HIGHWAY WORK PROPOSAL

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

Proposal Number: 006

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Waupaca	6518-00-70	N/A	Greenville - Bear Creek; Outagamie County Line To Ush 45	STH 076
Outagamie	6518-06-71	N/A	Shiocton - Bear Creek; Sth 54 - Ncl	STH 076
Outagamie	6518-07-71	N/A	Shiocton - Ncl; Boelter Rd - Cth W	STH 076

ADDENDUM REQUIRED

ATTACHED AT BACK

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

Proposal Guaranty Required: $100,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: July 11, 2023 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code SAMPLE NOT FOR BIDDING PURPOSES
Contract Completion Time August 16, 2024	
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: For Department Use Only

Excavation, Base, HMA Pavement, Culvert Pipe, Curb and Gutter, Sidewalk, Storm Sewer, Signs, Pavement Marking, Traffic Signals, Bridge Construction.

Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

BID PREPARATION

Preparing the Proposal Schedule of Items

A. General

(1) Obtain bidding proposals as specified in section 102 of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:

1. Electronic bid on the internet.
2. Electronic bid on a printout with accompanying diskette or CD ROM.
3. Paper bid under a waiver of the electronic submittal requirements.

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

(3) The department will provide bidding information through the department's web site at:

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

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

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

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

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

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

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

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

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

B. Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

4. Have a properly executed annual bid bond on file with the department.
5. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.

(2) In lieu of preparing, delivering, and submitting the proposal as specified in 102.6 and 102.9 of the standard specifications, submit the proposal on the internet as follows:

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

(3) The department will not consider the bid accepted until the hour and date the Notice to Contractors designates.

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

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express web site reflecting the latest addenda posted on the department's web site at:

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

Use Expedite™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.

(2) Staple an 8 1/2 by 11 inch printout of the Expedite□□ generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal, not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder Name
BN00
Proposals: 1, 12, 14, & 22

(3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.

(4) The bidder-submitted printout of the Expedite□□ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.

(5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
3. The diskette or CD ROM is not submitted at the time and place the department designates.

B Waiver of Electronic Submittal

(1) The bidder may request a waiver of the electronic submittal requirements. Submit a written request for a waiver in lieu of bids submitted on the internet or on a printout with accompanying diskette or CD ROM. Use the waiver that was included with the paper bid document sent to the bidder or type up a waiver on the bidder's letterhead. The department will waive the electronic submittal requirements for a bidding entity (individual, partnership, joint venture, corporation, or limited liability company) for up to 4 individual proposals in a calendar year. The department may allow additional waivers for equipment malfunctions.

(2) Submit a schedule of items on paper conforming to section 102 of the standard specifications. The department charges the bidder a $75 administrative fee per proposal, payable at the time and place the department designates for receiving bids, to cover the costs of data entry. The department will accept a check or money order payable to: "Wisconsin, Dept. of Transportation."

(3) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The bidder fails to provide the written request for waiver of the electronic submittal requirements.
2. The bidder fails to pay the $75 administrative fee before the time the department designates for the opening of bids unless the bidder requests on the waiver that they be billed for the $75.
3. The bidder exceeds 4 waivers of electronic submittal requirements within a calendar year.

(4) In addition to the reasons specified in section 102 of the standard specifications, the department may refuse to issue bidding proposals for future contracts to a bidding entity that owes the department administrative fees for a waiver of electronic submittal requirements.

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

Effective with March 2010 Letting

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

Table of Contents

STSP'S Revised January 13, 2023

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 6518-00-70, Greenville – Bear Creek, Outagamie County Line to USH 45, STH 76, Waupaca County; Project 6518-06-71, Shiocton – Bear Creek, STH 54 – NCL, STH 76, Outagamie County; and Project 6518-07-71, Shiocton – NCL, Boelter Rd – CTH W, STH 76, Outagamie County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2023 Edition, as published by the department, and these special provisions.

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

100-005 (20230113)

2. Scope of Work.

The work under this contract shall consist of removing asphaltic surface milling, cold-in-place recycling pavement, culvert replacements, base aggregate dense, HMA pavement, rumble strips, concrete curb and gutter, curb ramp replacements, storm sewer repairs, guardrail, traffic signals, pavement marking, Structure B-44-471, Structure C-44-138, 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.

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

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

Work Restrictions

Fish Spawning

There shall be no instream disturbance of the tributaries to Bear Creek and the Embarrass River for construction of B-44-471 and C-44-138 as a result of construction activity under or for this contract, from March 1 to June 15, both dates inclusive, in order to avoid adverse impacts upon the spawning of various fish species.

There shall be no instream disturbance of the tributaries to Bear Creek and the Embarrass River for culvert replacements as a result of construction activity under or for this contract, from March 1 to May 31, both dates inclusive, in order to avoid adverse impacts upon the spawning of various fish species. Culvert replacements are proposed at tributaries at the following locations:

- Station 260+46
- Station 273+59
- Station 452+72
- Station 533+16
- Station 565+50
- Station 626+67

Culvert Replacements

For all culvert replacements, isolate the work zone from adjacent standing water. Bypass flows around the construction zone, if present. Treat all dirty water removed from the work zone before discharging back to surface waters/wetlands.

Box Culvert Construction, Culvert Replacements and Frost Heave Grading

Provide work force necessary to complete all culvert replacements, frost heave grading, construction of both box culverts and restoration of asphaltic surface, pavement marking and incidentals necessary to reopen the roadway to traffic by November 17, 2023.

Stage all culvert replacements to maintain access to all driveways and field entrances. Submit a culvert staging plan to the engineer a minimum of 14 days prior to the start of culvert work identifying culverts replacements that will be completed prior to work on box culverts and sequencing for all culvert replacements. Obtain engineer approval of the culvert staging plan prior to beginning any culvert replacement work.

Restore a gravel surface to original roadway profile grade upon the completion of each culvert replacement and associated frost heave grading. Place asphaltic surface within 14 calendar days of the completion of each culvert replacement.

Winter Shutdown

Winter shutdown will commence with the completion of culvert replacements, frost heave grading, C-44-22, B-44-471, roadway pavement restoration, temporary pavement marking, and permanent restoration of all disturbed slopes in the Fall of 2023. Do not resume work until April 29, 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.

No work may take place during winter shutdown except for clearing and grubbing.

STH 76 Detour in 2024

STH 76 shall not be detoured prior to May 13, 2024, unless approved by the engineer.

Interim Liquidated Damages

STH 76 Detour in 2023: November 17, 2023

Remove the 2023 detour of STH 76 by November 17, 2023. Complete the following work prior to removing the detour:

- Culvert replacements
- Frost heave grading
- Construction of C-44-22 and B- 44-471
- Restoration of roadway pavement, shoulders and pavement marking

If the contractor fails to complete the defined work and remove the 2023 detour of STH 76 by November 17, 2023, the department will assess the contractor $2,400 in interim liquidated damages for each calendar day the required work on STH 76 remains incomplete and the STH 76 detour remains in place.

STH 22 Detour in 2024: 45 Calendar Days

Remove the detour of STH 22 within 45 calendar days. Complete the following work prior to removing the detour:

- All work on STH 22 west of USH 45 including storm sewer, grading, base aggregate, curb and gutter, pavement widening, pavement mill and overlay, flashing stop sign beacon, pavement marking and restoration.

If the contractor fails to complete the defined work and remove the detour of STH 22 within 45 calendar days, the department will assess the contractor $2,400 in interim liquidated damages for each calendar day the required work on STH 22 west of USH 45 remains incomplete and the STH 22 detour remains in place.

Migratory Birds

Swallow or other migratory bird nests have been observed on or under the existing structure(s). All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. The nesting season for swallows and other birds is from April 15 to August 31.

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

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

- C-44-22, Station 479+25

Northern Long-eared Bat *(Myotis septentrionalis)*

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

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

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

The department has contracted with others to cut trees for this project prior to construction. Clearing and grubbing will be as follows:

<u>Project 6518-00-70</u>

- Clearing and grubbing to be completed by roadway contractor.
- Complete clearing between November 1, 2023, and March 30, 2024.

<u>Project 6518-06-71</u>

- Clearing/tree removal by others prior to construction.
- Grubbing to be completed by roadway contractor.

Project 6518-07-71

- Cutting trees by others prior to construction.
- Clearing of downed trees and grubbing the stumps and any remaining vegetation to be completed by roadway contractor.

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

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

4. Traffic.

General

Conduct construction operations in a manner that will cause the least interference to traffic movements and business and residential access adjacent and within the construction areas.

No operations shall take place until all traffic control devices for such work are in the proper location.

Notify the engineer if there are any changes in the schedule, early completions, or cancellations of scheduled work.

Provide 24-hour contact information, including current telephone number(s), to the engineer, Outagamie County Sherriff's Department, Waupaca County Sherriff's Department, local first responders, and the State Patrol District Headquarters in the event a safety hazard develops. The contractor shall repair, replace, or restore the damaged or disturbed traffic control devices within two hours from the time notified.

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

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

Equip all contractor vehicles and equipment operating in live traffic lanes or within the roadway clear zone with a hazard identification beacon (flashing yellow signal) visible in all directions. Operate the flashing yellow beacon when merging into, leaving, or crossing a live traffic lane, when parked or operating on the shoulders, and wherever working off the roadway within the clear zone. This requirement will not be measured and paid for separately but will be considered incidental to other items in the contract.

Do not disturb, remove, or obliterate any existing signs, traffic control signs, or advisory signs in place along the traveled roadways without the approval of the engineer.

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

STH 22 Detour, 6518-00-70

Maintain two-way traffic on STH 22 and USH 45 at all times except as follows:

- STH 22 may be reduced to one lane during daylight hours with traffic controlled by flaggers to complete tree clearing between November 1, 2023, and March 30, 2024.
- STH 22 will be detoured in 2024 via CTH T, CTH O and USH 45 to complete all work west of USH 45 with the exception of tree clearing. Maintain local access to driveways within the STH work zone from the west. Provide local traffic access to driveways within the STH 22 construction limits.

- USH 45 traffic may be reduced to one lane during daylight hours with traffic controlled by flaggers when work is taking place immediately adjacent to the USH 45 through lane. Provide a minimum of a 3-foot gravel shoulder to accommodate drums with maximum 3:1 slope along southbound USH 45 through the STH 22 intersection when not under flagger control.

STH 76 Detour, 6518-00-70, 6518-06-71 and 6518-07-71

STH 76 will be detoured for the duration of the project work in 2023 via STH 54 and USH 45.

Maintain two-way local traffic within the STH 76 work zone at all times except as follows:

- Hard closures will be permitted during construction of B-44-471, C-44-138, and for all culvert replacements. Stage work requiring hard closured to maintain access to all driveways and field entrances.
- STH 76 may be reduced to one lane outside of hard closure areas during daylight hours with traffic controlled by flaggers to complete other work, including the frost heave grading and shoulder subgrade work between Station 25+52 and Station 28+80.
- Supplement flaggers with a pilot vehicle, per standard spec 104.6.1.2.2, to facilitate local traffic flow through areas of STH 76 construction operations for each lane restriction exceeding one mile in length. Operations shall be according to the Wisconsin Flagging Handbook, current edition

STH 76 will be detoured at the start of milling operations in 2024.

Maintain two-way local traffic within the STH 76 work zone at all times except as follows:

- STH 76 may be reduced to one lane outside of hard closure areas during daylight hours with traffic controlled by flaggers.
- Supplement flaggers with a pilot vehicle, per standard spec 104.6.1.2.2, to facilitate local traffic flow through areas of STH 76 construction operations for each lane restriction exceeding one mile in length. Operations shall be according to the Wisconsin Flagging Handbook, current edition

Curb ramp construction may be performed via shoulder closures prior to STH 76 being detoured in 2024. If necessary, STH 76 may be reduced to one during daylight hours with traffic controlled by flaggers during curb ramp construction.

Property Access

Maintain access to all commercial, private and field entrances and to all intersections at all times for local residents, businesses, and emergency vehicles except as follows:

- Alternate sideroad intersections in Bear Creek may be closed to complete curb ramp construction with the exception of the Railroad Avenue intersection. Provide flagging for all curb ramp construction operations on Railroad Ave that restricts truck ingress and egress between STH 76 and GLK.
- Alternate sideroad intersections outside of Bear Creek may be closed to complete other required construction operations with the exception of the CTH D intersection. Provide flagging for frost heave grading work at the CTH D intersection to maintain cross traffic and ingress and egress between CTH D and STH 76 west of CTH D. Restore the intersection to a crushed aggregate surface by the end of the working day.
- Maintain access to one half of the parcel 32 garage opening on Railroad Avenue at all times on a minimum of a base aggregate surface. Contact the owner, Ken Rohan, (920) 470-8262, a minimum of one week prior to the start of work in the southwest quadrant of Railroad Avenue.

If temporary access closures are required to accommodate construction operations, contact property owners 48 hours prior to closing access to any existing entrance to coordinate temporary closures. Restore private entrances, including gravel surface, within 12 hours of removal.

If the contractor coordinates the closure of any access to a business or private property with the owner(s), the contractor shall provide written documentation of coordination with the owner(s) to the engineer 48 hours in advance of the closure.

For operations that impact business parking lots, coordinate construction timeframes with the business owner so disruptions to their available parking are minimized to the extent possible or avoided. This may include having to perform operations during non-business hours and restoring parking lots to a minimum, drivable surface of base aggregate dense on a daily basis.

Pedestrian Access

Maintain pedestrian access, including access to all businesses and residences at all times, according to current Americans with Disabilities Act (ADA) Accessibility Guidelines (ADAAG), within the project limits by means of existing sidewalk, temporary pedestrian accommodation items, or new sidewalk at a minimum width equal to the greater of existing or 4 feet. Preserve the existing sidewalk as long as practicable to maintain pedestrian access. Sequence curb ramp replacement to maintain pedestrian accommodations on at least one side of the highway and on one side of cross streets (where applicable), unless otherwise directed by the engineer. Provide temporary pedestrian access as the details show and as directed by the engineer. Place Temporary Pedestrian Barricade as shown in the plans and/or directed by the engineer. When required, close sidewalks as shown in the plans and standard detail drawing "Traffic Control, Pedestrian Accommodation."

Temporary Work Zone Clear Zone Working Restrictions.

Park equipment and store materials, including stockpiles, a minimum of 15-feet from the edge of the traveled way unless protected by concrete barrier temporary precast.

If the contractor is unsure whether an individual work operation will meet the safety requirements for working within the clear zone, review the proposed work operation with the engineer before proceeding with the work.

ner-104-005 (20200227)

Portable Changeable Message Signs - Message Prior Approval

After coordinating with department construction field staff, notify the Northeast Region Traffic Section at 920-366-8033 (secondary contact number is 920-360-3107) 3 business days before deploying or changing a message on a PCMS to obtain approval of the proposed message. The Northeast Region Traffic Unit will review the proposed message and either approve the message or make necessary changes.

PCMS boards must be deployed 7 days before all detours.

Wisconsin Lane Closure System Advance Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

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

5. Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying USH 45 and STH 54 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

- From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023 for Labor Day;
- 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.

stp-107-005 (20210113)

6. Utilities.

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

stp-107-065 (20080501)

6518-00-70

The following owners have facilities within the project area and the owner has indicated that adjustments will be complete prior to construction:

Frontier Com of WI (COMLN) has underground facilities within the project limits.

Frontier will place new underground facilities along the south side of STH 22 and STH 76 from Station 19+00 to Station 34+00 and place a new service along the east side of USH 45 to the property in the northeast quadrant of the intersection. The old facilities will be discontinued in place.

Spectrum (COMLN) has overhead facilities on WE Energies poles along the south side of STH 22.

Spectrum will transfer overhead facilities to the new WE Energies poles at Station 18+47 RT and Station 19+87 RT.

WE Energies (GSPTR) has buried gas facilities within the project limits.

WE Energies will perform the following work:

- Install a new gas main along the south side of STH 22 from Station 20+00 to Station 22+50.
- Install a new gas main along the south side of STH 76 from Station 36+00 to Station 50+01.
- Install new service lines from Station 36+00 to Station 50+01.
- Discontinue old gas main and service lines in place.

WE Energies (ELCTY) has overhead facilities along the south side of STH 22.

WE Energies will remove the existing pole at Station 19+74 RT and place new poles at Station 18+47 RT and Station 19+87 RT.

6518-06-71

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.

The following utility owners have facilities within the project area; however, the owner has indicated that no adjustments are anticipated.

- **ATC Management, Inc. (ELCTY)**
- **Brightspeed (COMLN)**
- **Frontier Com of WI (COMLN)**
- **Shiocton Utilities (WATR)**
- **Spectrum (COMLN)**
- **WE Energies (ELCTY)**

The following owners have facilities within the project area and the owner has indicated that adjustments will be complete prior to construction:

WE Energies (GSPTR) has buried gas facilities within the project limits.

WE Energies will perform the following work:

- Install a new gas main along the south side of STH 76 from Station 50+01 to Station 92+00.
- Install a new gas main across STH 76 at Station 70+35 and up the west side of Hyde Street.
- Install new service lines between Station 50+01 and Station 92+00.
- Discontinue old gas main and service lines in place.

The following owners have facilities within the project area and the owner has indicated that adjustments will be complete prior to and during construction:

Bear Creek Utilities (WATR) has buried water facilities within the project limits. There are no hydrant conflicts, but five hydrants will be replaced in approximately the same location as the existing hydrant locations prior to construction by Midwest Contract Operations at the following locations:

- Northeast corner of STH 76 and Park Street
- Northeast corner of STH 76 and Hyde Street
- North side of STH 76 across from Prospect Street
- Southeast corner of STH 76 and Clark Street
- North side of STH 76 east of 410 W. Willow Street

Water valves that fall within or adjacent to proposed curb ramp construction will be adjusted by Midwest Contract Operations during construction. Water valve adjustment will take approximately four hours to complete per location.

6518-07-71

The following owners have facilities within the project area and the owner has indicated that adjustments will be complete prior to construction:

Frontier Com of WI (COMLN) has underground facilities within the project limits.

Frontier will place a new underground copper cable one foot inside the right-of-way on the north side of STH 76 from Station 360+00 to Station 368+00 and discontinue the old facility in place.

WE Energies (ELCTY) has overhead facilities within the project limits.

WE Energies will perform the following work at B-44-471:

- Place new poles at Stations 359+87 RT, 362+35 RT, 364+96 RT and 367+42 RT.
- Remove poles at Stations 359+65 RT, 362+38 RT, 364+93 RT and 367+39 RT.
- Remove overhead conductors between the poles at Stations 362+38 RT and 364+93 RT.

WE Energies will perform the following work at B-44-138:

- Remove poles at Stations 477+43 LT and 479+75 RT.
- Remove overhead conductors between the poles at Stations 477+43 LT, 479+75 RT and 482+04 RT.
- Place new temporary overhead facilities around the south side of proposed B-44-471 routed between poles at Stations 476+93 LT, 478+02 RT, 478+97 RT and 479+33 RT.

7. Other Contracts.

The Wisconsin Department of Transportation anticipates the following projects to be constructed in 2023 between May and October:

- 6230-14-71, STH 54, Shiocton – Seymour, Park Avenue – French Road, Outagamie County;
- 6230-14-72, STH 54, E. State Street, Village of Black Creek, Tower Drive – N Beech Street, Outagamie County;
- 6517-15-60, STH 76, Stephensville – Shiocton, South Junction CTH S – STH 54, Outagamie County.

