.	_____.
0204	611.9710 Salvaged Inlet Covers	2.000 EACH	_____.	_____.
0206	611.9800.S Pipe Grates 001. (30-Inch)	4.000 EACH	_____.	_____.
0208	612.0212 Pipe Underdrain Unperforated 12-Inch	52.000 LF	_____.	_____.
0210	614.0220 Steel Thrie Beam Bullnose Terminal	2.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0212	614.0230 Steel Thrie Beam	250.000 LF	_____.	_____.
0214	614.0905 Crash Cushions Temporary	25.000 EACH	_____.	_____.
0216	614.0920 Salvaged Rail	2,099.000 LF	_____.	_____.
0218	614.1000 MGS Guardrail Temporary	175.000 LF	_____.	_____.
0220	614.1200 MGS Guardrail Temporary Terminal EAT	1.000 EACH	_____.	_____.
0222	614.2300 MGS Guardrail 3	1,687.500 LF	_____.	_____.
0224	614.2500 MGS Thrie Beam Transition	118.200 LF	_____.	_____.
0226	614.2610 MGS Guardrail Terminal EAT	5.000 EACH	_____.	_____.
0228	614.2620 MGS Guardrail Terminal Type 2	3.000 EACH	_____.	_____.
0230	616.0100 Fence Woven Wire (height) 001. 4-FT	1,160.000 LF	_____.	_____.
0232	618.0100 Maintenance And Repair of Haul Roads (project) 001. 1022-00-79	1.000 EACH	_____.	_____.
0234	619.1000 Mobilization	1.000 EACH	_____.	_____.
0236	620.0200 Concrete Median Blunt Nose	35.000 SF	_____.	_____.
0238	620.0300 Concrete Median Sloped Nose	90.000 SF	_____.	_____.
0240	624.0100 Water	3,400.000 MGAL	_____.	_____.
0242	625.0500 Salvaged Topsoil	195,800.000 SY	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0244	627.0200 Mulching	20,000.000 SY	_____.	_____.
0246	628.1504 Silt Fence	49,370.000 LF	_____.	_____.
0248	628.1520 Silt Fence Maintenance	98,910.000 LF	_____.	_____.
0250	628.1905 Mobilizations Erosion Control	25.000 EACH	_____.	_____.
0252	628.1910 Mobilizations Emergency Erosion Control	20.000 EACH	_____.	_____.
0254	628.2002 Erosion Mat Class I Type A	158,800.000 SY	_____.	_____.
0256	628.2023 Erosion Mat Class II Type B	45,900.000 SY	_____.	_____.
0258	628.5505 Polyethylene Sheeting	1,500.000 SY	_____.	_____.
0260	628.7020 Inlet Protection Type D	13.000 EACH	_____.	_____.
0262	628.7504 Temporary Ditch Checks	5,870.000 LF	_____.	_____.
0264	628.7555 Culvert Pipe Checks	391.000 EACH	_____.	_____.
0266	628.7560 Tracking Pads	41.000 EACH	_____.	_____.
0268	629.0210 Fertilizer Type B	400.000 CWT	_____.	_____.
0270	630.0120 Seeding Mixture No. 20	5,900.000 LB	_____.	_____.
0272	630.0130 Seeding Mixture No. 30	1,700.000 LB	_____.	_____.
0274	630.0140 Seeding Mixture No. 40	100.000 LB	_____.	_____.
0276	630.0200 Seeding Temporary	7,600.000 LB	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0278	630.0300 Seeding Borrow Pit	500.000 LB	_____.	_____.
0280	630.0500 Seed Water	350.000 MGAL	_____.	_____.
0282	633.0100 Delineator Posts Steel	133.000 EACH	_____.	_____.
0284	633.0500 Delineator Reflectors	133.000 EACH	_____.	_____.
0286	633.1100 Delineators Temporary	298.000 EACH	_____.	_____.
0288	633.5200 Markers Culvert End	58.000 EACH	_____.	_____.
0290	634.0612 Posts Wood 4x6-Inch X 12-FT	9.000 EACH	_____.	_____.
0292	634.0614 Posts Wood 4x6-Inch X 14-FT	4.000 EACH	_____.	_____.
0294	634.0616 Posts Wood 4x6-Inch X 16-FT	24.000 EACH	_____.	_____.
0296	634.0618 Posts Wood 4x6-Inch X 18-FT	30.000 EACH	_____.	_____.
0298	635.0200 Sign Supports Structural Steel HS	1,788.000 LB	_____.	_____.
0300	637.1220 Signs Type I Reflective SH	165.000 SF	_____.	_____.
0302	637.2210 Signs Type II Reflective H	604.000 SF	_____.	_____.
0304	637.2215 Signs Type II Reflective H Folding	104.440 SF	_____.	_____.
0306	637.2230 Signs Type II Reflective F	78.000 SF	_____.	_____.
0308	638.2102 Moving Signs Type II	81.000 EACH	_____.	_____.
0310	638.2601 Removing Signs Type I	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0312	638.2602 Removing Signs Type II	52.000 EACH	_____.	_____.
0314	638.3000 Removing Small Sign Supports	62.000 EACH	_____.	_____.
0316	638.3100 Removing Structural Steel Sign Supports	2.000 EACH	_____.	_____.
0318	638.4000 Moving Small Sign Supports	110.000 EACH	_____.	_____.
0320	642.5001 Field Office Type B	1.000 EACH	_____.	_____.
0322	643.0300 Traffic Control Drums	206,000.000 DAY	_____.	_____.
0324	643.0410 Traffic Control Barricades Type II	180.000 DAY	_____.	_____.
0326	643.0420 Traffic Control Barricades Type III	16,000.000 DAY	_____.	_____.
0328	643.0705 Traffic Control Warning Lights Type A	30,500.000 DAY	_____.	_____.
0330	643.0715 Traffic Control Warning Lights Type C	23,500.000 DAY	_____.	_____.
0332	643.0800 Traffic Control Arrow Boards	1,500.000 DAY	_____.	_____.
0334	643.0900 Traffic Control Signs	41,000.000 DAY	_____.	_____.
0336	643.0910 Traffic Control Covering Signs Type I	8.000 EACH	_____.	_____.
0338	643.0920 Traffic Control Covering Signs Type II	7.000 EACH	_____.	_____.
0340	643.1000 Traffic Control Signs Fixed Message	211.000 SF	_____.	_____.
0342	643.1050 Traffic Control Signs PCMS	112.000 DAY	_____.	_____.
0344	643.1205.S Basic Traffic Queue Warning System	520.000 DAY	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0346	643.4100.S Traffic Control Interim Lane Closure	520.000 EACH	_____.	_____.
0348	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0350	644.1420 Temporary Pedestrian Surface Plywood	16.000 SF	_____.	_____.
0352	644.1601 Temporary Pedestrian Curb Ramp	50.000 DAY	_____.	_____.
0354	644.1810 Temporary Pedestrian Barricade	425.000 LF	_____.	_____.
0356	645.0120 Geotextile Type HR	1,800.000 SY	_____.	_____.
0358	646.1020 Marking Line Epoxy 4-Inch	2,600.000 LF	_____.	_____.
0360	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	82,680.000 LF	_____.	_____.
0362	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	10,130.000 LF	_____.	_____.
0364	646.3020 Marking Line Epoxy 8-Inch	890.000 LF	_____.	_____.
0366	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	3,720.000 LF	_____.	_____.
0368	646.5020 Marking Arrow Epoxy	4.000 EACH	_____.	_____.
0370	646.5120 Marking Word Epoxy	2.000 EACH	_____.	_____.
0372	646.6120 Marking Stop Line Epoxy 18-Inch	40.000 LF	_____.	_____.
0374	646.6220 Marking Yield Line Epoxy 18-Inch	18.000 EACH	_____.	_____.
0376	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	150.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0378	646.8120 Marking Curb Epoxy	30.000 LF	_____.	_____.
