

HIGHWAY WORK PROPOSAL

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

Proposal Number: **011**

| <u>COUNTY</u> | <u>STATE PROJECT</u> | <u>FEDERAL</u> | <u>PROJECT DESCRIPTION</u> | <u>HIGHWAY</u> |
|---------------|----------------------|----------------|---|----------------|
| Douglas | 8510-01-70 | N/A | Port Wing - Superior; Cth H To Engdahl Road | STH 013 |

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: \$260,000.00 Payable to: Wisconsin Department of Transportation | Attach Proposal Guaranty on back of this PAGE. |
| Bid Submittal Date: October 11, 2022 Time (Local Time): 11:00 am | Firm Name, Address, City, State, Zip Code <h3 style="margin: 0;">SAMPLE</h3> <h3 style="margin: 0;">NOT FOR BIDDING PURPOSES</h3> |
| Contract Completion Time 65 Working Days 85 Working Days | This contract is exempt from federal oversight. |
| Assigned Disadvantaged Business Enterprise Goal 0% | |

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: Base, HMA Pavement, Asphaltic Surface, Curb and Gutter, Beam Guard, Pavement Marking, Culvert Replacements | For Department Use Only |
| Notice of Award Dated | Date Guaranty Returned |

**PLEASE ATTACH
PROPOSAL GUARANTY HERE**

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, 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:
 1. Have a properly executed annual bid bond on file with the department.

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

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

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

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

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

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

C Waiver of Electronic Submittal

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

PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

NOTARY FOR SURETY

(Date)

(Date)

State of Wisconsin)
) ss.
_____ County)

State of Wisconsin)
) ss.
_____ County)

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

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

(Signature, Notary Public, State of Wisconsin)

(Signature, Notary Public, State of Wisconsin)

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

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

(Date Commission Expires)

(Date Commission Expires)

Notary Seal

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

(Signature of Authorized Contractor Representative)

(Date)

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

**Special Provisions
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STSP'S Revised January 7, 2022

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 8510-01-70, Port Wing – Superior, CTH H to Engdahl Road, STH 13, Douglas County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2022 Edition, as published by the department, and these special provisions.

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

100-005 (20220107)

2. Scope of Work.

The work under this contract shall consist of excavation common, base aggregate dense, HMA pavement, culvert pipes, concrete curb and gutter, traffic control, pavement marking, finishing items, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

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

Provide the time frame for construction of the project within the 2023 construction season to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Assure that the time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within 10 calendar days before the beginning of the approved time frame.

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

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

Replace culvert pipes prior to beginning milling operations on STH 13 unless otherwise approved by the engineer in the field.

For deep culvert replacements, as shown in the plans, begin staged pipe replacement on the upstream side of culvert unless otherwise directed by the engineer in the field.

Due to the thin and varying thickness of the existing pavement, pave the lower layer within 72 hours of the milling operation unless otherwise approved by the engineer in the field.

Fish Spawning

There shall be no instream disturbance of Wagner Creek at Station 114+04 as a result of construction activity under or for this contract, from March 1 to June 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish and other aquatic organisms.

There shall be no instream disturbance of the Tributary to Amnicon River at Station 208+18 as a result of construction activity under or for this contract, from March 1 to June 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish and other aquatic organisms.

There shall be no instream disturbance of the Tributary to Lake Creek at Station 327+81 as a result of construction activity under or for this contract, from March 1 to June 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish and other aquatic organisms.

There shall be no instream disturbance of the Tributary to Nelson Creek at Station 636+99 and 641+66 as a result of construction activity under or for this contract, from March 1 to June 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish and other aquatic organisms.

There shall be no instream disturbance of the Fisher Creek at Station 711+96 as a result of construction activity under or for this contract, from March 1 to June 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish and other aquatic organisms.

There shall be no instream disturbance of the Anderson Creek at Station 516+40 as a result of construction activity under or for this contract, from September 15 to April 30 both dates inclusive, in order to avoid adverse impacts upon the spawning of trout and other aquatic organisms.

There shall be no instream disturbance of the Tributary to the Brule River at Station 787+60 and 829+77 as a result of construction activity under or for this contract, from September 15 to April 30 both dates inclusive, in order to avoid adverse impacts upon the spawning of trout and other aquatic organisms.

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

Northern Long-eared Bat (*Myotis septentrionalis*)

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

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

Direct temporary lighting, if used, away from wooded areas during the bat active season: April 1 to October 31, both dates inclusive. To avoid adverse impacts upon the NLEBs, no tree clearing is allowed between April 1 and October 31, both dates inclusive.

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

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

Contract time will not be assessed for clearing trees prior to March 31.

4. Traffic.

Keep STH 13 open to through traffic utilizing staging, temporary signals, flagging operations, and lane shifts. Maintain access to all properties along STH 13. Access may be temporarily restricted during paving operations.

Any access closures to the property located at 9836 Hwy 13, Poplar, WI 54864 must be coordinated with the property owner prior to closure. Owner is on the local volunteer fire department and will need ready access to HWY 13 to get to the fire hall in case of an emergency response.

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 STH 13 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, June 30, 2023 to 6:00 AM Wednesday, July 5, 2023 for Independence Day;
- From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023 for Labor Day;
- From 9:00 AM Friday, September 29, 2023 to 8:00 PM Sunday, October 1, 2023 for Bayfield Apple Festival.

stp-107-005 (20210113)

6. Utilities.

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

stp-107-065 (20080501)

Norvado Communications has underground communication facilities located within close proximity of slope intercepts, culvert pipe replacements, curb and gutter replacements, or beam guard replacements from Station 201+00 – Station 202+00; Station 220+00 – Station 221+50; Station 241+00 – Station 249+00; Station 257+00 – Station 259+00; Station 290+50 – Station 299+50; Station 305+00 – Station 313+00; Station 442+50 – Station 443+50; Station 456+00 – Station 457+00; Station 501+50 – Station 503+00; Station 787+00 – Station 788+50; Station 812+75 – Station 813+50; Station 814+50 – Station 815+50; Station 817+50 – Station 818+50; Station 829+00 – Station 830+00; Station 845+50 – Station 846+50; Station 868+00 – Station 875+00; Station 879+00. No conflicts are anticipated with Norvado Communications facilities.

CenturyLink has underground communication facilities located within close proximity of slope intercepts, culvert replacements, curb and gutter replacements, or beam guard replacements from: Station 729+00 – Station 737+50, and Station 787+00 – Station 788+50. CenturyLink plans to relocate their facilities 10 ft. below the existing culvert to avoid the culvert replacement at Station 731+12 prior to construction.

Enbridge Energy has underground gas line that crosses STH 13 at approximately Station 145+00. No conflicts are anticipated with Enbridge Energy facilities.

Dahlberg Light and Power Company has underground or overhead electric line located within close proximity of slope intercepts, culvert pipe replacements, curb and gutter replacements, or beam guard replacements from Station 201+00 – Station 202+00; Station 220+00 – Station 221+50; Station 257+00 – Station 259+00; Station 442+50 – Station 443+50; Station 454+50 – Station 457+00; Station 604+75 – Station 606+00; Station 636+50 – Station 637+50; Station 711+50 – Station 712+50; Station 730+50 – Station 732+00; Station 787+00 – Station 788+50; Station 901+75 – Station 903+00; Station 907+00 – Station 911+50. No conflicts are anticipated with Dahlberg Light and Power facilities.

Bayfield Electric Cooperative Inc has underground, or overhead electric lines located within close proximity of slope intercepts, culvert replacements, curb and gutter replacements, or beam guard replacements from Station 846+50; Station 862+50 – Station 863+50; Station 868+00 – Station 875+50; Station 933+00 – Station 936+50. Bayfield Electric Cooperative plans to relocate conflicting facilities prior to construction. The overhead line at Station 830+00 will be buried and relocated to the edge of the roadway right of way in the area of the culvert replacement. The existing underground line at Station 846+00 will be relayed to the edge of the roadway right of way to avoid excavation area needed for the culvert replacement.

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

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Jeff Saxby at (920) 380-2805.

stp-107-054 (20210708)

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

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting Jeff Saxby at (920) 380-2805. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

9. Erosion Control Structures.

Within three calendar days after completing the excavation for a substructure unit, place riprap or other permanent erosion control items required by the contract or deemed necessary by the engineer around the unit at a minimum to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the plan, or as the engineer directs.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.

stp-107-070 (20191121)

10. Environmental Protection, Aquatic Exotic Species Control.

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

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

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

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

Use the following inspection and removal procedures:

1. Before leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can before leaving the area or invested waters; and

4. Disinfect your boat, equipment and gear by either:
 - 4.1. Washing with ~212 F water (steam clean), or
 - 4.2. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
 - 4.3. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore, this disinfect should be used in conjunction with a hot water (>104° F) application.

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

stp-107-055 (20130615)

11. Environmental Protection, Threatened and Endangered Species, Wood Turtle.

Suitable habitat for the Wood Turtle is present within the project area. Install silt fence turn arounds prior to beginning construction activities at Haukkala Creek (Station 591+00 – Station 594+00), Amnicon River, and Brule River (Station 867+00 – Station 875+00).

12. Removing Stone Masonry Retaining Wall, Item 204.9090.S.01

A Description

This special provision describes removing stone masonry retaining wall conforming to standard spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Stone Masonry Retaining Wall in linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

| ITEM NUMBER | DESCRIPTION | UNIT |
|---------------|---------------------------------------|------|
| 204.9090.S.01 | Removing Stone Masonry Retaining Wall | LF |

Payment includes full compensation for wall removal, offsite disposal, restoration of site, and for providing all materials, equipment, and tools required to complete contracted work.

stp-204-025 (20150630)

13. 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:

| <u>Sample Number</u> | <u>Production Interval (tons)</u> |
|----------------------|-----------------------------------|
| 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/ft³. 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/ft³. 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 ≥ 75
- iii. Density PWL value ≥ 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 | |
|--|---------------------------------|
| <i>PERCENT WITHIN LIMITS</i> | <i>PAYMENT FACTOR, PF</i> |
| <i>(PWL)</i> | <i>(percent of \$65/ton)</i> |
| ≥ 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 $PF_{\text{air voids}}$ 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:

$$\text{Pay Adjustment} = (\text{PF}-100)/100 \times (\text{WP}) \times (\text{tonnage}) \times (\$65/\text{ton})^*$$

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

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

| <u>Parameter</u> | <u>WP</u> |
|------------------|-----------|
| Air Voids | 0.5 |
| Density | 0.5 |

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

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

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

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

stp-460-040 (20220107)

14. 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 in accordance with 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 subplot in which a QV sample is collected, discard the QC sample and test a split of the QV sample.
- (3) Perform sampling from the truck box 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 subplot. 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 in accordance with AASHTO T 30.
- Asphalt content (AC) in percent determined by ignition oven method according to AASHTO T 308 as modified in CMM 836.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.
- Bulk specific gravity (G_{mb}) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (G_{mm}) 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 subplot tests will be included into the previous lot for data analysis and pay adjustment. Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.

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

Delete standard spec 460.2.8.2.1.5 and 460.2.8.2.1.6.

Replace standard spec 460.2.8.2.1.7 Corrective Action with the following:

460.2.8.2.1.7 Corrective Action

(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 |
| V _a | | - 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 subplot. All QV samples shall furnish the following: QC, QV, and Retained. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. The department will take possession of retained samples accumulated to date each day QV samples are collected. The department will retain samples until surpassing the analysis window of up to 5 lots, as defined in standard spec 460.2.8.3.1.7(2) of this special provision. Additional sampling details are found in Appendix A.

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

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

- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 836.6.6.
- Air voids (Va) by calculation according to AASHTO T 269.

- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R 35.
- Asphalt Content (AC) in percent determined by ignition oven method according to AASHTO T308 as modified in CMM 836.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.

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

Delete standard spec 460.2.8.3.1.6.

Replace standard spec 460.2.8.3.1.7 Dispute Resolution with the following:

460.2.8.3.1.7 Data Analysis for Volumetrics

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

(2) The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. Additional comparisons incorporating the first 3 lots of data will be performed following completion of the 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 subplot identifying that variances or means do not compare) will be referee tested for Gmm, Gmb, and Asphalt Content by the bureau's AASHTO accredited laboratory and certified personnel. All previous lots within the analysis window are subject to referee testing and regional lab testing as deemed necessary. Referee test results will replace the QV data of the subplot(s).

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

- i. If the F- and t-tests indicate variances and means compare, no further testing is required for the lot and QC data will be used for PWL and pay factor/adjustment calculations.
- ii. If the F- and t-tests indicate non-comparable variances or means, the Retained portion of the random QC sample will be tested for Gmm, Gmb, and Asphalt Content by the department's regional lab for the remaining 4 sublots of the lot which the F- and t-tests indicate non-comparable datasets. The department's regional lab and the referee test results will be used for PWL and pay factor/adjustment calculations. Upon the second instance of non-comparable variance or means and for every instance thereafter, the department will assess a pay reduction for the additional testing of the remaining 4 sublots at \$2,000/lot under the HMA Regional Lab Testing administrative item.

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

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

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

(4) The department will determine mixture conformance and acceptability by analyzing referee test results, reviewing mixture data, and inspecting the completed pavement 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 subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material will replace the original data for the subplot. Any remove and replace shall be performed at no additional cost to the department. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test will be conducted and under such circumstances will be entered into the HMA PWL Production spreadsheet for data analysis and pay determination.] The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

Delete standard spec 460.2.8.3.1.8 Corrective Action.

C Construction

Replace standard spec 460.3.3.2 Pavement Density Determination with the following:

460.3.3.2 Pavement Density Determination

(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 subplot and the department will randomly conduct one QV test per subplot. A partial quantity less than 750 lane feet will be included with the previous subplot. Partial lots with less than three sublots will be included in the previous lot for data analysis/acceptance and pay, by the engineer. 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 in accordance with CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3. No density incentive or disincentive will be applied to shoulders or appurtenances. Offsets will not be applied to nuclear density gauge readings for shoulders or appurtenances. Unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.

(4) The three QC locations per subplot 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 subplot. 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 subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material will replace the original data for the subplot.
- ii. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test must be conducted and under such circumstances will be entered into the data analysis and pay determination.]
- iii. If the engineer allows such material to remain in place, it will be paid for at 50% of the HMA Pavement contract unit price. The extent of unacceptable material will be addressed as specified in CMM 815.11. The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

D Measurement

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

E Payment

Replace standard spec 460.5.2 HMA Pavement with the following:

460.5.2 HMA Pavement

460.5.2.1 General

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

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

460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL

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

PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY

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

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

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

For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density shall be in accordance with standard spec Table 460-3. Pay adjustment will be determined on a lot basis and will be computed as shown in the following equation.

$$\text{Pay Adjustment} = (\text{PF}-100)/100 \times (\text{WP}) \times (\text{tonnage}) \times (\$65/\text{ton})^*$$

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

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

| <u>Parameter</u> | <u>WP</u> |
|------------------|-----------|
| Air Voids | 0.5 |
| Density | 0.5 |

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

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

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

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

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

| <u>AC Binder Relative to JMF</u> | <u>Pay Adjustment / Sublot</u> |
|----------------------------------|--------------------------------|
| -0.4% to -0.5% | 75% ^[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 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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15. 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

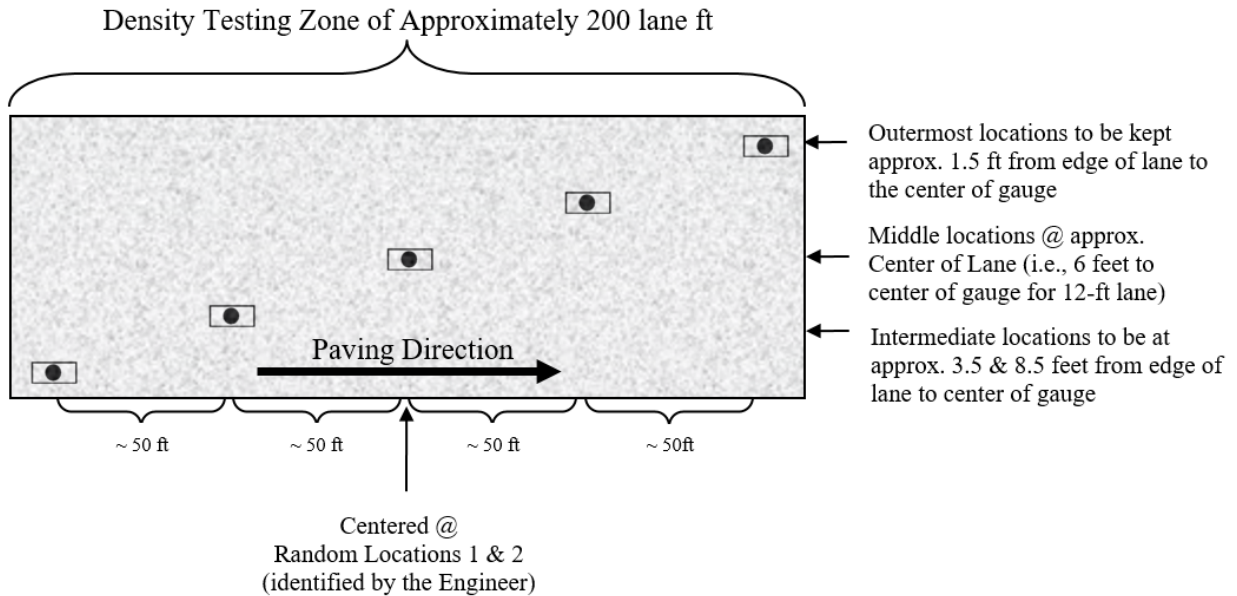



Figure 1: Nuclear/Core Correlation Location Layout

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 in accordance with AASHTO R79 as modified by CMM 836.6.10 prior to using specimens for in-place density determination in accordance with 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 subplot, with a subplot 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 in accordance with CMM 815). Longitudinal locations within each subplot shall be determined with 3 independent random numbers. The PWL Density measurements do not include the shoulder and other appurtenances. Such areas are tested by the department and are not eligible for density incentive or disincentive. Each location will be measured with two one-minute gauge readings oriented 180 degrees from one another, in the same footprint as detailed in Figure 2 above. Each location requires a minimum of two readings per gauge. The density gauge orientation for the first test will be with the source rod towards the direction of paving. QV nuclear testing will consist of one randomly selected location per subplot. 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 subplot density testing layout is depicted in Figure 4, with QC test locations shown as solid lines and QV as dashed.

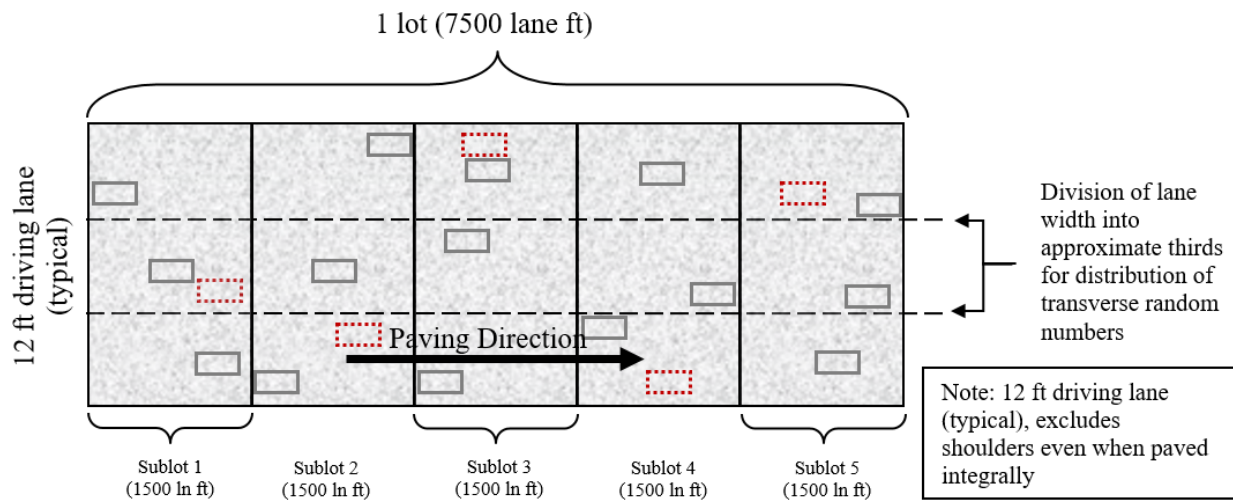


Figure 4: Locations of main lane HMA density testing (QC=solid lines, QV=dashed)

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 in accordance with Section 460.3.3.3 of the HMA PWL QMP SPV. (Note: For density data, if F- and t-tests compare, QC data will be used for the subsequent calculations of PWL value and pay determination. However, if an F- or t-test does not compare, the QV data will be used in subsequent calculations.)