These projects include the resurfacing of STH 54 between Shiocton and Seymour, the resurfacing of STH 76 between CTH S and STH 54 in Shiocton, curb ramp replacements in Shiocton and Black Creek, storm sewer replacements, culvert replacements, traffic signal replacement in Black Creek, beam guard upgrades, a bridge replacement, and the refurbishment of a water control structure.

Under 6230-14-71/72, STH 54 will be detoured during the culvert replacements between Shiocton and Black Creek via STH 76, CTH A, STH 47, CTH B, and CTH PP. During storm sewer repairs and curb ramp work in Black Creek, STH 47 will be detoured using CTH B, CTH PP, STH 54, STH 55, and CTH G. During the replacement of the bridge (C-44-009) east of Black Creek, STH 54 will be detoured using STH 47, CTH BB, and CTH PP.

Under 6517-15-60, STH 76 will be detoured via CTH S, CTH M, and STH 54.

Coordinate construction activities with the contractor for these projects.

8. Work By Others.

At the intersection of STH 45 and STH 76/22 the Wisconsin Department of Transportation North Central Region Electrical Unit will perform the following work. Notify the department's North Central Region electrician, Ken Radke at (715) 459-4264 a minimum of five working days prior to the required work:

- Terminate all electrical wire in the flashing beacon control cabinet.

Spectrum will be performing utility work within the limits of the projects. Additional information regarding the proposed installation of the utility facilities may be available on permits required by each utility company. Prior to preparing bids, contact Jesse Hansen, P.E., at (920) 492-5630.

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

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

A copy of the permit is available from the regional office by contacting Jesse Hansen, P.E., at (920) 492-5630.

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

stp-107-054 (20230113)

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

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

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

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

A certificate of permit coverage is available from the regional office by contacting Jesse Hansen, P.E., at (920) 492-5630. Post the permit certificate in a conspicuous place at the construction site.

11. Environmental Protection, By-Pass Pumping

Add the following to standard spec 107.18:

If by-pass pumping is required, the means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for each location it is required. The submittal shall include how the intake will be managed to not cause an increase in the background level turbidity during pumping; equipment pumping rate capabilities; discharge energy dissipation; and erosion controls. For by-pass pumping that will extend beyond one working day, the submittal should also include how the work zone will be managed and protected should the pump fail; be shut down due to unacceptable water quality; or storm water flows exceed the pumping rate of equipment. After setup of the approved by-pass pumping operation, the contractor shall demonstrate that the means and methods will pump the water at an acceptable water quality before starting work that necessitates the by-pass pumping. The cost of all work and materials associated with by-pass pumping is incidental to the bid items the work is associated with. Erosion control devices beyond the discharge energy dissipation point will be paid for at the contract unit prices for the items that are included in the plan.

ner-107-035 (20180212)

12. Environmental Protection, Dewatering

Add the following to standard spec 107.18:

If dewatering is required, treat the water to remove suspended sediments by filtration, settlement or other appropriate best management practice before discharge. The means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for dewatering at each location it is required. The submittal shall also include the details of how the intake will be managed to not cause an increase in the background level turbidity before treatment and any additional erosion controls necessary to prevent sediments from reaching the project limits or wetlands and waterways. Guidance on dewatering can be found on the Wisconsin Department of Natural Resources website located in the Storm Water Construction Technical Standards, Dewatering Code #1061, “Dewatering”. This document can be found at the WisDNR website:

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

The cost of all work and materials associated with water treatment and/or dewatering is incidental to the bid items the work is associated.

ner-107-040 (20180212)

13. 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 (>104º 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)

14. Environmental Protection, (Amphibian or Reptile Species).

A state special concern/protected herptile may be present at the Bear Creek, the Embarrass River, their unnamed tributaries and their riparian corridors. It is reasonable to assume that the protected herptile may be present at or near the project site during construction. If project construction starts in the spring, protect the perimeter of the areas to be disturbed with properly trenched-in silt fence with turn arounds before May 1 to discourage herptiles from entering the work area. If the construction area cannot be silt-fenced by May 1, install the silt fence before construction activities. Also, survey the area behind the silt fence and remove all protected herptiles confined within the project area before any site disturbance. Complete the survey and removal of protected herptiles from construction areas periodically throughout the construction period.

15. Construction Over or Adjacent to Navigable Waters.

The Embarrass River and Bear Creek along with several tributaries crossing STH 76 are classified as a state navigable waterway under standard spec 107.19.

stp-107-060 (20171130)

16. Coordination with Businesses.

The contractor will arrange and conduct a meeting between the contractor, the department, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting 7 days prior to the start of work under this contract and monthly thereafter. The contractor shall notify all parties in writing a minimum of 10 days before the first meeting being held.

ner-105-005 (20180212)

17. Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found – C-44-022.

Paul Garvey, License Number All-117079, inspected Structure C-44-022 for asbestos on 02/22/2019. No Regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is included with the bid package or available from Jesse Hansen, (920) 362-6095, Jesse.Hansen@dot.wi.gov.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 03/20), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Jesse Hansen, (920) 362-6095, Jesse.Hansen@dot.wi.gov and via e-mail to dothazmatunit@dot.wi.gov or via U.S. mail to DOT BTS-ESS attn: Hazardous Materials Specialist, 5 South S.513.12, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure C-44-022, STH 76 over unnamed creek
- Site Address: 2.00 miles north of CTH M
- Ownership Information: WisDOT NE Region (Green Bay), 944 Vanderperren Way, Green Bay, WI 54304-5344.
- Contact: Jesse Hansen
- Phone: (920) 362-6095
- Age: 83 years old. This structure was constructed in 1940.
- Area: 540 SF of deck

Insert the following paragraph in Section 6.g.:

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

stp-107-125 (20220628)

18. Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found – C-44-919.

Paul Garvey, License Number All-117079, inspected Structure C-44-919 for asbestos on 02/22/2019. No Regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is included with the bid package or available from Jesse Hansen, (920) 362-6095, Jesse.Hansen@dot.wi.gov.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 03/20), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Jesse Hansen, (920) 362-6095, Jesse.Hansen@dot.wi.gov and via e-mail to dothazmatunit@dot.wi.gov or via U.S. mail to DOT BTS-ESS attn: Hazardous Materials Specialist, 5 South S.513.12, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure C-44-919, STH 76 over unnamed creek
- Site Address: 1.93 miles north of CTH FF
- Ownership Information: WisDOT NE Region (Green Bay), 944 Vanderperren Way, Green Bay, WI 54304-5344.
- Contact: Jesse Hansen
- Phone: (920) 362-6095
- Age: 83 years old. This structure was constructed in 1940.
- Area: 570 SF of deck

Insert the following paragraph in Section 6.g.:

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

stp-107-125 (20220628)

19. Prepare Foundation for CIR Base Layer 6518-00-70, Item 211.0700.S.01; Prepare Foundation for CIR Base Layer 6518-06-71, Item 211.0700.S.02.

A Description

This special provision describes the preparation of foundation for work required prior to Cold-In-Place Recycling (CIR) according to standard spec 211 and as hereinafter provided.

B (Vacant)

C Construction

After any contract required surface milling, and immediately prior to commencing CIR operations, remove from the roadway, and up to 1 inch below the milled surface, any vegetation, standing water, loose crack filler, and any other deleterious materials.

D Measurement

The department will measure Prepare Foundation for CIR Base Layer as each individual project, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
211.0700.S.01	Prepare Foundation for CIR Base Layer 6518-00-70	EACH
211.0700.S.02	Prepare Foundation for CIR Base Layer 6518-06-71	EACH

Replace standard spec 211.5.1 (4) with the following:

(4) Payment is full compensation for brooming and crack fill removal.

The department will pay separately for the following work associated with yielding areas under this item under the following contract items:

- Base Repair for CIR Layer.

stp-211-020 (20191121)

20. Base Repair for CIR Layer, Item 211.0800.S.

A Description

This special provision describes base repair for Cold In-Place Recycling (CIR) layer according to standard spec 211, and as hereinafter provided.

B (Vacant)

C Construction

After any contract required surface mill, the engineer and contractor shall visually inspect the milled surface for yielding areas.

Yielding areas will then be repaired prior to the CIR process. The identified yielding areas will be excavated to a maximum of 2 feet, repaired with base course, and a minimum of 5 inches of milled and re-laid pavement material or asphaltic surface in the upper layer,

Add the following to standard spec 211.3.5:

Prior to and during the placement of the CIR layer the contractor shall also be responsible for the work covered under this item.

Perform work under this bid item according to standard spec 205.

Remove soft and/or yielding areas of base to a maximum depth of 2-feet. All areas will be documented, and information will be provided to the engineer. If areas are found after paving operation begin, the engineer will be notified of locations. Excavated area will be filled and compacted with material that meets the material requirements of standard spec 305 and Base Aggregate Dense 1 ¼-inch, or standard spec 330 and Mill and Relay, or standard spec 465 and Asphaltic Surface.

Do not exceed plan quantity without written approval from the engineer.

D Measurement

The department will measure Base Repair for CIR Layer 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
211.0800.S	Base Repair for CIR Layer	CY

Payment is full compensation for removing and excavating areas of base to a maximum of 2 feet; required saw cuts; providing, placing, and compacting dense graded base course; milling and relaying pavement; asphaltic surfacing; and traffic control.

stp-211-030 (20200629)

21. Cold In-Place Recycling (CIR) Asphalt Base Layer, Item 327.1000.S; Asphalt Stabilizing Agent, Item 455.0770.S.

A Description

(1) This work consists of the milling, crushing, and screening (as necessary) of the existing hot mix asphalt (HMA) pavement to the width and depth specified on the plans. The processed material shall be blended with foamed asphalt stabilizing agent, water, and other additives as necessary, and required by the mix design, for placement and compaction of this mixture in accordance with the plans and specifications.

B Materials

B.1 Reclaimed Asphalt Pavement (RAP) Material

(1) The RAP material shall be milled from the existing roadway and processed in place.

(2) The RAP shall be free of contamination including a base material, aggregate shoulder material, concrete, silt, clay, or other deleterious materials unless specified in the plan.

(3) Rubberized crack filler, pavement markers, loop wires, fabric, or other materials shall be removed as observed from the roadway during the recycling process. Any residual materials shall be appropriately sized and homogenously blended with the RAP. No rubberized crack filler or fabric piece may have a dimension exceeding a length of 4 inches.

(4) The milled and processed material shall conform to the following gradation:

Sieve Size	Percent Passing
2”	100
1 ½”	98 to 100
1”	95 to 100

B.2 Stabilizing Agent

(1) The asphalt stabilizing agent used for Cold In-Place Recycling (CIR) Asphalt Base Layer shall be foamed asphalt.

B.2.1 Foamed Asphalt

(1) Foamed asphalt shall be produced with a performance graded asphalt binder; without polymer modification; in accordance with standard spec 455.

(2) Asphalt binder performance grade for foamed asphalt shall be PG 46-34 or PG 52-34. Ensure that the material is furnished by a supplier from the Combined State Binder Group Certified Supplier List.

(3) Asphalt binder shall be sufficiently heated to meet the mix design expansion and half-life criteria; not to exceed 375° F.

(4) Asphalt binder shall produce asphalt foam with a minimum expansion ratio of 8, and a half-life of no less than 6 seconds.

B.2.2 Water

(1) Water may be added to the RAP at the milling head and/or in a mixing chamber.

(2) Water added to the RAP, used for foaming asphalt, shall be free of sediment and deleterious materials.

B.3 Mixture Design

(1) The contractor shall be responsible for obtaining milled samples and/or cores for the project mix design.

(2) Core samples shall be obtained at a minimum frequency of 0.5 lane-mile. Cores shall be obtained from the area to be recycled including the shoulder. Samples obtained by coring should be enough to develop the mix design.

(3) Samples for mix design obtained by milling shall be taken from at least 3 different locations directly from the area to be recycled.

(4) All samples shall represent the entire depth of the layer to be recycled.

(5) Develop and submit a material sampling plan for review and approval a minimum of 5 business days prior to obtaining milled and/or cored samples.

(6) Material sampling prior to receipt of the engineer’s notice to proceed shall require submittal and approval of an Application/Permit to Work on Highway Right-of-Way (DT1812).

(7) During material sampling operations, contractor insurance shall be as specified in standard spec 107, traffic control requirements shall be as specified in standard spec 107 and 643, and in the contract special provisions.

(8) Develop and submit a mix design with the optimal asphalt content 10 business days prior to the start of the CIR operation. This will be developed according to AASHTO MP 38-18 and PP 94-18; and additionally, will conform to the requirements listed in B.3.1. Submit mix design using WisDOT’s provided CIR mix design template to the engineer and department’s Bureau of Technical Services, Materials Management Section, Pavement Unit: DOTDLDTSDBTSPavementUnit@dot.wi.gov

Table B.3.1 – Minimum Mix Design Requirements

Properties	Test Method	Specification	Criteria
RAP	Gradation of RAP (Sieve Analysis of Aggregates)	AASHTO MP 38-18 and PP 94-18	Fine or Medium Gradation per AASHTO PP 38-18 (Table 1)
	RAP Coating Test	AASHTO T 59	Minimum Good
Foaming	Foamed Asphalt Expansion Ratio	AASHTO MP 38-18 and PP 94-18	Minimum 8.0 Times
	Foamed Asphalt Half-life		Minimum 6.0 Seconds
Mixture Volumetrics	Bulk Specific Gravity of Compacted Samples		Report Only; Ndes=30
	Maximum Theoretical Specific Gravity		Report Only
	% Air Voids in Compacted Dense and Open Bituminous Paving Mixtures		Report Only
	Tensile Strength (Resistance of Compacted Mixture to Moisture) Dry, psi Ratio (TSR)		Minimum 45 Minimum 0.60*

*0.70 for mix designs requiring the addition of cement.

(9) The mix design shall be used for informational purposes.

(10) The mix design report shall contain the following minimum information:

1. Gradation of RAP.
2. Density, maximum specific gravity, air void content, indirect dry tensile strength, indirect wet (conditioned) tensile strength, and tensile strength ratio at each recycling agent content iteration (minimum of 4; inclusive of recommended moisture and stabilizing contents) and at the recommended moisture and stabilizing agent contents.
3. Recommended water content from the moisture density curve as a percentage of dry RAP.
4. Optimum stabilizing agent content as a percentage of dry RAP.
5. PG grading of asphalt binder for foamed asphalt, supplier name and location, and certified test report.
6. The optimal foaming characteristics of the asphalt stabilizing agent during the mix design process shall be determined at a minimum of using three different percentages of foamed asphalt content, three different temperatures, and water content.
7. RAP coating test results.
8. Any additives that may be used.

B.4 Quality Management Program

B.4.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan, including random numbers, to the engineer no later than 10 business days before beginning CIR activities. Construct the project as the plan provides.

(2) 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 it 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 suppliers for all stabilizing agents.
4. A list of source locations for all water.
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 locations or quantities, selected randomly using ASTM Method D3665, to be tested under this provision.

B.4.2 Pre-CIR Construction Meeting

A minimum of 5 business days prior to the start of CIR construction, hold a pre-CIR construction meeting at a mutually agreed upon time and location. Attendance at the pre-CIR construction meeting is mandatory for the project leader, quality control manager, project inspection and testing staff, all appropriate contractor personnel involved in the sampling, testing, and quality control including subcontractors, and the engineer or designated representatives.

B.4.3 Personnel

(1) Provide HTCP Nuclear Density Technician I or ACT certified technician for the performance of field density and field moisture content testing.

(2) Provide HTCP Aggregate Technician I or ACT certified technician for material sampling and sieve analysis.

(3) A Transportation Materials Sampling (TMS) certified technician is allowed for materials sampling.

(4) If an 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 are performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

B.4.4 Equipment

(1) 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 applicable AASHTO and/or ASTM specifications and maintain a calibration record at the laboratory.

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

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/default.aspx

(3) Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

(4) Conform to AASHTO T310 and CMM 8.15 for density testing and gauge monitoring methods.

B.4.5 Quality Control (QC) Testing

(1) Roadway production lots will be defined as 4000 lane feet. Each roadway production lot will consist of two 2000 lane feet sublots. The contractor will notify the department before sampling.

(2) Gradation samples shall be taken at a random location at a minimum frequency of one per lot of production. Gradation samples shall be taken as representative of the full recycled depth. Samples may be obtained prior to or after the addition of stabilizing agent depending on the type of CIR equipment used in the project. For each sample report the gradation of the material, as determined in accordance with AASHTO T27, for the Number 4 (4.75mm) sieve and larger.

(3) Conduct and report density testing at a minimum frequency of three individual random tests per sublot.

(4) Conduct and report mill depth checks at a random location at a minimum frequency of once per sublot.

(5) Measure and report stabilizing agent foaming properties (i.e. half-life and expansion ratio) of each new tanker load from the equipment's test nozzle or recycling unit. If the foaming properties do not meet the requirement as specified in B.2.1, take the necessary corrective action by adjusting the temperature of the stabilizing agent and/or foaming water content.

(6) Report stabilizing agent temperature at a minimum of one per each new tanker load.

(7) Report stabilizing agent foamed asphalt expansion ratio and half-life at random locations at a minimum frequency of once per sublot.

(8) Perform startup QC testing (milling depth, stabilizing agent, foaming properties, and stabilizing agent application rate) within the first 500 feet at the beginning of each day of production.

(9) Conduct and report daily moisture content of the finished CIR layer representing each day's placement. Moisture content shall be based on the average of three random tests, from each day's placement. The moisture content shall be determined from a sample retrieved over the full depth of the CIR layer by weighting and drying to a constant weight using an oven at 230°±9°F. Engineer-directed tests are an addition to the above three tests representing the day's placement.

(10) Once the section achieves 2.5% or less in moisture, the section is considered cured and additional moisture tests are not required unless directed by the engineer.

(11) The contractor shall provide a Daily Inspection Report within 48 hours to the engineer summarizing the following:

- daily beginning and ending stations,
- applicable mix design,
- stabilizing agent temperature,
- stabilizing agent foaming properties,
- sublot tests (mill depth check, density test, and gradation) locations and values, and
- lot roadway sample locations.
- moisture

Any adjustments to the application rate of the stabilizing agent, compaction or foaming water shall be reported as stated in section C.1. Test results (except gradation and moisture) shall be provided to the engineer by the end of the business day.

B.4.6 Department Testing

B.4.6.1 General

(1) The department will conduct quality verification (QV) testing to validate the quality of the product and independent assurance (IA) 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 5 business days after the department obtains the sample.

B.4.6.2 Quality Verification (QV) Testing

(1) The department will have a technician, or ACT working under a technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.4.3 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling.

(2) The department will conduct random QV tests at the minimum frequency of 10% of the required QC tests. The department will observe the contractor's QC stabilizing agent foaming property test.

(3) The department's mill depth check, roadway gradation sample, and density test sites, will be at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will split each QV gradation sample, test half for QV, and retain the remaining half for 7 calendar days.

(4) The department will verify the contractor's moisture content values by testing a moisture content split sample at a frequency of at least one per day.

(5) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

(6) The department will assess QV results by comparing them to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If QV test results are nonconforming, a re-evaluation of the entire process must be completed before production can resume.

B.4.6.3 Independent Assurance (IA)

(1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Requesting that testing personnel perform additional sampling and testing.

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.4.6.4.

B.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 shall review the data, examine data reduction and analysis methods, evaluate sampling and testing methods/procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

(2) Production test results, and results from other process control testing, may be considered when resolving a dispute.

(3) If 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 Construction

C.1 General

(1) Unless the contract provides otherwise, keep the road open to traffic during construction.

(2) Perform CIR operations; only between the dates of May 15 and September 15; when the air temperature approximately 3 feet above grade, in the shade, and away from artificial heat sources is above 50°F and when the nighttime ambient air temperature is above 35°F the night prior and the following night, unless approved otherwise by the engineer.