0380	646.8220 Marking Island Nose Epoxy	1.000 EACH	_____.	_____.
0382	646.9000 Marking Removal Line 4-Inch	18,566.000 LF	_____.	_____.
0384	646.9100 Marking Removal Line 8-Inch	1,670.000 LF	_____.	_____.
0386	649.0120 Temporary Marking Line Epoxy 4-Inch	105,400.000 LF	_____.	_____.
0388	649.0150 Temporary Marking Line Removable Tape 4-Inch	75,073.000 LF	_____.	_____.
0390	649.0220 Temporary Marking Line Epoxy 8-Inch	4,538.000 LF	_____.	_____.
0392	649.0250 Temporary Marking Line Removable Tape 8-Inch	3,535.000 LF	_____.	_____.
0394	649.0770 Temporary Marking Raised Pavement Marker Type II	269.000 EACH	_____.	_____.
0396	650.4000 Construction Staking Storm Sewer	13.000 EACH	_____.	_____.
0398	650.4500 Construction Staking Subgrade	77,900.000 LF	_____.	_____.
0400	650.5000 Construction Staking Base	35,956.000 LF	_____.	_____.
0402	650.5500 Construction Staking Curb Gutter and Curb & Gutter	920.000 LF	_____.	_____.
0404	650.6000 Construction Staking Pipe Culverts	70.000 EACH	_____.	_____.
0406	650.7000 Construction Staking Concrete Pavement	40,220.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0408	650.8500 Construction Staking Electrical Installations (project) 001. 1022-00-79	LS	LUMP SUM	_____.
0410	650.9000 Construction Staking Curb Ramps	3.000 EACH	_____.	_____.
0412	650.9910 Construction Staking Supplemental Control (project) 001. 1022-00-79	LS	LUMP SUM	_____.
0414	650.9920 Construction Staking Slope Stakes	77,900.000 LF	_____.	_____.
0416	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	592.000 LF	_____.	_____.
0418	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	281.000 LF	_____.	_____.
0420	652.0700.S Install Conduit into Existing Item	2.000 EACH	_____.	_____.
0422	653.0140 Pull Boxes Steel 24x42-Inch	2.000 EACH	_____.	_____.
0424	653.0164 Pull Boxes Non-Conductive 24x42-Inch	4.000 EACH	_____.	_____.
0426	653.0900 Adjusting Pull Boxes	1.000 EACH	_____.	_____.
0428	653.0905 Removing Pull Boxes	2.000 EACH	_____.	_____.
0430	654.0101 Concrete Bases Type 1	3.000 EACH	_____.	_____.
0432	654.0102 Concrete Bases Type 2	3.000 EACH	_____.	_____.
0434	654.0105 Concrete Bases Type 5	4.000 EACH	_____.	_____.
0436	654.1239 Concrete Control Cabinet Bases ITS	2.000 EACH	_____.	_____.
0438	655.0230 Cable Traffic Signal 5-14 AWG	220.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0440	655.0240 Cable Traffic Signal 7-14 AWG	1,958.000 LF	_____.	_____.
0442	655.0250 Cable Traffic Signal 9-14 AWG	828.000 LF	_____.	_____.
0444	655.0305 Cable Type UF 2-12 AWG Grounded	493.000 LF	_____.	_____.
0446	655.0515 Electrical Wire Traffic Signals 10 AWG	1,189.000 LF	_____.	_____.
0448	655.0610 Electrical Wire Lighting 12 AWG	1,327.000 LF	_____.	_____.
0450	655.0900 Traffic Signal EVP Detector Cable	1,867.000 LF	_____.	_____.
0452	656.0200 Electrical Service Meter Breaker Pedestal (location) 001. (CB100)	LS	LUMP SUM	_____.
0454	656.0200 Electrical Service Meter Breaker Pedestal (location) 002. (CB200)	LS	LUMP SUM	_____.
0456	656.0500 Electrical Service Breaker Disconnect Box (location) 001. (CB100)	LS	LUMP SUM	_____.
0458	656.0500 Electrical Service Breaker Disconnect Box (location) 002. (CB200)	LS	LUMP SUM	_____.
0460	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	5.000 EACH	_____.	_____.
0462	657.0305 Poles Type 2	1.000 EACH	_____.	_____.
0464	657.0322 Poles Type 5-Aluminum	1.000 EACH	_____.	_____.
0466	657.0585 Trombone Arms 15-FT	1.000 EACH	_____.	_____.
0468	657.0615 Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0470	658.0173 Traffic Signal Face 3S 12-Inch	1.000 EACH	_____.	_____.
0472	658.0416 Pedestrian Signal Face 16-Inch	1.000 EACH	_____.	_____.
0474	658.0500 Pedestrian Push Buttons	1.000 EACH	_____.	_____.
0476	661.0200 Temporary Traffic Signals for Intersections (location) 001. USH 10 & IH 94 Eastbound Ramps	LS	LUMP SUM	_____.
0478	662.1024.S Ramp Closure Gates 24-FT	2.000 EACH	_____.	_____.
0480	662.1030.S Ramp Closure Gates 30-FT	1.000 EACH	_____.	_____.
0482	674.0300 Remove Cable	3,428.000 LF	_____.	_____.
0484	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	1,419.000 LF	_____.	_____.
0486	690.0150 Sawing Asphalt	42,850.000 LF	_____.	_____.
0488	690.0250 Sawing Concrete	3,000.000 LF	_____.	_____.
0490	715.0715 Incentive Flexural Strength Concrete Pavement	33,750.000 DOL	1.00000	33,750.00
0492	740.0440 Incentive IRI Ride	28,603.000 DOL	1.00000	28,603.00
0494	SPV.0035 Special 001. Rapid Set Deck Repair	1.000 CY	_____.	_____.
0496	SPV.0060 Special 001. Traffic Control, One Sided Vertical Panels	30.000 EACH	_____.	_____.
0498	SPV.0060 Special 002. Reconstruct Median Inlet Special	4.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0500	SPV.0060 Special 003. Manholes Special 4-FT Diameter Temporary	5.000 EACH	_____.	_____.
0502	SPV.0060 Special 004. Temporary Inlets Median 1 Grate	7.000 EACH	_____.	_____.
0504	SPV.0060 Special 005. Temporary Concrete Pipe Collar	11.000 EACH	_____.	_____.
0506	SPV.0060 Special 006. Salvage & Reinstall Traffic Signal Equipment USH 10 & IH 94 Eastbound Ramps	1.000 EACH	_____.	_____.
0508	SPV.0060 Special 007. Salvage & Reinstall Traffic Signal Equipment USH 10 & IH 94 Westbound Ramps	1.000 EACH	_____.	_____.
0510	SPV.0060 Special 009. Salvage & Reinstall Ramp Closure Gates USH 10 & IH 94 Eastbound Ramps	1.000 EACH	_____.	_____.
0512	SPV.0060 Special 010. State Furnished EVP Detector Heads USH 10 & IH 94 Eastbound Ramps	1.000 EACH	_____.	_____.
0514	SPV.0060 Special 011. State Furnished EVP Detector Heads USH 10 & IH 94 Westbound Ramps	1.000 EACH	_____.	_____.
0516	SPV.0060 Special 012. State Furnished ITS Control Cabinet (CB100)	1.000 EACH	_____.	_____.
0518	SPV.0060 Special 013. State Furnished ITS Control Cabinet (CB200)	1.000 EACH	_____.	_____.
0520	SPV.0090 Special 001. Fill Existing Rumble Strips	7,000.000 LF	_____.	_____.
0522	SPV.0165 Special 001. Temporary Wall Wire Faced Mechanically Stabilized Earth	675.000 SF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0524	SPV.0180 Special 001. Concrete Pavement 12-inch Special	105,500.000 SY	_____.	_____.
<b>Section: 0001</b>			<b>Total:</b>	_____.
			<b>Total Bid:</b>	_____.