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

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

New Gauge Combination

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

Re-correlation of Gauges

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

Density Dispute Resolution Procedure

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

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

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

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

Under the direct observation of the engineer, cut 100 or 150 mm (4 or 6 inch) diameter cores. Cores will be cut by the next day after completion of the lot, except if the next day is not a working day, then they shall be cut within 48 hours of placement. Prepare cores and determine density according to AASHTO T166 as modified in CMM 836.6.5. Dry cores after testing. Fill core holes according to Appendix A and obtain engineer approval before opening to traffic. The department will maintain custody of cores throughout the entire sampling and testing process. The department will label cores, transport cores to testing facilities, witness testing, store dried cores, and provide subsequent verification testing. If a core is damaged at the time of coring, immediately take a replacement core 1 ft 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 subplot 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 (subplot) for QC and Retained Samples and 1 per 3750 tons (lot or 5 sublots) for QV as defined by the HMA PWL QMP SPV. A test sample is obtained randomly from each subplot. 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 subplot tonnage. This number will then be added to the final tonnage of the previous subplot to yield the approximate cumulative tonnage of when each sample is to be taken.

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

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

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

It's intended that the plant operator 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 is 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 subplot eligible for density incentive or disincentive.

Solution:

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

stp-460-055 (20220107)

16. HMA Pavement Longitudinal Joint Density.

A Description

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

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

B Materials

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

TABLE B-1 MINIMUM REQUIRED LONGITUDINAL JOINT DENSITY

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

C Construction

Add the following to standard spec 460.3.3.2:

- (5) Establish companion density locations at each applicable joint. Each companion location shares longitudinal stationing with a QC or QV density location within each subplot and is located transversely with the center of the gauge 6-inches from the final joint edge of the paving area. Subplot 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 subplot average (exclusive of unacceptable material) will be determined by the first forward and backward 50-foot incremental tests that reach the criteria of higher than or equal to -3.0 percent from target joint density.

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

- (8) Joint density measurements will be kept separate from all other density measurements and entered as an individual data set into Atwood Systems.
- (9) Placement and removal of excess material outside of the final joint edge, to increase joint density at the longitudinal joint nuclear testing location, will be done at the contractor's discretion and cost. This excess material and related labor will be considered waste and will not be paid for by the department. Joints with excess material placed outside of the final joint edge to increase joint density or where a notched wedge is used will be considered unconfined joints.
- (10) When not required by the contract, echelon paving may be performed at the contractor's discretion to increase longitudinal joint density and still remain eligible to earn incentive. The additional costs incurred related to echelon paving will not be paid for by the department. If lanes are paved in echelon, the contractor may choose to use a longitudinal vertical joint or notched wedge longitudinal joint as described in [SDD 13c19](#). Lanes paved in echelon shall be considered confined on both sides of the joint regardless of the selected joint design. The joint between echelon paved lanes shall be placed at the centerline or along lane lines.
- (11) When performing inlay paving below the elevation of the adjacent lane, the longitudinal joint along the adjacent lane to be paved shall be considered unconfined. Inlay paving operations will limit payment for additional material to 2 inches wider than the final paving lane width at the centerline.

D Measurement

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

E Payment

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

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

PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY

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

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

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

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

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

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

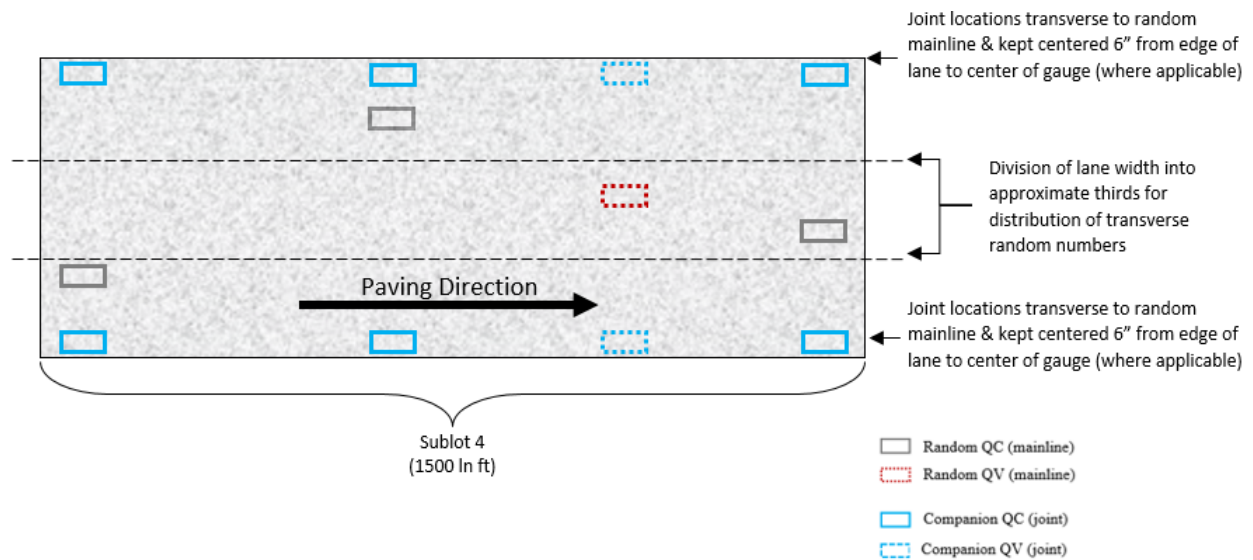
The department will administer disincentives under the Disincentive Density HMA Pavement Longitudinal Joints administrative item.

Appendix

WisDOT Longitudinal Joint – Nuclear Gauge Density Layout

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

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



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

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

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

stp-460-075 (20210113)

17. Material Transfer Vehicle, Item 460.9000.S.

A Description

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

B Materials

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

C Construction

Ensure that an operator stays with the MTV at all times during moving operations. Keep the paver's hopper full at all times to avoid segregation of coarse aggregates. Placement of HMA upper layer pavement in the travel lanes will not be allowed without the MTV. Tie ins of intersections, shoulders paved separately, and other non-travel lane areas will not require the use of the MTV.

D Measurement

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

E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|-------------|---------------------------|------|
| 460.9000.S | Material Transfer Vehicle | EACH |

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

stp-460-900 (20220628)

18. Seeding.

Add the following to standard spec spec 630.2.1.5.1.1:

Table 630-3 may be used for the mixtures provided in the table:

TABLE 630-3 (OPTIONAL SEED MIXTURES)

| SPECIES COMMON NAME (Acceptable Varieties) | SPECIES BOTANICAL NAME | PURITY minimum % | GERMINATION minimum % | MIXTURE PROPORTIONS (in percent) Two options for each mix type | | | | | | | |
|--|----------------------------------|---------------------|--------------------------|---|----|-------|----|-------|----|-------|----|
| | | | | NO.10 | | NO.20 | | NO.30 | | NO.40 | |
| | | | | #1 | #2 | #1 | #2 | #1 | #2 | #1 | #2 |
| Kentucky Bluegrass (Low Maintenance) | Poa pratensis | 98 | 85 | 40 | 42 | 6 | 6 | 10 | 13 | 35 | 35 |
| * Red Fescue (Creeping) | Festuca rubra | 97 | 85 | 10 | 13 | 5 | 7 | 15 | 15 | 10 | 15 |
| Hard Fescue (Improved) | Festuca ovina var. duriuscula | 97 | 85 | | | 24 | 22 | 25 | 25 | 20 | 20 |
| Tall Fescue (Improved Turf Type) | Festuca arundinacea | 98 | 85 | | | 40 | 40 | | | | |
| Salt Grass (Fult's or Salty) | Puccinella distans | 98 | 85 | | | | | 15 | 15 | | |
| Redtop | Agrostis alba | 92 | 85 | 5 | 5 | | | | | | |
| Perennial Ryegrass | Lolium perenne | 96 | 85 | 25 | 30 | 25 | 25 | 25 | 32 | 25 | 30 |
| White Clover | Trifolium repens | 95 | 90 | 10 | 10 | | | | | | |
| Chewings Fescue | Festuca rubra var. commutata | 98 | 85 | 10 | | | | 10 | | 10 | |
| Sheep's Fescue | Festuca ovina | 97 | 85 | | | | | | | | |

* A blend of fescue type will be permitted to achieve the specified Red Fescue (Creeping) percentage using any of the following varieties as substitutes:

- Red Fescue (Creeping)
- Hard Fescue (Improved)
- Chewings Fescue
- Sheep's Fescue

19. Dewatering, Item SPV.0060.01.

A Description

This special provision describes dewatering for the construction of cut off walls for the culvert pipe at Station 114+04 (Structure C-16-027) as shown in the plans and hereinafter described.

B Materials

Provide materials and equipment as shown in the plan details and as instructed by the engineer.

C Construction

Construct sandbag berms as shown in the plans or adjusted to fit field conditions as directed by the engineer.

Redirect water using pump or other engineer-approved method away from location of cut off wall construction. Utilize sandbags to control and redirect flow. Use the existing culvert pipe to maintain existing surface and pipe drainage. Pumps may be required to drain the surface flow during construction. If dewatering bypass operations are required from the upstream to the downstream end of the culvert and the bypass flow is not transporting sediments, bypass pumping operations will be allowed provided that the department has been made aware of and approves operation. When pumping sediment-free bypass flows, the discharge location will need to be stable and not produce erosion from the discharge velocity that would cause release of sediment downstream. If dewatering operations require pumping of water containing sediments, use a filter bag or approved alternate to direct pumped water into and allow

sediment and particle removal before water is released. Upon completion and acceptance of cut off walls, remove filter bag and all other temporary materials utilized to redirect water flow and restore the site.

D Measurement

The department will measure Dewatering once for the project, acceptably completed.

E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|-------------|-------------|------|
| SPV.0060.01 | Dewatering | EACH |

20. Removing Distressed Pavement Milling, Item SPV.0180.01.

A Description

This special provision describes the removal and disposal of additional 2-inches of asphaltic pavement by milling in areas of distressed pavement. This will be completed in spot locations throughout the project as directed by the engineer.

B (Vacant)

C Construction

C.1 Milling

Use a milling machine designed and constructed for milling pavements without tearing or gouging the underlying surface. Space the teeth on the drum to mill a surface finish that is acceptable to the engineer. Shroud the machine to prevent discharge of any loosened material into adjacent work areas or live traffic lanes. Equip the machine with electronic devices that provide accurate depth, grade, and slope control, and an acceptable dust control system.

The milling operation is to be done in a manner to prevent damage to the remaining pavement. It should result in a reasonably uniform plane surface free of excessively large scarification marks, and with the uniform transverse slope required on the plans or directed by the engineer.

Any milled surface will not be allowed during nonworking hours. Windrowing or storing of the removed milled asphaltic pavement on the road is only permitted in connection with the continuous removal and pick-up operation. During nonworking hours, clear the road of waste materials and equipment.

The removed material shall become the property of the contractor. Properly dispose of it according to standard spec 204.

C.2 Cleaning

Clean the milled surface by removing all dust, dirt, debris, or other foreign or loose material.

C.3 Pavement Prep

The cleaned milled surface will have Tack Coat applied and be filled with HMA Pavement 5 MT 58-34 V.

D Measurement

The department will measure Removing Distressed Pavement Milling by the square yard, acceptably completed.

E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|-------------|--------------------------------------|------|
| SPV.0180.01 | Removing Distressed Pavement Milling | SY |

Payment is full compensation for removing the asphaltic surface; cleaning the milled surface; and for disposing of waste material. Tack Coat and HMA Pavement 5 MT 58-34 V will be paid for separately.

ADDITIONAL SPECIAL PROVISION 4

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

Payment to First-Tier Subcontractors

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

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

Payment to Lower-Tier Subcontractors

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

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

Make the following revisions to the standard specifications:

415.3.16 Tolerance in Pavement Thickness

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

415.3.16.1 General

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

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

415.3.16.2 Pavement Units

415.3.16.2.1 Basic Units

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

415.3.16.2.2 Special Units

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

415.3.16.3 Test Plate Locations

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

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

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

415.3.16.4 Acceptance Testing

415.3.16.4.1 Basic Units

415.3.16.4.1.2 Magnetic Pulse Induction

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

415.3.16.4.2 Special Units

415.3.16.4.2.1 Magnetic Pulse Induction

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

415.3.16.4.2.2 Probing

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

415.3.16.4.2.3 Preplacement Measurement

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

415.5.2 Adjusting Pay for Thickness

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

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

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

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

460.2.6 Recovered Asphaltic Binders

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

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

recovered binder from the resultant mixture.

501.2.6 Water

Retitle with the following effective with the November 2021 letting:

501.2.6 Mixing Water

501.2.6.2 Requirements

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

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

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

501.3.2.2.2 Supplementary Cementitious Material

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

- (1) Replace 15 to 30 percent by weight of the total cementitious material content with approved SCMs for class I concrete as specified in 715.
- (2) Replace a maximum of 30 percent by weight of the total cementitious material content with approved SCMs for class II and class III concrete as specified in 716.
- (3) Limit Class F fly ash sources not on the APL to maximum 15 percent.
- (4) Minimum SCM content may be waived by the engineer.

501.3.2.4.2 Air Entrainment

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

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

501.3.7.1 Slump

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

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

531.5 Payment

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

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

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

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

642.2.2.1 General

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

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

701.3.1 General

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

TABLE 701-1 TESTING AND CERTIFICATION STANDARDS

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

^[1] As modified in CMM 860.

^[2] As modified in CMM 870.

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

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

^[5] Consolidate by rodding.

710.2 Small Quantities

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

- (1) The department defines small quantities as follows:
 - As specified in 715.1.1.2 for class I concrete.
 - Less than 50 cubic yards of class II ancillary concrete placed under a single bid item.
- (2) For contracts with only small quantities of material subject to testing, modify the requirements of 710 as follows:

1. The contractor may submit an abbreviated quality control plan as allowed in 701.1.2.3.
 2. Provide one of the following for aggregate process control:
 - Documented previous testing dated within 120 calendar days. Provide gradation test results to the engineer before placing material.
 - Non-random start-up gradation testing.
-

710.4 Concrete Mixes

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

- (2) At least 7 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:
 1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and SAM number.
 2. For cementitious materials and admixtures: type, brand, and source.
 3. For aggregates: absorption, SSD bulk specific gravity, wear, soundness, freeze thaw test results if required, and air correction factor. Also include aggregate production records dated within 2 years if using those results in the design. Submit component aggregate gradations, aggregate proportions, and target combined blended aggregate gradations using the following:
 - DT2220 for combined aggregate gradations.
 - DT2221 for optimized aggregate gradations.
 4. For optimized concrete mixtures:
 - Complete the worksheets within DT2221 according to the directions.
 - Ensure the optimized aggregate gradations and the optimized mix design conform to WisDOT specifications and pass the built-in tests within DT2221.
 - Verify slip-form mixture workability according to AASHTO TP137 and conformance to specifications through required trial batching.
 - Submit the completed DT2221 to the engineer electronically. Include the trial batch test results with the mix design submittal.

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

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

710.5.5 Strength

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

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

710.5.6 Aggregate Testing

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

710.5.6 Aggregate Testing During Concrete Production

710.5.6.1 General

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

710.5.6.2 Contractor Control Charts

710.5.6.2.1 General

- (1) Test aggregate gradations during concrete production except as allowed for small quantities under 710.2. Required contractor testing will be performed using non-random samples.

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

TABLE 710-1 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS I

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

TABLE 710-2 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS II

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

710.5.6.2.2 Optimized Aggregate Gradation Control Charts

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

710.5.6.2.3 Combined Aggregate Gradation Control Charts

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

710.5.6.3 Department Acceptance Testing

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

TABLE 710-3 DEPARTMENT GRADATION TESTING FREQUENCY

| CONCRETE CLASSIFICATION | MINIMUM DEPARTMENT FREQUENCY |
|--------------------------------|---|
| Class I: Pavement | 1 test per placement day for first 5 days of placement. If all samples are passing, reduced frequency is applied. |
| | Reduced frequency: 1 test per calendar week of placement |
| Class I: Structures | 1 test per 250 CY placed <ul style="list-style-type: none"> - Minimum of 1 test per substructure - Minimum of 1 test per superstructure |
| Class I: Cast-in-Place Barrier | 1 test per 500 CY placed |
| Class II | No minimum testing |

710.5.7 Corrective Action

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

710.5.7.1 Optimized Aggregate Gradations

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

710.5.7.2 Combined Aggregate Gradations

- (1) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by less than or equal to 1.0 percent on a single sieve size, do the following:
 1. Notify the other party immediately.
 2. Perform corrective action documented in the QC plan or as the engineer approves.
 3. Document and provide corrective action results to the engineer as soon as they are available.
 4. Department will conduct two tests within the next business day after corrective action is complete.
 5. If blended aggregate gradations are within the combined aggregate gradation limits by the second department test:
 - Continue with concrete production.
 - Contractor will include a break in the 4-point running average.

- For Class I: Pavements, department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
- 6. If blended aggregate gradations are not within the combined aggregate gradation limits by the second department test, stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

715.3.1.1 General

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

- (3) Cast a set of 3 additional 6"x12" cylinders and test the concrete surface resistivity according to AASHTO T358. Perform this testing at least once per lot if total contract quantities are greater than or equal to the following:
 - 20,000 square yards for pavements.
 - 5,000 linear feet for barriers.
 - 500 cubic yards for structure concrete.

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

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

715.3.1.2.3 Lots by Cubic Yard

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

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

TABLE 715-1 CLASS I - LOT AND SUBLOT SIZES

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

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

715.3.2 Strength Evaluation

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

715.3.2.1 General

- (1) The department will make pay adjustments for strength on a lot-by-lot basis using the compressive strength of contractor QC cylinders or the flexural strength of contractor QC beams.
- (2) Randomly select 2 QC specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day subplot average strength as follows:
 - If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
 - If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

715.3.2.2 Removal and Replacement

715.3.2.2.1 Pavement

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

715.3.2.2.2 Structures and Cast-in-Place Barrier

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

715.3.3 Aggregate

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

715.3.3.1 General

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

715.3.3.2 Structures

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

716.2.1 Class II Concrete

Replace paragraph two with the following effective with the May 2022 letting:

- (2) Perform random QC testing at the following frequencies:
 1. Test air content, temperature, and slump a minimum of once per 100 cubic yards for each mix design and placement method.
 2. Cast one set of 2 cylinders per 200 cubic yards for each mix design and placement method. Cast a minimum of one set of 2 cylinders per contract for each mix design and placement method. Random 28-day compressive strength cylinders are not required for HES or SHES concrete.
 3. For deck overlays, perform tests and cast cylinders once per 50 cubic yards of grade E concrete placed.
 4. For concrete base, one set of tests and one set of cylinders per 250 cubic yards.

The department will allow concrete startup test results for quantities under 50 cubic yards. Cast one set of 2 cylinders if using startup testing for acceptance.

ERRATA

460.2.2.3 Aggregate Gradation Master Range

Correct errata by adding US Standard equivalent sieve sizes.

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

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

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

^[1] 14.5 for LT and MT mixes.

^[2] 15.5 for LT and MT mixes.

715.5.1 General

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

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

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

ADDITIONAL SPECIAL PROVISION 7

- A. Reporting 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).