(3) Do not perform CIR operations during inclement weather such as rain or fog; that will not allow proper mixing, placing, and/or compacting of the mixture.

(4) CIR operations and recycled pavement base layer curing shall be completed to allow adequate time for placement of surfacing in accordance with calendar requirements of standard spec 450.3.2.1.

(5) The asphalt binder stabilizing agent application rate will be 2.00 percent with a field adjustment tolerance of +/- 0.30 percent. Any changes within the +/- 0.30 percent tolerance from the 2.00 percent application rate will need to be documented with date, time, pavement temperature, location, reason, and new values and communicated to the engineer at the time the change occurs.

(6) The metered water added at the mill used for cooling and compaction shall be 2.00 percent. Any changes within the +/- 0.30 percent tolerance from the 2.00 percent application rate will need to be documented with date, time, pavement temperature, location, reason, and new values and communicated to the engineer at the time the change occurs.

(7) If the stabilizing agent or water application rate from the mix design referenced in section B.3 is not within the range of 1.70 to 2.30 percent, at the department's direction, 500 feet test sections will be required as a comparison. The contractor's liability for the department's directed test sections will be waived. The department's Bureau of Technical Services Pavement Unit will be consulted on these test sections. No test section will be considered below 1.50 percent asphalt binder stabilizing agent.

C.2 Equipment

(1) Equipment used for CIR shall be subject to approval by the engineer.

(2) Tankers supplying hot stabilizing agent components shall be equipped to constantly monitor temperature within the tank.

C.2.1 Milling Machine

(1) The primary milling machines; not inclusive of pre-mill/wedge-cut milling units; shall be capable of milling the existing pavement at a minimum width of not less than 12.5 feet and to the depth shown on the plans, specified in the contract or directed by the engineer. A smaller milling machine may be used to mill paved shoulders and miscellaneous areas to increase the recycle width.

(2) The milling machines shall be equipped with automatic depth control, shall maintain constant cutting depth and width, uniform grade, and uniform slope.

(3) For processes not incorporating additional screening, sizing, or crushing; the milling machine shall be capable of producing RAP sized as specified in B.1.

(4) Use of a heating device to soften the pavement is not permitted.

C.2.2 Screening, Crushing, and Sizing Equipment

(1) Processes requiring additional screening, sizing, or crushing, shall include a unit with a closed-circuit system capable of continuously returning oversized material to the crusher until all milled material entering the screening, crushing, or sizing equipment meets the gradation requirements of section B.1.

C.2.3 Mixing Unit

(1) Processed RAP shall be mixed with the stabilizing agent and water in a mixing unit; defined as the milling machine cutter housing, a separate mixing chamber, or a pugmill.

(2) The asphalt stabilizing agent shall be applied; using a computer-controlled additive system; uniformly at the predetermined application rate. The metering of the stabilizing agent must be monitored through a calibrated pump providing a continuous readout of quantities.

(3) The additive system shall contain separate pumping systems for adding stabilizing agent and water. Each system shall have an inspection or test nozzle for stabilizing agent and/or water sampling.

(4) The system shall be capable of producing a uniformly mixed homogeneous recycled pavement base layer mixture.

C.2.4 Paving Equipment

(1) The placement and shaping of the recycled pavement base layer mixture shall be completed using a self-propelled paver or screed integral to the recycling equipment meeting the requirements of standard spec 450.3.1.4; revised to exclude the requirement of an activated screed or strike-off assembly.

(2) The screed shall not be heated.

(3) If utilizing a self-propelled paver, the material shall be transferred directly into the paver hopper from the recycling equipment or with a pick-up device. When a pick-up device is used, the entire windrow shall be removed from the milled surface and transferred to the paver hopper.

C.2.5 Compaction Equipment

(1) Compaction equipment shall be self-propelled and meet the requirements of standard spec 450.3.1.5.

(2) The number, weight, and types of rollers shall be used as necessary to achieve the specified compaction. At a minimum, the following rollers shall be used:

1. At least one self-propelled double drum vibratory steel roller with a minimum weight of not less than 10 tons.
2. At least one self–propelled pneumatic-tired roller with a minimum weight of not less than 22 tons.

C.3 Constructing CIR

C.3.1 Preparation

(1) After any contract required surface milling, and immediately prior to commencing CIR operations, remove from the roadway, and up to 1 inch below the milled surface, any vegetation, standing water, loose crack filler, and any other deleterious materials.

(2) Inspect the pavement surface, after any contract required surface milling, for areas of yielding subgrade. Yielding areas will be repaired prior to CIR operations.

(3) Blade the existing base aggregate roadway shoulders away from the asphaltic surface edge to minimize contamination of the CIR base layer.

C.3.2 Processing and Placement of CIR Material

(1) Mill the existing pavement to the required depth and width indicated on the plans.

(2) Further process the milled RAP material as necessary by crushing, screening, and/or sizing to the gradation requirements of B.1.

(3) Blend the RAP material with the mix design specified proportions of stabilizing agent and water; produce a uniform and homogeneous recycled mixture.

(4) Spread the recycled mixture to the grade, elevations, and slopes specified on the plans; avoiding tearing or scarring of the recycled pavement base layer surface.

(5) Ensure proper material transfer, handling, and spreading to prevent material segregation. If segregation does occur behind the paver, the contractor shall take immediate steps to correct the problem. Corrective action may include adjusting the forward speed of the paving operation and adjusting the flow of material to paver. The contractor shall make adjustments until a satisfactory end-product has been obtained, as determined by the engineer.

(6) Longitudinal joints between successive CIR operations shall be overlapped a minimum of 3 inches. Consideration should be given to the amount of stabilizing agent used in the overlapping pass. Adjust the width of the stabilizing agent application so that the overlapped CIR mixtures maintains the target stabilizing agent content. Transverse joints between successive CIR operations during the same day of placement shall be overlapped a minimum of 2 feet. The beginning of each day's recycling operation shall overlap the end of the preceding recycling operation a minimum of 50 feet unless otherwise directed by the engineer.

C.4 Compaction

C.4.1 Control Strip Construction

(1) On the first day of production, construct a control strip to identify the target wet density for the CIR layer using a nuclear moisture-density gauge in backscatter measurement. Nuclear gauge test duration in backscatter measurement shall be for a total of one-minute test per location in the direction of paving. The control strip construction and density testing will occur under the direct observation and/or assistance of the department QV personnel.

(2) After the construction of the control strip, the CIR process shall be permitted to continue until the project's first asphalt binder tanker truck is empty. Any further CIR process shall be halted till the completion of the test rolling.

(3) Unless the engineer approves otherwise, construct control strips to a minimum dimension of 500 feet long and one full lane width. Begin the control strip at a location of at least 200 feet beyond the start of the project.

(4) Completed control strips may remain in-place to be incorporated into the final roadway cross-section.

(5) Construct additional control strips, at a minimum, when:

1. The CIR layer thickness changes in excess of 2.0 inches.
2. The percent of target wet density is less than 96% or exceeds 105.0%; and is outside the range of the 10 random measurements defining the control strip; on two consecutive sublots.
3. If there is a significant change in mix proportions, weather conditions, compaction equipment, or other controlling factors, the engineer may require the construction of new control strips to check target density.

(6) Construct control strips using equipment and methods representative of the operations to be used for constructing the CIR layer.

(7) After compacting the control strip with a minimum of three roller passes, mark and take three wet density measurements using a nuclear moisture-density gauge in backscatter mode at one random station. One density measurement representing the inside 1/3, one density measurement representing the middle 1/3, and one density measurement representing the outside 1/3 transversely across the traveled lane, a minimum of 1 ½ feet from the center of the probe to the unrestricted edge of the CIR layer. Subsequent density measurements will be taken at the same three locations.

(8) After each subsequent pass of compaction equipment over the entirety of the control strip, take wet density measurements at the three marked locations. Continue compacting and testing until the increase in density measurements of individual locations is less than 2.0 lb/ft3, or the density measurements begin to decrease.

(9) Upon completion of control strip compaction, take 10 randomly located wet density measurements within the limits of the control strip, a minimum of 1 ½ feet from the center of the probe to the unrestricted edge of the CIR layer. The final measurements recorded at the three locations under article paragraph (6) of this section may be included as 3 of the 10 measurements. Average the 10 measurements to obtain the control strip target density.

C.4.2 Compaction Requirements

(1) Compact the CIR layer to a required density of 96% of the target density. Density acceptance shall be based on the average sublot measurements results.

C.5 Surface Requirements

(1) Prior to placement of the surface treatment, the engineer and contractor shall visually inspect the CIR layer for distresses including, but not limited to raveled areas, rutted areas, and areas of excess or deficient stabilizing agent, or deficient surface tolerance areas.

(2) Test the recycled pavement base layer surface at regular intervals, and engineer selected locations, using a 10-foot straightedge or other engineer-specified devices.

(3) The engineer may direct the repair of surface deviations greater than ½ inch between two surface contact points. High points shall be corrected by rerolling, trimming, milling, or grinding. Depressions may be corrected by having a tack coat applied and be filled with HMA immediately prior to placement of the surface treatment.

(4) Raveled areas, rutted areas, and areas of excess or deficient stabilizing agent shall be re-processed or repaired. Reprocessing shall consist of milling, blending of additional stabilizing agent, placement with a paver, and compaction with determined rolling patterns as determined by the control strip.

C.6 Maintaining the Work

(1) After compaction is complete, the contractor will determine when the CIR is stable to open to traffic.

(2) After opening to traffic, and prior to placement of the upper layer, the surface of the recycled base shall be maintained in a condition suitable for the safe movement of traffic.

(3) The recycled base and shoulders shall be protected and maintained from standing water, deleterious substances, and/or other damage.

(4) Any damage to the recycled base, excluding department-directed test sections, shall be repaired by the contractor prior to placement of the upper layer at no additional cost to the department.

C.7 Curing and Surfacing

C.7.1 Curing

(1) Application of a surface treatment or leveling/lower layer of HMA will not be allowed until the moisture content of the CIR layer reduces to 2.50 percent or less.

(2) If the moisture content of the CIR layer does not reduce to 2.50 percent; the surface treatment may be applied after the change in moisture content is less than 0.30 percentage points for three consecutive calendar days

(3) The moisture content shall be determined from a sample retrieved over the full depth of the CIR layer by weighting and drying to a constant weight using an oven at 230°±9°F. Moisture content testing by nuclear density shall only be used for informational purposes and not for acceptance. The department will obtain a sample(s) to verify the contractor's final moisture content values.

C.7.2 Tack Coat

(1) The surface shall be prepared, and tack coat applied meeting the requirements of standard spec 455.3.2.

(2) Tack coat application rate shall be 0.05 to 0.07 gal/SY. The engineer may adjust the tack coat application rate based on surface conditions.

(3) Use only emulsified asphalt material as tack coat specified in standard spec 455.2.5. Paving grade asphaltic tack coat shall not be used.

C.7.3 Surfacing

(1) Surfacing materials, equipment, and construction methods shall be in accordance with the applicable sections of the standard specs or contract special provisions.

(2) Paving of final surfacing (for single layer) or leveling/lower layer of HMA on the cured CIR sections shall not be conducted until the moisture content in the CIR layer reduces to 2.50% or less.

(3) The final surfacing (for single layer) or leveling/lower layer shall be placed on the CIR layer within 10 calendar days once a section of the CIR layer is considered cured per section B.4.5.

(4) After any rain event, the excess moisture in the CIR layer shall be allowed to dry before paving the final surfacing (for single layer) or leveling/lower HMA layer. The contractor and engineer should inspect the CIR layer to determine suitability for surfacing.

D Measurement

(1) The department will measure Cold In-Place Recycling (CIR) Asphalt Base Layer by the square yard, acceptably completed.

(2) The department will measure the Asphalt Stabilizing Agent incorporated into the work by the ton; as metered through a calibrated pump, or through delivered ticket quantity.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
327.1000.S	Cold In-Place Recycling (CIR) Asphalt Base Layer	SY
455.0770.S	Asphalt Stabilizing Agent	TON

(2) Payment is full compensation for measured quantities as specified above; all material including mixing and milling water; equipment necessary for milling and sizing, mixing, paving, compacting the completed CIR; incidentals necessary to the conduct mix design; including sampling and traffic control; mill the existing pavement for recycling, size the milled RAP, inject and mix the RAP with the stabilizing agent, place or pave, compact, and maintain the completed CIR.

(3) The department will pay separately for the repair of yielding areas under the bid item Base Repair for CIR Layer.

(4) The department will pay separately for removing or blading away of the adjacent shoulder material under the bid item Shaping Shoulders.

(5) The department will pay separately for preparation under the bid item Prepare Foundation for CIR Base Layer.

(6) The department will pay separately for surfacing treatments, including tack coat, under the appropriate bid items.

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

A Description

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

Perform work according to standard spec 460 and as follows.

B Materials

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

C Construction

C.1 Test Strip

Submit the test strip start time and date to the department in writing at least 5 calendar days in advance of construction of the test strip. If the contractor fails to begin paving within 2 hours of the submitted start time, the test strip is delayed, and the department will assess the contractor $2,000 for each instance according to Section E of this document. Alterations to the start time and date must be submitted to the department in writing a minimum of 24 hours prior to the start time. The contractor will not be liable for changes in start time related to adverse weather days as defined by standard spec 101.3 or equipment breakdown verified by the department.

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

C.1.1 Sampling and Testing Intervals

C.1.1.1 Volumetrics

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

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

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

C.1.1.2 Density

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

C.1.2 Field Tests

C.1.2.1 Density

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

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

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

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

C.1.3 Laboratory Tests

C.1.3.1 Volumetrics

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

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

C.2 Acceptance

C.2.1 Volumetrics

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

ITEM	ACCEPTANCE LIMITS
Percent passing given sieve:	
37.5-mm	+/- 8.0
25.0-mm	+/- 8.0
19.0-mm	+/- 7.5
12.5-mm	+/- 7.5
9.5-mm	+/- 7.5
2.36-mm	+/- 7.0
75-µm	+/- 3.0
Asphaltic content in percent[1]	- 0.5
Air Voids	-1.5 & +2.0
VMA in percent[2]	- 1.0
Maximum specific gravity	+/- 0.024

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

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

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

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

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

C.2.2 Density

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

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

C.2.3 Test Strip Approval and Material Conformance

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

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

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

PWL TEST STRIP APPROVAL AND MATERIAL CONFORMANCE CRITERIA

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

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

A maximum of two test strips will be allowed to remain in place per pavement layer per contract. If material is removed, a new test strip shall replace the previous one at no additional cost to the department. If the contractor changes the mix design for a given mix type during a contract, no additional compensation will be paid by the department for the required additional test strip and the department will assess the contractor $2,000 for the additional test strip according to Section E of this special provision. For simultaneously conducted density and volumetric test strip components, the following must be achieved:

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

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

D Measurement

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

E Payment

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

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

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

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

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

Acceptable HMA mixture placed on the project as part of a volumetric or density test strip will be compensated by the appropriate HMA Pavement bid item with any applicable pay adjustments. If a test strip is delayed as defined in C.1 of this document, the department will assess the contractor $2,000 for each instance, under the HMA Delayed Test Strip administrative item. If an additional test strip is required because the initial test strip is not approved by the department or the mix design is changed by the contractor, the department will assess the contractor $2,000 for each additional test strip (i.e., $2,000 for each individual volumetrics or density test strip) under the HMA Additional Test Strip administrative item.

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

PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY

PERCENT WITHIN LIMITS (PWL)	*PAYMENT FACTOR, PF (percent of $65/ton)*
≥ 90 to 100	PF = ((PWL – 90) * 0.4) + 100
≥ 50 to < 90	(PWL * 0.5) + 55
<50	50%[1]

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

[1] Material resulting in PWL value less than 50 shall be removed and replaced, unless the engineer allows for such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density will be according to Table 460-3. Pay adjustment will be determined for an acceptably completed test strip and will be computed as shown in the following equation:

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

*Note: If Pay Factor = 50, the contract unit price will be used in lieu of $65/ton and the weighted percentage (WP) will equal 1.0.

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

Parameter	WP
Air Voids	0.5
Density	0.5

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

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

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

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

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

A Description

This special provision describes percent within limits (PWL) pay determination, providing and maintaining a contractor Quality Control (QC) Program, department Quality Verification (QV) Program, required sampling and testing, dispute resolution, corrective action, pavement density, and payment for HMA pavements. Pay is determined by statistical analysis performed on contractor and department test results conducted according to the Quality Management Program (QMP) as specified in standard spec 460, except as modified below.

B Materials

Conform to the requirements of standard spec 450, 455, and 460 except where superseded by this special provision. The department will allow only one mix design for each HMA mixture type per layer required for the contract, unless approved by the engineer. The use of more than one mix design for each HMA pavement layer will require the contractor to construct a new test strip according to HMA Pavement Percent Within Limits (PWL) QMP Test Strip Volumetrics and HMA Pavement Percent Within Limits (PWL) QMP Test Strip Density articles at no additional cost to the department.

Replace standard spec 460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater with the following:

460.2.8.2.1.3.1 Contracts under Percent within Limits

(1) Furnish and maintain a laboratory at the plant site fully equipped for performing contractor QC testing. Have the laboratory on-site and operational before beginning mixture production.

(2) Obtain random samples and perform tests according to this special provision and further defined in Appendix A: *Test Methods & Sampling for HMA PWL QMP Projects*. Obtain HMA mixture samples from trucks at the plant. For the sublot in which a QV sample is collected, discard the QC sample and test a split of the QV sample.

(3) Perform sampling from the truck box and three-part splitting of HMA samples according to CMM 836. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield three splits for all random sampling per sublot. All QC samples shall provide the following: QC, QV, and Retained. The contractor shall take possession and test the QC portions. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. Additional sampling details are found in Appendix A. Label samples according to CMM 836. Additional handling instructions for retained samples are found in CMM 836.

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

- Blended aggregate gradations according to AASHTO T 30.
- Asphalt content (AC) in percent.

  Determine AC using one of the following methods:

  - AC by ignition oven according to AASHTO T 308 as modified in CMM 836.6.3.6. If the department is using an ignition oven to determine AC, conform to CMM 836.6.3.7. If the department is not using an ignition oven to determine AC, IOCFs must still be reverified for any of the reasons listed in CMM 836.6.3.7.2 Table 836-2 and conform to CMM 836.6.3.7.3.
  - AC by chemical extraction according to AASHTO T 164 Method A or B.
  - AC by automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.
- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 836.6.6.
- Air voids (V_a) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R35.

(5) Lot size shall consist of 3750 tons with sublots of 750 tons. Test each design mixture at a frequency of 1 test per 750 tons of mixture type produced and placed as part of the contract. Add a random sample for any fraction of 750 tons at the end of production for a specific mixture design. Partial lots with less than three sublot tests will be included into the previous lot for data analysis and pay adjustment. Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.

(6) Conduct field tensile strength ratio tests, without freeze-thaw conditioning cycles, on each qualifying mixture according to CMM 836.6.14. Test each full 50,000-ton production increment, or fraction of an increment, after the first 5,000 tons of production. Perform required increment testing in the first week of production of that increment. If field tensile strength ratio values are below the spec limit, notify the engineer. The engineer and contractor will jointly determine a corrective action.

Delete standard spec 460.2.8.2.1.5 and 460.2.8.2.1.6.