**PLEASE ATTACH ADDENDA HERE**



## Wisconsin Department of Transportation

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March 23, 2022

**Division of Transportation Systems  
Development**

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

### **NOTICE TO ALL CONTRACTORS:**

**Proposal #29: 1022-00-79  
Eau Claire – Osseo  
CTH NN to East County Line  
IH 94  
Trempealeau County**

### **Letting of April 12, 2022**

This is Addendum No. 01, which provides for the following:

#### **Other**

ASP-5 has been revised, effective with the April 12, 2022 letting.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

END OF ADDENDUM

## 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:

$$FA = \frac{CFI}{BFI} - 1 \times Q \times BFI$$

(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

April 1, 2022

## Division of Transportation Systems Development

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

### NOTICE TO ALL CONTRACTORS:

**Proposal #29: 1022-00-79**  
**Eau Claire - Osseo**  
**CTH NN To East County Line**  
**IH 94**  
**Trempealeau County**

### Letting of April 12, 2022

This is Addendum No. 02, which provides for the following:

#### Special Provisions:

Revised Special Provisions	
Article No.	Description
3	Prosecution and Progress
21	Select Borrow, Item 208.1100

#### Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
305.0120	Base Aggregate Dense 1¼- inch	TON	182,000	2,000	184,000

#### Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
248	Update totals for Stage 2C
249	Update project totals and undistributed
253	Updated Stage 2C Phase 1 Subtotal, undistributed, and project totals
607	Update Stage 1B totals
611	Update IH 94 Stage 2C1 & 2C2 tables

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. 02**

**1022-00-79**

**April 1, 2022**

**Special Provisions**

**3. Prosecution and Progress.**

*Replace entire subsection titled Stage 2 Work: November 16, 2023 under section titled **Interim Completion and Liquidated Damages** with the following:*

Stage 2 Work: November 16, 2023

Complete Stage 2 work as defined above by November 17, 2022.

If the contractor fails to complete Stage 2 work by November 16, 2023, the department will assess the contractor \$2175 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on November 17, 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.

After November 16, 2023 I-94 traffic shall be switched back to the normal four-lane configuration on existing pavement, with eastbound traffic being two lanes on new construction and westbound traffic being two lanes on existing pavement, with no restrictions through the project during the subsequent over-winter suspension of work,

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

**21. Select Borrow, Item 208.1100.**

*Replace entire article language with the following:*

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: Granular Backfill Grade 1 or Granular Backfill Grade 2.

stp-208-005 (20031103)

**Schedule of Items**

Attached, dated April 1, 2022, are the revised Schedule of Items Page 2.

**Plan Sheets**

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:  
Revised: 248, 249, 253, 607, and 611.