Effective November 2020 letting

BUY AMERICA PROVISION

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

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

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

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



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|--|--------------------------------|------------|------------|
| 0002 | 201.0105 Clearing | 4.000 STA | _____. | _____. |
| 0004 | 201.0205 Grubbing | 4.000 STA | _____. | _____. |
| 0006 | 203.0100 Removing Small Pipe Culverts | 38.000 EACH | _____. | _____. |
| 0008 | 204.0115 Removing Asphaltic Surface Butt Joints | 10,900.000 SY | _____. | _____. |
| 0010 | 204.0120 Removing Asphaltic Surface Milling | 300,500.000 SY | _____. | _____. |
| 0012 | 204.0150 Removing Curb & Gutter | 1,070.000 LF | _____. | _____. |
| 0014 | 204.0165 Removing Guardrail | 2,055.000 LF | _____. | _____. |
| 0016 | 204.0180 Removing Delineators and Markers | 44.000 EACH | _____. | _____. |
| 0018 | 204.9090.S Removing (item description) 01. Stone Masonry Retaining Wall | 9.000 LF | _____. | _____. |
| 0020 | 211.0100 Prepare Foundation for Asphaltic Paving (project) 01. 8510-01-70 | LS | LUMP SUM | _____. |
| 0022 | 211.0400 Prepare Foundation for Asphaltic Shoulders | 40.000 STA | _____. | _____. |
| 0024 | 213.0100 Finishing Roadway (project) 01. 8510-01-70 | 1.000 EACH | _____. | _____. |
| 0026 | 305.0110 Base Aggregate Dense 3/4-Inch | 8,100.000 TON | _____. | _____. |
| 0028 | 305.0120 Base Aggregate Dense 1 1/4-Inch | 12,000.000 TON | _____. | _____. |
| 0030 | 305.0500 Shaping Shoulders | 1,664.000 STA | _____. | _____. |
| 0032 | 416.0610 Drilled Tie Bars | 10.000 EACH | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|--|--------------------------------|------------|------------|
| 0034 | 450.4000 HMA Cold Weather Paving | 13,600.000 TON | _____. | _____. |
| 0036 | 455.0605 Tack Coat | 23,000.000 GAL | _____. | _____. |
| 0038 | 460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics | 1.000 EACH | _____. | _____. |
| 0040 | 460.0110.S HMA Percent Within Limits (PWL) Test Strip Density | 1.000 EACH | _____. | _____. |
| 0042 | 460.2005 Incentive Density PWL HMA Pavement | 43,265.000 DOL | 1.00000 | 43,265.00 |
| 0044 | 460.2007 Incentive Density HMA Pavement Longitudinal Joints | 41,500.000 DOL | 1.00000 | 41,500.00 |
| 0046 | 460.2010 Incentive Air Voids HMA Pavement | 54,400.000 DOL | 1.00000 | 54,400.00 |
| 0048 | 460.6645 HMA Pavement 5 MT 58-34 V | 54,400.000 TON | _____. | _____. |
| 0050 | 460.9000.S Material Transfer Vehicle (project) 0.1 8510-01-70 | 1.000 EACH | _____. | _____. |
| 0052 | 465.0105 Asphaltic Surface | 4,125.000 TON | _____. | _____. |
| 0054 | 465.0110 Asphaltic Surface Patching | 250.000 TON | _____. | _____. |
| 0056 | 465.0315 Asphaltic Flumes | 47.000 SY | _____. | _____. |
| 0058 | 465.0475 Asphalt Centerline Rumble Strips 2-Lane Rural | 72,200.000 LF | _____. | _____. |
| 0060 | 504.0900 Concrete Masonry Endwalls | 11.000 CY | _____. | _____. |
| 0062 | 511.1100 Temporary Shoring | 25,330.000 SF | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0064 | 520.1018 Apron Endwalls for Culvert Pipe 18-Inch | 2.000 EACH | _____. | _____. |
| 0066 | 520.1024 Apron Endwalls for Culvert Pipe 24-Inch | 41.000 EACH | _____. | _____. |
| 0068 | 520.1030 Apron Endwalls for Culvert Pipe 30-Inch | 21.000 EACH | _____. | _____. |
| 0070 | 520.1036 Apron Endwalls for Culvert Pipe 36-Inch | 5.000 EACH | _____. | _____. |
| 0072 | 520.1048 Apron Endwalls for Culvert Pipe 48-Inch | 2.000 EACH | _____. | _____. |
| 0074 | 520.1054 Apron Endwalls for Culvert Pipe 54-Inch | 4.000 EACH | _____. | _____. |
| 0076 | 520.3154 Culvert Pipe Class III 54-Inch | 268.000 LF | _____. | _____. |
| 0078 | 520.4118 Culvert Pipe Class IV 18-Inch | 42.000 LF | _____. | _____. |
| 0080 | 520.4124 Culvert Pipe Class IV 24-Inch | 1,354.000 LF | _____. | _____. |
| 0082 | 520.4130 Culvert Pipe Class IV 30-Inch | 506.000 LF | _____. | _____. |
| 0084 | 520.4136 Culvert Pipe Class IV 36-Inch | 64.000 LF | _____. | _____. |
| 0086 | 520.8700 Cleaning Culvert Pipes | 16.000 EACH | _____. | _____. |
| 0088 | 521.1283 Apron Endwalls for Pipe Arch Steel 83x57-Inch | 4.000 EACH | _____. | _____. |
| 0090 | 521.3783 Pipe Arch Corrugated Steel 83x57-Inch | 174.000 LF | _____. | _____. |
| 0092 | 522.0430 Culvert Pipe Reinforced Concrete Class IV 30-Inch | 202.000 LF | _____. | _____. |
| 0094 | 522.0436 Culvert Pipe Reinforced Concrete Class IV 36-Inch | 420.000 LF | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0096 | 522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch | 2.000 EACH | _____. | _____. |
| 0098 | 522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch | 4.000 EACH | _____. | _____. |
| 0100 | 601.0411 Concrete Curb & Gutter 30-Inch Type D | 151.000 LF | _____. | _____. |
| 0102 | 601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D | 905.000 LF | _____. | _____. |
| 0104 | 603.8000 Concrete Barrier Temporary Precast Delivered | 2,530.000 LF | _____. | _____. |
| 0106 | 603.8125 Concrete Barrier Temporary Precast Installed | 5,060.000 LF | _____. | _____. |
| 0108 | 603.8500 Anchoring Concrete Barrier Temporary Precast | 5,060.000 LF | _____. | _____. |
| 0110 | 606.0300 Riprap Heavy | 190.000 CY | _____. | _____. |
| 0112 | 614.0010 Barrier System Grading Shaping Finishing | 16.000 EACH | _____. | _____. |
| 0114 | 614.0905 Crash Cushions Temporary | 14.000 EACH | _____. | _____. |
| 0116 | 614.2300 MGS Guardrail 3 | 1,440.000 LF | _____. | _____. |
| 0118 | 614.2500 MGS Thrie Beam Transition | 480.000 LF | _____. | _____. |
| 0120 | 614.2610 MGS Guardrail Terminal EAT | 16.000 EACH | _____. | _____. |
| 0122 | 618.0100 Maintenance And Repair of Haul Roads (project) 01. 8510-01-70 | 1.000 EACH | _____. | _____. |
| 0124 | 619.1000 Mobilization | 1.000 EACH | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0126 | 624.0100 Water | 310.000 MGAL | _____. | _____. |
| 0128 | 625.0500 Salvaged Topsoil | 17,300.000 SY | _____. | _____. |
| 0130 | 627.0200 Mulching | 19,000.000 SY | _____. | _____. |
| 0132 | 628.1504 Silt Fence | 9,000.000 LF | _____. | _____. |
| 0134 | 628.1520 Silt Fence Maintenance | 22,355.000 LF | _____. | _____. |
| 0136 | 628.1905 Mobilizations Erosion Control | 9.000 EACH | _____. | _____. |
| 0138 | 628.1910 Mobilizations Emergency Erosion Control | 5.000 EACH | _____. | _____. |
| 0140 | 628.2006 Erosion Mat Urban Class I Type A | 12,500.000 SY | _____. | _____. |
| 0142 | 628.2008 Erosion Mat Urban Class I Type B | 100.000 SY | _____. | _____. |
| 0144 | 628.7010 Inlet Protection Type B | 18.000 EACH | _____. | _____. |
| 0146 | 628.7015 Inlet Protection Type C | 1.000 EACH | _____. | _____. |
| 0148 | 628.7504 Temporary Ditch Checks | 72.000 LF | _____. | _____. |
| 0150 | 628.7555 Culvert Pipe Checks | 35.000 EACH | _____. | _____. |
| 0152 | 629.0210 Fertilizer Type B | 12.000 CWT | _____. | _____. |
| 0154 | 630.0130 Seeding Mixture No. 30 | 350.000 LB | _____. | _____. |
| 0156 | 630.0200 Seeding Temporary | 525.000 LB | _____. | _____. |
| 0158 | 630.0500 Seed Water | 110.000 MGAL | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0160 | 633.5200 Markers Culvert End | 104.000 EACH | _____. | _____. |
| 0162 | 638.2102 Moving Signs Type II | 34.000 EACH | _____. | _____. |
| 0164 | 638.4000 Moving Small Sign Supports | 33.000 EACH | _____. | _____. |
| 0166 | 642.5001 Field Office Type B | 1.000 EACH | _____. | _____. |
| 0168 | 643.0300 Traffic Control Drums | 1,400.000 DAY | _____. | _____. |
| 0170 | 643.0420 Traffic Control Barricades Type III | 70.000 DAY | _____. | _____. |
| 0172 | 643.0715 Traffic Control Warning Lights Type C | 700.000 DAY | _____. | _____. |
| 0174 | 643.0900 Traffic Control Signs | 8,800.000 DAY | _____. | _____. |
| 0176 | 643.1000 Traffic Control Signs Fixed Message | 32.000 SF | _____. | _____. |
| 0178 | 643.5000 Traffic Control | 1.000 EACH | _____. | _____. |
| 0180 | 645.0120 Geotextile Type HR | 557.000 SY | _____. | _____. |
| 0182 | 646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch | 165,900.000 LF | _____. | _____. |
| 0184 | 646.3020 Marking Line Epoxy 8-Inch | 65.000 LF | _____. | _____. |
| 0186 | 646.3040 Marking Line Grooved Wet Ref Epoxy 8-Inch | 180.000 LF | _____. | _____. |
| 0188 | 646.4520 Marking Line Same Day Epoxy 4-Inch | 95,600.000 LF | _____. | _____. |
| 0190 | 646.6120 Marking Stop Line Epoxy 18-Inch | 48.000 LF | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0192 | 646.8220 Marking Island Nose Epoxy | 3.000 EACH | _____. | _____. |
| 0194 | 646.9000 Marking Removal Line 4-Inch | 2,975.000 LF | _____. | _____. |
| 0196 | 649.0120 Temporary Marking Line Epoxy 4-Inch | 172,550.000 LF | _____. | _____. |
| 0198 | 649.0150 Temporary Marking Line Removable Tape 4-Inch | 5,070.000 LF | _____. | _____. |
| 0200 | 649.0850 Temporary Marking Stop Line Removable Tape 18-Inch | 336.000 LF | _____. | _____. |
| 0202 | 650.4500 Construction Staking Subgrade | 2,700.000 LF | _____. | _____. |
| 0204 | 650.5000 Construction Staking Base | 2,700.000 LF | _____. | _____. |
| 0206 | 650.5500 Construction Staking Curb Gutter and Curb & Gutter | 1,056.000 LF | _____. | _____. |
| 0208 | 650.6000 Construction Staking Pipe Culverts | 38.000 EACH | _____. | _____. |
| 0210 | 650.8000 Construction Staking Resurfacing Reference | 83,850.000 LF | _____. | _____. |
| 0212 | 650.9910 Construction Staking Supplemental Control (project) 01. 8510-01-70 | LS | LUMP SUM | _____. |
| 0214 | 650.9920 Construction Staking Slope Stakes | 2,700.000 LF | _____. | _____. |
| 0216 | 661.0100 Temporary Traffic Signals for Bridges (structure) 01. Sta. 327+81 Culvert Replacement | LS | LUMP SUM | _____. |
| 0218 | 661.0100 Temporary Traffic Signals for Bridges (structure) 02. Sta. 389+01 Culvert Replacement | LS | LUMP SUM | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0220 | 661.0100 Temporary Traffic Signals for Bridges (structure) 03. Sta. 580+11 Culvert Replacement | LS | LUMP SUM | _____. |
| 0222 | 661.0100 Temporary Traffic Signals for Bridges (structure) 04. Sta. 636+99 Culvert Replacement | LS | LUMP SUM | _____. |
| 0224 | 661.0100 Temporary Traffic Signals for Bridges (structure) 05. Sta. 711+96 Culvert Replacement | LS | LUMP SUM | _____. |
| 0226 | 661.0100 Temporary Traffic Signals for Bridges (structure) 06. Sta. 731+12 Culvert Replacement | LS | LUMP SUM | _____. |
| 0228 | 661.0100 Temporary Traffic Signals for Bridges (structure) 07. Sta. 829+77 Culvert Replacement | LS | LUMP SUM | _____. |
| 0230 | 690.0150 Sawing Asphalt | 6,800.000 LF | _____. | _____. |
| 0232 | 690.0250 Sawing Concrete | 18.000 LF | _____. | _____. |
| 0234 | 740.0440 Incentive IRI Ride | 63,530.000 DOL | 1.00000 | 63,530.00 |
| 0236 | SPV.0060 Special 01. Dewatering | 1.000 EACH | _____. | _____. |
| 0238 | SPV.0180 Special 01. Removing Distressed Pavement Milling | 14,650.000 SY | _____. | _____. |
| 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

September 29, 2022

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

NOTICE TO ALL CONTRACTORS:

Proposal #11: 8510-01-70
Port Wing - Superior
CTH H to Engdahl Road
STH 13
Douglas County

Letting of October 11, 2022

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

Special Provisions:

| Revised Special Provisions | |
|----------------------------|--------------------------|
| Article No. | Description |
| 3 | Prosecution and Progress |

Schedule of Items:

| Revised Bid Item Quantities | | | | | |
|-----------------------------|--------------------------------|------|--------------|------------------|----------------|
| Bid Item | Item Description | Unit | Old Quantity | Revised Quantity | Proposal Total |
| 455.0605 | Tack Coat | GAL | 23,000 | 1,850 | 24,850 |
| 460.0105.S | HMA PWL Test Strip Volumetrics | EACH | 1 | 1 | 2 |
| 460.0110.S | HMA PWL Test Strip Density | EACH | 1 | 1 | 2 |
| 460.6645 | HMA Pavement 5 MT 58-34 V | TON | 54,400 | -29,400 | 25,000 |
| 465.0105 | Asphaltic Surface | TON | 4,125 | 2,075 | 6,200 |

| Added Bid Item Quantities | | | | | |
|---------------------------|---------------------------|------|--------------|------------------|----------------|
| Bid Item | Item Description | Unit | Old Quantity | Revised Quantity | Proposal Total |
| 460.6644 | HMA Pavement 4 MT 58-34 V | TON | 0 | 28,000 | 28,000 |

Plan Sheets:

| Revised Plan Sheets | |
|----------------------------|--|
| Plan Sheet | Plan Sheet Title (brief description of changes to sheet) |
| 2 | General Notes; Updated HMA Layers Table |
| 6 | Typical Finished Sections; Updated HMA Layers |
| 7 | Typical Finished Sections; Updated HMA Layers |
| 9 | Construction Details; Updated HMA Layers |
| 10 | Construction Details; Updated HMA Layers |
| 11 | Construction Details; Updated HMA Layers |
| 14 | Construction Details: Paving Sequence of Operations; Updated HMA Layers |
| 16 | Construction Details; Updated HMA Layers |
| 17 | Construction Details; Updated HMA Layers |
| 18 | Construction Details; Updated HMA Layers |
| 20 | Traffic Control – Deep Culvert Replacements; Updated HMA Layers |
| 21 | Construction Details; Updated HMA Layers & Milling thickness & Mainline paving thickness |
| 22 | Construction Details; Updated HMA Layers & Milling thickness & Mainline paving thickness |
| 23 | Construction Details; Updated HMA Layers & Milling thickness & Mainline paving thickness |
| 29 | Construction Detail (Curb & Gutter); Updated HMA label in legend |
| 30 | Construction Detail (Curb & Gutter); Updated HMA label in legend |
| 31 | Construction Detail (Curb & Gutter); Updated HMA label in legend |
| 32 | Construction Detail (Curb & Gutter); Updated HMA label in legend |
| 33 | Construction Detail (Curb & Gutter); Updated HMA label in legend |
| 110 | Miscellaneous Quantities: Updated revised quantities and added item 460.6644 |

Other

Revise the Contract Completion Time from 65 working days to 85 working days (an increase of 20 working days).

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

8510-01-70

September 29, 2022

Special Provisions

3. Prosecution and Progress Article

Add the following paragraph to this article after paragraph 6:

Prior to milling operations, the engineer in the field will field review the existing pavement and mark all areas where the item "Removing Distressed Pavement Milling" is warranted. After the initial surface milling of the lanes, the engineer in the field will review all previously marked areas and confirm which locations require additional treatment as included under the bid item "Removing Distressed Pavement Milling".

Schedule of Items

Attached, dated September 29, 2022, are the revised Schedule of Items Pages 2 and 8.

Plan Sheets

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:

Revised: 2, 6, 7, 9, 10, 11, 14, 16, 17, 18, 20, 21, 22, 23, 29, 30, 31, 32, 33, & 110

END OF ADDENDUM

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL BY THE ENGINEER IN THE FIELD.

EROSION CONTROL ITEMS IN THE MISC. QUANT. ARE SUGGESTED. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD. MAINTAIN EROSION CONTROL ITEMS UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY. PROTECT WETLANDS AND OTHER WATERWAYS THAT ARE PRESENT WITHIN THE PROJECT LIMITS.

DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEED MIX NO. 30), AND EROSION MAT (URBAN CLASS) TYPE A AS DIRECTED BY THE ENGINEER. FERTILIZER (TYPE B), EROSION MAT (URBAN CLASS) TYPE B & SEEDING (SEEDING MIX NO. 30) ARE TO BE PAID FOR UNDER THE BID ITEM BARRIER SYSTEM GRADING SHARPENING FINISHING.

PRIOR TO THE PLACEMENT OF GUARDRAIL, THE SHOULDER MATERIAL SHALL BE PLACED, SHAPED, AND COMPACTED. EXISTING SHOULDER AGGREGATE SHALL BE INCORPORATED INTO THE NEW SHOULDERS UNLESS OTHERWISE DIRECTED BY THE ENGINEER IN THE FIELD.

WHEN THE THICKNESS OF THE BASE AGGREGATE DENSE OR HMA PAVEMENT IS MEASURED FOR REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE, THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A VERTICAL EDGE MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

HMA PAVEMENT QUANTITIES WERE CALCULATED USING 112 LB/SY/IN.

PAVING LIMITS AT INTERSECTIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

THE EXACT LOCATIONS AND LIMITS OF PRIVATE ENTRANCES, COMMERCIAL, AND FIELD ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

APPLY TACK COAT AT A RATE OF 0.07 GAL/SY TO THE WILLED SURFACE AND AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSULTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, OR PASSING LANE.

THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION WHEN THE LOW SIDE SHOULDER SLOPE IS 0.04 FT/FT. THE HIGH SIDE SHOULDER SLOPE ON THE SUPERELEVATED SECTION EQUALS THE SUPERELEVATION.

FILL EXPANSION IS VARIABLE AND IS ESTIMATED AT 25%.

ADJUST DITCH GRADING AS NECESSARY TO FIELD CONDITIONS AND AS DIRECTED BY THE ENGINEER IN THE FIELD.

CURVE DATA IS BASED ON THE ARC DEFINITION.

FLAGGERS SHALL BE IN SIGHT OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, ALL SIGNS RELATING TO THIS OPERATION SHALL BE COVERED OR REMOVED AND FACILITY RESTORED TO NORMAL OPERATIONS.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE THEIR UTILITY INSTALLATIONS WITH A CALL TO "DIGGERS HOTLINE" AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE. IF THERE ARE CONFLICTS WITH SIGNS OR OTHER WORK UNDER THIS PROJECT, THE CONTRACTOR WILL WORK AROUND THE UTILITY FACILITIES.

ALL HAZARD DIMENSIONS ON THE PLAN FOR CURB AND GUTTER ARE TO THE FLANGE OF THE CURB & GUTTER UNLESS OTHERWISE NOTED. MATCH EXISTING FLANGE LINE ELEVATIONS IN AREAS OF CONCRETE CURB AND GUTTER REPLACEMENT.