Replace standard spec 460.2.8.2.1.7 Corrective Action with the following:

460.2.8.2.1.7 Corrective Action

(1) Material must conform to the following action and acceptance limits based on individual QC and QV test results (tolerances relative to the JMF used on the PWL Test Strip):

ITEM	ACTION LIMITS	ACCEPTANCE LIMITS
Percent passing given sieve:		
37.5-mm	+/- 8.0	
25.0-mm	+/- 8.0	
19.0-mm	+/- 7.5	
12.5-mm	+/- 7.5	
9.5-mm	+/- 7.5	
2.36-mm	+/- 7.0	
75-µm	+/- 3.0	
AC in percent	-0.3	-0.5
Va		- 1.5 & +2.0
VMA in percent[1]	- 0.5	-1.0

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

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

(3) Notify the engineer if any individual test result falls outside the action limits, investigate the cause and take corrective action to return to within action limits. If two consecutive test results fall outside the action limits, stop production. Production may not resume until approved by the engineer. Additional QV samples may be collected upon resuming production, at the discretion of the engineer.

(4) For any additional non-random tests outside the random number testing conducted for volumetrics, the data collected will not be entered into PWL calculations. Additional QV tests must meet acceptance limits or be subject to production stop. If the department's non-random test does not conform to the acceptance limits, the retained sample will be tested by the BTS lab. If the BTS results also do not meet the acceptance limits, the material will be considered unacceptable as described in (5) below.

(5) Remove and replace unacceptable material at no additional expense to the department. Unacceptable material is defined as any individual QC or QV tests results outside the acceptance limits or a PWL value < 50. For AC in percent, unacceptable material is defined as any individual QV test result outside of the acceptance limit. The engineer may allow such material to remain in place with a price reduction. The department will pay for such HMA Pavement allowed to remain in place at 50 percent of the contract unit price.

Replace standard spec 460.2.8.3.1.2 Personnel Requirements with the following:

460.2.8.3.1.2 Personnel Requirements

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

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

(3) A department HTCP-certified Hot Mix Asphalt, Technician I, Production Tester (HMA-IPT) technician will ensure that all sampling is performed correctly and conduct testing, analyze test results, and report resulting data.

(4) The department will make an organizational chart available to the contractor before mixture production begins. The organizational chart will include names, telephone numbers, and current certifications of all QV testing personnel. The department will update the chart with appropriate changes, as they become effective.

Replace standard spec 460.2.8.3.1.4 Department Verification Testing Requirements with the following:

460.2.8.3.1.4 Department Verification Testing Requirements

(1) HTCP-certified department personnel will obtain QV random samples by directly supervising HTCP-certified contractor personnel sampling from trucks at the plant. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield three splits for all random sampling per sublot. All QV samples shall furnish the following: QC, QV, and Retained. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. The department will take possession of retained samples accumulated to date each day QV samples are collected. The department will retain samples until surpassing the analysis window of up to 5 lots, as defined in standard spec 460.2.8.3.1.7(2) of this special provision. Additional sampling details are found in Appendix A.

(2) The department will verify product quality using the test methods specified here in standard spec 460.2.8.3.1.4(3). The department will identify test methods before construction starts and use only those methods during production of that material unless the engineer and contractor mutually agree otherwise.

(3) The department will perform all testing conforming to the following standards:

- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 836.6.6.
- Air voids (Va) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R 35.
- Asphalt Content (AC) in percent determined by ignition oven method according to AASHTO T308 as modified in CMM 836.6.3.6 and conforming to CMM 836.6.3.7, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.

(4) The department will randomly test each design mixture at the minimum frequency of one test for each lot.

Delete standard spec 460.2.8.3.1.6.

Replace standard spec 460.2.8.3.1.7 Dispute Resolution with the following:

460.2.8.3.1.7 Data Analysis for Volumetrics

(1) Analysis of test data for pay determination will be contingent upon QC and QV test results. Statistical analysis will be conducted on Gmm and Gmb test results for calculation of Va. If either Gmm or Gmb analysis results in non-comparable data as described in 460.2.8.3.1.7(2), subsequent testing will be performed for both parameters as detailed in the following paragraph.

(2) The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. Additional comparisons incorporating the first 3 lots of data will be performed following completion of the 4th and 5th lots (i.e., lots 1-3, 1-4, and 1-5). A rolling window of 5 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-6, then lots 3-7, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value of 0.025. If the F- and t-tests report comparable data, the QC and QV data sets are determined to be statistically similar and QC data will be used to calculate the Va used in PWL and pay adjustment calculations. If the F- and t-tests result in non-comparable data, proceed to the *dispute resolution* steps found below. Note: if both QC and QV Va PWL result in a pay adjustment of 102% or greater, dispute resolution testing will not be conducted. Dispute resolution via further investigation is as follows:

[1] The Retained portion of the split from the lot in the analysis window with a QV test result furthest from the QV mean (not necessarily the sublot identifying that variances or means do not compare) will be referee tested for Gmm, Gmb, and Asphalt Content by the bureau's AASHTO accredited laboratory and certified personnel. All previous lots within the analysis window are subject to referee testing and regional lab testing as deemed necessary. Referee test results will replace the QV data of the sublot(s).

[2] Statistical analysis will be conducted with referee test results replacing QV results.

i. If the F- and t-tests indicate variances and means compare, no further testing is required for the lot and QC data will be used for PWL and pay factor/adjustment calculations.

ii. If the F- and t-tests indicate non-comparable variances or means, the Retained portion of the random QC sample will be tested for Gmm, Gmb, and Asphalt Content by the department's regional lab for the remaining 4 sublots of the lot which the F- and t-tests indicate non-comparable datasets. The department's regional lab and the referee test results will be used for PWL and pay factor/adjustment calculations. Upon the second instance of non-comparable variance or means and for every instance thereafter, the department will assess a pay reduction for the additional testing of the remaining 4 sublots at $2,000/lot under the HMA Regional Lab Testing administrative item.

[3] The contractor may choose to dispute the regional test results on a lot basis within 7 days after receiving the results from the region. In this event, the retained portion of each sublot will be referee tested by the department's AASHTO accredited laboratory and certified personnel. The referee Gmm and Gmb test results will supersede the regional lab results for the disputed lot.

i. If referee testing results in an increased calculated pay factor, the department will pay for the cost of the additional referee testing.

ii. If referee testing of a disputed lot results in an equal or lower calculated pay factor, the department will assess a pay reduction for the additional referee testing at $2,000/lot under the Referee Testing administrative item.

(3) The department will notify the contractor of the referee test results within 3 working days after receipt of the samples by the department's AASHTO accredited laboratory. The intent is to provide referee test results within 7 calendar days from completion of the lot.

(4) The department will determine mixture conformance and acceptability by analyzing referee test results, reviewing mixture data, and inspecting the completed pavement according to the standard spec, this special provision, and accompanying Appendix A.

(5) Unacceptable material (i.e., resulting in a PWL value less than 50 or individual QC or QV test results not meeting the Acceptance Requirements of 460.2.8.2.1.7 as modified herein) will be referee tested by the bureau's AASHTO accredited laboratory and certified personnel and those test results used for analysis. Such material may be subject to remove and replace, at the discretion of the engineer. If the engineer allows the material to remain in place, it will be paid at 50% of the HMA Pavement contract unit price. Replacement or pay adjustment will be conducted on a sublot basis. If an entire PWL sublot is removed and replaced, the test results of the newly placed material will replace the original data for the sublot. Any remove and replace shall be performed at no additional cost to the department. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test will be conducted and under such circumstances will be entered into the HMA PWL Production spreadsheet for data analysis and pay determination.] The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

Delete standard spec 460.2.8.3.1.8 Corrective Action.

C Construction

Replace standard spec 460.3.3.2 Pavement Density Determination with the following:

460.3.3.2 Pavement Density Determination

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

(2) Do not re-roll compacted mixtures with deficient density test results. Do not operate continuously below the specified minimum density. Stop production, identify the source of the problem, and make corrections to produce work meeting the specification requirements.

(3) A lot is defined as 7500 lane feet with sublots of 1500 lane feet (excluding shoulder, even if paved integrally) and placed within a single layer for each location and target maximum density category indicated in table 460-3. The contractor is required to complete three tests randomly per sublot and the department will randomly conduct one QV test per sublot. A partial quantity less than 750 lane feet will be included with the previous sublot. Partial lots with less than three sublots will be included in the previous lot for data analysis/acceptance and pay, by the engineer. If density lots/sublots are determined prior to construction of the test strip, any random locations within the test strip shall be omitted. Exclusions such as shoulders and appurtenances shall be tested and recorded according to CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3 or else be subject to disincentives according to 460.5.2.2(5) herein. No density incentive will be applied to shoulders or appurtenances. Offsets will not be applied to nuclear density gauge readings for shoulders or appurtenances. Unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.

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

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

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

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

Replace standard spec 460.3.3.3 Waiving Density Testing with Acceptance of Density Data with the following:

460.3.3.3 Analysis of Density Data

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

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

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

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

(3) The department will determine mixture density conformance and acceptability by analyzing test results, reviewing mixture data, and inspecting the completed pavement according to standard spec, this special provision, and accompanying Appendix A.

(4) Density resulting in a PWL value less than 50 or not meeting the requirements of 460.3.3.1 (any individual density test result falling more than 3.0 percent below the minimum required target maximum density as specified in standard spec Table 460-3) is unacceptable and may be subject to remove and replace at no additional cost to the department, at the discretion of the engineer.

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

ii. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test must be conducted and under such circumstances will be entered into the data analysis and pay determination.]

iii. If the engineer allows such material to remain in place, it will be paid for at 50% of the HMA Pavement contract unit price. The extent of unacceptable material will be addressed as specified in CMM 815.11. The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

D Measurement

The department will measure the HMA Pavement bid items acceptably completed by the ton as specified in standard spec 450.4 and as follows in standard spec 460.5 as modified in this special provision.

E Payment

Replace standard spec 460.5.2 HMA Pavement with the following:

460.5.2 HMA Pavement

460.5.2.1 General

(1) Payment for HMA Pavement Type LT, MT, and HT mixes is full compensation for providing HMA mixture designs; for preparing foundation; for furnishing, preparing, hauling, mixing, placing, and compacting mixture; for HMA PWL QMP testing and aggregate source testing; for warm mix asphalt additives or processes; for stabilizer, hydrated lime and liquid antistripping agent, if required; and for all materials including asphaltic materials.

(2) If provided for in the plan quantities, the department will pay for a leveling layer, placed to correct irregularities in an existing paved surface before overlaying, under the pertinent paving bid item. Absent a plan quantity, the department will pay for a leveling layer as extra work.

460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL

(1) Pay adjustments will be calculated using 65 dollars per ton of HMA pavement. The HMA PWL Production Spreadsheet, including data, will be made available to the contractor by the department as soon as practicable upon completion of each lot. The department will pay for measured quantities of mix based on this price multiplied by the following pay adjustment calculated according to the HMA PWL Production Spreadsheet:

PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY

PERCENT WITHIN LIMITS (PWL)	*PAYMENT FACTOR, PF (percent of $65/ton)*
≥ 90 to 100	PF = ((PWL – 90) * 0.4) + 100
≥ 50 to < 90	(PWL * 0.5) + 55
<50	50%[1]

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

[1] Any material resulting in PWL value less than 50 shall be removed and replaced unless the engineer allows such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

(2) For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density shall be according to standard spec Table 460-3.

(3) Pay adjustment will be determined on a lot basis and will be computed as shown in the following equation:

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

*Note: If Pay Factor = 50, the contract unit price will be used in lieu of $65/ton and the weighted percentage (WP) will equal 1.0.

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

Parameter	WP
Air Voids	0.5
Density	0.5

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

(5) Pay adjustment for shoulders and appurtenances accepted by department testing will be determined on a lot basis. If the lot density is less than the specified minimum in table 460-3, the department will reduce pay based on the contract unit price for the HMA pavement bid item for that lot as follows:

DISINCENTIVE PAY REDUCTION FOR HMA PAVEMENT DENSITY

PERCENT LOT DENSITY BELOW SPECIFIED MINIMUM	PAYMENT FACTOR (percent of contract price)
From 0.5 to 1.0 inclusive	98
From 1.1 to 1.5 inclusive	95
From 1.6 to 2.0 inclusive	91
From 2.1 to 2.5 inclusive	85
From 2.6 to 3.0 inclusive	70
More than 3.0[1]	___

[1] Remove and replace the lot with a mixture at the specified density. When acceptably replaced, the department will pay for the replaced work at the contract unit price. Alternatively, the engineer may allow the nonconforming material to remain in place with a 50 percent payment factor.

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

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

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

The department will administer a disincentive under the Disincentive HMA Binder Content administrative item for each individual QV test result indicating asphalt binder content below the Action Limit in 460.2.8.2.1.7 presented herein. The department will adjust pay per sublot of mix at 65 dollars per ton of HMA pavement multiplied by the following pay adjustment calculated according to the HMA PWL Production Spreadsheet:

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

[1] Any material resulting in an asphalt binder content more than 0.3% below the JMF AC content will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction according to automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.

[2] Any material resulting in an asphalt binder content more than 0.5% below the JMF AC content shall be removed and replaced unless the engineer allows such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

Note: PWL value determination is further detailed in the PWL Production Spreadsheet Instructions located in the *Project Info & Instructions* tab of the HMA PWL Production spreadsheet.

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24. Appendix A.

Test Methods & Sampling for HMA PWL QMP Projects.

The following procedures are included with the HMA Pavement Percent Within Limits (PWL) Quality Management Program (QMP) special provision:

- WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip
- WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production
- Sampling for WisDOT HMA PWL QMP
- Calculation of PWL Mainline Tonnage Example

WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip

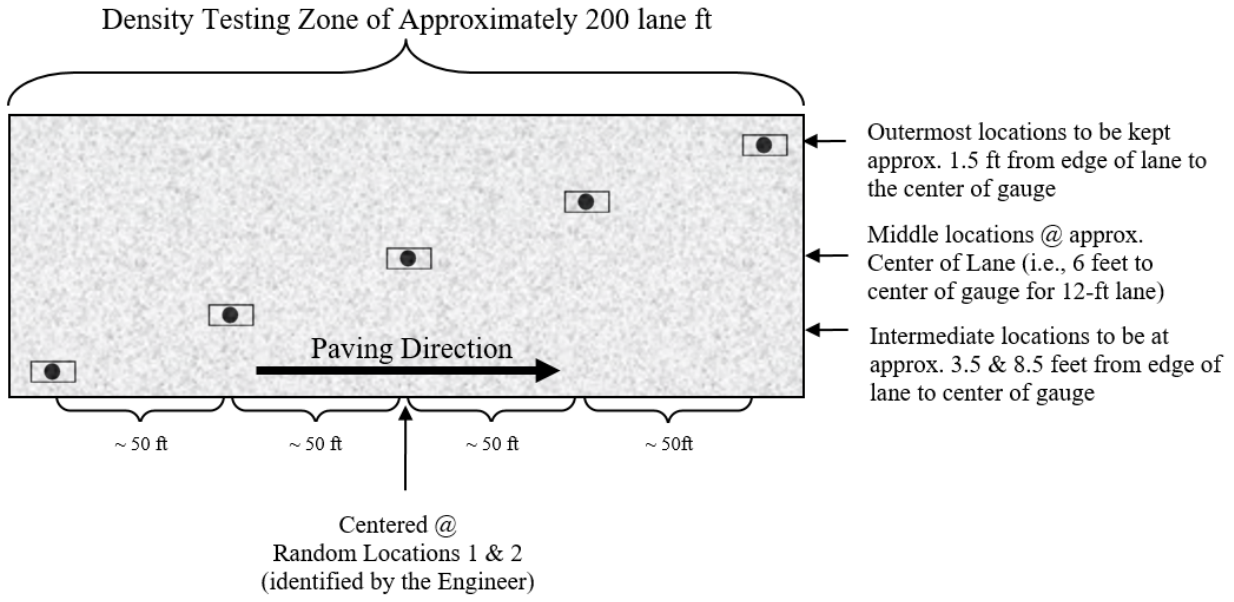

Figure 1: Nuclear/Core Correlation Location Layout

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

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

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

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

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

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

(a) (b)

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

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

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

Each core will then be taken from the center of the gauge footprint and will be used to correlate each gauge with laboratory-measured bulk specific gravities of the pavement cores. One core in good condition must be obtained from each of the 10 locations. If a core is damaged at the time of extracting from the pavement, a replacement core should be taken immediately adjacent to the damaged core, i.e., from the same footprint. If a core is damaged during transport, it should be recorded as damaged and excluded from the correlation. Coring after traffic is on the pavement should be avoided. The contractor is responsible for coring of the pavement. Coring and filling of core holes must be approved by the engineer.

The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Core density testing will be conducted by the contractor and witnessed by department personnel. The contractor is responsible for drying the cores following testing. The department will take possession of cores following initial testing and is responsible for any verification testing.

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

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

Fill all core holes with non-shrink rapid-hardening grout, mortar, or concrete, or with HMA. When using grout, mortar, or concrete, remove all water from the core holes prior to filling. Mix the mortar or concrete in a separate container prior to placement in the hole. If HMA is used, fill all core holes with hot-mix matching the same day's production mix type at same day compaction temperature +/- 20 F. The core holes shall be dry and coated with tack before filling, filled with a top layer no thicker than 2.25 inches, lower layers not to exceed 4 inches, and compacted with a Marshall hammer or similar tamping device using approximately 50 blows per layer. The finished surface shall be flush with the pavement surface. Any deviation in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the layer thickness and replacement.

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

For nuclear density testing of the pavement beyond the test strip, QC tests will be completed at three locations per sublot, with a sublot defined as 1500 lane feet. The three locations will represent the outside, middle, and inside of the paving lane (i.e., the lane width will be divided into thirds as shown by the dashed longitudinal lines in Figure 3 and random numbers will be used to identify the specific transverse location within each third according to CMM 815). Longitudinal locations within each sublot shall be determined with 3 independent random numbers. The PWL Density measurements do not include the shoulder and other appurtenances. Such areas are tested by the department and are not eligible for density incentive but are subject to disincentive according to 460.5.2.2(5) of the HMA PWL QMP article. Each location will be measured with two one-minute gauge readings oriented 180 degrees from one another, in the same footprint as detailed in Figure 2 above. Each location requires a minimum of two readings per gauge. The density gauge orientation for the first test will be with the source rod towards the direction of paving. QV nuclear testing will consist of one randomly selected location per sublot. The QV is also comprised of two one-minute readings oriented 180 degrees from one another. For both QC and QV test locations, if the two readings exceed 1.0 pcf of one another, a third reading is conducted in the same orientation as the first reading. In this event, all three readings are averaged, the individual test reading of the three which falls farthest from the average value is discarded, and the average of the remaining two values is used to represent the location for the gauge. The sublot density testing layout is depicted in Figure 4, with QC test locations shown as solid lines and QV as dashed.