END OF ADDENDUM

Addendum No. 02  
ID 1022-00-79  
Revised Sheet 248  
April 1, 2022

CATEGORY	STAGE	DIVISION	LOCATION	STATION - STATION	205.0100		Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Reduced EBS in Fill Factor (8)	Expanded Backfill Factor (9)	Unexpanded Fill Factor (10)	Expanded Fill Factor (11)	Mass Ordinate +/- (8)	Waste	208.1100 Select Borrow (CY)			
					Excavation Common (1)	Excavation Factor (2)												
0010	1	A	NWA TEMPORARY RAMP	63+00 NWA - 64+55 NWA	110	6	110	---	4	6	6	1	-1	---	8			
				70+00 SVA - 75+00 SVA	110	5	---	110	4	6	1,400	1,605	-1,496	---	1,502			
		Subtotal 1A		220	11	110	9	13	1,406	1,607	-1,497	---	1,510					
		B	IH 94 WB TEMPORARY (TR-LINE)	40+00 TR - 237+00 TR	36,062	1,803	---	36,062	1,442	2,074	69,500	78,266	-42,204	---	44,278			
				219+33 XO - 226+00 XO	256	13	---	256	10	15	1,096	1,248	-992	---	1,007			
		Subtotal 1B		36,318	1,816	---	36,318	1,453	2,088	70,596	79,514	-43,196	---	45,285				
		Stage 1 Total		36,538	1,827	110	36,427	1,462	2,101	72,001	81,121	-44,693	---	46,794				
		2	2	A	IH 94 EB + 6' WIDENING	49+64 EB - 61+00 EB	3,297	165	755	2,542	132	190	84	-56	2,598	2,598	190	
						82+00 EB - 232+00 EB	52,701	2,635	10,000	42,701	2,108	3,030	903	-1,385	44,086	3,030		
				A	SVA RAMP	93+00 SVA - 96+00 SVA	2,936	---	---	2,936	---	---	---	487	560	2,376	---	---
						93+00 SVA - 96+00 SVA	244	---	---	244	---	---	239	275	-31	---	---	31
				A	MAINTENANCE CROSSOVER 104+35	10+00 - 10+91	442	22	---	442	18	25	32	17	425	405	25	
						30+00 - 31+48	144	7	---	144	6	8	1,770	2,029	-1,885	---	1,893	
				Subtotal 2A		59,763	2,829	10,755	49,008	2,263	3,254	3,515	1,439	47,569	47,569	5,169		
				B	IH 94 EB + 6' WIDENING	60+96 EB - 82+00 EB	6,587	329	1,403	5,184	263	379	52	-243	5,427	5,427	379	
70+00 SVA - 75+50 SVA	1,447					---	---	1,447	---	---	---	---	1,447	---	---			
Subtotal 2B				8,033	329	1,403	6,631	263	379	52	-243	6,874	6,874	379				
C1	IH 94 EB			323+00 EB - 237+00 EB	65	6	269	66	63	76	347	275	174	174	76			
				235+65 XO - 230+63 XO	1,482	74	421	1,061	59	85	1,602	1,278	-269	---	---			
C2	IH 94 WB			230+50 WB - 239+59 WB	2,316	150	731	1,585	383	172	3,054	3,375	-1,290	---	---			
				232+00 EB - 237+00 EB	2,945	65	250	2,695	53	76	171	135	2,559	2,559	76			
Subtotal 2C1	IH 94 WB			230+50 WB - 239+59 WB	1,223	61	471	751	49	79	700	775	-578	---	---			
		232+00 EB - 237+00 EB	4,167	128	721	3,446	102	147	309	309	3,137	3,137	147					
Stage 2 Total		74,779	3,436	13,609	60,670	3,012	3,951	6,991	4,879	57,753	57,753	7,829						

TABLE NOTES LEGEND:  
1) Common Excavation is the sum of the Cut and EBS Excavation columns, Item number 205.0100  
2) Salvaged/Unusable Pavement Material is included in Cut  
3) EBS Excavation to be backfilled with Select Borrow  
4) Salvaged/Unusable Pavement Material, includes estimated 24' width of 10-inches concrete pavement, (no asphalt was included)  
5) Available Material = Cut - Salvaged/Unusable Pavement Material  
6) Reduced EBS in Fill - Excavated EBS material is usable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8  
7) Expanded Fill Factor = 1.15 x (Unexpanded Fill - Reduced EBS in Fill)  
8) The Mass Ordinate + or - Qty calculated for the Division. Positive quantity indicates an excess of material, negative indicates a shortage of material within the Division.  
9) Expanded EBS Backfill - Select Borrow. EBS Backfill Factor = 1.15.

Addendum No. 02  
ID 1022-00-79  
Revised Sheet 249  
April 1, 2022

CATEGORY	STAGE	DIVISION	LOCATION	STATION - STATION	205.0100		Savaged/ Unusable Pavement Material (4)	Available Material (5)	Reduced in Fill Factor 0.80	Expanded Backfill Factor (9)	Unexpanded Fill Factor 1.15	Expanded Fill Factor (7)	Mass Ordinate +/- (8)	Waste Select Borrow (CY)	208.1100			
					Excavation Common (1)	EBS Excavation (3)												
0010	AP1	AP1	IH 94 EB TEMPORARY	48+01 TRE - 95+92 TRE	9,763	488	--	9,763	391	561	1,251	990	8,773	8,773	561			
			NEA RAMP TEMPORARY	705+32 NEA - 711+00 NEA	151	15	--	151	12	17	1,141	1,298	-1,147	--	1,164			
	Subtotal 3AP1				9,914	503	--	9,914	403	579	2,392	2,287	7,627	7,627	1,725			
	AP2	AP2	SEA RAMP TEMPORARY	99+00 SEA - 107+72 SEA	1,961	215	--	1,961	172	247	1,196	1,177	783	783	247			
			Subtotal 3AP2				1,961	215	--	1,961	172	247	1,177	783	783	247		
	3	B	B	IH 94 WB	49+36WB - 65+00 WB	4,886	244	1,043	3,843	195	281	102	--	3,843	3,843	281		
				NE RAMP	85+70 WB - 230+50 WB	52,058	2,603	9,654	42,404	2,082	2,993	301	--	42,404	42,404	2,993		
				NE RAMP TAPER AT US 10	100+72 NE - 109+50 NE	1,733	260	366	1,368	208	299	365	180	1,188	1,188	299		
				SE RAMP	112+91 NE - 115+00 NE	201	10	10	191	8	12	66	66	124	124	12		
				SW RAMP TAPER AT US 10	129+32 SE - 133+17 SE	709	35	161	548	28	41	0	-33	581	581	41		
				SEB RAMP TEMPORARY	76+50 SW - 78+84 SW	160	8	10	150	6	9	469	532	-381	--	391		
				USH 10 EB	132+35 SEB - 136+35 SEB	71	---	--	71	--	135	155	155	-84	--	84		
				USH 10 WB	29+52 E - 27+00 E	437	22	17	421	17	25	1,320	1,498	-1,078	--	1,103		
				Subtotal 3B				60,598	3,195	11,275	49,222	2,556	3,674	2,939	464	46,603	48,145	5,217
				C	C	C	IH 94 WB	65+00 WB - 85+70 WB	6,210	311	1,380	4,831	248	357	145	--	4,831	4,831
REMOVE SEA RAMP TEMP	99+00 SEA - 104+83 SEA	1,208	---				--	1,208	--	--	--	--	--	1,208	1,208	--		
REMOVE NEA RAMP TEMP	705+32 NEA - 711+00 NEA	2,246	---				--	2,246	--	--	--	--	--	2,246	2,246	--		
Subtotal 3C							9,664	311	1,380	8,285	248	357	145	--	8,285	8,285	357	
Stage 3 Total	A	A	IH 94 WB + TR REMOVAL	40+75 WB - 230+50 WB	82,037	4,223	12,655	69,382	3,379	4,857	6,692	3,810	63,297	64,840	7,546			
			230+50 WB - 239+59 WB	44,525	745	9,488	35,038	596	856	504	-105	35,143	35,143	856				
4	A	A	IH 94 EB	40+00 EB - 100+05 EB	6,793	340	315	6,478	272	391	16	-295	6,772	6,772	391			
			MAINTENANCE CROSSOVER STA 104+35	230+00 EB - 236+00 EB	2,333	---	--	2,333	--	--	--	--	2,333	2,333	--			
			MAINTENANCE CROSSOVER STA 182+00	10+91 - 11+79	799	40	--	799	32	46	89	66	734	734	46			
			Subtotal 4				608	30	--	608	24	35	240	360	360	35		
PROJECT 1022-00-79 TOTALS					35,720	1,155	9,803	45,917	924	1,328	869	46,003	46,003	1,328				
UNDISTRIBUTED					248,574	10,641	36,177	212,397	8,776	12,237	86,534	89,724	120,388	108,596	63,958			
205.0100 Total Excavation Common					285,505	785	45,980	215,521	19,200	25,565	193,073	195,727	269,346	270,000	65,300			