THE LOCATION OF ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

ACCURACY OF INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD.

| TOTAL LAYER THICKNESS | LAYER THICKNESS |
|-----------------------|--|
| 2" | SINGLE 2" LAYER HMA PAVEMENT 5 MT 58-34 V |
| 3.75" | 1.5" HMA PAVEMENT 5 MT 58-34 V UPPER LAYER 1.25" HMA PAVEMENT 4 MT 58-34 V LOWER LAYER |
| 5" | 1.25" HMA 4 MT 58-34 V LOWER LAYER (MILL 2" ASPHALTIC SURFACE 3" TO REMAIN) 2" ASPHALTIC SURFACE UPPER LAYER (MATCH EXISTING PROFILE) 3" ASPHALTIC SURFACE LOWER LAYER |
| 8.25" | 1.5" HMA 5 MT 58-34 V UPPER LAYER 1.75" HMA 4 MT 58-34 V LOWER LAYER (MILL 2" ASPHALTIC SURFACE UPPER LAYER (MATCH EXISTING PROFILE)) 2" ASPHALTIC SURFACE MIDDLE LAYER (MATCH EXISTING PROFILE) 3" ASPHALTIC SURFACE LOWER LAYER |

PROJECT NO: 8510-01-70 HWY: STH 13

CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION:
WISCONSIN DEPARTMENT OF TRANSPORTATION
1701 NORTH 4TH STREET
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WISCONSIN DEPARTMENT OF TRANSPORTATION:
WISCONSIN DEPARTMENT OF TRANSPORTATION PROGRAM MANAGER
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WISCONSIN DEPARTMENT OF TRANSPORTATION:
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EMAIL: jefr.smith@jewellassoc.com

WISCONSIN DEPARTMENT OF TRANSPORTATION:
STATE CONSULTANT:
DNR NORTH CENTRAL REGION
810 WEST MAPLE STREET
SPOONER, WI 54881
ATTN: AMY CHOKI
PH: (715) 465-3500
EMAIL: amy.choki@dnr.wisconsin.gov

UTILITIES

ELECTRICITY
BAYFIELD ELECTRIC COOPERATIVE INC
ATTN: ROBERT LAHTI
P.O. BOX 68
IRON RIVER, WI 54847
OFFICE: (715) 343-3800
CELL: (715) 343-3800
EMAIL: bob.lahti@bayfieldelectric.com

GAS/PETROLEUM
ENBRIDGE ENERGY
ATTN: DEAN WILL
10 BARDON AVENUE
SPELTON, WI 53589
CELL: (715) 963-8234
EMAIL: dean.will@enbridge.com

TELEPHONE
CENTURYLINK
ATTN: BRIAN HUHN
425 ELLINGSON AVENUE
HAWAII, WI 54520
OFFICE: (715) 378-2205
CELL: (715) 963-8234
EMAIL: brian.huhn@centurylink.com

WATER
ATTN: JAMES DAHLBERG
P.O. BOX 300
SOLOM SPRING, WI 54873
OFFICE: (715) 378-2205
CELL: (715) 963-8234
EMAIL: jimdahlberg@dahlberglightandpower.com

SEWER
NORVADO
ATTN: GUY FOLSON
P.O. BOX 67
CABLE, WI 54821
OFFICE: (715) 580-8123
CELL: (715) 580-8123
EMAIL: gfolson@norvado.com

ORDER OF SECTION 2 SHEETS:

- WRITTEN MATERIAL
- PROJECT OVERVIEW
- SUPERELEVATION TABLES
- CONSTRUCTION DETAILS (INCLUDES EROSION CONTROL PLAN)
- TRAFFIC CONTROL PLAN
- PAVEMENT MARKING PLAN
- ALIGNMENT DETAILS
- PLAN DETAILS

Addendum No. 01
ID 8510-01-70
Revised Sheet 2
September 29, 2022



Dial 811 or (800) 242-8511

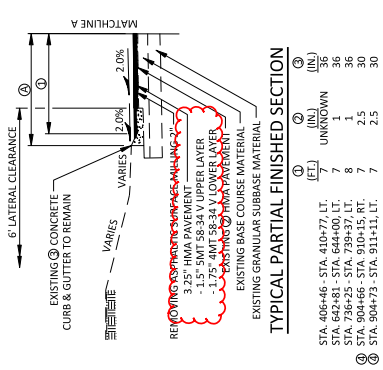
www.DiggersHotline.com

LIST OF STANDARD ABBREVIATIONS

| Abutment | INW | Invert | RDWY | Roadway |
|------------------------|-----------|--------------------------|-------------|----------------------------|
| Aggregate | IBS | Iron Pipe or Pin | SAV | Salvaged |
| Angle | JT | Joint | S | Shoulder |
| Asphalt | LFT | Left-Hand Forward | SHDR | Shoulder |
| Asphalt Concrete | AC | Length of Curve | SHR | Shrinkage |
| Base Aggregate | UA | Linear Foot | SW | Sidewalk |
| Back Face | LF | Long Chord of Curve | SF or SQ FT | Square Feet |
| Back Mark | LC | Match | SV or SQ YD | Standard |
| Bridge | ML or MW | North | STD | Standard |
| Center Line | N | North Grid Coordinate | STH | State Trunk Highways |
| Commercial Entrance | Y | North | STA | Station |
| County Trunk Highway | Y | North | STG | Storm Sewer |
| Crossing | P | Point of Intersection | SS | Subgrade |
| Cubic Yard | PT | Point of Curvature | SV | Substation |
| Culvert Pipe | PC | Point of Intersection | SV | Septic Vent |
| Degree of Curve | PR | Point of Tangency | T | Tangent |
| Diameter | PT | Point On Curve | TEL | Telephone |
| Ditch | POT | Polyvinyl Chloride | TI | Temporary Interest |
| Electric (all) | PCC | Concrete | TLE | Temporary Limited Easement |
| Equivalent Single Axle | IB | Radius | T | Town |
| Excavation Below | LB | Reference Line | T or TN | Truck Line |
| Subgrade | R | Reference Line | TL or T/L | Trucks (percent of) |
| Field Entrance | RL or R/L | Reference Line | TR | Truck |
| Finished Grade | RECD | Reinforced Concrete | UNCL | Unclassified |
| Foot Line | RES | Required | UG | Underground Cable |
| Footing | RES | Residence or Residential | UHS | United States Highway |
| Grid North | RV | Right-of-Way | VAR | Variable |
| Height | RW | Right-of-Way | VERT | Vertical or Design Speed |
| Underweight | BHE | Right-of-Way | VOL | Volume |
| Horizontal | R/W | Right-of-Way | WM | Water Main |
| Inlet | RD | River | W | West |
| Inside Diameter | R | River | WB | Westbound |
| | | | YD | Yard |

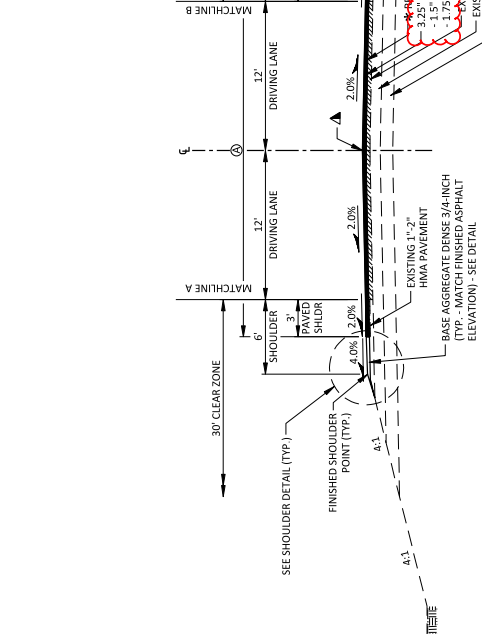
| LAND USE | HYDROLOGIC SOIL GROUP | | | | | | | | | | | |
|--|-----------------------|-----|-----|------|-----|-----|-----|------|-----|-----|-----|------|
| | A | B | C | D | E | F | | | | | | |
| ROW CROPS | 0.2 | 2.6 | 6.8 | OVER | 0.2 | 2.6 | 6.8 | OVER | 0.2 | 2.6 | 6.8 | OVER |
| MEDIAN STRIP | 19 | 20 | 24 | 19 | 22 | 26 | 20 | 23 | 30 | 20 | 25 | 30 |
| TURF | 24 | 26 | 30 | 25 | 28 | 33 | 26 | 30 | 37 | 27 | 32 | 40 |
| SIDE SLOPE TURF | 35 | 37 | 34 | 36 | 38 | 36 | 38 | 36 | 38 | 36 | 38 | 36 |
| PAVEMENT | | | | | | | | | | | | |
| CONCRETE | | 70 | 85 | | | | | | | | | |
| BRICK | | 60 | 85 | | | | | | | | | |
| DRIVES, WALKS | | 75 | 85 | | | | | | | | | |
| ROOFS | | 75 | 95 | | | | | | | | | |
| GRAVEL ROADS, SHOULDERS | | 40 | 60 | | | | | | | | | |
| TOTAL PROJECT AREA= 321.03 ACRES | | | | | | | | | | | | |
| TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 77.28 ACRES | | | | | | | | | | | | |

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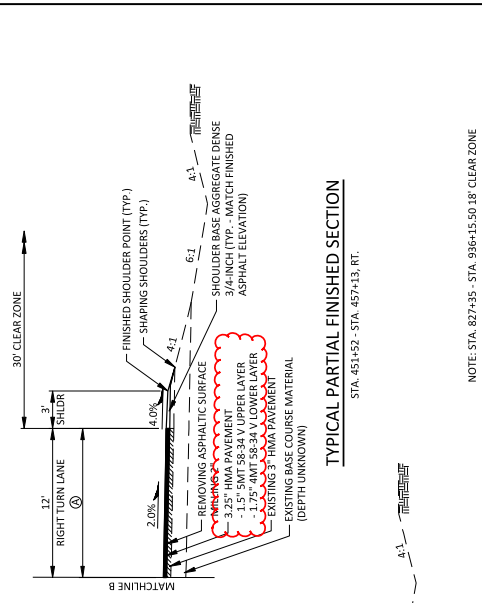
① STA. 406+46 - STA. 410+77, LT.
 STA. 642+81 - STA. 644+00, LT.
 STA. 642+81 - STA. 644+00, RT.
 STA. 804+66 - STA. 810+15, RT.
 STA. 904+73 - STA. 911+11, LT.

② STA. 907+73 - STA. 908+05, LT.
 STA. 908+05 - STA. 908+37, RT.
 -CONCRETE CURB AND GUTTER 30-INCH
 TYPE D (DRIVEWAY CURB CUT) REQ'D.



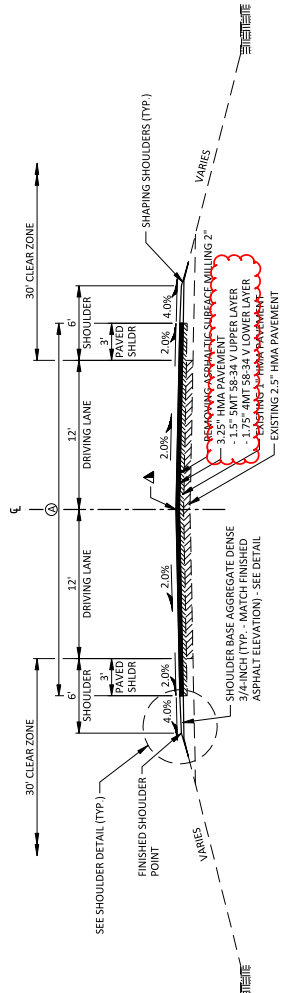
③ STA. 97+05 - STA. 193+70
 STA. 202+56 - STA. 231+22
 STA. 240+50 - STA. 253+83
 STA. 253+83 - STA. 266+40
 STA. 286+23 - STA. 316+92
 STA. 326+19 - STA. 466+87
 STA. 492+12 - STA. 533+43

④ STA. 539+45 - STA. 542+51
 STA. 558+12 - STA. 566+85
 STA. 593+60 - STA. 848+07
 STA. 875+09 - STA. 877+40
 STA. 881+38 - STA. 881+92
 STA. 896+76 - STA. 936+15.50



⑤ STA. 827+35 - STA. 936+15.50 18' CLEAR ZONE
 ⑥ STA. 451+52 - STA. 457+13, RT.

⑦ LIMITS OF PREPARE FOUNDATION FOR ASPHALTIC PAVING
 ⑧ ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL REQ'D.
 SEE MISCELLANEOUS QUANTITIES AND STANDARD DETAIL
 DRAWINGS FOR DETAILS.
 * PLACE 2" HMA PAVEMENT 5 MT 58-34 V



⑨ STA. 193+70 - STA. 202+56

⑩ STA. 827+35 - STA. 936+15.50 18' CLEAR ZONE

⑪ LIMITS OF PREPARE FOUNDATION FOR ASPHALTIC PAVING
 ⑫ ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL REQ'D.
 SEE MISCELLANEOUS QUANTITIES AND STANDARD DETAIL
 DRAWINGS FOR DETAILS.

PROJECT NO: 8510-01-70

HWY: STH 13

COUNTY: DOUGLAS

TYPICAL FINISHED SECTIONS

SHEET

6

E

FILE NAME: S:\PROJECTS\1539\W8007\ST13_CHTH TO ENGLAND\ROAD DOUGLAS CO\RESHAPE\TYPICALS\851001_01.TYPICALS.DWG

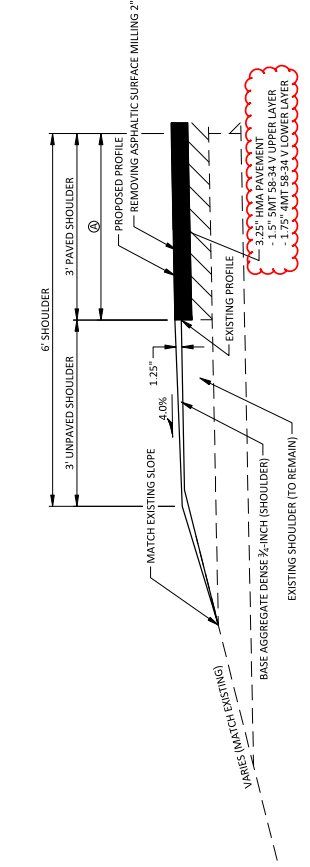
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PLOT BY: KARTER.ZAJACK

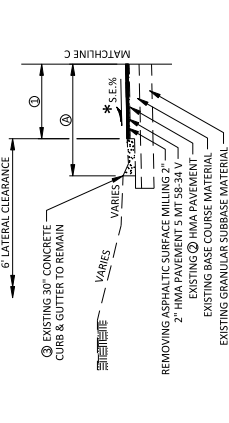
PLOT SCALE: 1" = 1'

UNWDF: TYPICAL.FINISHED - 1

Addendum No. 01
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 Revised Sheet 7
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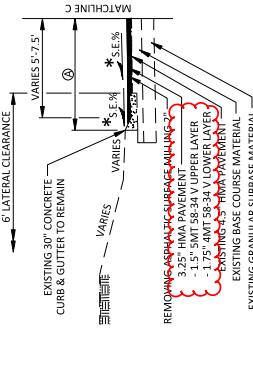


TYPICAL SHOULDER DETAIL



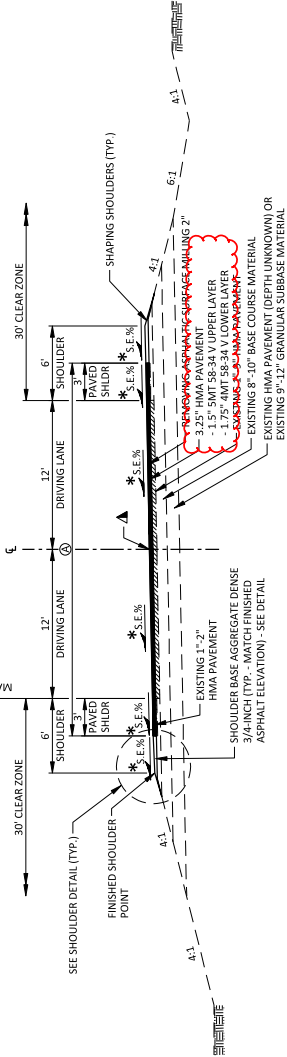
TYPICAL PARTIAL FINISHED SUPERELEVATED SECTION

- ** STA. 856+90 - STA. 869+65, LT. VARIES 1.6
- STA. 870+07 - STA. 871+37, RT. VARIES 1.5-3.8 UNKNOWN
- ③ STA. 872+12 - STA. 873+07, RT. 3.5
- ** N.C. - STA. 864+75 - STA. 867+56, LT.
- ③ STA. 872+12 - STA. 873+07, LT.
- CONCRETE CURB AND GUTTER 30-INCH TYPE D



TYPICAL PARTIAL FINISHED SUPERELEVATED SECTION

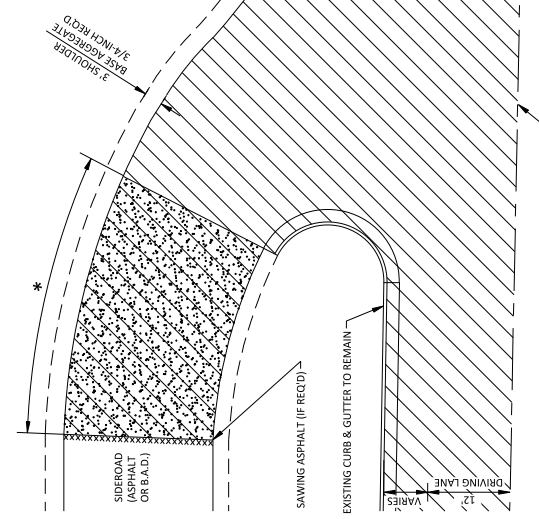
- ** STA. 879+17 - STA. 886+30, LT.
- ** N.C. - STA. 881+38 - STA. 881+92, LT.



TYPICAL FINISHED SUPERELEVATED SECTION

- STA. 231+22 - STA. 240+50 STA. 542+51 - STA. 558+12
 - STA. 253+83 - STA. 266+18 STA. 566+85 - STA. 593+60
 - STA. 273+51 - STA. 286+73 STA. 888+07 - STA. 894+75
 - STA. 317+40 - STA. 324+00 STA. 877+40 - STA. 881+38
 - STA. 466+87 - STA. 492+12 STA. 874+00 - STA. 881+38
 - STA. 533+43 - STA. 539+45 STA. 881+92 - STA. 896+76
- NOTE: STA. 827+95 - STA. 936+15 50'8" CLEAR ZONE
 ③ LIMITS OF PREPARE FOUNDATION FOR ASPHALTIC PAVING
 * SEE SUPERELEVATION TABLE
 ▲ ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL. REQ. D. SEE MISCELLANEOUS QUANTITIES AND STANDARD DETAIL DRAWINGS FOR DETAILS.

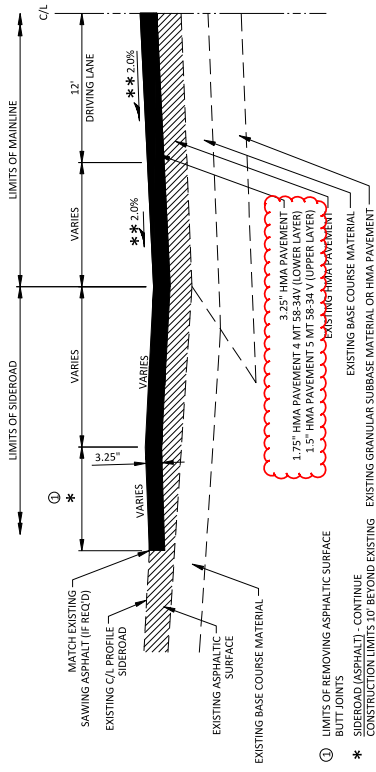
- ① LIMITS OF REMOVING ASPHALTIC SURFACE BUTT JOINTS
- LIMITS OF 3.25" HMA PAVEMENT
- * SIDEROAD (ASPHALT) - CONTINUE EXISTING CONSTRUCTION LIMITS 10' BEYOND EXISTING CONCRETE CURB & GUTTER TO REMAIN ON SIDEROAD (OR AS DIRECTED BY ENGINEER)
- * SIDEROAD (B.A.D.) - SIDEROAD CONSTRUCTION LIMITS ARE TO THE ASPHALT PAVING LIMITS OF EACH SIDEROAD (OR AS DIRECTED BY ENGINEER)



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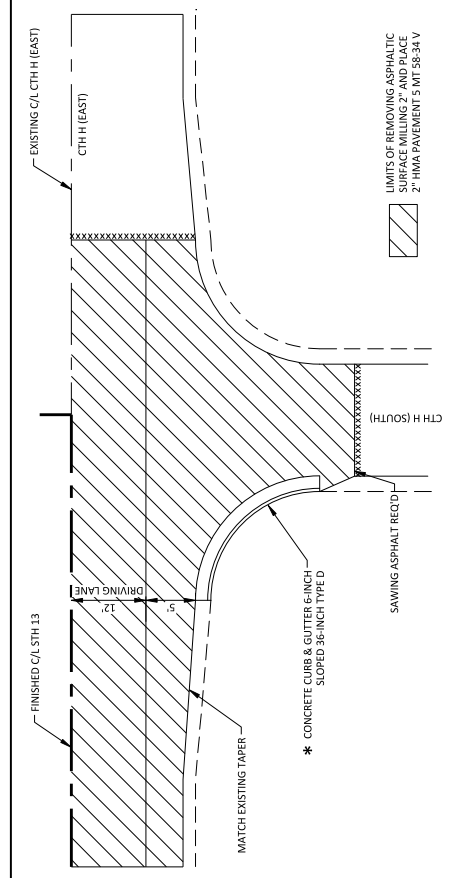
TYPICAL SIDEROAD DETAIL WITH CURB & GUTTER (WEST SIDE ONLY)

NOTE: CARVALIA ROAD SHOWN. LOVELAND ROAD SIMILAR.