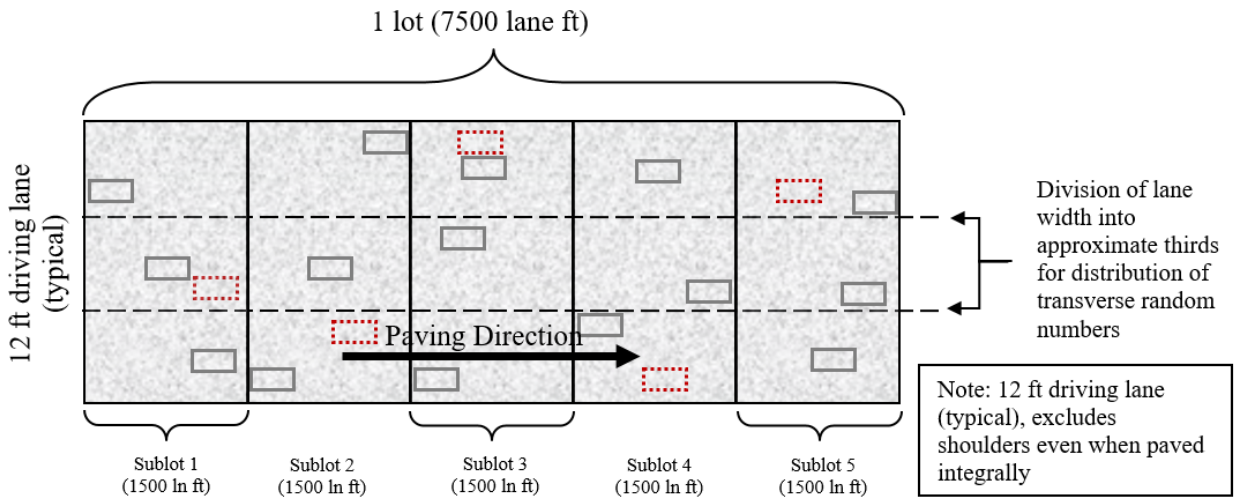

Figure 4: Locations of main lane HMA density testing (QC=solid lines, QV=dashed)

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

Investigative cores will be allowed on the approaching side of traffic outside of the footprint locations. Results must be shared with the department.

The QV density technician is expected to be onsite within 1 hour of the start of paving operations and should remain on-site until all paving is completed. Perform footprint testing as soon as both the QC and QV nuclear density technician are onsite and a minimum of once per day to ensure the gauges are not drifting apart during a project. Footprint testing compares the density readings of two gauges at the same testing location and can be done at any randomly selected location on the project. Both teams are encouraged to conduct footprint testing as often as they feel necessary. Footprint testing does not need to be performed at the same time. At project start-up, the QV should footprint the first 10 QC locations. Individual density tests less than 0.5% above the lower limit should be communicated to the other party and be footprint tested. Each gauge conducts 2 to 3 1-minute tests according to CMM 815 and the final results from each gauge are compared for the location. If the difference between the QC and QV gauges exceeds 1.0 pcf (0.7 percent) for an average of 10 locations, investigate the cause, check gauge moisture and density standards and perform additional footprint testing. If the cause of the difference between gauge readings cannot be identified, the regional HMA Coordinator will consult the RSO, the regional PWL representative and the BTS HMA unit to determine necessary actions. If it is agreed that there is a gauge comparison issue, perform one of the following 2 options:

New Gauge Combination

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

Re-correlation of Gauges

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

Density Dispute Resolution Procedure

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

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

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

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

Under the direct observation of the engineer, cut 100 or 150 mm (4 or 6 inch) diameter cores. Cores will be cut by the next day after completion of the lot, except if the next day is not a working day, then they shall be cut within 48 hours of placement. Prepare cores and determine density according to AASHTO T166 as modified in CMM 836.6.5. Dry cores after testing. Fill core holes according to Appendix A and obtain engineer approval before opening to traffic. The department will maintain custody of cores throughout the entire sampling and testing process. The department will label cores, transport cores to testing facilities, witness testing, store dried cores, and provide subsequent verification testing. If a core is damaged at the time of coring, immediately take a replacement core 1 foot ahead of the existing testing location in the direction of traffic at the same offset as the damaged core. If a core is damaged during transport, record it as damaged and notify the engineer immediately.

Sampling for WisDOT HMA PWL QMP Production

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

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

Sampling Hot Mix Asphalt

At the beginning of the contract, the contractor determines the anticipated tonnage to be produced. The frequency of sampling is 1 per 750 tons (sublot) for QC and Retained Samples and 1 per 3750 tons (lot or 5 sublots) for QV as defined by the HMA PWL QMP article. A test sample is obtained randomly from each sublot. Each random sample shall be collected at the plant according to CMM 836.4.1 and 836.4.2. The contractor must submit the random numbers for all mix sampling to the department before production begins.

Example 1

Expected production for a contract is 12,400 tons. The number of required samples is determined based on this expected production (per HMA PWL QMP SPV) and is determined by the random sample calculation.

Sample 1 – from 50 to 750 tons
Sample 2 – from 751 to 1500 tons
Sample 3 – from 1501 to 2250 tons
Sample 4 – from 2251 to 3000 tons
Sample X – .....
Sample 16 – from 11,251 to 12,000 tons
Sample 17 – from 12,001 to 12,400 tons

The approximate location of each sample within the prescribed sublots is determined by selecting random numbers using ASTM Method D-3665 or by using a calculator or computerized spreadsheet that has a random number generator. The random numbers selected are used in determining when a sample is to be taken and will be multiplied by the sublot tonnage. This number will then be added to the final tonnage of the previous sublot to yield the approximate cumulative tonnage of when each sample is to be taken.

To allow for plant start-up variability, the procedure calls for the first random sample to be taken at 50 tons or greater per production day (not intended to be taken in the first two truckloads). Random samples calculated for 0-50 ton should be taken in the next truck (51-75 ton).

This procedure is to be used for any number of samples per contract.

If the production is less than the final randomly generated sample tonnage, then the random sample is to be collected from the remaining portion of that sublot of production. If the randomly generated sample is calculated to be within the first 0-50 tons of the subsequent day of production, it should be taken in the next truck. Add a random sample for any fraction of 750 tons at the end of the contract. Lot size will consist of 3750 tons with sublots of 750 tons. Partial lots with less than three sublot tests will be included into the previous lot, by the engineer.

It is intended that the plant operator not be advised ahead of time when samples are to be taken.

If belt samples are used during troubleshooting, the blended aggregate will be obtained when the mixture production tonnage reaches approximately the sample tonnage. For plants with storage silos, this could be up to 60 minutes in advance of the mixture sample that's taken when the required tonnage is shipped from the plant.

QC, QV, and retained samples shall be collected for all test strip and production mixture testing using a three-part splitting procedure according to CMM 836.5.2.

Calculation of PWL Mainline Tonnage Example

A mill and overlay project in being constructed with a 12-foot travel lane and an integrally paved 3-foot shoulder. The layer thickness is 2 inches for the full width of paving. Calculate the tonnage in each sublot eligible for density incentive or disincentive.

Solution:

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

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25. HMA Pavement Longitudinal Joint Density.

A Description

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

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

B Materials

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

TABLE B-1 MINIMUM REQUIRED LONGITUDINAL JOINT DENSITY

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

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

C Construction

Add the following to standard spec 460.3.3.2:

(5) Establish companion density locations at each applicable joint. Each companion location shares longitudinal stationing with a QC or QV density location within each sublot and is located transversely with the center of the gauge 6-inches from the final joint edge of the paving area. Sublot and lot numbering remains the same as mainline densities, however, in addition to conventional naming, joint identification must clearly indicate “M” for inside/median side of lane or “O” for outside shoulder side of lane, as well as “U” for an unconfined joint or “C” for a confined joint (e.g., XXXXX-MC or XXXXX-OU).

(6) Each joint will be measured, reported, and accepted under methods, testing times, and procedures consistent with the program employed for mainline density, i.e., PWL.

(7) For single nuclear density test results greater than 3.0% below specified minimums per Table B-1 herein, perform the following:

a) Testing at 50-foot increments both ahead and behind the unacceptable site

b) Continued 50-foot incremental testing until test values indicate higher than or equal to -3.0 percent from target joint density.

c) Materials within the incremental testing indicating lower than -3.0 percent from target joint density are defined as unacceptable and will be handled with remedial action as defined in the payment section of this document.

d) The remaining sublot average (exclusive of unacceptable material) will be determined by the first forward and backward 50-foot incremental tests that reach the criteria of higher than or equal to -3.0 percent from target joint density.

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

(8) Joint density measurements will be kept separate from all other density measurements and entered as an individual data set into Atwood Systems.

(9) Placement and removal of excess material outside of the final joint edge, to increase joint density at the longitudinal joint nuclear testing location, will be done at the contractor's discretion and cost. This excess material and related labor will be considered waste and will not be paid for by the department. Joints with excess material placed outside of the final joint edge to increase joint density or where a notched wedge is used will be considered unconfined joints.

(10) When not required by the contract, echelon paving may be performed at the contractor's discretion to increase longitudinal joint density and still remain eligible to earn incentive. The additional costs incurred related to echelon paving will not be paid for by the department. If lanes are paved in echelon, the contractor may choose to use a longitudinal vertical joint or notched wedge longitudinal joint as described in SDD 13c19. Lanes paved in echelon shall be considered confined on both sides of the joint regardless of the selected joint design. The joint between echelon paved lanes shall be placed at the centerline or along lane lines.

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

D Measurement

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

E Payment

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

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

PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY

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

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

(2) The department will not assess joint density disincentives for pavement placed in cold weather because of a department-caused delay as specified in standard spec 450.5.2(3).

(3) The department will not pay incentive on the longitudinal joint density if the traffic lane is in disincentive A disincentive may be applied for each mainline lane and all joint densities if both qualify for a pay reduction.

(4) Inlay paving operations will limit payment for additional material to 2 inches wider than the final paving lane width at the centerline.

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

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

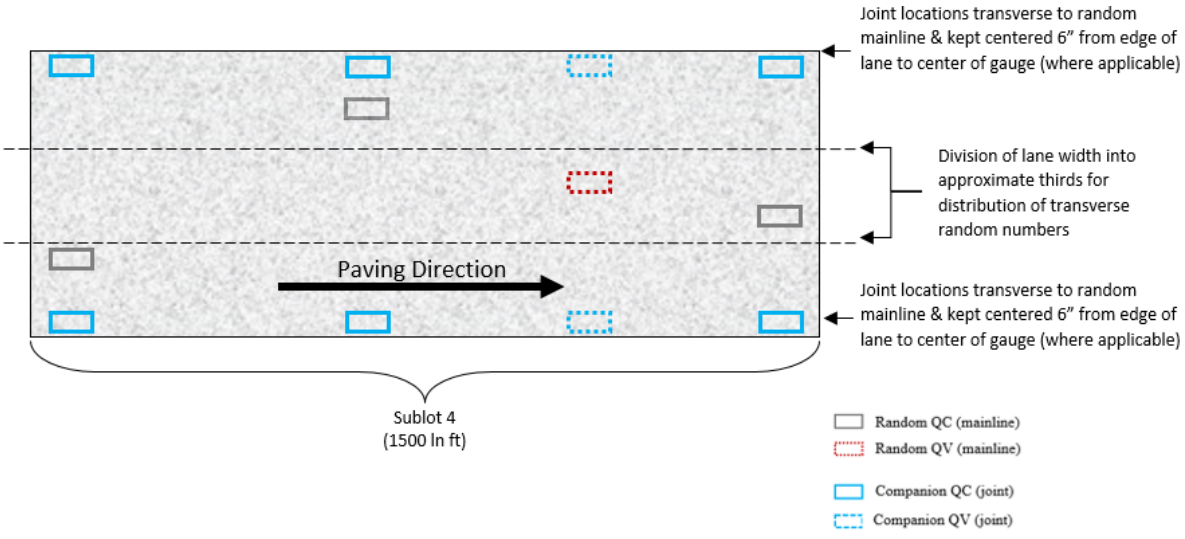
The department will administer disincentives under the Disincentive Density HMA Pavement Longitudinal Joints administrative item.

Appendix

WisDOT Longitudinal Joint – Nuclear Gauge Density Layout

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

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



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

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

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

26. Culvert Pipe Backfill

For culvert pipes where depth from top of pipe to top of final pavement is 4.0-ft or less the entire backfill area will conform and be classified as standard spec 520.2.5.2 foundation backfill.

Remove standard spec 520.5.2(2) for culvert pipes described above. No extra pay items will be added for the substitution of foundation backfill for trench backfill.

ner-520-010 (20190719)

27. Survey Monument Coordination.

The contractor is to notify the Northeast Regional Survey Coordinator, Cormac McInnis, (920) 492-5638, at least 30 days before the beginning of construction activities. The Regional Survey Coordinator will then make the arrangements to have the Public Land Survey Monument and Landmark Reference Monuments tied out.

After the majority of construction is complete (before restoration) the contractor is again to notify the Survey Coordinator that the site is ready for the replacement of the monuments. The Survey Coordinator will then make arrangements to have the Public Land Survey Monument and Landmark Reference Monuments reset.

ner-621-010 (20171213)

28. Temporary Pavement Marking, Item 643.

Remove standard spec 643.3.7(5) and replace with the following:

(5) For pavements open to local traffic with a posted speed limit greater than 35 mph, apply centerline marking as follows:

- On intermediate layer layers, including milled surfaces, within 72 hours after the pavement has been placed or milled.
- On the upper layer, within 72 hours after the pavement is placed unless the contractor applies permanent marking with 72 hours after the pavement is placed.
- If weather conditions preclude applying temporary centerline pavement marking within 72 hours, delineate the travel lanes with type II temporary raised pavement markers and provide signing as the engineer directs. Apply temporary centerline markings as soon as conditions allow.

29. Pavement Marking and Centerline Rumble Strip/Type 2 Rumble Strip.

Before installing Centerline Rumble Strips place centerline Temporary Marking Line (Epoxy) 4-Inch. Except where removed with the rumble application, do not remove the centerline Temporary Marking Line (Epoxy) 4-Inch. After the Centerline Rumble Strips have been installed, place permanent centerline Marking Line (Epoxy) 4-Inch.

ner-646-001 (20180205)

30. Installing and Maintaining Bird Deterrent System Station 479+25, Item 999.2000.S.01.

A Description

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

B Materials

B.1 Hardware and Lumber

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

B.2 Netting Materials

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

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

a. 1/2" x 1/2" or 3/4" x 3/4" knotless, flame resistant, U.V. stabilized polyethylene or polypropylene netting with minimum 40-pound breaking strength per strand, or engineer approved equal.

b. Galvanized wire mesh (hardware cloth) with a wire diameter of .040 inches (19-gauge) and opening width of 1/2-inch.

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

B.3 Plastic Strip Curtain

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

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

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

Furnish concrete screws to attach strip curtain to structure.

B.4 Corner Slope Materials

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

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

C Construction

C.1 General

If active nests are observed after construction starts, or if a trapped bird or an active nest is found, stop work that may affect birds or their nests, and notify the engineer to consult with the Wisconsin Department of Natural Resources transportation liaison, Matt Schaeve, at (920) 366-1544, or the department regional environmental coordinator, Tom Kobus, at (920) 492-0143.

Efforts should be made to release trapped birds, unharmed.

C.2 Nest Removal

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

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

C.3 Exclusion Netting

C.3.1 Installation

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

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

C.4 Plastic Curtains

C.4.1 Installation

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

C.5 Corner Slopes

C.5.1 Installation

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

C.6 Inspection and Maintenance

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

Remove any unoccupied or partially constructed nests without eggs or nestlings.

Repair deterrents to prevent birds from attempting to nest again.

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

C.7 Removal and Structure Repair

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

D Measurement

The department will measure Installing and Maintaining Bird Deterrent System (Station) as a single unit at each structure, acceptably completed.

The department will measure Maintaining Bird Deterrent System (Station) as a single unit at each structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
999.2000.S.01	Installing and Maintaining Bird Deterrent System Station 479+25	EACH

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

Payment for Maintaining Bird Deterrent System is full compensation for inspecting structures for the presence of migratory birds, inspecting deterrents installed by others; maintaining, repairing, replacing, and supplementing existing deterrent materials; repairing damage to structures resulting from installation of deterrents; removal and disposal of materials.

stp-999-200 (20220107)

31. Foundation Backfill, Item SPV.0035.01.

A Description

This special provision describes providing foundation backfill that conforms to standard spec 520.

B Materials

Furnish Foundation Backfill according to standard spec 520.2.5.2.

C Construction

Place foundation backfill in layers no more than 8 inches thick after compaction to the top of the subgrade. Mechanically compact the entire length of each layer to the same degree as the material abutting the trench.

D Measurement

The department will measure Foundation Backfill by the cubic yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.01	Foundation Backfill	CY

Payment is full compensation for placing, shaping and compacting.

ner-520-025 (20190409)

32. Temporary Water Diversion B-44-471 Station 364+00, Item SPV.0060.01; Temporary Water Diversion C-44-138 Station 479+25, Item SPV.0060.02.

A Description

This special provision describes providing temporary water diversion for B-44-471 and C-44-138 during all stages of construction. Conform to the required Standard Specifications, Plan and the methods used must be approved in the Erosion Control Implementation Plan (ECIP).

B Materials

Furnish materials conforming to the necessary standard specifications based on the method of construction.

C Construction

General

Maintain channel flow at all times and minimize erosion into the existing stream using appropriate erosion control measures. Inspect Temporary Water Diversion(s) daily to ensure proper functioning and no erosion is occurring.

Ensure all portions of Temporary Water Diversion(s) accommodate the 2-year recurrence interval stream discharge. Provide overflow through the work zone for storms that exceed the 2-year flow. The 2-year recurrence interval stream discharges are as follows:

- B-44-471 Station 364+00: 220 cubic feet per second
- C-44-138 Station 479+25: 50 cubic feet per second

Provide hydraulic calculations and temporary water diversion plan details at each required location. Include a summary of the Temporary Water Diversion duration at each required location. All methods of diversion, calculations and plans are subject to approval as part of the ECIP.

By-Pass Pumping

If by-pass pumping is used for Temporary Water Diversion, submit the means and methods proposed for to be used during construction for approval as part of the ECIP for each location it is required. Include the following in the ECIP: how the intake will be managed to not cause an increase in the background level turbidity during pumping, equipment pumping rate capabilities, discharge energy dissipation, and erosion controls. For by-pass pumping that will extend beyond one working day, the ECIP should also include how the work zone will be managed and protected, should the pump fail, be shut down due to unacceptable water quality, or storm water flows exceed the pumping rate of equipment. After the installation of the approved by-pass pumping operation, the contractor shall demonstrate that the means and methods will pump the water at an acceptable water quality prior to starting work that necessitates the by-pass pumping.

Temporary Channel

If a temporary channel is used for Temporary Water Diversion, submit the means and methods proposed to be used during construction for approval as part of the ECIP. Properly size pipes and channels to maintain channel flow. At a minimum, line the channel with select crushed material or other means approved by the engineer to stabilize the excavated channel at each end of the temporary bypass structure. Install an impervious barrier to isolate the connection of the temporary bypass channel from the existing channel and to isolate the new culvert work area from the temporary and existing channel to prevent the 2-year storm interval from back flowing in the work area.

Restoration

Once water flow has been restored to the final location, grade, shape and finish all disturbed areas to their original existing contours or what is shown in the plan.

D Measurement

The department will measure Temporary Water Diversion B-44-471 Station 364+00 and C-44-138 Station 479+25 by the each item, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.01	Temporary Water Diversion B-44-471 Station 364+00	EACH
SPV.0060.02	Temporary Water Diversion C-44-138 Station 479+25	EACH

Payment is full compensation for providing hydraulic calculations, plans, installation, daily inspections, any necessary modifications to the Temporary Water Diversion operation and removal when Temporary Water Diversion operation is no longer needed and grading to finished grade.

The department will pay separately for topsoil, seeding, fertilizer, e-mat, mulch and any other items needed for permanent restoration.

NER-210-020 (20210716)

33. Remove Flashing Beacon (STH 45 and STH 76), Item SPV.0060.03.

A Description

This work shall consist of removing the existing flashing beacon equipment from the intersection of STH 45 & STH 76/22 according to the requirements of standard spec 657 and standard spec 658, standard detail drawings, and as hereinafter provided.