TABLE NOTES LEGEND:  
1) Common Excavation is the sum of the Cut and EBS Excavation columns, Item number 205.0100  
2) Salvaged/Unusable Pavement Material is included in Cut  
3) EBS Excavation to be backfilled with Select Borrow  
4) Salvaged/Unusable Pavement Material, includes estimated 24' width of 10-inches concrete pavement, (no asphalt was included)  
5) Available Material = Cut - Salvaged/Unusable Pavement Material  
6) Reduced EBS in Fill - Excavated EBS material is useable in Fills outside the 1:1 slope, EBS in Fill Reduction factor = 0.8  
7) Expanded Fill Factor = 1.15 x (Unexpanded Fill - Reduced EBS in Fill)  
8) The Mass Ordinate + or - QTY calculated for the Division, Positive quantity indicates an excess of material, negative indicates a shortage of material within the Division.  
9) Expanded EBS Backfill - Select Borrow, EBS Backfill Factor = 1.15.

Addendum No. 02  
ID 1022-00-79  
Revised Sheet 253  
April 1, 2022

BASE AGGREGATE DENSE

CATEGORY	STAGE	LOCATION	3/4-INCH (TON)	1 1/4-INCH (TON)	305,0120
0010	STAGE 1A	IH 94 (WESTBOUND)			
		74*30 WB - 74*80 WB	5	5	
		76*80 WB - 81*00 WB	15	30	
		NWA TEMP RAMP			
		83*34 NWA - 85*55 NWA	72	164	
		SWA TEMP RAMP			
		70*00 SWA - 75*60 SWA	110	802	
		STAGE 1A SUBTOTAL	202	1,001	
0010	STAGE 1B	IH 94 TEMP ROAD			
		38*54 TR - 230*50 TR	688	53,674	
		IH 94 WB WIDENING			
		219*33 XO - 226*00 XO	10	1,566	
		STAGE 1B SUBTOTAL	688	55,230	
0010	STAGE 2A	IH 94 (EASTBOUND)			
		40*00 EB - 61*00 EB	116	3,190	
		82*00 EB - 232*00 EB	1,306	41,676	
		SW RAMP (EB ON-RAMP)			
		81*82 SW - 90*25 SW	114	1,722	
		STAGE 2A SUBTOTAL	1,536	46,688	
0010	STAGE 2B	IH 94 (EASTBOUND)			
		61*00 EB - 87*00 EB	36	4,060	
		SWB TEMP RAMP			
		92*00 SWB - 95*42 SWB	19	416	
		STAGE 2B SUBTOTAL	55	4,476	
0010	STAGE 2C	IH 94 TEMP ROAD EB			
		48*00 TR - 92*00 TR	108	4,290	
0010	STAGE 2C, PHASE 1	IH 94 (EASTBOUND)			
		232*00 EB - 237*00 EB	40	1,034	
		IH 94 (WESTBOUND)			
		230*50 WB - 240*00 WB	60	1,902	
		STAGE 2C, PHASE 1 SUBTOTAL	100	2,936	
0010	STAGE 2C, PHASE 2	IH 94 (EASTBOUND)			
		232*00 EB - 237*00 EB	45	1,050	
		IH 94 (WESTBOUND)			
		230*50 WB - 240*00 WB	60	1,900	
		IH 94 WB WIDENING			
		219*33 XO - 226*00 XO	24	2,840	
		STAGE 2C, PHASE 2 SUBTOTAL	129	5,790	
0010	STAGE 3A, PHASE 1	IH 94 TEMP ROAD EB			
		61*00 TR - 98*50 TR	74	6,638	
		NEA TEMP RAMP			
		705*33 NEA - 710*66 NEA	36	724	
		STAGE 3A, PHASE 1 SUBTOTAL	110	7,362	
0010	STAGE 3A, PHASE 2	SEA TEMP RAMP			
		99*48 SEA - 104*88 SEA	40	906	
		SEB TEMP RAMP			
		133*61 SEB - 138*25 SEB	16	374	
		STAGE 3A, PHASE 2 SUBTOTAL	56	1,280	
0010	STAGE 3B	IH 94 (WESTBOUND)			
		49*38 WB - 65*60 WB	188	4,400	
		87*50 WB - 230*50 WB	610	39,386	
		NE RAMP (WB ON-RAMP)			
		100*72 NE - 109*50 NE	94	1,846	
		SE RAMP (WB OFF-RAMP)			
		129*32 SE - 133*63 SE	36	670	
		STAGE 3B SUBTOTAL	1,046	47,182	
0010	STAGE 3C	IH 94 (WESTBOUND)			
		66*50 WB - 87*50 WB	208	6,200	
		STAGE 3C SUBTOTAL	208	6,200	
0010	STAGE 4A	IH 94 (WESTBOUND)			
		41*00 WB - 47*50 WB	75	---	
		87*50 WB - 240*00 WB	975	---	
		IH 94 (EASTBOUND)			
		39*80 EB - 83*85 EB	650	---	
		STAGE 4A SUBTOTAL	1,500	---	
0010	STAGE 4B	MAINTENANCE CROSSOVER			
		52*50	15	120	
		104*25 MC2	20	170	
		181*75 MC	30	300	
		STAGE 4B SUBTOTAL	1,615	590	
0010	UNDISTRIBUTED				
			1,537	1,075	
		PROJECT 1022-00-79 TOTALS	7,700	184,000	