TYPICAL SIDEROAD PROFILE WITHOUT CURB & GUTTER

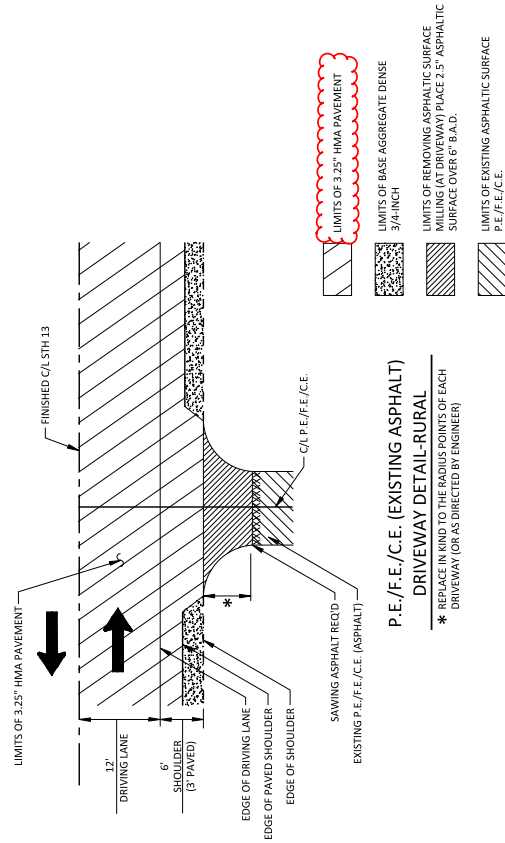
- ① LIMITS OF REMOVING ASPHALTIC SURFACE BUTT JOINTS
- * SIDEROAD (ASPHALT) - CONTINUE CONSTRUCTION LIMITS 10' BEYOND EXISTING CONCRETE CURB & GUTTER TO REMAIN ON SIDEROAD (OR AS DIRECTED BY ENGINEER)
- * SIDEROAD (B.A.D.) - SIDEROAD CONSTRUCTION LIMITS ARE TO THE ASPHALT PAVING LIMITS OF EACH SIDEROAD (OR AS DIRECTED BY ENGINEER)
- ** NORMAL CROWN IN C/L UNLESS NOTED OTHERWISE - SEE SUPERELEVATION TABLE



TYPICAL RURAL SIDEROAD DETAIL WITH CURB & GUTTER (WEST SIDE ONLY)

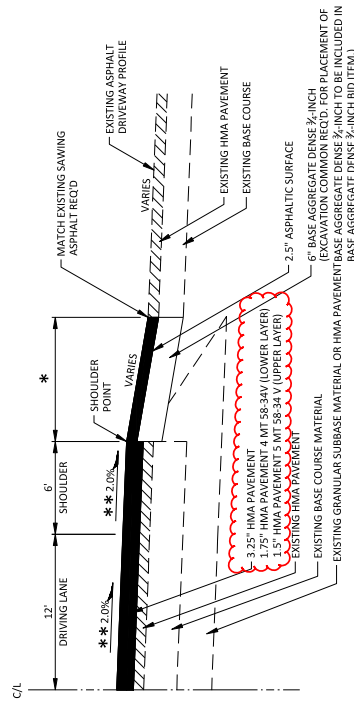
- * SEE CONSTRUCTION DETAILS (CURB & GUTTER) FOR SPOT CONCRETE CURB & GUTTER REPLACEMENT.

| | | | |
|------------------------|-----------------|----------------------|----------|
| PROJECT NO: 8510-01-70 | COUNTY: DOUGLAS | CONSTRUCTION DETAILS | SHEET 10 |
| HWY: STH 13 | E | E | E |

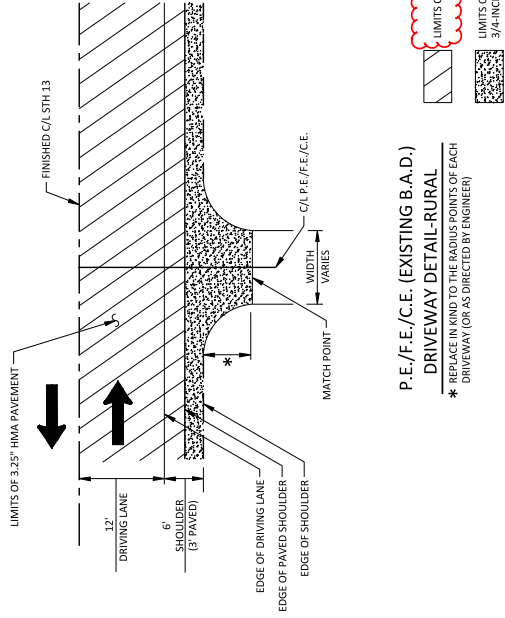


**P.E./F.E./C.E. (EXISTING ASPHALT)
DRIVEWAY DETAIL-RURAL**
* REPLACE IN KIND TO THE RADIUS POINTS OF EACH DRIVEWAY (OR AS DIRECTED BY ENGINEER)

- LIMITS OF 3.25" HMA PAVEMENT
- LIMITS OF BASE AGGREGATE DENSE 3/4-INCH
- LIMITS OF REMOVING ASPHALTIC SURFACE MILLING (AT DRIVEWAY) PLACE 2.5" ASPHALTIC SURFACE OVER 6" B.A.D.
- LIMITS OF EXISTING ASPHALTIC SURFACE
- P.E./F.E./C.E.

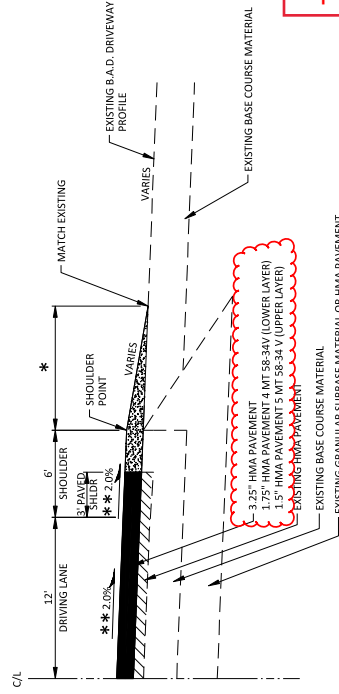


P.E./F.E./C.E. (EXISTING ASPHALT) PROFILE
** N.C. UNLESS NOTED OTHERWISE -SEE SUPERELEVATION TABLE



**P.E./F.E./C.E. (EXISTING B.A.D.)
DRIVEWAY DETAIL-RURAL**
* REPLACE IN KIND TO THE RADIUS POINTS OF EACH DRIVEWAY (OR AS DIRECTED BY ENGINEER)

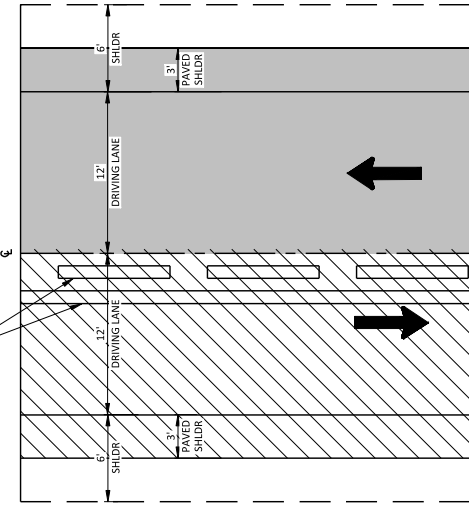
- LIMITS OF 3.25" HMA PAVEMENT
- LIMITS OF BASE AGGREGATE DENSE 3/4-INCH



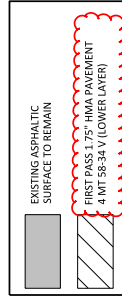
P.E./F.E./C.E. (EXISTING B.A.D.) PROFILE
** N.C. UNLESS NOTED OTHERWISE -SEE SUPERELEVATION TABLE

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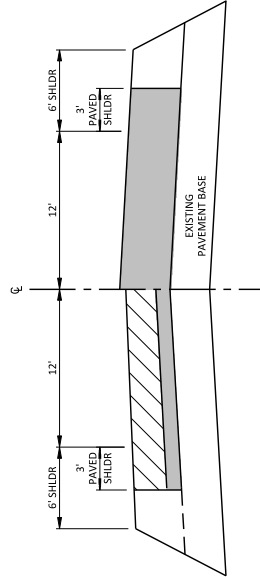
TEMPORARY MARKING LINE EPOXY 4-INCH TO BE PLACED ON LOWER SIDE OF EXISTING CENTERLINE MARKING LINE EPOXY (TO MATCH EXISTING CENTERLINE CONDITIONS)



PLAN VIEW



NOTE: CURB & GUTTER AREAS SIMILAR. SEE TYPICAL FINISHED SECTIONS FOR FURTHER INFORMATION.



CROSS SECTION VIEW

FIRST PASS DETAIL

PROJECT NO: 8510-01-70

HWY: STH 13

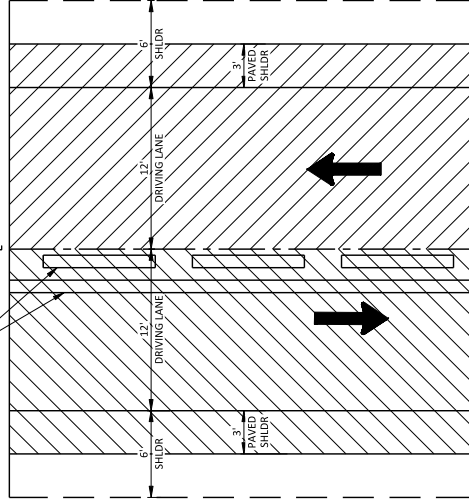
COUNTY: DOUGLAS

CONSTRUCTION DETAILS: PAVING SEQUENCE OF OPERATIONS

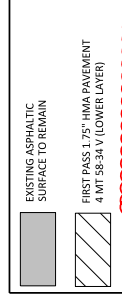
SHEET 14

E

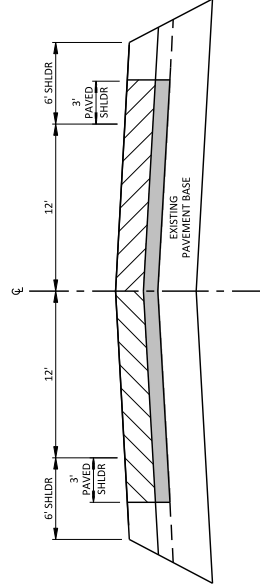
TEMPORARY MARKING LINE EPOXY 4-INCH PLACED AFTER FIRST PASS TO REMAIN FOR SECOND PASS.



PLAN VIEW



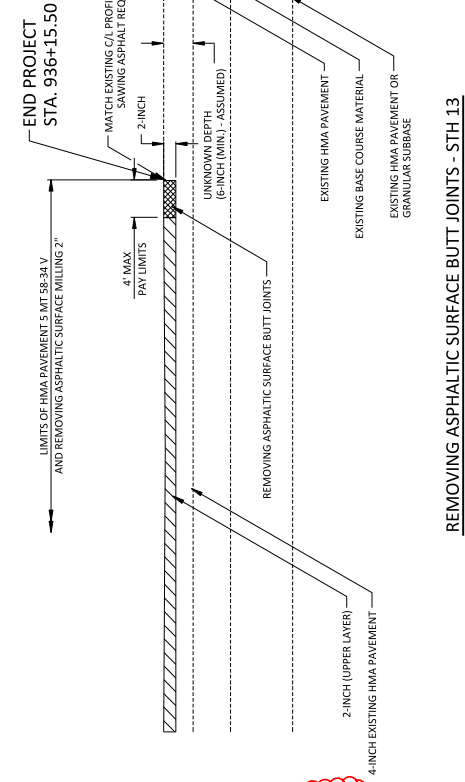
NOTE: CURB & GUTTER AREAS SIMILAR. SEE TYPICAL FINISHED SECTIONS FOR FURTHER INFORMATION.



CROSS SECTION VIEW

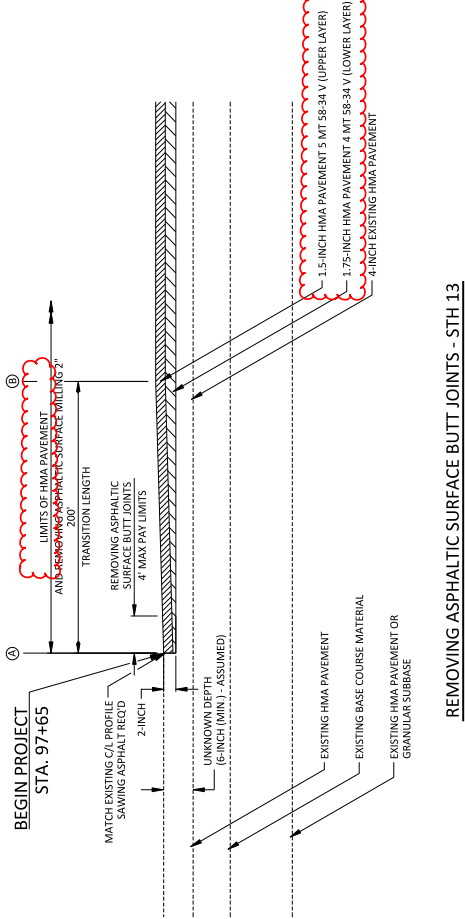
SECOND PASS DETAIL

Addendum No. 01
ID 8510-01-70
Revised Sheet 14
September 29, 2022



REMOVING ASPHALTIC SURFACE BUTT JOINTS - STH 13

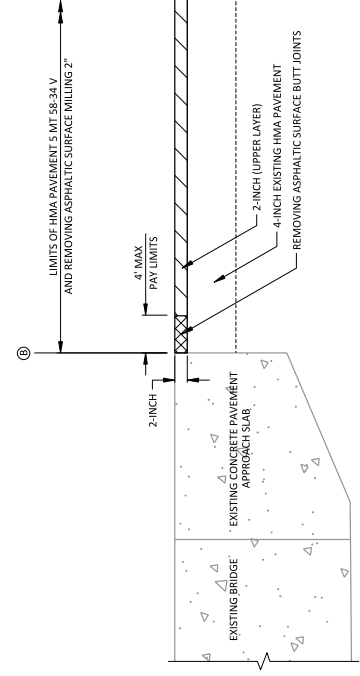
STA 996+15.50



REMOVING ASPHALTIC SURFACE BUTT JOINTS - STH 13

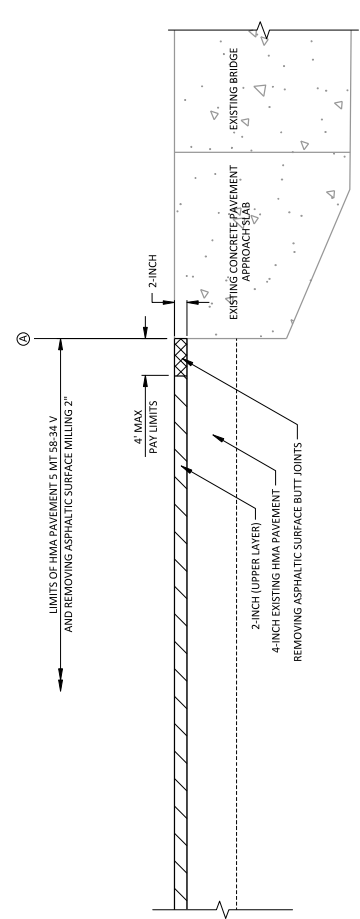
STA 97+65

Addendum No. 01
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 Revised Sheet 16
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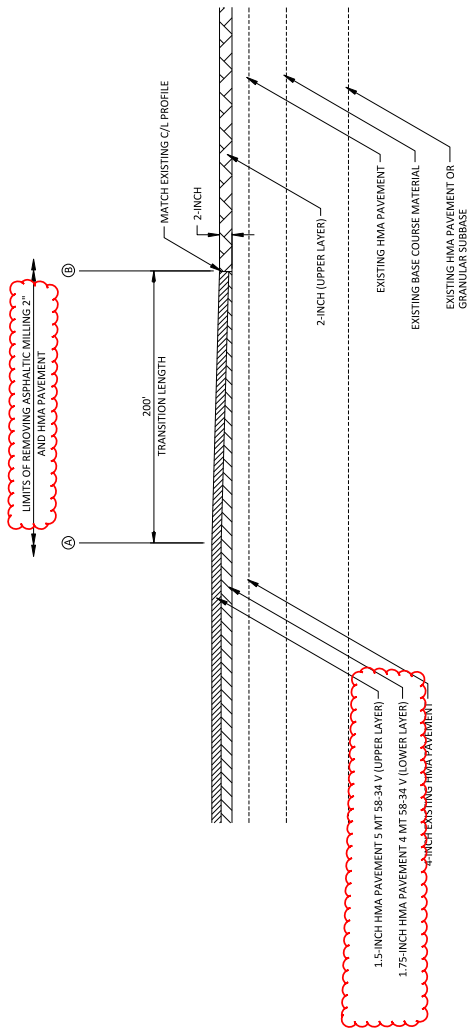


REMOVING ASPHALTIC SURFACE BUTT JOINTS AT BRIDGES - STH 13

| | | |
|---|----------------|----------------|
| ④ | STA. 244+01.32 | STA. 246+05.53 |
| | STA. 293+56.95 | STA. 295+61.44 |
| | STA. 307+75.11 | STA. 309+66.40 |
| | STA. 871+23.36 | STA. 872+16.40 |