B (Vacant)

C Construction

The existing flashing beacon equipment shall be disconnected from the concrete bases and transported off site to the electrical subcontractor facilities and/or to a recycling/garbage facility.

D Measurement

The department will measure Remove Flashing Beacon as a single lump sum unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Remove Flashing Beacon (STH 45 & STH 76/22)	LS

Payment is full compensation for removal and transporting to the appropriate facility and for all labor, tools, equipment, materials, and incidentals necessary to complete the work.

34. Clean Culvert End, Item SPV.0060.04.

A Description

This special provision describes cleaning accumulated sediment, debris, and vegetation from the end of a culvert.

B (Vacant)

C Construction

Remove accumulated sediment, debris, and vegetation from inside the end of the culvert and from in front of the culvert as shown on the plans. Restore disturbed areas around the culvert end with erosion mat and seed as specified on the plans.

D Measurement

The department will measure Clean Culvert End by the each culvert end, 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.0060.04	Clean Culvert End	EACH

Payment is full compensation for cleaning the culvert ends and disposing of removed material. The department will pay separately for seeding, erosion mat, and any other items needed for permanent restoration.

35. Temporary Marking Line Paint 6-Inch Transverse Special, Item SPV.0090.01.

A Description

This special provision describes providing temporary marking lines for crosswalks that conform to standard spec 643 and 646 and as hereinafter provided.

B Materials

Furnish pavement marking materials conforming to standard spec 646.2.

C Construction

Construct in conformance with standard spec 643.3.7.

D Measurement

The department will measure Temporary Marking Line Paint 6-Inch Transverse Special by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Temporary Marking Line Paint 6-Inch Transverse Special	LF

Payment is full compensation is accordance with standard spec 643.5.4.

ADDITIONAL SPECIAL PROVISION 4

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

Payment to First-Tier Subcontractors

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

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

Payment to Lower-Tier Subcontractors

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

Acceptance and Final Payment

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work.

Additional Special Provision 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

416.2.4 Concrete Pavement Repair and Replacement

Replace the entire text with the following effective with the November 2022 letting:

(1) Except as specified in 416.3.6 for inlaid rumble strips, use grade C concrete as specified in 501.

(2) The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi.

416.2.5 Special High Early Strength Concrete Pavement Repair and Replacement

416.2.5.1 Composition and Proportioning of Concrete

Replace paragraph one with the following effective with the November 2022 letting:

(1) For the concrete mixture, use a minimum of 846 pounds of cementitious material per cubic yard of concrete. The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi. The contractor may add one or a combination of admixtures to the ingredients or to the mixture in order to obtain the required minimum strength and required air content. Do not retemper the concrete mixture.

455.2.4.3 Emulsified Asphalts

Replace paragraph one with the following effective with the November 2022 letting:

(1) Furnish material conforming, before dilution, to the following:

Anionic emulsified asphalts[1] ..... AASHTO M140
Cationic emulsified asphalts[1] ..... AASHTO M208
Polymer-modified cationic emulsified asphalts ..... AASHTO M316

[1] Non-tracking emulsified asphalts shall conform to TABLE 455-1 for the type and grade specified.

TABLE 455-1 Requirements for Non-Tracking Emulsified Asphalt

PRODUCT	ANTT	CNTT
Saybolt Viscosity at 77°F (25°C), (AASHTO T 59), SFS	15-100	15-100
Paddle Viscosity at 77°F (25°C), (AASHTO T 382), cPs[1]	30-200	30-200
Storage Stability Test, 24 hr, (AASHTO T 59), %	1 max	1 max
Residue by Distillation, 500 ± 10 °F (260 ± 5 °C), or Residue by Evaporation, 325 ± 5 °F (163 ± 3 °C), (AASHTO T 59), %	50 min	50 min
Sieve Test, No. 20 (850 µm), (AASHTO T 59), %	0.3	0.3
Penetration at 77°F (25°C), 100 g, 5 sec, (AASHTO T 49), dmm	10-40	10-40
Ash Content, (AASHTO T 111), %	1 max	1 max
Solubility in Trichlorethylene Test, (AASHTO T 44)[2]	97.5% min	97.5% min

[1] Paddle Viscosity (AASHTO T 382) may be run in lieu of Saybolt Viscosity (AASHTO T 59).

[2] The solubility in Trichlorethylene test (AASHTO T 44) may be run in lieu of Ash Content (AASHTO T 111).

455.2.5 Tack Coat

Replace paragraph one with the following effective with the November 2022 letting:

(1) Under the Tack Coat bid item, furnish type SS-1h, CSS-1h, QS-1h, CQS-1h, ANTT, CNTT, or modified emulsified asphalt with an “h” suffix, unless the contract specifies otherwise.

710.5.7 Corrective Action

710.5.7.1 Optimized Aggregate Gradations

Replace paragraph one with the following effective with the November 2022 letting:

(1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size, notify the other party immediately and do one of the following:

- Perform corrective action documented in the QC plan or as the engineer approves. Continue with the following:
  1. Document and provide corrective action results to the engineer as soon as they are available.
  2. Department will conduct two tests within the next business day after corrective action is complete.

     If blended aggregate gradations are within the tarantula curve limits by the second department test:
     - Continue with concrete production.
     - Include a break in the 4-point running average.
     - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
  - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract requires an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit a new optimized aggregate gradation mix design.
  - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract does not require an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit either a new optimized aggregate gradation mix design or a combined aggregate gradation mix design.
- Submit a new optimized aggregate gradation mix design and perform the following:
  1. Restart control charts for the new mix design.
  2. Amend contractor Quality Control Plan

715.5 Payment

Replace the entire text with the following effective with the November 2022 letting:

715.5.1 General

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

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

(2) Incentive payment may be more or less than the amount the schedule of items shows.

(3) The department will administer disincentives for strength under the Disincentive Strength Concrete Structures, Disincentive Strength Concrete Barrier, Disincentive Flexural Strength Concrete Pavement, and Disincentive Compressive Strength Concrete Pavement, administrative items.

(4) The department will adjust pay for each lot using PWL of the 28-day sublot average strengths for that lot. The department will measure PWL relative to strength lower specification limits as follows:

- Compressive strength of 3700 psi for pavements.
- Flexural strength of 650 psi for pavements.
- Compressive strength of 4000 psi for structures and barrier.

(5) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.

(6) Submit test results to the department electronically using MRS software. The department will verify contractor data before determining pay adjustments.

(7) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

715.5.2 Pavements

715.5.2.1 Compressive

(1) The department will adjust pay for each lot using equation "QMP 3.01" as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	(0.1 x PWL) – 9.5
>= 85 to < 95	0
>= 30 to < 85	(1.5/55 x PWL) – 127.5/55
< 30	-1.50

(2) The department will not pay incentive if the lot standard deviation is greater than 400 psi compressive.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 3700 psi compressive by $1.50 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.2.2 Flexural

(1) The department will adjust pay for each lot using equation "QMP 6.02" as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	(0.2 x PWL) – 19
>= 85 to < 95	0
>= 50 to < 85	(2.0/35 x PWL) – 170/35
< 50	-2.00

(2) The department will not pay incentive if the lot standard deviation is greater than 60 psi flexural.

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 650 psi flexural by $2.00 per square yard.

(4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.3 Structures and Cast-in-Place Barrier

(1) The department will adjust pay for each lot using equation "QMP 2.01" as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 99 to 100	10
>= 90 to < 99	0
>= 50 to < 90	(7/8 x PWL) – 78.75
< 50	-35

(2) The department will not pay incentive if the lot standard deviation is greater than 350 psi.

(3) For lots with less than 4 sublots, there is no incentive, but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 4000 psi by $35 per cubic yard.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. DBE firms must enter all payments to DBE and non-DBE firms regardless of tier.
6. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
7. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4), (5), and (6), and shall be binding on all first tier subcontractor relationships, all contractors and subcontractors utilizing DBE firms on the project, and all payments from DBE firms.

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

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

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

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

ADDITIONAL SPECIAL PROVISION 9

Electronic Certified Payroll or Labor Data Submittal

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

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

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

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

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

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

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

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).

BUY AMERICA PROVISION

Buy America (as documented in M-22-11 from the Office of Management and Budget: https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf) shall be domestic products and permanently incorporated in this project as classified in the following three categories, and as noted in the Construction and Materials Manual (CMM):

1. Iron and Steel

   All iron and steel manufacturing and coating processes (from smelting forward in the manufacturing process) must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America.

   The exemption of the iron and steel manufacturing and coating processes Buy America requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project.

2. Manufactured Product

   All manufactured products (as defined in CMM 228.5) are covered under a previous waiver from 1983, and are currently exempt from Buy America.

3. Construction Material

   All construction materials (as defined in OMB M-22-11 and as referenced in CMM 228.5) must comply with Buy America. No exemptions (0.0%) are allowed.

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Buy America provision.

https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

Upon completion of the project, certify to the engineer, in writing using department form DT4567 that all iron and steel, manufactured products, and construction materials conform to this Buy America provision.

Form DT4567 is available at: https://wisconsindot.gov/Documents/formdocs/dt4567.docx

Attach a list of iron or steel exemptions and their associated costs to the certification form.

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Federal ID(s): N/A, N/A, 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	6.000 STA	_____.____	_____.____
0004	201.0205 Grubbing	7.000 STA	_____.____	_____.____
0006	203.0100 Removing Small Pipe Culverts	20.000 EACH	_____.____	_____.____
0008	203.0220 Removing Structure (structure) 03. 2'x3' Box Culvert	1.000 EACH	_____.____	_____.____
0010	203.0220 Removing Structure (structure) 04. 3'x4' Box Culvert	1.000 EACH	_____.____	_____.____
0012	203.0220 Removing Structure (structure) 05. Snowmobile Bridge	1.000 EACH	_____.____	_____.____
0014	203.0250 Removing Structure Over Waterway Remove Debris (structure) 01. C-44-919	1.000 EACH	_____.____	_____.____
0016	203.0250 Removing Structure Over Waterway Remove Debris (structure) 02. C-44-22	1.000 EACH	_____.____	_____.____
0018	204.0110 Removing Asphaltic Surface	185.000 SY	_____.____	_____.____
0020	204.0115 Removing Asphaltic Surface Butt Joints	360.000 SY	_____.____	_____.____
0022	204.0120 Removing Asphaltic Surface Milling	195,680.000 SY	_____.____	_____.____
0024	204.0150 Removing Curb & Gutter	656.000 LF	_____.____	_____.____
0026	204.0155 Removing Concrete Sidewalk	235.000 SY	_____.____	_____.____
0028	204.0165 Removing Guardrail	940.000 LF	_____.____	_____.____
0030	204.0195 Removing Concrete Bases	2.000 EACH	_____.____	_____.____

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Federal ID(s): N/A, N/A, 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
0032	204.0210 Removing Manholes	1.000 EACH	_____.____	_____.____
0034	204.0245 Removing Storm Sewer (size) 01. 15-Inch	24.000 LF	_____.____	_____.____
0036	205.0100 Excavation Common	8,027.000 CY	_____.____	_____.____
0038	206.2001 Excavation for Structures Culverts (structure) 01. B-44-471	1.000 EACH	_____.____	_____.____
0040	206.2001 Excavation for Structures Culverts (structure) 02. C-44-138	1.000 EACH	_____.____	_____.____
0042	208.0100 Borrow	2,101.000 CY	_____.____	_____.____
0044	210.2500 Backfill Structure Type B	3,653.000 TON	_____.____	_____.____
0046	211.0101 Prepare Foundation for Asphaltic Paving (project) 01. 6518-00-70	1.000 EACH	_____.____	_____.____
0048	211.0101 Prepare Foundation for Asphaltic Paving (project) 02. 6518-06-71	1.000 EACH	_____.____	_____.____
0050	211.0101 Prepare Foundation for Asphaltic Paving (project) 03. 6518-07-71	1.000 EACH	_____.____	_____.____
0052	211.0700.S Prepare Foundation for CIR Base Layer (project) 01. 6518-00-70	1.000 EACH	_____.____	_____.____
0054	211.0700.S Prepare Foundation for CIR Base Layer (project) 02. 6518-06-71	1.000 EACH	_____.____	_____.____
0056	211.0800.S Base Repair for CIR Layer	1,380.000 CY	_____.____	_____.____
0058	213.0100 Finishing Roadway (project) 01. 6518-00-70	1.000 EACH	_____.____	_____.____

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Federal ID(s): N/A, N/A, N/A

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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	213.0100 Finishing Roadway (project) 02. 6518-06-71	1.000 EACH	_____.____	_____.____
0062	213.0100 Finishing Roadway (project) 03. 6518-07-71	1.000 EACH	_____.____	_____.____
0064	305.0110 Base Aggregate Dense 3/4-Inch	3,074.000 TON	_____.____	_____.____
0066	305.0120 Base Aggregate Dense 1 1/4-Inch	5,920.000 TON	_____.____	_____.____
0068	311.0115 Breaker Run	252.000 CY	_____.____	_____.____
0070	312.0110 Select Crushed Material	110.000 TON	_____.____	_____.____
0072	327.1000.S CIR Asphaltic Base Layer	172,135.000 SY	_____.____	_____.____
0074	416.0610 Drilled Tie Bars	42.000 EACH	_____.____	_____.____
0076	416.1010 Concrete Surface Drains	1.000 CY	_____.____	_____.____
0078	450.4000 HMA Cold Weather Paving	225.000 TON	_____.____	_____.____
0080	455.0605 Tack Coat	23,746.000 GAL	_____.____	_____.____
0082	455.0770.S Asphalt Stabilizing Agent	920.000 TON	_____.____	_____.____
0084	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	1.000 EACH	_____.____	_____.____
0086	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.____	_____.____
0088	460.2000 Incentive Density HMA Pavement	600.000 DOL	1.00000	600.00

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SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0090	460.2005 Incentive Density PWL HMA Pavement	17,920.000 DOL	1.00000	17,920.00
0092	460.2007 Incentive Density HMA Pavement Longitudinal Joints	33,580.000 DOL	1.00000	33,580.00
0094	460.2010 Incentive Air Voids HMA Pavement	27,520.000 DOL	1.00000	27,520.00
0096	460.5224 HMA Pavement 4 LT 58-28 S	27,435.000 TON	_____.____	_____.____
0098	460.6223 HMA Pavement 3 MT 58-28 S	250.000 TON	_____.____	_____.____
0100	460.6224 HMA Pavement 4 MT 58-28 S	490.000 TON	_____.____	_____.____
0102	465.0105 Asphaltic Surface	2,677.000 TON	_____.____	_____.____
0104	465.0120 Asphaltic Surface Driveways and Field Entrances	39.000 TON	_____.____	_____.____
0106	465.0315 Asphaltic Flumes	7.000 SY	_____.____	_____.____
0108	465.0475 Asphalt Centerline Rumble Strips 2-Lane Rural	50,115.000 LF	_____.____	_____.____
0110	504.0100 Concrete Masonry Culverts	461.000 CY	_____.____	_____.____
0112	505.0400 Bar Steel Reinforcement HS Structures	61,810.000 LB	_____.____	_____.____
0114	505.0600 Bar Steel Reinforcement HS Coated Structures	6,120.000 LB	_____.____	_____.____
0116	516.0500 Rubberized Membrane Waterproofing	66.000 SY	_____.____	_____.____
0118	520.8700 Cleaning Culvert Pipes	1.000 EACH	_____.____	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0120	521.1721 Apron Endwalls for Pipe Arch Sloped Side Drains Steel 21x15-Inch 6 to 1	3.000 EACH	_____.____	_____.____
0122	521.3721 Pipe Arch Corrugated Steel 21x15-Inch	96.000 LF	_____.____	_____.____
0124	522.0424 Culvert Pipe Reinforced Concrete Class IV 24-Inch	166.000 LF	_____.____	_____.____
0126	522.0430 Culvert Pipe Reinforced Concrete Class IV 30-Inch	98.000 LF	_____.____	_____.____
0128	522.0442 Culvert Pipe Reinforced Concrete Class IV 42-Inch	52.000 LF	_____.____	_____.____
0130	522.0454 Culvert Pipe Reinforced Concrete Class IV 54-Inch	46.000 LF	_____.____	_____.____
0132	522.0460 Culvert Pipe Reinforced Concrete Class IV 60-Inch	48.000 LF	_____.____	_____.____
0134	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	6.000 EACH	_____.____	_____.____
0136	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	4.000 EACH	_____.____	_____.____
0138	522.1042 Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	2.000 EACH	_____.____	_____.____
0140	522.1054 Apron Endwalls for Culvert Pipe Reinforced Concrete 54-Inch	2.000 EACH	_____.____	_____.____
0142	522.1060 Apron Endwalls for Culvert Pipe Reinforced Concrete 60-Inch	2.000 EACH	_____.____	_____.____
0144	522.2343 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 43x68-Inch	58.000 LF	_____.____	_____.____

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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0146	522.2419 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	230.000 LF	_____.____	_____.____
0148	522.2424 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	32.000 LF	_____.____	_____.____
0150	522.2429 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	114.000 LF	_____.____	_____.____
0152	522.2434 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	64.000 LF	_____.____	_____.____
0154	522.2619 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	12.000 EACH	_____.____	_____.____
0156	522.2624 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	3.000 EACH	_____.____	_____.____
0158	522.2629 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	6.000 EACH	_____.____	_____.____
0160	522.2634 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	4.000 EACH	_____.____	_____.____
0162	522.2643 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 43x68-Inch	2.000 EACH	_____.____	_____.____
0164	601.0411 Concrete Curb & Gutter 30-Inch Type D	589.000 LF	_____.____	_____.____
0166	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	52.000 LF	_____.____	_____.____

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Federal ID(s): N/A, N/A, N/A

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Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0168	602.0405 Concrete Sidewalk 4-Inch	225.000 SF	_____.____	_____.____
0170	602.0415 Concrete Sidewalk 6-Inch	85.000 SF	_____.____	_____.____
0172	602.0515 Curb Ramp Detectable Warning Field Natural Patina	130.000 SF	_____.____	_____.____
0174	606.0300 Riprap Heavy	60.000 CY	_____.____	_____.____
0176	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	24.000 LF	_____.____	_____.____
0178	608.2324 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	14.000 LF	_____.____	_____.____
0180	611.0530 Manhole Covers Type J	1.000 EACH	_____.____	_____.____
0182	611.0627 Inlet Covers Type HM	1.000 EACH	_____.____	_____.____
0184	611.2004 Manholes 4-FT Diameter	1.000 EACH	_____.____	_____.____
0186	611.2006 Manholes 6-FT Diameter	1.000 EACH	_____.____	_____.____
0188	614.2300 MGS Guardrail 3	212.500 LF	_____.____	_____.____
0190	614.2500 MGS Thrie Beam Transition	315.200 LF	_____.____	_____.____
0192	614.2610 MGS Guardrail Terminal EAT	8.000 EACH	_____.____	_____.____
0194	618.0100 Maintenance And Repair of Haul Roads (project) 01. 6518-00-70	1.000 EACH	_____.____	_____.____