Station	Distance	DIVISION 1 (STA 38+55TR - STA 237+00TR): IH 94 WB TEMP ROAD (STAGE 1B)										Cumulative Vol (CY)			Mass Ordinate	Note 7
		Area		Incremental Volume (Unadjusted)		Salvaged/Unusable Pavement Material		Fill (SF)		EBS		Cut		Expanded		
		Cut (SF)	Salvaged/Unusable (SF)	Fill (SF)	Unusable (CY)	Salvaged (CY)	Unusable (CY)	Fill (CY)	EBS (CY)	Note 3 (CY)	Note 1 (CY)	Note 2 (CY)	Note 1 (CY)	Note 1.5 (CY)	Note 6 (CY)	Note 7
184+00	100	152	0	22	8	461	0	90	23	27,412	53,124	1,096	27,412	53,124	1,096	-25,712
185+00	100	160	0	16	8	578	0	70	29	27,990	53,178	1,120	27,990	53,178	1,120	-25,188
186+00	100	170	0	15	0	703	0	146	35	28,693	53,274	1,176	28,693	53,274	1,176	-24,587
187+00	100	171	0	10	0	703	0	95	35	29,398	53,247	1,176	29,398	53,247	1,176	-24,859
188+00	100	158	0	14	8	623	0	55	31	29,985	53,282	1,199	29,985	53,282	1,199	-24,802
189+00	100	128	0	13	6	530	0	10	26	30,514	53,316	1,221	30,514	53,316	1,221	-24,802
190+00	100	133	0	11	7	483	0	45	24	30,998	53,346	1,240	30,998	53,346	1,240	-24,348
191+00	100	150	0	3	8	524	0	27	26	31,522	53,352	1,261	31,522	53,352	1,261	-23,830
192+00	100	136	0	5	7	530	0	16	22	32,052	53,347	1,282	32,052	53,347	1,282	-23,294
193+00	100	101	0	13	5	438	0	35	22	32,490	53,367	1,300	32,490	53,367	1,300	-20,877
194+00	100	51	0	27	3	281	0	149	6	32,771	53,440	1,311	32,771	53,440	1,311	-20,670
195+00	100	15	0	53	1	121	0	395	3	32,892	53,606	1,316	32,892	53,606	1,316	-20,713
196+00	100	13	0	189	1	50	0	646	2	32,943	54,058	1,319	32,943	54,058	1,319	-21,115
197+00	100	11	0	160	1	44	0	664	2	32,987	54,799	1,319	32,987	54,799	1,319	-22,527
198+00	100	14	0	170	1	47	0	680	2	33,034	55,561	1,321	33,034	55,561	1,321	-22,527
199+00	100	12	0	198	1	49	0	690	2	33,063	56,341	1,323	33,063	56,341	1,323	-22,527
200+00	100	13	0	223	1	45	0	623	2	33,126	57,095	1,325	33,126	57,095	1,325	-22,527
201+00	100	11	0	239	1	45	0	623	2	33,176	57,965	1,329	33,176	57,965	1,329	-22,527
202+00	100	14	0	239	1	46	0	618	2	33,217	57,790	1,329	33,217	57,790	1,329	-24,573
203+00	100	35	0	7	2	91	0	618	2	33,217	57,790	1,329	33,217	57,790	1,329	-24,573
204+00	100	35	0	7	2	91	0	618	2	33,217	57,790	1,329	33,217	57,790	1,329	-24,573
205+00	100	11	0	95	1	95	0	26	5	33,308	57,857	1,332	33,308	57,857	1,332	-24,549
206+00	100	11	0	35	1	52	0	79	3	33,454	57,971	1,338	33,454	57,971	1,338	-24,480
207+00	100	13	0	36	1	45	0	133	2	33,499	58,121	1,340	33,499	58,121	1,340	-24,623
208+00	100	12	0	58	1	46	0	175	2	33,544	58,321	1,342	33,544	58,321	1,342	-24,777
209+00	100	11	0	112	1	42	0	315	2	33,586	58,682	1,343	33,586	58,682	1,343	-25,096
210+00	100	11	0	162	1	40	0	520	2	33,626	59,279	1,345	33,626	59,279	1,345	-25,853
211+00	100	12	0	162	1	39	0	613	2	33,665	59,982	1,347	33,665	59,982	1,347	-26,317
212+00	100	12	0	189	1	44	0	596	2	33,706	60,665	1,348	33,706	60,665	1,348	-26,959
213+00	100	11	0	212	1	43	0	742	2	33,792	62,257	1,352	33,792	62,257	1,352	-26,485
214+00	100	11	0	214	1	41	0	768	2	33,833	63,162	1,353	33,833	63,162	1,353	-26,329
215+00	100	9	0	163	0	36	0	783	2	33,877	64,162	1,356	33,877	64,162	1,356	-26,181
216+00	100	9	0	163	0	36	0	783	2	33,907	65,031	1,356	33,907	65,031	1,356	-26,181
217+00	100	12	0	163	1	40	0	640	2	33,947	65,765	1,358	33,947	65,765	1,358	-26,181
218+00	100	0	0	178	0	23	0	636	1	33,970	66,496	1,359	33,970	66,496	1,359	-32,525
219+00	100	0	0	191	0	0	0	683	0	33,970	67,281	1,359	33,970	67,281	1,359	-33,311
220+00	100	0	0	188	0	0	0	702	0	33,970	68,089	1,359	33,970	68,089	1,359	-34,119
221+00	100	0	0	165	0	0	0	655	0	33,970	68,842	1,359	33,970	68,842	1,359	-34,872
222+00	100	0	0	100	0	0	0	491	0	33,970	69,407	1,359	33,970	69,407	1,359	-35,436
223+00	100	4	0	86	0	7	0	344	0	33,977	69,802	1,359	33,977	69,802	1,359	-35,624
224+00	100	21	0	185	1	26	0	502	1	34,003	70,377	1,360	34,003	70,377	1,360	-36,374
225+00	100	34	0	167	1	58	0	651	3	34,061	71,123	1,362	34,061	71,123	1,362	-37,063
226+00	100	24	0	162	2	101	0	609	5	34,162	71,819	1,366	34,162	71,819	1,366	-37,657
227+00	100	34	0	228	1	117	0	723	6	34,279	72,645	1,371	34,279	72,645	1,371	-38,366
228+00	100	34	0	247	2	117	0	860	6	34,396	73,652	1,376	34,396	73,652	1,376	-39,236
229+00	100	35	0	234	3	157	0	917	8	34,470	74,728	1,380	34,470	74,728	1,380	-40,119
230+00	100	57	0	234	3	157	0	917	8	34,687	75,728	1,385	34,687	75,728	1,385	-41,008
231+00	100	56	0	197	3	209	0	797	10	34,876	76,684	1,395	34,876	76,684	1,395	-41,808
232+00	100	76	0	113	4	245	0	573	12	35,121	77,332	1,405	35,121	77,332	1,405	-42,211
233+00	100	39	0	74	2	212	0	346	11	35,333	77,920	1,413	35,333	77,920	1,413	-42,387
234+00	100	33	0	22	2	133	0	179	7	35,466	77,920	1,419	35,466	77,920	1,419	-42,454
235+00	100	30	0	3	2	117	0	47	6	35,583	77,969	1,423	35,583	77,969	1,423	-42,386
236+00	300	30	0	0	1	366	0	277	18	35,699	78,022	1,428	35,699	78,022	1,428	-42,324
237+00	100	31	0	0	2	149	0	2	6	35,811	78,017	1,432	35,811	78,017	1,432	-42,205
237+00	100	31	0	0	2	149	0	2	6	35,811	78,017	1,432	35,811	78,017	1,432	-42,205