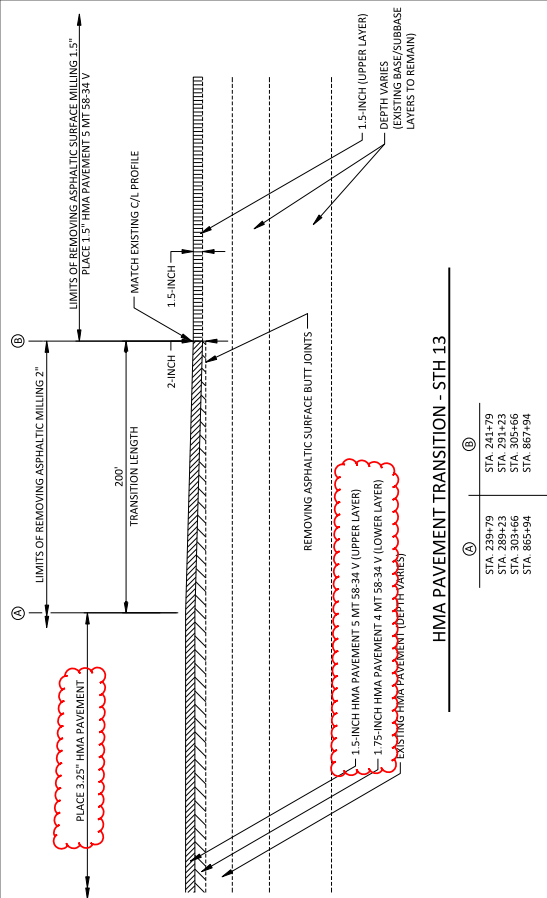


Addendum No. 01
ID 8510-01-70
Revised Sheet 17
September 29, 2022



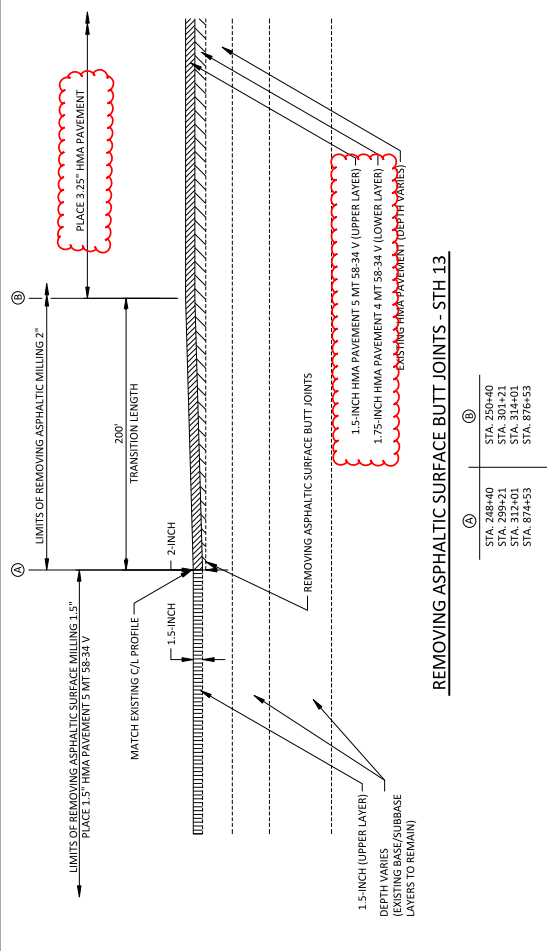
HMA PAVEMENT TRANSITION - STH 13

④ STA. 929+12 | ⑤ STA. 931+12



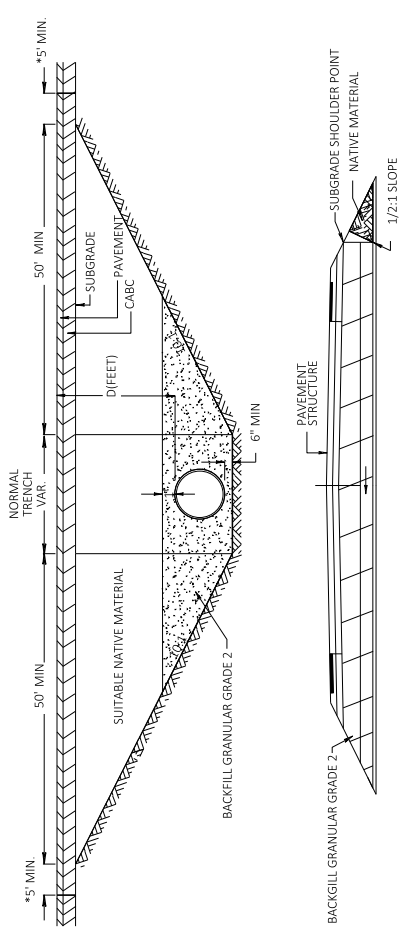
HMA PAVEMENT TRANSITION - STH 13

④ STA. 239+79 | ⑤ STA. 241+79
STA. 289+23 | STA. 291+23
STA. 305+66 | STA. 307+66
STA. 305+94 | STA. 307+94



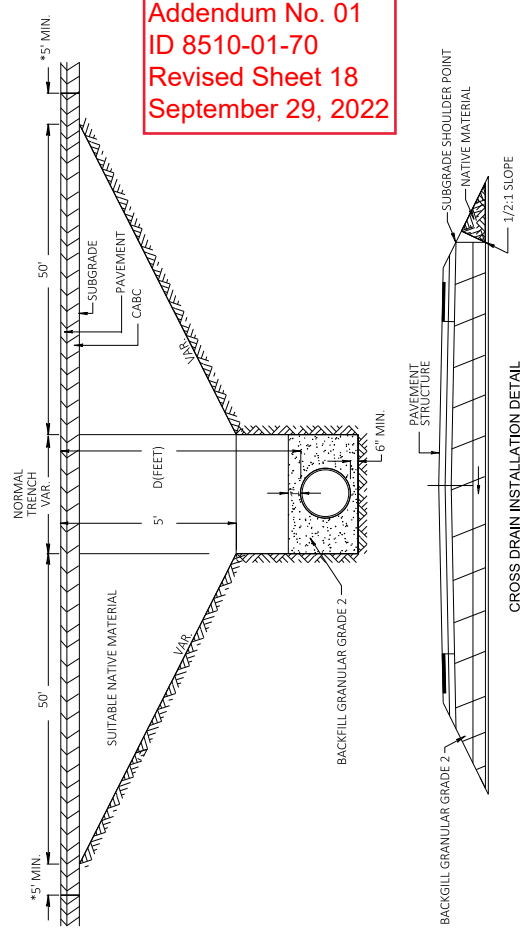
REMOVING ASPHALTIC SURFACE BUTT JOINTS - STH 13

④ STA. 248+40 | ⑤ STA. 250+40
STA. 299+21 | STA. 301+21
STA. 312+01 | STA. 314+01
STA. 314+51 | STA. 316+51
STA. 314+51 | STA. 316+51



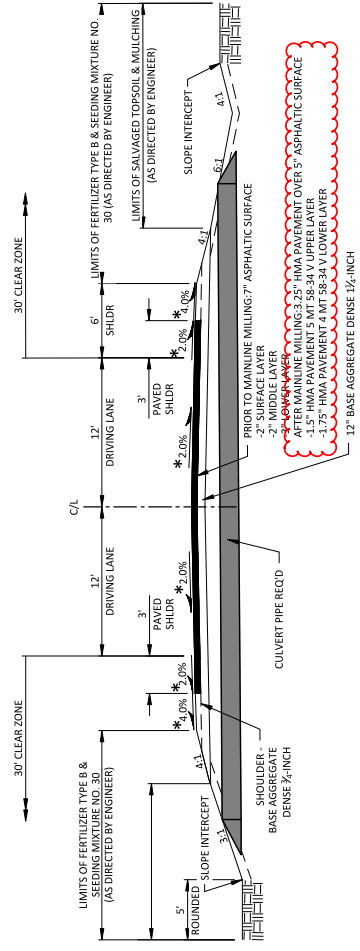
CROSS DRAIN INSTALLATION DETAIL
FOR D ≤ 5'

NOTE: EXCAVATION, BACKFILL AND BACKFILL GRANULAR FOR CULVERT PIPE REPLACEMENT IS INCIDENTAL TO CULVERT PIPE BID ITEM
* PAVEMENT REMOVAL LIMITS (TYPICAL)



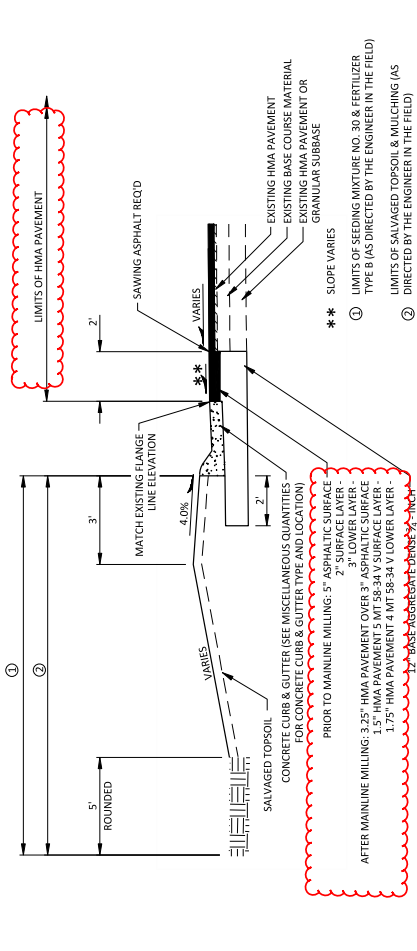
CROSS DRAIN INSTALLATION DETAIL
FOR D ≥ 5'

Addendum No. 01
ID 8510-01-70
Revised Sheet 18
September 29, 2022



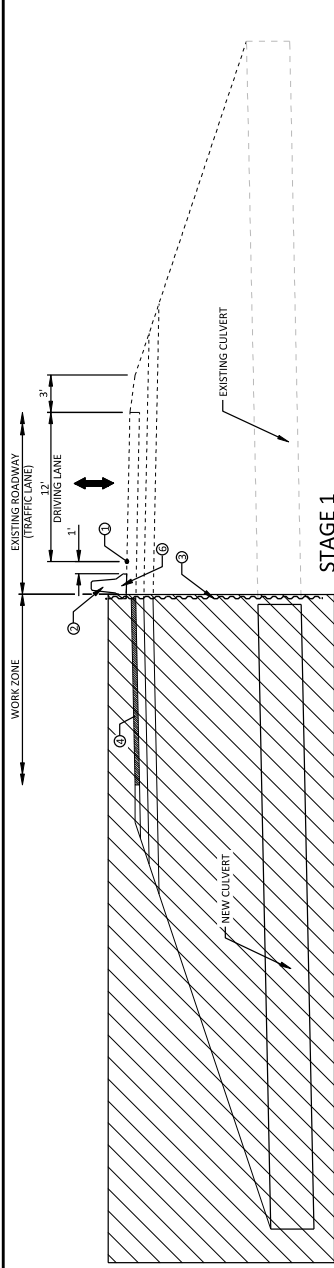
TYPICAL CULVERT PIPE REPLACEMENT DETAIL

* NORMAL CROWN (N.C.) UNLESS NOTED OTHERWISE - SEE SUPERELEVATION TABLES
NOTE: STA. 827+35 - STA. 936+15.18' CLEAR ZONE
NOTE: AFTER PLACING 7" ASPHALTIC SURFACE FOR CULVERT PIPE REPLACEMENT MILL AND PAVE WITH MAINLINE MILLING/PAVING OPERATION.



TYPICAL CONCRETE CURB & GUTTER REPLACEMENT DETAIL

NOTE: STA. 872+12 - STA. 873+07' SEE CONSTRUCTION DETAIL BEAM/GUARD LAYOUT FOR CONCRETE CURB AND GUTTER REPLACEMENT DETAIL

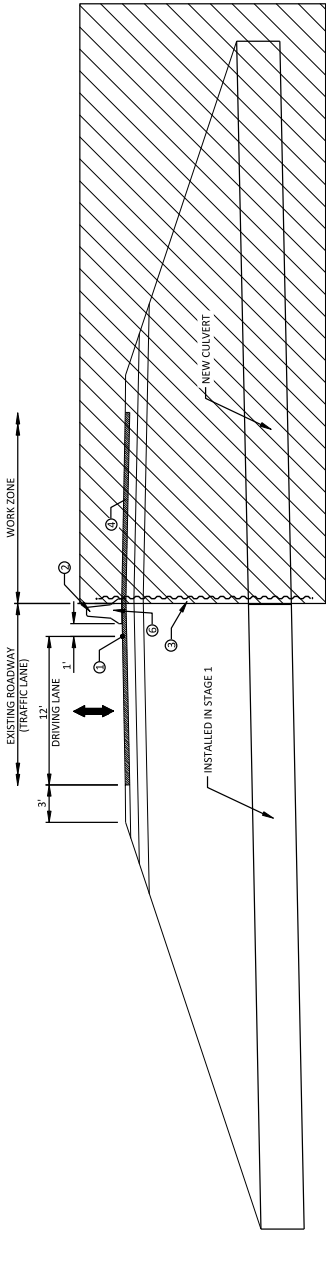


STAGE 1

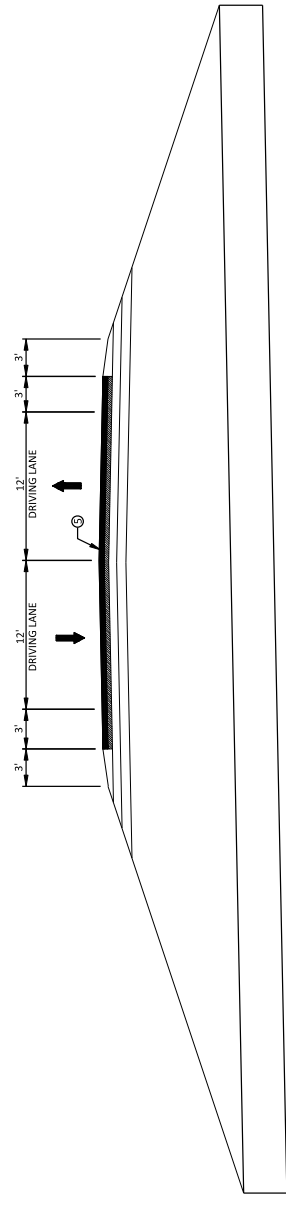
- ① TEMPORARY MARKING LINE EPOXY 4-INCH (WHITE)
- ② CONCRETE BARRIER TEMPORARY PRECAST
- ③ TEMPORARY SHORING
- ④ 1 3/4-INCH HMA PAVEMENT 4 MT 58-34 V (LOWER LAYER)
- ⑤ 1 1/2-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER LAYER)
- ⑥ ANCHORING CONCRETE BARRIER TEMPORARY PRECAST



NOTE: USE SDD "TRAFFIC CONTROL ONE LANE ROAD WITH TEMPORARY SIGNALS" FOR TRAFFIC CONTROL LAYOUT.

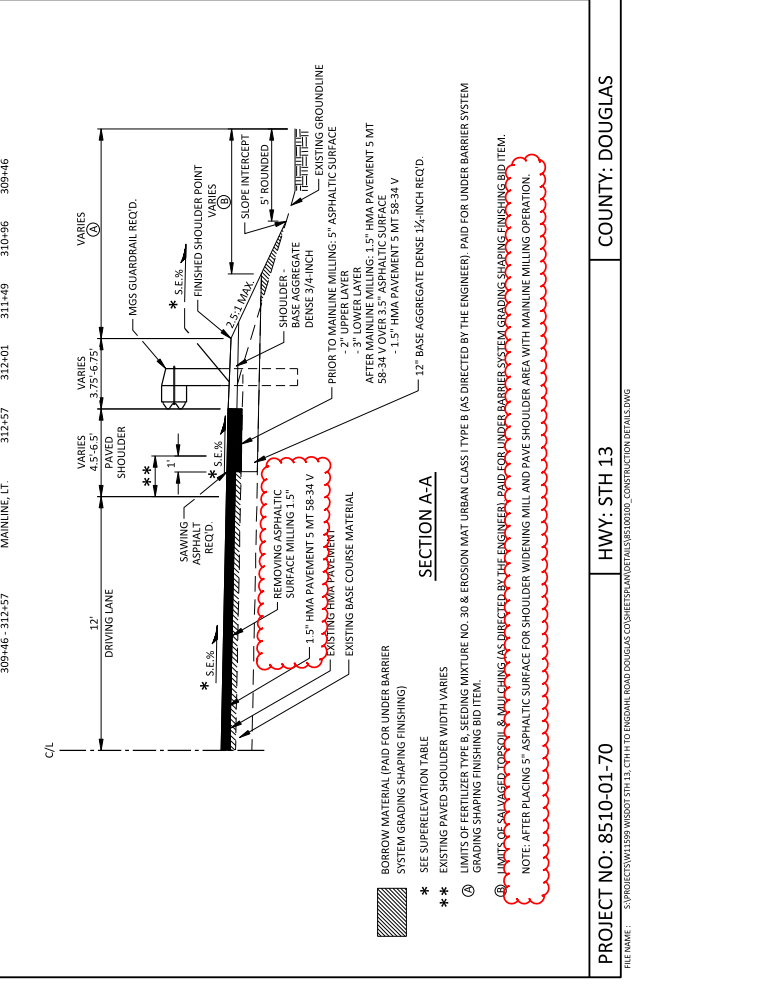
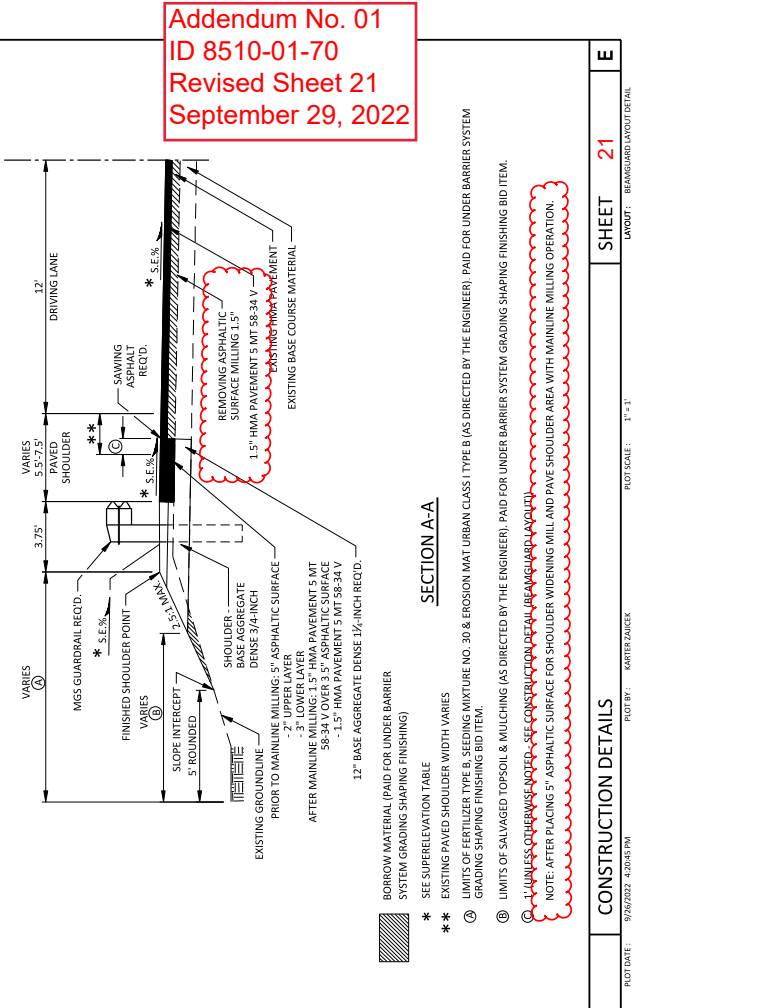
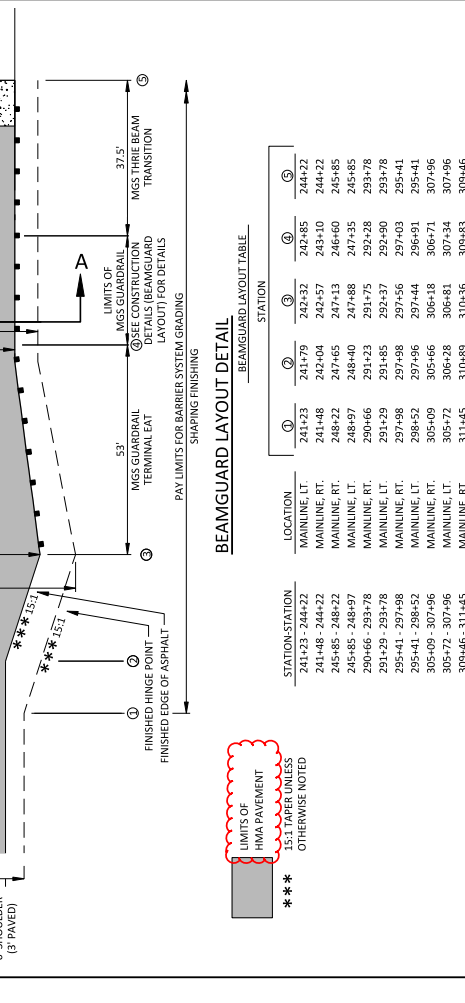
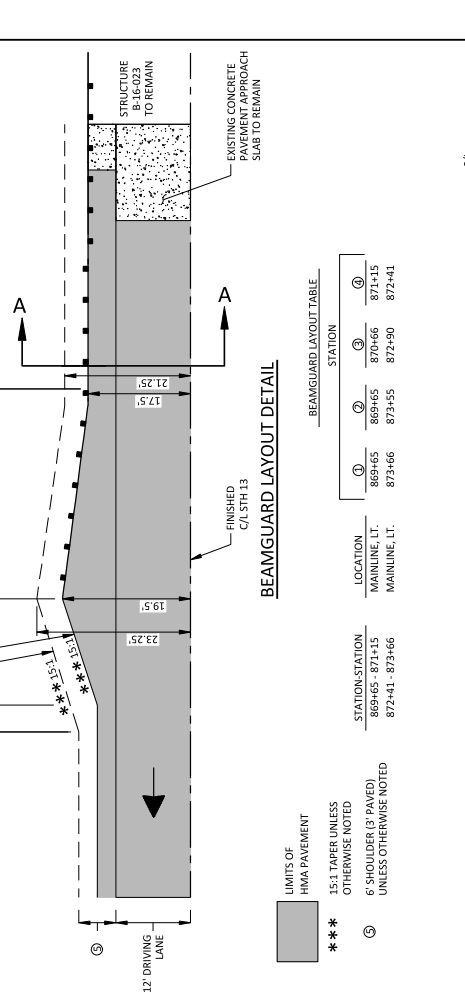
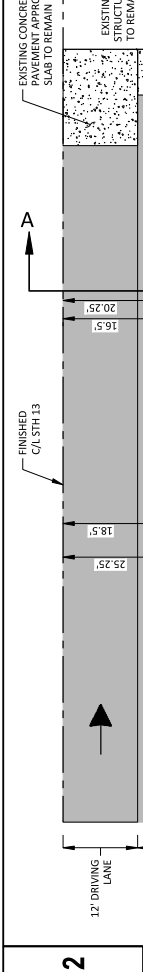
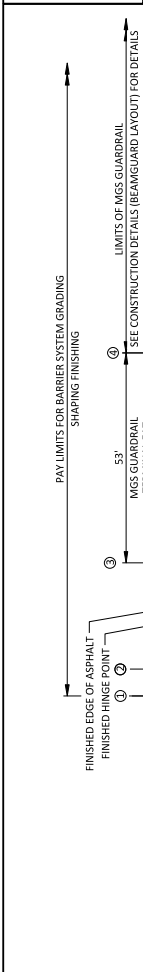