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Federal ID(s): N/A, N/A, 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
0196	618.0100 Maintenance And Repair of Haul Roads (project) 02. 6518-06-71	1.000 EACH	_____.____	_____.____
0198	618.0100 Maintenance And Repair of Haul Roads (project) 03. 6518-07-71	1.000 EACH	_____.____	_____.____
0200	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0202	620.0300 Concrete Median Sloped Nose	251.000 SF	_____.____	_____.____
0204	624.0100 Water	53.900 MGAL	_____.____	_____.____
0206	625.0100 Topsoil	2,920.000 SY	_____.____	_____.____
0208	625.0500 Salvaged Topsoil	6,020.000 SY	_____.____	_____.____
0210	628.1504 Silt Fence	4,510.000 LF	_____.____	_____.____
0212	628.1520 Silt Fence Maintenance	4,510.000 LF	_____.____	_____.____
0214	628.1905 Mobilizations Erosion Control	6.000 EACH	_____.____	_____.____
0216	628.1910 Mobilizations Emergency Erosion Control	4.000 EACH	_____.____	_____.____
0218	628.2006 Erosion Mat Urban Class I Type A	355.000 SY	_____.____	_____.____
0220	628.2008 Erosion Mat Urban Class I Type B	8,600.000 SY	_____.____	_____.____
0222	628.7015 Inlet Protection Type C	14.000 EACH	_____.____	_____.____
0224	628.7020 Inlet Protection Type D	1.000 EACH	_____.____	_____.____

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Federal ID(s): N/A, N/A, 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
0226	628.7504 Temporary Ditch Checks	150.000 LF	_____.____	_____.____
0228	628.7555 Culvert Pipe Checks	125.000 EACH	_____.____	_____.____
0230	628.7570 Rock Bags	100.000 EACH	_____.____	_____.____
0232	629.0210 Fertilizer Type B	5.000 CWT	_____.____	_____.____
0234	630.0130 Seeding Mixture No. 30	27.000 LB	_____.____	_____.____
0236	630.0140 Seeding Mixture No. 40	110.400 LB	_____.____	_____.____
0238	633.5200 Markers Culvert End	38.000 EACH	_____.____	_____.____
0240	634.0612 Posts Wood 4x6-Inch X 12-FT	1.000 EACH	_____.____	_____.____
0242	634.0616 Posts Wood 4x6-Inch X 16-FT	4.000 EACH	_____.____	_____.____
0244	634.0618 Posts Wood 4x6-Inch X 18-FT	2.000 EACH	_____.____	_____.____
0246	637.2210 Signs Type II Reflective H	15.000 SF	_____.____	_____.____
0248	638.2102 Moving Signs Type II	17.000 EACH	_____.____	_____.____
0250	638.2602 Removing Signs Type II	1.000 EACH	_____.____	_____.____
0252	638.3000 Removing Small Sign Supports	5.000 EACH	_____.____	_____.____
0254	642.5201 Field Office Type C	1.000 EACH	_____.____	_____.____
0256	643.0300 Traffic Control Drums	4,109.000 DAY	_____.____	_____.____

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Federal ID(s): N/A, N/A, 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
0258	643.0410 Traffic Control Barricades Type II	77.000 DAY	_____.____	_____.____
0260	643.0420 Traffic Control Barricades Type III	34,902.000 DAY	_____.____	_____.____
0262	643.0705 Traffic Control Warning Lights Type A	69,881.000 DAY	_____.____	_____.____
0264	643.0900 Traffic Control Signs	63,811.000 DAY	_____.____	_____.____
0266	643.0920 Traffic Control Covering Signs Type II	14.000 EACH	_____.____	_____.____
0268	643.1000 Traffic Control Signs Fixed Message	22.260 SF	_____.____	_____.____
0270	643.1050 Traffic Control Signs PCMS	28.000 DAY	_____.____	_____.____
0272	643.3105 Temporary Marking Line Paint 4-Inch	116,210.000 LF	_____.____	_____.____
0274	643.3120 Temporary Marking Line Epoxy 4-Inch	44,380.000 LF	_____.____	_____.____
0276	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0278	644.1410 Temporary Pedestrian Surface Asphalt	165.000 SF	_____.____	_____.____
0280	644.1601 Temporary Pedestrian Curb Ramp	185.000 DAY	_____.____	_____.____
0282	644.1605 Temporary Pedestrian Detectable Warning Field	66.000 SF	_____.____	_____.____
0284	644.1810 Temporary Pedestrian Barricade	337.000 LF	_____.____	_____.____
0286	645.0105 Geotextile Type C	795.000 SY	_____.____	_____.____
0288	645.0120 Geotextile Type HR	146.000 SY	_____.____	_____.____

Proposal ID: 20230711006 Project(s): 6518-00-70, 6518-06-71, 6518-07-71

Federal ID(s): N/A, N/A, 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
0290	646.1020 Marking Line Epoxy 4-Inch	43,690.000 LF	_____.____	_____.____
0292	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	126,430.000 LF	_____.____	_____.____
0294	646.3020 Marking Line Epoxy 8-Inch	242.000 LF	_____.____	_____.____
0296	646.3040 Marking Line Grooved Wet Ref Epoxy 8-Inch	210.000 LF	_____.____	_____.____
0298	646.5020 Marking Arrow Epoxy	8.000 EACH	_____.____	_____.____
0300	646.6120 Marking Stop Line Epoxy 18-Inch	63.000 LF	_____.____	_____.____
0302	646.7120 Marking Diagonal Epoxy 12-Inch	140.000 LF	_____.____	_____.____
0304	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	340.000 LF	_____.____	_____.____
0306	646.8120 Marking Curb Epoxy	32.000 LF	_____.____	_____.____
0308	646.8220 Marking Island Nose Epoxy	6.000 EACH	_____.____	_____.____
0310	650.4000 Construction Staking Storm Sewer	3.000 EACH	_____.____	_____.____
0312	650.4500 Construction Staking Subgrade	2,288.000 LF	_____.____	_____.____
0314	650.5000 Construction Staking Base	2,288.000 LF	_____.____	_____.____
0316	650.5500 Construction Staking Curb Gutter and Curb & Gutter	641.000 LF	_____.____	_____.____
0318	650.6000 Construction Staking Pipe Culverts	19.000 EACH	_____.____	_____.____

Proposal ID: 20230711006 Project(s): 6518-00-70, 6518-06-71, 6518-07-71

Federal ID(s): N/A, N/A, 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
0320	650.6501 Construction Staking Structure Layout (structure) 01. B-44-471	1.000 EACH	_____.____	_____.____
0322	650.6501 Construction Staking Structure Layout (structure) 02. C-44-138	1.000 EACH	_____.____	_____.____
0324	650.8000 Construction Staking Resurfacing Reference	67,603.000 LF	_____.____	_____.____
0326	650.9000 Construction Staking Curb Ramps	13.000 EACH	_____.____	_____.____
0328	650.9911 Construction Staking Supplemental Control (project) 01. 6518-00-70	1.000 EACH	_____.____	_____.____
0330	650.9911 Construction Staking Supplemental Control (project) 02. 6518-06-71	1.000 EACH	_____.____	_____.____
0332	650.9911 Construction Staking Supplemental Control (project) 03. 6518-07-71	1.000 EACH	_____.____	_____.____
0334	650.9920 Construction Staking Slope Stakes	2,288.000 LF	_____.____	_____.____
0336	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	170.000 LF	_____.____	_____.____
0338	653.0140 Pull Boxes Steel 24x42-Inch	2.000 EACH	_____.____	_____.____
0340	653.0905 Removing Pull Boxes	3.000 EACH	_____.____	_____.____
0342	654.0101 Concrete Bases Type 1	2.000 EACH	_____.____	_____.____
0344	655.0230 Cable Traffic Signal 5-14 AWG	584.000 LF	_____.____	_____.____
0346	655.0515 Electrical Wire Traffic Signals 10 AWG	2,371.000 LF	_____.____	_____.____

Proposal ID: 20230711006 Project(s): 6518-00-70, 6518-06-71, 6518-07-71

Federal ID(s): N/A, N/A, 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
0348	657.0100 Pedestal Bases	2.000 EACH	_____.____	_____.____
0350	657.0420 Traffic Signal Standards Aluminum 13-FT	2.000 EACH	_____.____	_____.____
0352	658.0171 Traffic Signal Face 1S 12-Inch	2.000 EACH	_____.____	_____.____
0354	658.5070 Signal Mounting Hardware (location) 01. (STH 45 & STH 76)	1.000 EACH	_____.____	_____.____
0356	690.0150 Sawing Asphalt	3,200.000 LF	_____.____	_____.____
0358	690.0250 Sawing Concrete	130.000 LF	_____.____	_____.____
0360	715.0502 Incentive Strength Concrete Structures	2,766.000 DOL	1.00000	2,766.00
0362	740.0440 Incentive IRI Ride	101,624.000 DOL	1.00000	101,624.00
0364	999.2000.S Installing and Maintaining Bird Deterrent System (station) 01. Sta 479+25	1.000 EACH	_____.____	_____.____
0366	SPV.0035 Special 01. Foundation Backfill	3,660.000 CY	_____.____	_____.____
0368	SPV.0060 Special 01. Temporary Water Diversion B-44-471 Station 364+00	1.000 EACH	_____.____	_____.____
0370	SPV.0060 Special 02. Temporary Water Diversion C-44-138 Station 479+25	1.000 EACH	_____.____	_____.____
0372	SPV.0060 Special 03. Remove Flashing Beacon (STH 45 & STH 76)	1.000 EACH	_____.____	_____.____
0374	SPV.0060 Special 04. Clean Culvert End	4.000 EACH	_____.____	_____.____

Proposal ID: 20230711006 Project(s): 6518-00-70, 6518-06-71, 6518-07-71

Federal ID(s): N/A, N/A, 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
0376	SPV.0090 Special 01. Temporary Marking Line Paint 6-Inch Transverse Special	340.000 LF	_____._____	_____._____

Section: 0001 Total: _____._____

Total Bid: _____._____

PLEASE ATTACH ADDENDA HERE

Wisconsin Department of Transportation

Division of Transportation Systems Development
Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

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

July 3, 2023

NOTICE TO ALL CONTRACTORS:

Proposal #6:

6518-00-70
Greenville – Bear Creek
Outagamie County Line – USH 45
STH 76
Waupaca County

6518-06-71
Shiocton – Bear Creek
STH 54 - NCL
STH 76
Outagamie County

6518-07-71
Shiocton – NCL
Boelter Rd – CTH W
STH 76
Outagamie County

Letting of July 11, 2023

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

Special Provisions:

Revised Special Provisions	
Article No.	Description
32	Temporary Water Diversion B-44-471 Station 364+00, Item SPV.0060.01; Temporary Water Diversion C-44-138 Station 479+25, Item SPV.0060.02

Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum
204.0120	Removing Asphaltic Surface Milling	SY	195,680	395	196,075
211.0800.S	Base Repair for CIR Layer	CY	1,380	-20	1,360
327.1000.S	CIR Asphaltic Base Layer	SY	172,135	-1,985	170,150
455.0770.S	Asphalt Stabilizing Agent	TON	920	-10	910

Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
8	Revised typical sections to remove CIR from variable width paved shoulder areas
9	Revised typical sections to remove CIR from variable width paved shoulder areas
10	Revised typical sections to remove CIR from variable width paved shoulder areas
59	Revised milling locations and depths to reflect reduced CIR areas.
63	Revised CIR quantities to reflect removal of CIR from variable width paved shoulder areas.

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

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 01

6518-00-70, 6518-06-71, 6518-07-71

July 3, 2023

Special Provisions

32. Temporary Water Diversion B-44-471 Station 364+00, Item SPV.0060.01; Temporary Water Diversion C-44-138 Station 479+25, Item SPV.0060.02.

Replace paragraph 3 under section titled **C Construction** *with the following:*

Provide hydraulic calculations, temporary water diversion plan details and proposed cofferdam construction details at each required location. All methods of diversion, calculations, plans and construction details are subject to approval as part of the ECIP.

Replace paragraph 3 under section titled **D Measurement** *with the following:*

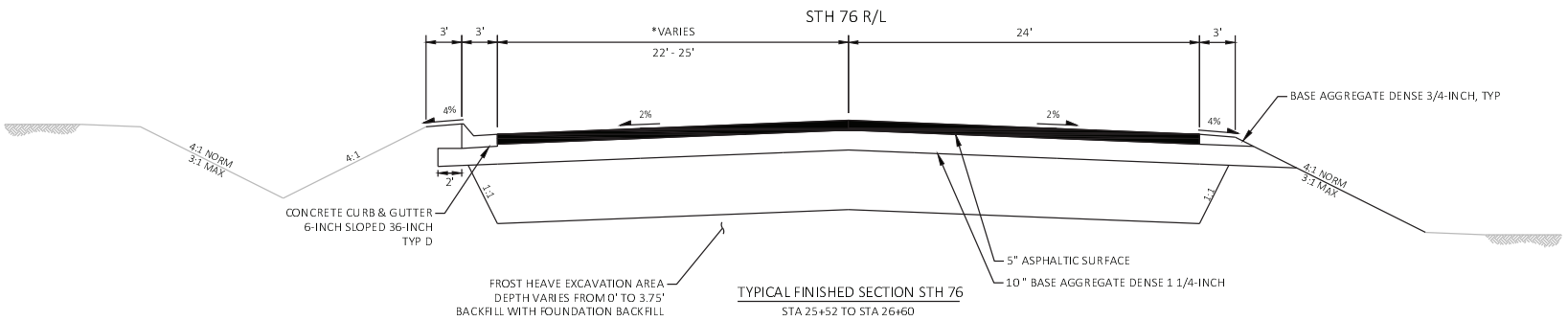
Payment is full compensation for providing hydraulic calculations, plans with cofferdam construction details, installation, daily inspections, and necessary modifications to the Temporary Water Diversion operation and removal when Temporary Water Diversion operation is no longer needed and grading to finished grade.

Schedule of Items
Attached, dated July 3, 2023, are the revised Schedule of Items Pages 1 – 3.

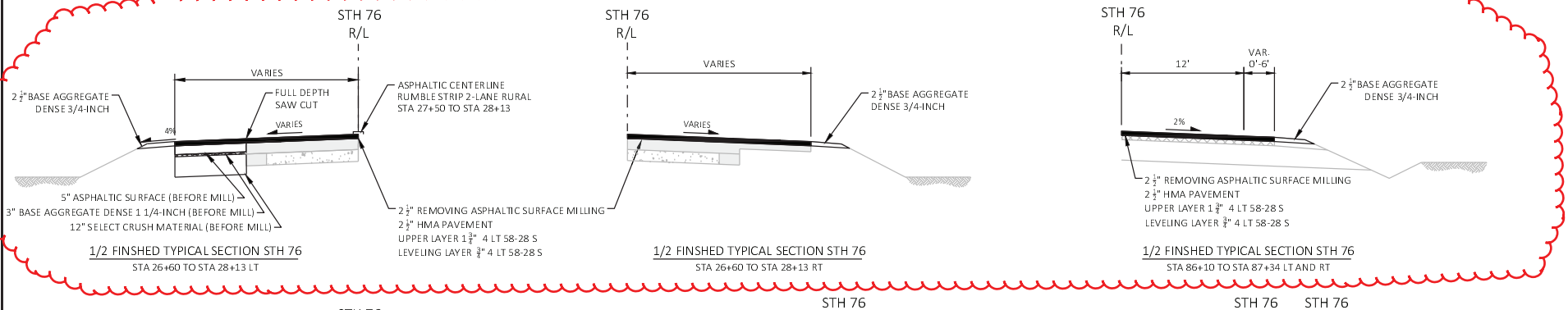
Plan Sheets
The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:
Revised: 8, 9, 10, 59, and 63.

END OF ADDENDUM

Addendum No. 01
ID 6518-00-70,
ID 6518-06-71,
6518-07-71
Revised Sheet 8
July 3, 2023



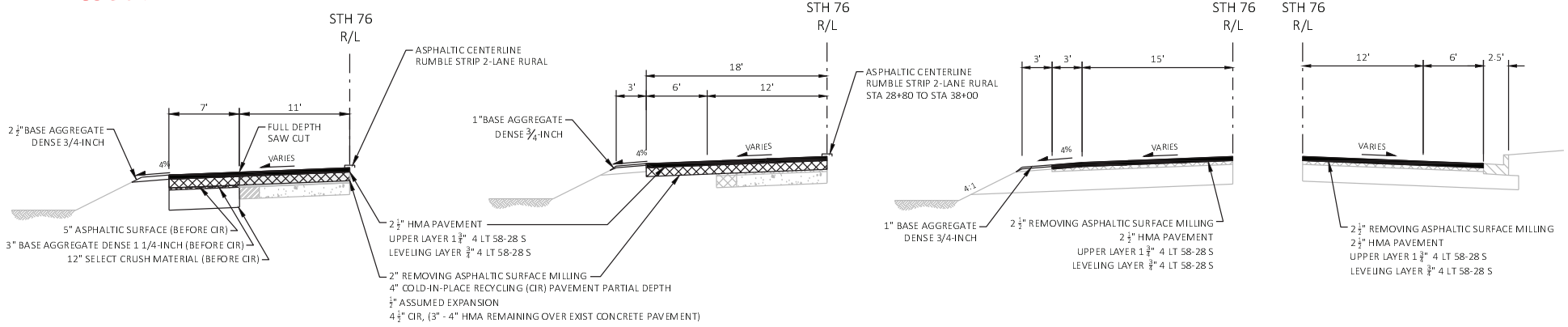
TYPICAL FINISHED SECTION STH 76
STA 25+52 TO STA 26+60



1/2 FINSHED TYPICAL SECTION STH 76
STA 26+60 TO STA 28+13 LT

1/2 FINSHED TYPICAL SECTION STH 76
STA 26+60 TO STA 28+13 RT

1/2 FINSHED TYPICAL SECTION STH 76
STA 86+10 TO STA 87+34 LT AND RT



1/2 FINSHED TYPICAL SECTION STH 76
STA 28+13 TO STA 28+80 LT

1/2 FINISHED TYPICAL SECTION STH 76
STA 28+80 TO STA 50+01 LT
STA 28+13 TO STA 50+01 RT

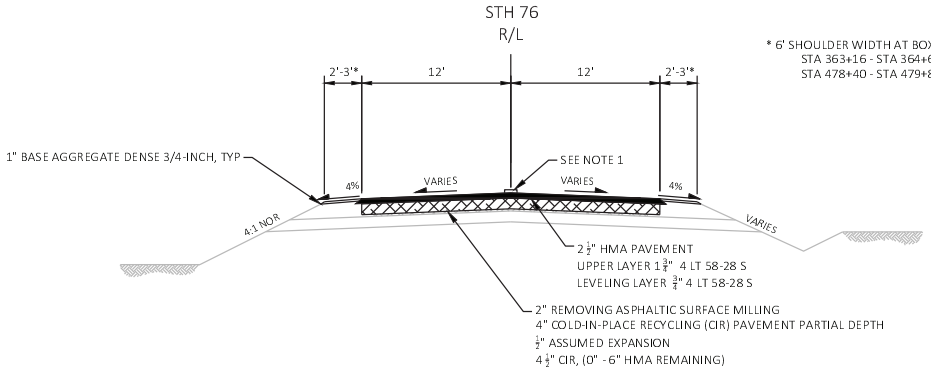
1/2 FINISHED TYPICAL SECTION STH 76
STA 50+01 TO STA 60+00 LT
STA 50+01 TO STA 51+02 RT

1/2 FINISHED TYPICAL SECTION STH 76
STA 60+00 TO STA 86+10 LT
STA 51+02 TO STA 86+10 RT

PROJECT NO: 6518-00-70/-06-71/-07-71	HWY: STH 76	COUNTY: WAUPACA & OUTAGAMIE	TYPICAL SECTIONS	SHEET 8	E

FILE NAME : N:\3001250.00\CIVIL 3D\SHEETSPLAN\651806-020301-TS.DWG
LAYOUT NAME - 651806-020306-ts
PLOT DATE : 6/29/2023 7:33 AM
PLOT BY : ANDY WESTBROOK
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