Station	Distance	Cut (SF)	Salvaged/Unusable (SF)	Fill (SF)	Unusable (CY)	Salvaged (CY)	Unusable (CY)	Fill (CY)	EBS (CY)	Note 3 (CY)	Note 1 (CY)	Note 2 (CY)	Note 1 (CY)	Note 1.5 (CY)	Note 6 (CY)	Note 7
184+00	100	152	0	22	8	461	0	90	23	27,412	53,124	1,096	27,412	53,124	1,096	-25,712
185+00	100	160	0	16	8	578	0	70	29	27,990	53,178	1,120	27,990	53,178	1,120	-25,188
186+00	100	170	0	15	0	703	0	146	35	28,693	53,274	1,176	28,693	53,274	1,176	-24,587
187+00	100	171	0	10	0	703	0	95	35	29,398	53,247	1,176	29,398	53,247	1,176	-24,859
188+00	100	158	0	14	8	623	0	55	31	29,985	53,282	1,199	29,985	53,282	1,199	-24,802
189+00	100	128	0	13	6	530	0	10	26	30,514	53,316	1,221	30,514	53,316	1,221	-24,802
190+00	100	133	0	11	7	483	0	45	24	30,998	53,346	1,240	30,998	53,346	1,240	-24,348
191+00	100	150	0	3	8	524	0	27	26	31,522	53,352	1,261	31,522	53,352	1,261	-23,830
192+00	100	136	0	5	7	530	0	16	22	32,052	53,347	1,282	32,052	53,347	1,282	-23,294
193+00	100	101	0	13	5	438	0	35	22	32,490	53,367	1,300	32,490	53,367	1,300	-20,877
194+00	100	51	0	27	3	281	0	149	6	32,771	53,440	1,311	32,771	53,440	1,311	-20,670
195+00	100	15	0	53	1	121	0	395	3	32,892	53,606	1,316	32,892	53,606	1,316	-20,713
196+00	100	13	0	189	1	50	0	646	2	32,943	54,058	1,319	32,943	54,058	1,319	-21,115
197+00	100	11	0	160	1	44	0	664	2	32,987	54,799	1,319	32,987	54,799	1,319	-22,527
198+00	100	14	0	170	1	47	0	680	2	33,034	55,561	1,321	33,034	55,561	1,321	-22,527
199+00	100	12	0	198	1	49	0	690	2	33,063	56,341	1,323	33,063	56,341	1,323	-22,527
200+00	100	13	0	223	1	45	0	623	2	33,126	57,095	1,325	33,126	57,095	1,325	-22,527
201+00	100	11	0	239	1	45	0	618	2	33,176	57,965	1,329	33,176	57,965	1,329	-22,527
202+00	100	14	0	239	1	46	0	618	2	33,217	57,790	1,329	33,217	57,790	1,329	-24,573
203+00	100	35	0	7	2	91	0	618	2	33,217	57,790	1,329	33,217	57,790	1,329	-24,573
204+00	100	35	0	7	2	91	0	618	2	33,217	57,790	1,329	33,217	57,790	1,329	-24,573
205+00	100	11	0	95	1	95	0	26	5	33,308	57,857	1,332				

**DIVISION 2 (STA 228+00EB - STA 237+00EB): IH 94 EB (STAGE 2C1)**

Station	Area				Incremental Volume (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	EBS (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	
228+00	100	0	0	0	0	0	0	0	0	0	0	0	0
229+00	100	0	0	0	0	0	0	0	0	0	0	0	0
230+00	100	0	0	0	0	0	0	0	0	0	0	0	0
231+00	100	0	0	0	0	0	0	0	0	0	0	0	0
232+00	100	0	0	0	0	0	0	0	0	0	0	0	0
233+00	100	0	0	0	0	0	0	0	0	0	0	0	0
234+00	100	0	0	0	0	0	0	0	0	0	0	0	0
235+00	100	0	0	0	0	0	0	0	0	0	0	0	0
236+00	100	0	0	0	0	0	0	0	0	0	0	0	0
237+00	100	0	0	0	0	0	0	0	0	0	0	0	0
		655			171			66					

**DIVISION 2 (STA 228+00EB - STA 237+00EB): IH 94 EB (STAGE 2C2)**

Station	Area				Incremental Volume (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	EBS (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	
228+00	100	2	0	13	2	5	0	66	6	5	70	5	-66
229+00	100	1	0	23	2	56	17	77	6	60	151	11	-108
230+00	100	29	9	19	2	391	33	35	9	451	183	19	218
231+00	100	182	9	0	2	711	33	35	1	1,162	176	25	903
232+00	100	202	9	0	2	719	33	35	6	1,882	176	30	1,589
233+00	100	187	9	0	2	485	33	35	4	2,376	174	36	2,052
234+00	100	80	9	0	2	289	33	35	0	2,665	168	42	2,314
235+00	100	75	9	0	2	210	33	35	0	2,875	195	47	2,463
236+00	100	38	9	0	2	70	33	35	0	2,945	223	53	2,471
237+00	100	0	0	0	2	0	0	0	0	2,945	247	56	
		2,945			247			56					