STAGE 2



STAGE 3

Addendum No. 01
ID 8510-01-70
Revised Sheet 20
September 29, 2022



Addendum No. 01
ID 8510-01-70
Revised Sheet 21
September 29, 2022

BEAMGUARD LAYOUT DETAIL

| STATION | LOCATION | STATION |
|---------|---------------|---------|
| 241+23 | MAINLINE, LT. | 242+85 |
| 241+48 | MAINLINE, RT. | 243+10 |
| 248+22 | MAINLINE, RT. | 246+60 |
| 248+97 | MAINLINE, LT. | 247+35 |
| 290+66 | MAINLINE, RT. | 291+75 |
| 291+29 | MAINLINE, LT. | 294+37 |
| 297+98 | MAINLINE, RT. | 297+03 |
| 298+52 | MAINLINE, LT. | 299+44 |
| 305+09 | MAINLINE, RT. | 306+18 |
| 305+72 | MAINLINE, LT. | 306+81 |
| 311+45 | MAINLINE, RT. | 310+36 |
| 309+46 | MAINLINE, LT. | 311+49 |
| 312+57 | MAINLINE, RT. | 310+96 |
| | | 309+46 |

BEAMGUARD LAYOUT DETAIL

| STATION | LOCATION | STATION |
|---------|---------------|---------|
| 869+45 | MAINLINE, LT. | 871+15 |
| 873+46 | MAINLINE, RT. | 874+66 |
| 874+41 | MAINLINE, LT. | 873+66 |
| 873+46 | MAINLINE, RT. | 874+90 |
| 874+41 | MAINLINE, LT. | 873+66 |
| 873+46 | MAINLINE, RT. | 874+90 |
| 874+41 | MAINLINE, LT. | 873+66 |
| 873+46 | MAINLINE, RT. | 874+90 |
| 874+41 | MAINLINE, LT. | 873+66 |
| 873+46 | MAINLINE, RT. | 874+90 |

CONSTRUCTION DETAILS

PROJECT NO: 8510-01-70
HWY: STH 13
COUNTY: DOUGLAS

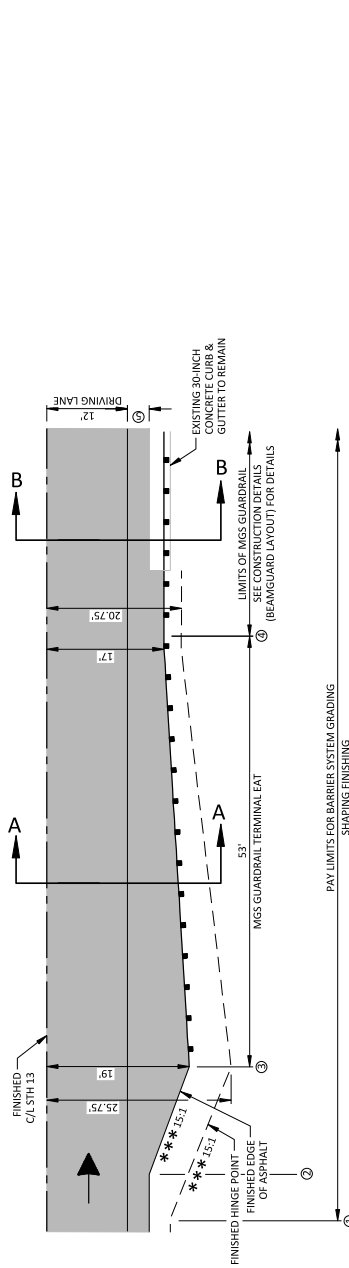
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PLOT DATE: 9/29/2022 2:30:45 PM
PLOT BY: KARTER.ZAICK
PLOT SCALE: 1" = 1'

CONSTRUCTION DETAILS

PROJECT NO: 8510-01-70
HWY: STH 13
COUNTY: DOUGLAS

FILE NAME: S:\PROJECTS\1539 WISDOT STH13, CHTH TO ENGLISH ROAD\DOUGLAS\CONSTRDETAILS\00100 CONSTRUCTION DETAILS.DWG
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PLOT BY: KARTER.ZAICK
PLOT SCALE: 1" = 1'

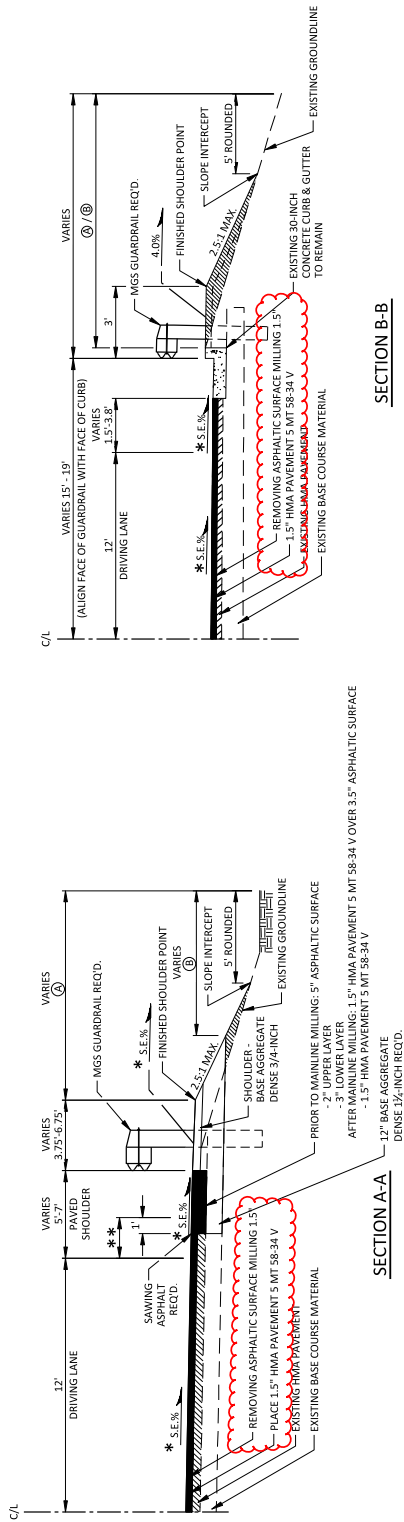
Addendum No. 01
 ID 8510-01-70
 Revised Sheet 22
 September 29, 2022



BEAMGUARD LAYOUT TABLE

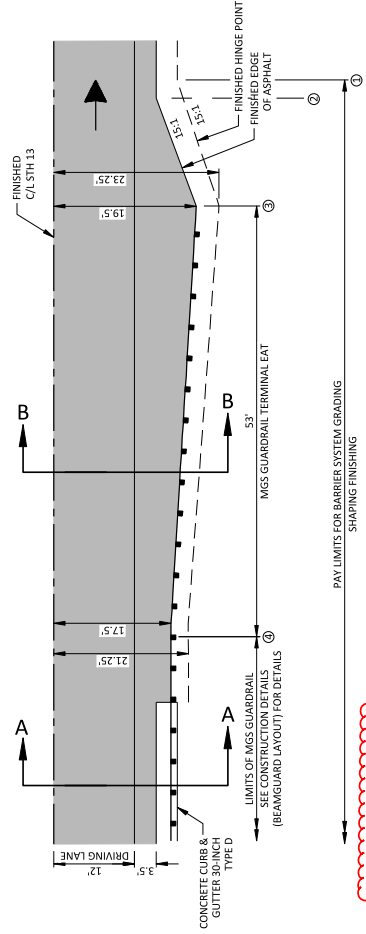
| STATION | LOCATION | STATION |
|---------|---------------|---------|
| ① | MAINLINE, RT. | 867+38 |
| ② | | 867+94 |
| ③ | | 868+54 |
| ④ | | 869+11 |

BEAMGUARD LAYOUT DETAIL

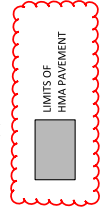


- ① BORROW MATERIAL (PAID FOR UNDER BARRIER SYSTEM GRADING SHAPING FINISHING)
- ** SEE SUPERELEVATION TABLE
- ② EXISTING PAVED SHOULDER WIDTH VARIES
- ③ LIMITS OF FERTILIZER TYPE B; SEE JUNE MIXTURE NO. 30 & EROSION MAT URBAN CLASS I TYPE B (AS DIRECTED BY THE ENGINEER). PAID FOR UNDER BARRIER SYSTEM GRADING SHAPING FINISHING BID ITEM.
- ④ LIMITS OF SALVAGED TOPSOIL MULCHING (AS DIRECTED BY THE ENGINEER). PAID FOR UNDER BARRIER SYSTEM GRADING SHAPING FINISHING BID ITEM.
- ⑤ NOTE: AFTER PLACING 5" ASPHALTIC SURFACE FOR SHOULDER WIDENING MILL AND PAVE SHOULDERS WITH MAINLINE MILLING OPERATION.

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ID 8510-01-70
Revised Sheet 23
September 29, 2022



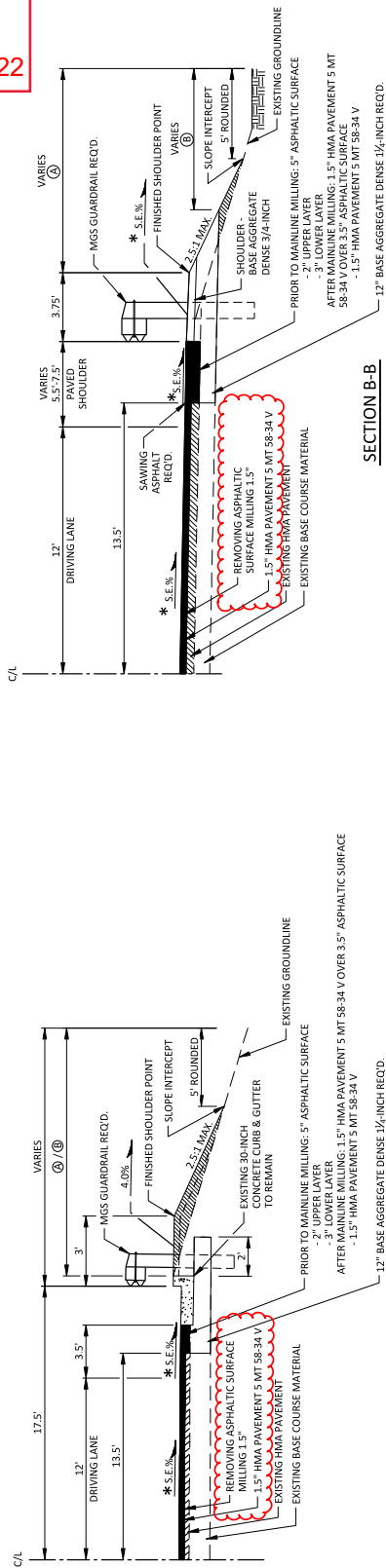
PAY LIMITS FOR BARRIER SYSTEM GRADING SHAPING FINISHING



BEAMGUARD LAYOUT DETAIL

BEAMGUARD LAYOUT TABLE

| STATION | LOCATION | STATION |
|-------------------|---------------|----------|
| ① 874+31 - 874+81 | MAINLINE, RT. | ④ 873+31 |
| ② 874+53 | | ⑤ 873+85 |
| ③ 873+85 | | ⑥ 873+31 |

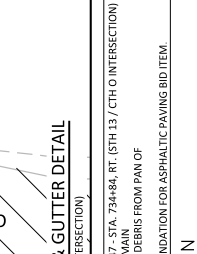
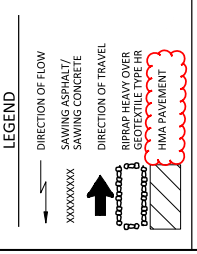
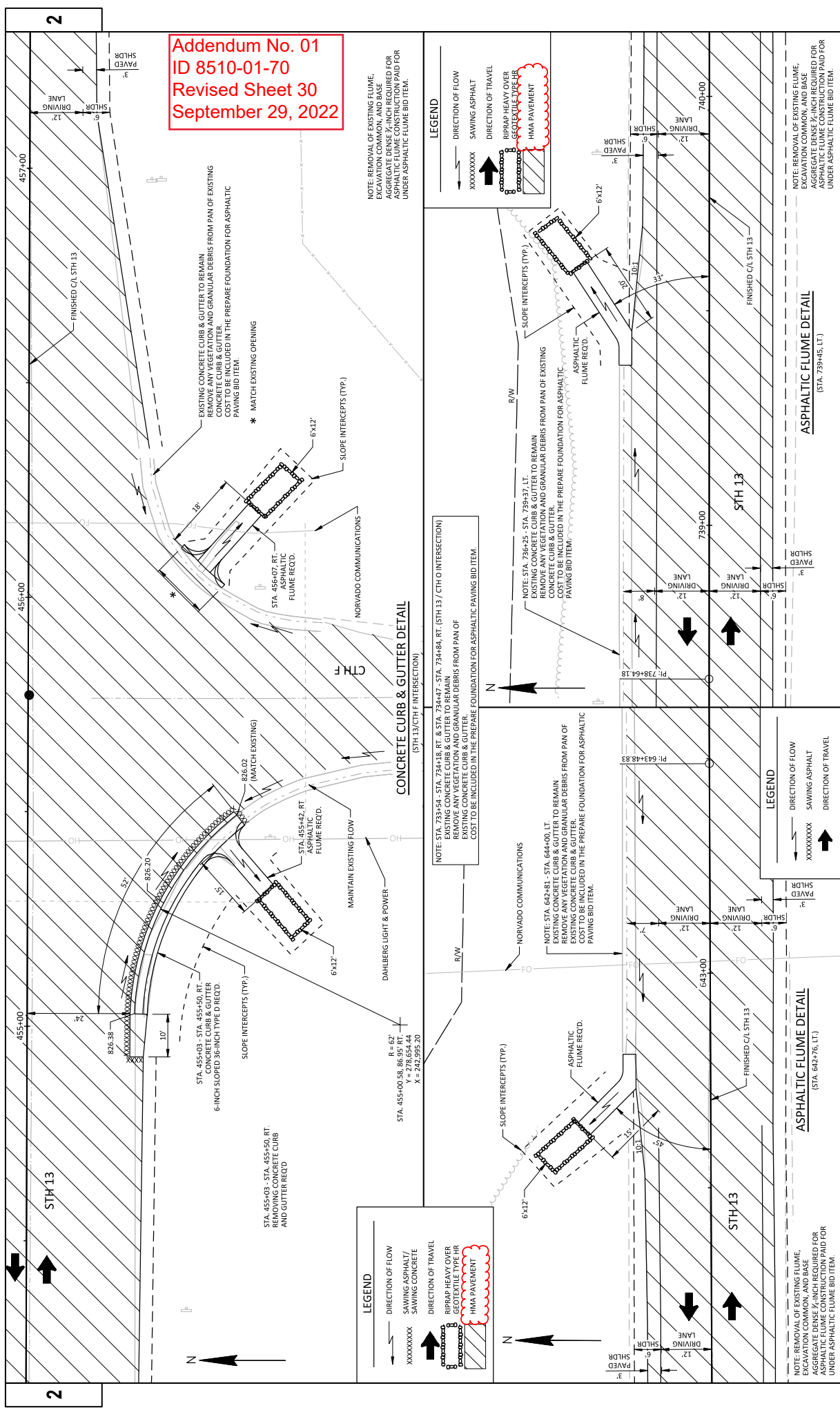


SECTION A-A

SECTION B-B

- BORROW MATERIAL (PAID FOR UNDER BARRIER SYSTEM GRADING SHAPING FINISHING)
- ** SEE SUPERELEVATION TABLE
- ** EXISTING PAVED SHOULDER WIDTH VARIES
- ① LIMITS OF FERTILIZER TYPE B & SEEDING MIXTURE NO. 30 (AS DIRECTED BY THE ENGINEER). PAID FOR UNDER BARRIER SYSTEM GRADING SHAPING FINISHING BID ITEM. LIMITS OF ENGINEER MAT URBAN CLASS TYPE B (AS DIRECTED BY THE ENGINEER).
- ② LIMITS OF SALVAGED TOPSOIL & MULCHING (AS DIRECTED BY THE ENGINEER). PAID FOR UNDER BARRIER SYSTEM GRADING SHAPING FINISHING BID ITEM. NOTE: AFTER PLACING 5" ASPHALTIC SURFACE FOR SHOULDER WIDENING MILL AND PAVE SHOULDER AREA WITH MAINLINE MILLING OPERATION.

Addendum No. 01
ID 8510-01-70
Revised Sheet 30
September 29, 2022



NOTE: REMOVAL OF EXISTING FLUME, EXCAVATION COMMON, AND BASE AGGREGATE DENSE 7/8-INCH REQUIRED FOR ASPHALTIC FLUME CONSTRUCTION PAID FOR UNDER ASPHALTIC FLUME BID ITEM.

NOTE: REMOVAL OF EXISTING FLUME, EXCAVATION COMMON, AND BASE AGGREGATE DENSE 7/8-INCH REQUIRED FOR ASPHALTIC FLUME CONSTRUCTION PAID FOR UNDER ASPHALTIC FLUME BID ITEM.

NOTE: STA. 642+81 - STA. 644+00, LT. REMOVE ANY VEGETATION AND GRANULAR DEBRIS FROM PAN OF EXISTING CONCRETE CURB & GUTTER. COST TO BE INCLUDED IN THE PREPARE FOUNDATION FOR ASPHALTIC PAVING BID ITEM.

NOTE: STA. 739+37, LT. TO REMAIN REMOVE ANY VEGETATION AND GRANULAR DEBRIS FROM PAN OF EXISTING CONCRETE CURB & GUTTER. COST TO BE INCLUDED IN THE PREPARE FOUNDATION FOR ASPHALTIC PAVING BID ITEM.

NOTE: REMOVAL OF EXISTING FLUME, EXCAVATION COMMON, AND BASE AGGREGATE DENSE 7/8-INCH REQUIRED FOR ASPHALTIC FLUME CONSTRUCTION PAID FOR UNDER ASPHALTIC FLUME BID ITEM.

NOTE: REMOVAL OF EXISTING FLUME, EXCAVATION COMMON, AND BASE AGGREGATE DENSE 7/8-INCH REQUIRED FOR ASPHALTIC FLUME CONSTRUCTION PAID FOR UNDER ASPHALTIC FLUME BID ITEM.