Addendum No. 01
ID 6518-00-70,
ID 6518-06-71,
6518-07-71
Revised Sheet 9
July 3, 2023



* 6' SHOULDER WIDTH AT BOX CULVERT REPLACEMENTS
STA 363+16 - STA 364+60
STA 478+40 - STA 479+80

FINISHED TYPICAL SECTION STH 76

STA 87+34 TO STA 112+50
STA 118+30 TO STA 199+60
STA 207+60 TO STA 431+05
STA 438+75 TO STA 696+80

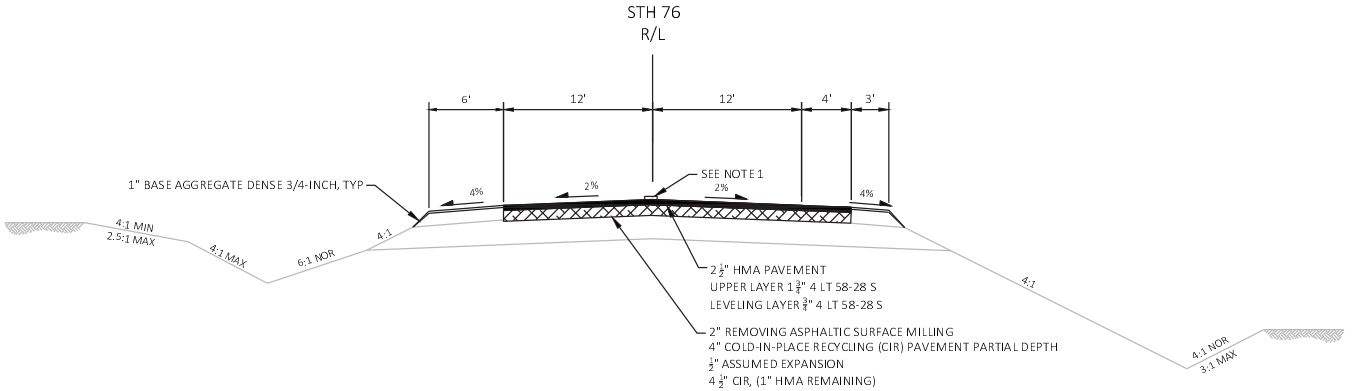
NOTES

1. ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. SEE MISCELLANEOUS QUANTITY TABLE AND SDD "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR GROOVE SPACING AND GAP LOCATIONS

PROJECT NO: 6518-00-70/-06-71/-07-71	HWY: STH 76	COUNTY: WAUPACA & OUTAGAMIE	TYPICAL SECTIONS	SHEET 9	E

FILE NAME : N:\300250.00\CIVIL 3D\SHEETSPLAN\651806-020301-TS.DWG
LAYOUT NAME - 651806-020307-ts
PLOT DATE : 6/28/2023 6:17 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:10 FT

Addendum No. 01
ID 6518-00-70,
ID 6518-06-71,
6518-07-71
Revised Sheet 10
July 3, 2023

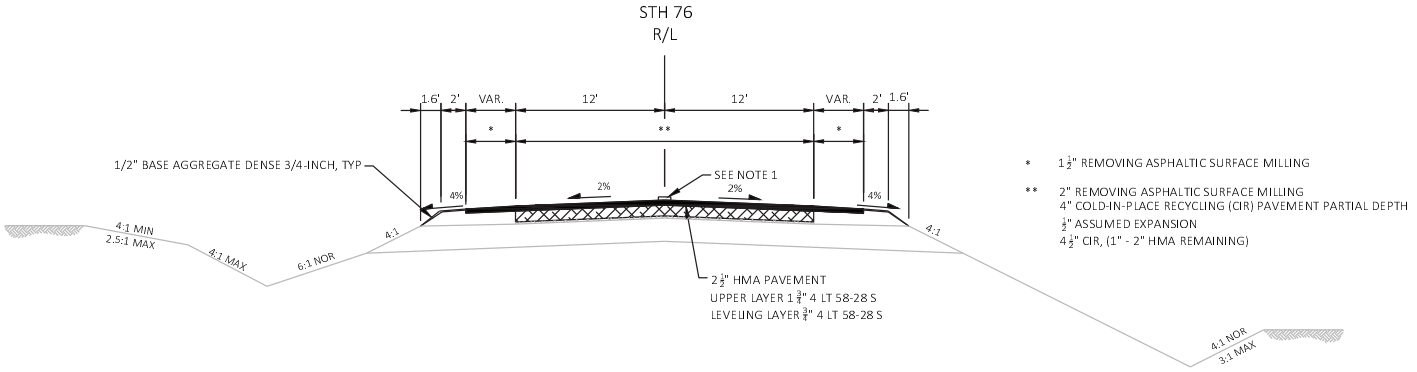


FINISHED TYPICAL SECTION STH 76

STA 199+60 TO STA 207+60

NOTES

1. ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. SEE MISCELLANEOUS QUANTITY TABLE AND SDD "2-LANE RURAL CENTERLINE RUMBLE STRIP, MILLING" FOR GROOVE SPACING AND GAP LOCATIONS



FINISHED TYPICAL SECTION STH 76

STA 112+50 TO STA 115+21.92
STA 115+71.08 TO STA 118+50
STA 431+05 TO STA 434+34.75
STA 436+17.63 TO STA 438+75

PROJECT NO: 6518-00-70/-06-71/-07-71	HWY: STH 76	COUNTY: WAUPACA & OUTAGAMIE	TYPICAL SECTIONS	SHEET 10	E

FILE NAME : N:\300125.00\CIVIL 3D\SHEETSPLAN\651806-020301-TS.DWG
LAYOUT NAME - 651806-020308-ts
PLOT DATE : 6/28/2023 6:17 AM PLOT BY : ANDY WESTBROOK PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 42

3

REMOVING CULVERT PIPE / STRUCTURES

STATION	DIRECTION	LOCATION	203.0100 REMOVING SMALL CULVERT PIPE EA	203.0220* REMOVING STRUCTURE EA	COMMENT
PROJECT 6518-00-70					
CATEGORY 0010					
19+50	RT	STH 22	1	---	18" CPCS
20+25	RT	STH 22	1	---	18" CPCS
21+00	RT	STH 22	1	---	18" CPCS
PROJECT 6518-00-70 TOTAL			3	0	
PROJECT 6518-06-71					
CATEGORY 0010					
99+15	LT/RT	STH 76	1	---	24" CPCS
131+24	LT/RT	STH 76	1	---	18" CPCS
176+09	LT/RT	STH 76	1	---	18" CPCS
189+23	LT/RT	STH 76	1	---	30" CPCS
200+88	LT/RT	STH 76	1	---	24" CPCS
260+46	LT/RT	STH 76	1	---	29"x42" CPCS
273+59	LT/RT	STH 76	1	---	29"x42" CPCS
402+41	LT/RT	STH 76	1	---	24" CPCS
414+66	LT/RT	STH 76	---	1	.03 2'x3' BOX CULVERT
452+59	LT/RT	STH 76	1	---	48" CPCS
458+68	LT/RT	STH 76	1	---	30" CPCS
506+15	LT/RT	STH 76	1	---	24" CPCS
514+78	LT/RT	STH 76	1	---	24" CPCS
521+43	LT/RT	STH 76	1	---	24" CPCS
533+16	LT/RT	STH 76	1	---	33"X49" CPCS
544+43	LT/RT	STH 76	1	---	24" CPCS
565+50	LT/RT	STH 76	1	---	30" CPCS
610+02	LT/RT	STH 76	1	---	24" CPCS
626+66	LT/RT	STH 76	---	1	.04 3'X4' BOX CULVERT
PROJECT 6518-06-71 TOTAL			17	2	
PROJECT 6518-07-71					
CATEGORY 0010					
479+00	RT	STH 76	---	1	05. SNOWMOBILE BRIDGE
PROJECT 6518-07-71 TOTAL			0	1*	

* ADDITIONAL QUANTITIES SHOWN IN STRUCTURE PLANS

REMOVING ASPHALTIC SURFACE

STATION		TO STATION	ROADWAY	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0115 BUTT JOINTS SY	204.0120 MILLING SY	COMMENTS
PROJECT 6518-00-70							
CATEGORY 0010							
17+71	-	23+12	STH 22	---	20	1,485	2" MILL DEPTH
23+71	-	25+52	STH 76	---	30	1,045	2 1/2" MILL DEPTH
26+60	-	28+13	STH 76	---	---	695	2 1/2" MILL DEPTH
28+13	-	50+01	STH 76	---	---	8,755	2" MILL DEPTH
DWY			STH 76	---	5	---	
PROJECT 6518-00-70 TOTALS				0	55	11,980	
PROJECT 6518-06-71							
CATEGORY 0010							
50+01	-	87+34	STH 76	---	45	11,660	2 1/2" MILL DEPTH
87+34	-	115+20	STH 76	---	20	8,230	2" MILL DEPTH*
115+72	-	362+58	STH 76	---	75	68,875	2" MILL DEPTH*
365+18	-	434+35	STH 76	---	15	18,885	2" MILL DEPTH*
436+20	-	477+84	STH 76	---	20	12,105	2" MILL DEPTH*
480+35	-	695+60	STH 76	---	45	60,080	2" MILL DEPTH
695+60	-	696+80	STH 76	---	10	435	2 1/2" MILL DEPTH
DWY			STH 76	---	75	---	
112+65	-	118+25	STH 76	55	---	---	BEAM GUARD TAPERS
432+00	-	438+50	STH 76	50	---	---	BEAM GUARD TAPERS
NW QUAD PARK ST			STH 76	5	---	---	CURB RAMPS
NE QUAD PARK ST			STH 76	5	---	---	CURB RAMPS
NW QUAD HYDE ST			STH 76	5	---	---	CURB RAMPS
NE QUAD HYDE ST			STH 76	10	---	---	CURB RAMPS
SW QUAD PEARL ST			STH 76	10	---	---	CURB RAMPS
SE QUAD PEARL ST			STH 76	5	---	---	CURB RAMPS
SW QUAD PROSPECT ST			STH 76	10	---	---	CURB RAMPS
SE QUAD PROSPECT ST			STH 76	5	---	---	CURB RAMPS
73+89	-	74+10	STH 76	5	---	---	CURB RAMPS
SW QUAD RAILROAD AVE			STH 76	10	---	---	CURB RAMPS
SE QUAD RAILROAD AVE			STH 76	5	---	---	CURB RAMPS
76+54	-	76+71	STH 76	5	---	---	CURB RAMPS
CATEGORY 0010 TOTALS				185	305	180,270	
CATEGORY 0020							
51+00	-	86+00	STH 76	---	---	3,825	PARKING LANES
CATEGORY 0020 TOTALS				0		3,825	
PROJECT 6518-06-71 TOTALS				185	305	184,095	
CONTRACT TOTALS				185	360	196,075	

* 1 1/2" MILL DEPTH ON PAVED SHOULDERS OUTSIDE CIR LIMITS:
STA 112+50 - 115+20
STA 115+72 - 118+50
STA 431+05 - 434+35
STA 436+20 - 438+75

Addendum No. 01
ID 6518-00-70,
ID 6518-06-71,
6518-07-71
Revised Sheet 59
July 3, 2023

COLD IN PLACE RECYCLED ASPHALT

STATION		TO STATION	ROADWAY	211.0700.S.01 PREPARE FOUNDATION FOR CIR BASE LAYER 6518-00-70 EACH	211.0700.S.02 PREPARE FOUNDATION FOR CIR BASE LAYER 6518-06-71 EACH	211.0800.S BASE REPAIR FOR CIR LAYER CY	327.1000.S CIR ASPHALTIC BASE LAYER SY	455.0770.S ASPHALT STABILIZING AGENT TON	COMMENTS
PROJECT 6518-00-70									
CATEGORY 0010									
28+13	-	50+01	STH 76	---	---	---	8,750	47	4" DEPTH
UNDISTRIBUTED				1	---	70	---	---	4" DEPTH
PROJECT 6518-00-70 TOTALS				1	0	70	8,750	47	
PROJECT 6518-06-71									
CATEGORY 0010									
87+34	-	114+71	STH 76	---	---	---	7,300	39	4" DEPTH
116+22	-	364+00	STH 76	---	---	---	66,430	355	4" DEPTH
364+00	-	433+85	STH 76	---	---	---	18,630	100	4" DEPTH
436+70	-	479+00	STH 76	---	---	---	11,280	60	4" DEPTH
479+00	-	695+60	STH 76	---	---	---	57,760	309	4" DEPTH
UNDISTRIBUTED				---	1	1,290	---	---	4" DEPTH
PROJECT 6518-06-71 TOTALS				0	1	1,290	161,400	863	
CONTRACT TOTALS				1	1	1,360	170,150	910	

CONCRETE SURFACE DRAIN

LOCATION	RDWY	416.1010 CY	COMMENT
PROJECT 6518-06-71			
CATEGORY 0010			
STA 86+25 SS REPLACEMENT	STH 76	1	QTY PROVIDED IF STORM SEWER WORK IMPACTS EXISTING DRAIN
PROJECT 6518-06-71 TOTAL		1	
CONTRACT TOTAL		1	

HMA PAVEMENT PWL TEST STRIP

ROADWAY	460.0105.S VOLUMETRICS EACH	460.0110.S DENSITY EACH	COMMENTS
PROJECT 6518-06-71			
CATEGORY 0010			
STH 76	1	2	
PROJECT TOTALS	1	2	

ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL

STATION		TO STATION	ROADWAY	465.0475 LF
PROJECT 6518-06-71				
CATEGORY 0010				
101+50	-	115+00	STH 76	1,350
116+00	-	150+50	STH 76	3,450
154+50	-	200+00	STH 76	4,550
208+50	-	254+25	STH 76	4,575
258+25	-	280+65	STH 76	2,240
284+65	-	307+20	STH 76	2,255
311+20	-	352+00	STH 76	4,080
361+00	-	364+00	STH 76	300
364+00	-	407+25	STH 76	4,325
411+25	-	434+10	STH 76	2,285
436+45	-	463+00	STH 76	2,655
467+00	-	472+00	STH 76	500
476+00	-	479+00	STH 76	300
479+00	-	495+80	STH 76	1,680
499+80	-	520+50	STH 76	2,070
524+50	-	580+50	STH 76	5,600
584+50	-	599+50	STH 76	1,500
603+50	-	606+25	STH 76	275
610+25	-	649+00	STH 76	3,875
653+00	-	664+50	STH 76	1,150
668+50	-	679+50	STH 76	1,100
PROJECT 6518-06-71 TOTALS				50,115
CONTRACT TOTALS				50,115

Addendum No. 01
ID 6518-00-70,
ID 6518-06-71,
6518-07-71
Revised Sheet 63
July 3, 2023

Proposal ID: 20230711006 Project(s): 6518-00-70, 6518-06-71, 6518-07-71

Federal ID(s): N/A, N/A, 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	6.000 STA	_____.____	_____.____
0004	201.0205 Grubbing	7.000 STA	_____.____	_____.____
0006	203.0100 Removing Small Pipe Culverts	20.000 EACH	_____.____	_____.____
0008	203.0220 Removing Structure (structure) 03. 2'x3' Box Culvert	1.000 EACH	_____.____	_____.____
0010	203.0220 Removing Structure (structure) 04. 3'x4' Box Culvert	1.000 EACH	_____.____	_____.____
0012	203.0220 Removing Structure (structure) 05. Snowmobile Bridge	1.000 EACH	_____.____	_____.____
0014	203.0250 Removing Structure Over Waterway Remove Debris (structure) 01. C-44-919	1.000 EACH	_____.____	_____.____
0016	203.0250 Removing Structure Over Waterway Remove Debris (structure) 02. C-44-22	1.000 EACH	_____.____	_____.____
0018	204.0110 Removing Asphaltic Surface	185.000 SY	_____.____	_____.____
0020	204.0115 Removing Asphaltic Surface Butt Joints	360.000 SY	_____.____	_____.____
0022	204.0120 Removing Asphaltic Surface Milling	196,075.000 SY	_____.____	_____.____
0024	204.0150 Removing Curb & Gutter	656.000 LF	_____.____	_____.____
0026	204.0155 Removing Concrete Sidewalk	235.000 SY	_____.____	_____.____
0028	204.0165 Removing Guardrail	940.000 LF	_____.____	_____.____
0030	204.0195 Removing Concrete Bases	2.000 EACH	_____.____	_____.____

Proposal ID: 20230711006 Project(s): 6518-00-70, 6518-06-71, 6518-07-71

Federal ID(s): N/A, N/A, 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
0032	204.0210 Removing Manholes	1.000 EACH	_____.____	_____.____
0034	204.0245 Removing Storm Sewer (size) 01. 15-Inch	24.000 LF	_____.____	_____.____
0036	205.0100 Excavation Common	8,027.000 CY	_____.____	_____.____
0038	206.2001 Excavation for Structures Culverts (structure) 01. B-44-471	1.000 EACH	_____.____	_____.____
0040	206.2001 Excavation for Structures Culverts (structure) 02. C-44-138	1.000 EACH	_____.____	_____.____
0042	208.0100 Borrow	2,101.000 CY	_____.____	_____.____
0044	210.2500 Backfill Structure Type B	3,653.000 TON	_____.____	_____.____
0046	211.0101 Prepare Foundation for Asphaltic Paving (project) 01. 6518-00-70	1.000 EACH	_____.____	_____.____
0048	211.0101 Prepare Foundation for Asphaltic Paving (project) 02. 6518-06-71	1.000 EACH	_____.____	_____.____
0050	211.0101 Prepare Foundation for Asphaltic Paving (project) 03. 6518-07-71	1.000 EACH	_____.____	_____.____
0052	211.0700.S Prepare Foundation for CIR Base Layer (project) 01. 6518-00-70	1.000 EACH	_____.____	_____.____
0054	211.0700.S Prepare Foundation for CIR Base Layer (project) 02. 6518-06-71	1.000 EACH	_____.____	_____.____
0056	211.0800.S Base Repair for CIR Layer	1,360.000 CY	_____.____	_____.____
0058	213.0100 Finishing Roadway (project) 01. 6518-00-70	1.000 EACH	_____.____	_____.____

Proposal ID: 20230711006 Project(s): 6518-00-70, 6518-06-71, 6518-07-71

Federal ID(s): N/A, N/A, 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
0060	213.0100 Finishing Roadway (project) 02. 6518-06-71	1.000 EACH	_____.____	_____.____
0062	213.0100 Finishing Roadway (project) 03. 6518-07-71	1.000 EACH	_____.____	_____.____
0064	305.0110 Base Aggregate Dense 3/4-Inch	3,074.000 TON	_____.____	_____.____
0066	305.0120 Base Aggregate Dense 1 1/4-Inch	5,920.000 TON	_____.____	_____.____
0068	311.0115 Breaker Run	252.000 CY	_____.____	_____.____
0070	312.0110 Select Crushed Material	110.000 TON	_____.____	_____.____
0072	327.1000.S CIR Asphaltic Base Layer	170,150.000 SY	_____.____	_____.____
0074	416.0610 Drilled Tie Bars	42.000 EACH	_____.____	_____.____
0076	416.1010 Concrete Surface Drains	1.000 CY	_____.____	_____.____
0078	450.4000 HMA Cold Weather Paving	225.000 TON	_____.____	_____.____
0080	455.0605 Tack Coat	23,746.000 GAL	_____.____	_____.____
0082	455.0770.S Asphalt Stabilizing Agent	910.000 TON	_____.____	_____.____
0084	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	1.000 EACH	_____.____	_____.____
0086	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.____	_____.____
0088	460.2000 Incentive Density HMA Pavement	600.000 DOL	1.00000	600.00