**DIVISION 2 (STA 230+50WB - STA 239+50WB): IH 94 WB (STAGE 2C1)**

Station	Area				Incremental Volume (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	EBS (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	
230+50	50	8	14	121	0	47	26	220	2	47	250	2	-230
231+00	100	42	14	117	2	155	52	374	8	202	674	8	-549
232+00	100	49	14	50	2	167	52	251	8	369	954	15	-715
233+00	100	47	14	35	2	177	52	157	9	546	1,127	22	-763
234+00	100	45	14	23	2	170	52	106	9	716	1,242	29	-759
235+00	100	40	14	36	8	162	52	136	8	878	1,391	35	-798
236+00	100	48	14	70	2	167	52	225	8	1,045	1,642	42	-834
237+00	100	46	14	0	2	173	52	130	9	1,218	1,776	49	-954
238+00	100	46	14	0	2	170	52	0	9	1,389	1,776	56	-828
239+59	59	39	14	6	2	93	31	7	5	1,482	1,779	59	-769
		1,482			471			1,607	74				

**DIVISION 2 (STA 230+50WB - STA 239+50WB): IH 94 WB (STAGE 2C2)**

Station	Area				Incremental Volume (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	EBS (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	
230+50	50	8	14	121	0	47	26	220	2	47	250	2	-230
231+00	100	42	14	117	2	155	52	374	8	202	674	8	-549
232+00	100	49	14	50	2	167	52	251	8	369	954	15	-715
233+00	100	47	14	35	2	177	52	157	9	546	1,127	22	-763
234+00	100	45	14	23	2	170	52	106	9	716	1,242	29	-759
235+00	100	40	14	36	8	162	52	136	8	878	1,391	35	-798
236+00	100	48	14	70	2	167	52	225	8	1,045	1,642	42	-834
237+00	100	46	14	0	2	173	52	130	9	1,218	1,776	49	-954
238+00	100	46	14	0	2	170	52	0	9	1,389	1,776	56	-828
239+59	59	39	14	6	2	93	31	7	5	1,482	1,779	59	-769
		1,482			471			1,607	74				

Addendum No. 02  
ID 1022-00-79  
Revised Sheet 611  
April 1, 2022

**DIVISION 2 (STA 225+65KO - STA 230+53KO): IH 94 WB TEMP TO IH 94 WB (STAGE 2C1)**

Station	Area				Incremental Volume (Unadjusted)				Cumulative Vol (CY)				Mass Ordinate
	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	EBS (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	Reduced EBS In Fill (CY)	Expanded Fill (CY)	
225+65	0	13	0	20	1	0	0	0	0	0	0	0	0
226+00	35	12	0	17	1	16	0	24	1	16	27	0	-11
227+00	100	9	0	40	0	38	0	106	2	55	146	2	-82
228+00	100	10	0	100	0	34	0	289	2	89	443	4	-354
229+00	100	10	0	78	0	36	0	385	2	123	649	5	-724
230+00	100	9	0	69	0	35	0	313	2	160	1,208	6	-1,048
230+53	53	9	0	69	0	18	0	144	1	179	1,373	7	-1,194
		179			0	120		9					

**TABLE NOTES LEGEND:**  
 The following notes are applicable to the notes for each earthwork sheet.  
 1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100  
 2) Salvaged/Unusable Pavement Material is included in Cut  
 3) EBS Excavation to be backfilled with Select Borrow  
 4) Salvaged/Unusable Pavement Material includes estimated 24" width of 10-inches concrete pavement. (no asphalt was included)  
 5) Available Material = Cut - Salvaged/Unusable Pavement Material  
 6) Reduced EBS in Fill = Excavated EBS material is useable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8  
 7) Expanded Fill Factor = 1.15 x (Unexpanded Fill - Reduced EBS in Fill)  
 8) The Mass Ordinate + or - Qty calculated for the Division.  
 9) Expanded EBS Backfill - Select Borrow. EBS Backfill Factor = 1.15.



## Proposal Schedule of Items

Proposal ID: 20220412029 Project(s): 1022-00-79

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	205.0100 Excavation Common	260,000.000 CY	_____.	_____.
0036	205.3000.S Temporary Emergency Pullouts	3.000 EACH	_____.	_____.
0038	208.1100 Select Borrow	68,000.000 CY	_____.	_____.
0040	211.0400 Prepare Foundation for Asphaltic Shoulders	6.000 STA	_____.	_____.
0042	213.0100 Finishing Roadway (project) 001. 1022-00-79	1.000 EACH	_____.	_____.
0044	305.0110 Base Aggregate Dense 3/4-Inch	7,700.000 TON	_____.	_____.
0046	305.0120 Base Aggregate Dense 1 1/4-Inch	184,000.000 TON	_____.	_____.
0048	415.0100 Concrete Pavement 10-Inch	6,990.000 SY	_____.	_____.
0050	415.0210 Concrete Pavement Gaps	2.000 EACH	_____.	_____.
0052	416.0610 Drilled Tie Bars	400.000 EACH	_____.	_____.
0054	416.0620 Drilled Dowel Bars	115.000 EACH	_____.	_____.
0056	416.1015 Concrete Surface Drains HES	3.000 CY	_____.	_____.
0058	416.1110 Concrete Shoulder Rumble Strips	34,533.000 LF	_____.	_____.
0060	450.4000 HMA Cold Weather Paving	9,100.000 TON	_____.	_____.
0062	455.0605 Tack Coat	5,500.000 GAL	_____.	_____.
0064	460.2000 Incentive Density HMA Pavement	10,300.000 DOL	1.00000	10,300.00



# Wisconsin Department of Transportation

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April 6, 2022

**Division of Transportation Systems  
Development**

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

**NOTICE TO ALL CONTRACTORS:**

**Proposal #29: 1022-00-79  
Eau Claire - Osseo  
CTH NN to East County Line  
IH 94  
Trempealeau County**

**Letting of April 12, 2022**

This is Addendum No. 03, which provides for the following:

**Special Provisions:**

Revised Special Provisions	
Article No.	Description
54	Temporary Wall Wire Faced Mechanically Stabilized Earth, Item SPV.0165.001

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. 03**

**1022-00-79**

**April 6, 2022**

**Special Provisions**

**54. Temporary Wall Wire Faced Mechanically Stabilized Earth, Item SPV.0165.001.**

*Replace entire section titled E Payment with the following:*

**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.0165.001	Temporary Wall Wire Faced Mechanically Stabilized Earth	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system, constructing the retaining system including drainage system; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, performing compaction testing; covering geotextile, removal of the temporary wall, and for furnishing all tools, labor, equipment, and incidentals necessary to complete the contract work.

Parapets, railings, vehicle barriers and its support, abutment bodies and other items above the wall will be paid for separately. Concrete facings, facing leveling pads or footings, and copings will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price for those items.