PROJECT NO: 8510-01-70

HWY: STH 13

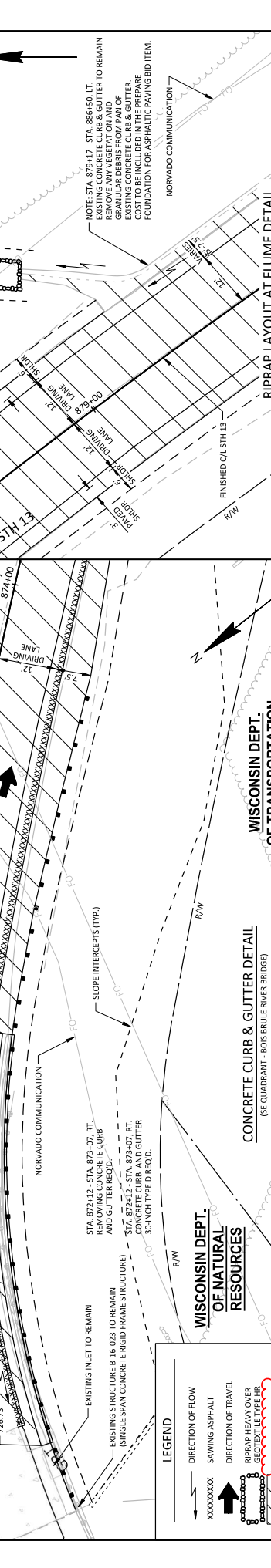
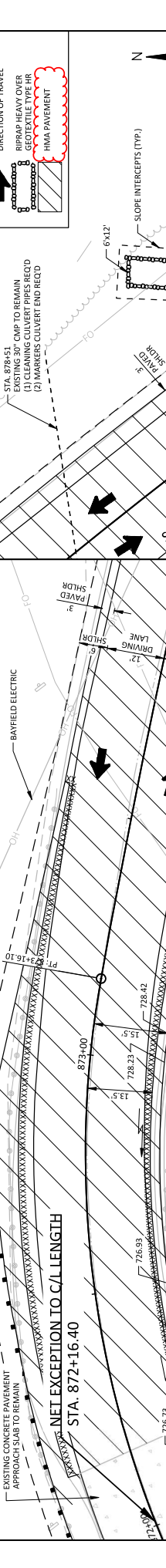
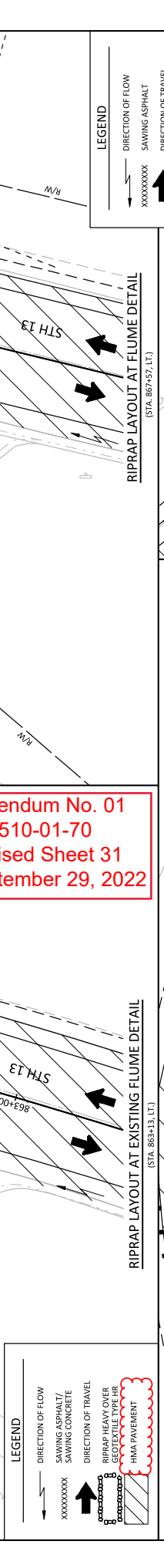
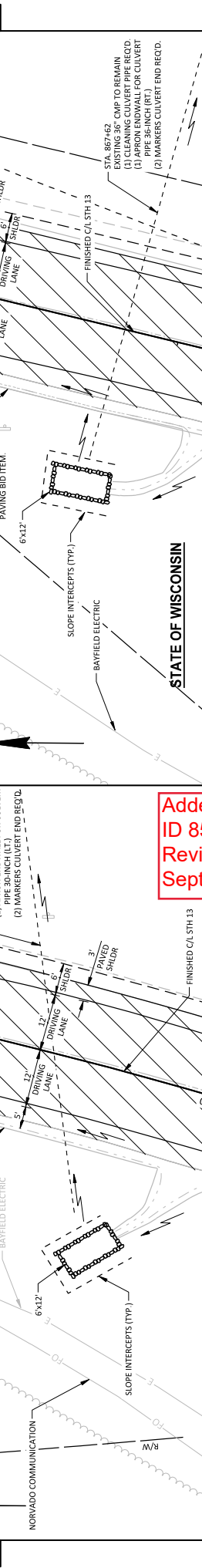
COUNTY: DOUGLAS

CONSTRUCTION DETAIL (CURB & GUTTER)

SHEET 30

E

FILE NAME: S:\PROJECTS\1559\WISDOT\STH13_CTH11_TO_ENGLAND_ROAD\DOUGLAS_CO\RESOURCES\PAVEMENT\0000_CURB & GUTTER DETAILS.DWG
 PLOT DATE: 9/26/2022 7:28:30 PM
 PLOT BY: KARTER, JACOB
 PLOT SCALE: 1" = 1'



LEGEND
 DIRECTION OF FLOW
 SAWING ASPHALT
 SAWING CONCRETE
 DIRECTION OF TRAVEL
 RIPRAP HEAVY OVER
 GEOTEXTILE TYPE HR
 HMA PAVEMENT

LEGEND
 DIRECTION OF FLOW
 SAWING ASPHALT
 SAWING CONCRETE
 DIRECTION OF TRAVEL
 RIPRAP HEAVY OVER
 GEOTEXTILE TYPE HR
 HMA PAVEMENT

LEGEND
 DIRECTION OF FLOW
 SAWING ASPHALT
 SAWING CONCRETE
 DIRECTION OF TRAVEL
 RIPRAP HEAVY OVER
 GEOTEXTILE TYPE HR
 HMA PAVEMENT

LEGEND
 DIRECTION OF FLOW
 SAWING ASPHALT
 SAWING CONCRETE
 DIRECTION OF TRAVEL
 RIPRAP HEAVY OVER
 GEOTEXTILE TYPE HR
 HMA PAVEMENT

ADDENDUM NO. 01
ID 8510-01-70
Revised Sheet 31
September 29, 2022

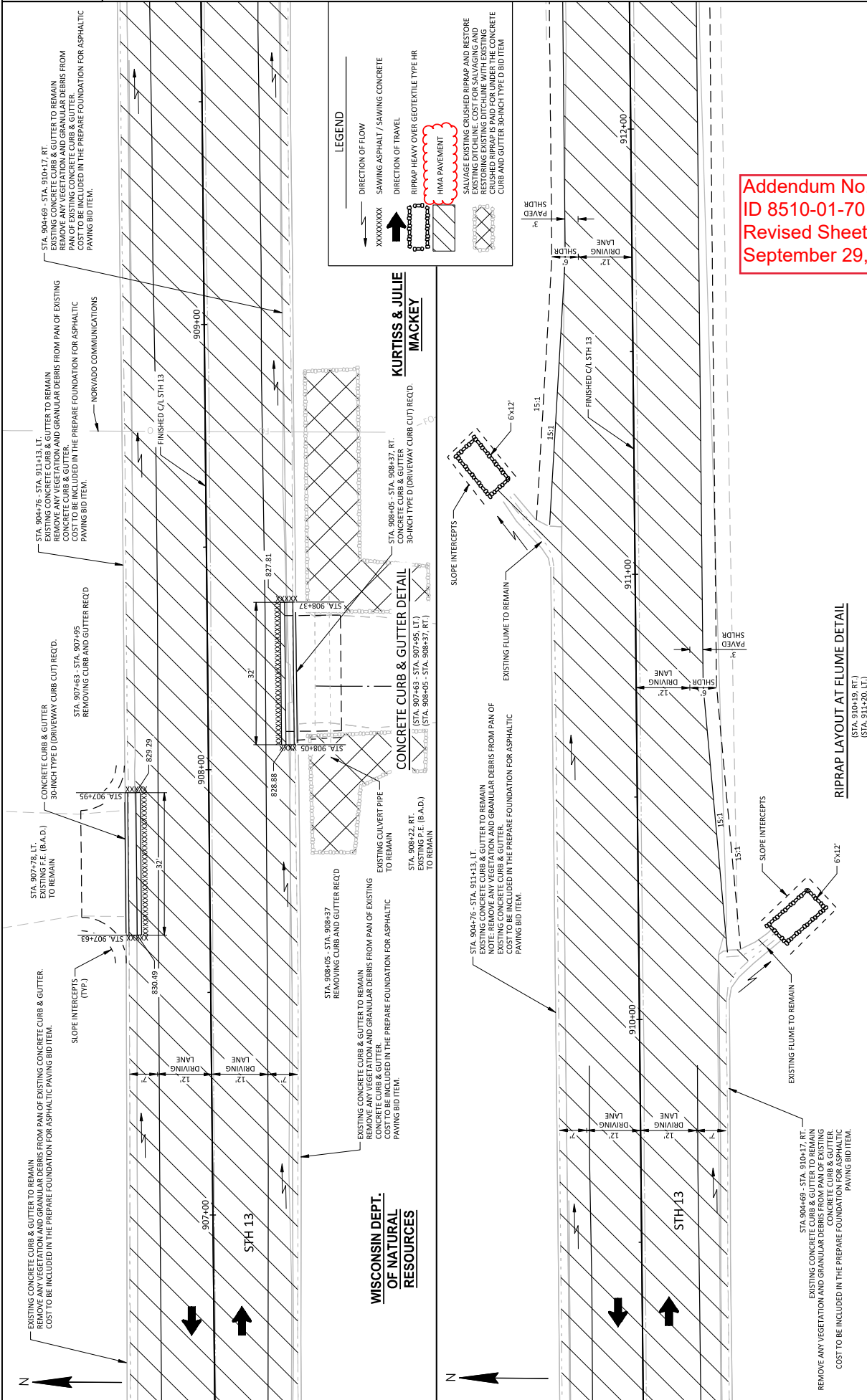
NOTE: STA. 856+00 - STA. 864+50, LT.
 REMOVE ANY VEGETATION AND GRANULAR DEBRIS FROM PAN OF EXISTING CONCRETE CURB & GUTTER. COST TO BE INCLUDED IN THE PREPARE FOUNDATION FOR ASPHALTIC PAVING BID ITEM.

NOTE: STA. 874+17 - STA. 886+50, LT.
 REMOVE ANY VEGETATION AND GRANULAR DEBRIS FROM PAN OF EXISTING CONCRETE CURB & GUTTER. COST TO BE INCLUDED IN THE PREPARE FOUNDATION FOR ASPHALTIC PAVING BID ITEM.

NOTE: STA. 874+17 - STA. 886+50, LT.
 REMOVE ANY VEGETATION AND GRANULAR DEBRIS FROM PAN OF EXISTING CONCRETE CURB & GUTTER. COST TO BE INCLUDED IN THE PREPARE FOUNDATION FOR ASPHALTIC PAVING BID ITEM.

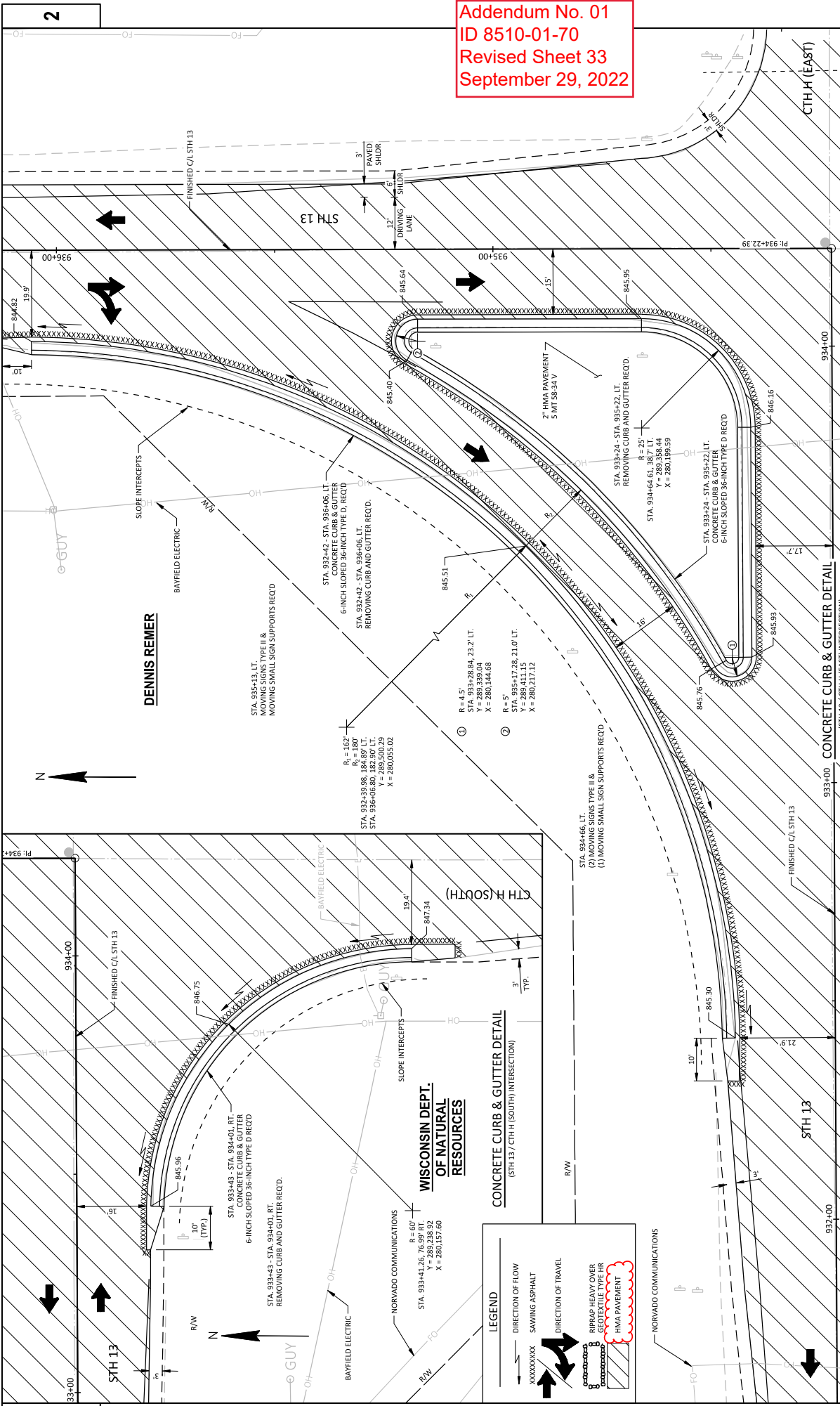
NOTE: STA. 874+17 - STA. 886+50, LT.
 REMOVE ANY VEGETATION AND GRANULAR DEBRIS FROM PAN OF EXISTING CONCRETE CURB & GUTTER. COST TO BE INCLUDED IN THE PREPARE FOUNDATION FOR ASPHALTIC PAVING BID ITEM.

STATE OF WISCONSIN
WISCONSIN DEPT. OF TRANSPORTATION
CONSTRUCTION DETAIL (CURB & GUTTER)



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 ID 8510-01-70
 Revised Sheet 32
 September 29, 2022

Addendum No. 01
 ID 8510-01-70
 Revised Sheet 33
 September 29, 2022



2

2

PROJECT NO: 8510-01-70
 COUNTY: DOUGLAS
 HWY: STH 13
 CONSTRUCTION DETAIL (CURB & GUTTER)
 SHEET 33
 E

FILE NAME: S:\PROJECTS\1535\851001\STH 13_CTH H TO ENGLISH ROAD DOUGLAS CO\851001\DETAILS\CURB & GUTTER DETAILS.DWG
 PLOT DATE: 9/29/2022 2:28:36 PM
 PLOT BY: KARTER.ZAJACK
 PLOT SCALE: 1" = 1'

WISCONSIN DEPT.
 OF NATURAL
 RESOURCES

LEGEND

- DIRECTION OF FLOW
- SAVING ASPHALT
- DIRECTION OF TRAVEL
- RIPRAP HEAVY OVER GEOTEXTILE TYPE HR
- HMA PAVEMENT
- NORVARDO COMMUNICATIONS

STRUCTURE C-16-027 REPAIR
CATEGORY 020

| STATION | LOCATION | CONCRETE REINFORCY ENDWALLS (CY) | SPV.0060.01 DEWATERING (EA) |
|----------|----------|----------------------------------|-----------------------------|
| 114+04 | MAINLINE | 11 | 1 |
| TOTALS = | | 11 | 1 |

TEMPORARY SHORING

| STATION | LOCATION | 511.1100 (SF) | 520.8700 CLEANING CULVERT PIPES (EACH) |
|---------|----------|---------------|--|
| 201+46 | MAINLINE | 420 | |
| 220+95 | MAINLINE | 1,080 | |
| 272+07 | MAINLINE | 1,080 | |
| 327+81 | MAINLINE | 3,520 | |
| 349+78 | MAINLINE | 190 | |
| 354+90 | MAINLINE | 250 | |
| 357+90 | MAINLINE | 250 | |
| 369+09 | MAINLINE | 2,070 | |
| 412+03 | MAINLINE | 480 | |
| 433+29 | MAINLINE | 300 | |
| 438+15 | MAINLINE | 250 | |
| 443+16 | MAINLINE | 360 | |
| 455+29 | MAINLINE | 290 | |
| 502+32 | MAINLINE | 1,200 | |
| 580+11 | MAINLINE | 1,200 | |
| 605+28 | MAINLINE | 350 | |
| 613+68 | MAINLINE | 400 | |
| 636+99 | MAINLINE | 1,200 | |
| 694+28 | MAINLINE | 480 | |
| 677+62 | MAINLINE | 480 | |
| 695+08 | MAINLINE | 600 | |
| 711+96 | MAINLINE | 1,280 | |
| 731+12 | MAINLINE | 2,340 | |
| 757+45 | MAINLINE | 300 | |
| 767+13 | MAINLINE | 540 | |
| 787+60 | MAINLINE | 720 | |
| 813+18 | MAINLINE | 350 | |
| 815+13 | MAINLINE | 400 | |
| 818+04 | MAINLINE | 350 | |
| 829+77 | MAINLINE | 1,040 | |
| 845+91 | MAINLINE | 600 | |
| 887+18 | MAINLINE | 800 | |
| 902+39 | MAINLINE | 580 | |
| TOTAL = | | 25,330 | 16 |

CLEANING CULVERTS PIPES

| STATION | LOCATION | 520.8700 CLEANING CULVERT PIPES (EACH) |
|---------|----------|--|
| 142+70 | MAINLINE | 1 |
| 151+13 | MAINLINE | 1 |
| 170+39 | MAINLINE | 1 |
| 180+37 | MAINLINE | 1 |
| 381+91 | MAINLINE | 1 |
| 525+75 | MAINLINE | 1 |
| 528+95 | MAINLINE | 1 |
| 549+77 | MAINLINE | 1 |
| 641+66 | MAINLINE | 1 |
| 656+74 | MAINLINE | 1 |
| 684+80 | MAINLINE | 1 |
| 791+86 | MAINLINE | 1 |
| 856+85 | MAINLINE | 1 |
| 867+62 | MAINLINE | 1 |
| 878+51 | MAINLINE | 1 |

CONCRETE BARRIER

| STATION | LOCATION | 603.8000 CONCRETE BARRIER DELIVERED (LF) | 603.8125 CONCRETE BARRIER PRECAST INSTALLED (LF) | 603.8500 ANCHORING BARRIER TEMPORARY PRECAST (LF) | 614.0805 CRASH CUSHIONS TEMPORARY (EACH) | CRASH SHIELDS (EA) |
|---------|----------|--|--|---|--|--------------------|
| 327+81 | MAINLINE | 384 | 768 | 768 | 2 | |
| 389+01 | MAINLINE | 364 | 728 | 728 | 2 | |
| 589+01 | MAINLINE | 354 | 708 | 708 | 2 | |
| 589+69 | MAINLINE | 354 | 708 | 708 | 2 | |
| 711+98 | MAINLINE | 368 | 732 | 732 | 2 | |
| 731+12 | MAINLINE | 384 | 768 | 768 | 2 | |
| 829+77 | MAINLINE | 354 | 708 | 708 | 2 | |
| TOTAL = | | 2,550 | 5,060 | 5,060 | 14 | |

PWL MIXTURE USE TABLE

The following acceptance criteria are applicable for this project:

| LOCATION | STATION | MIXTURE USE | UNDERLYING SURFACE | BID ITEM | THICKNESS | MIXTURE ACCEPTANCE | DENSITY ACCEPTANCE |
|------------------------|--------------------|-------------|-----------------------------|--------------|-----------|---|---|
| 12 foot Driving Lanes | 97+65 - 931+12 | Lower Layer | Milled Existing HMA Surface | 4 MT 58-34 V | 1.75" | PWL Incentive Air Voids HMA Pavement 460.2010 | Incentive Density PWL HMA Pavement 460.2005 |
| 12 foot Driving Lanes | 97+65 - 931+12 | Upper Layer | HMA | 5 MT 58-34 V | 1.5" | PWL Incentive Air Voids HMA Pavement 460.2010 | Incentive Density PWL HMA Pavement 460.2005 |
| 3 foot Paved Shoulders | 97+65 - 931+12 | Lower Layer | Milled Existing HMA Surface | 4 MT 58-34 V | 1.75" | PWL Incentive Air Voids HMA Pavement 460.2010 | Acceptance testing by the department. Not eligible for incentive or disincentive. |
| 3 foot Paved Shoulders | 97+65 - 931+12 | Upper Layer | HMA | 5 MT 58-34 V | 1.5" | PWL Incentive Air Voids HMA Pavement 460.2010 | Acceptance testing by the department. Not eligible for incentive or disincentive. |
| 12 foot Driving Lanes | 931+12 - 936+15.50 | Upper Layer | Milled Existing HMA Surface | 5 MT 58-34 V | 2" | PWL Incentive Air Voids HMA Pavement 460.2010 | Incentive Density PWL HMA Pavement 460.2005 |
| 3 foot Paved Shoulders | 931+12 - 936+15.50 | Upper Layer | Milled Existing HMA Surface | 5 MT 58-34 V | 2" | PWL Incentive Air Voids HMA Pavement 460.2010 | Acceptance testing by the department. Not eligible for incentive or disincentive. |

HMA PAVEMENT INCENTIVES

| STATION - STATION | LOCATION | HMA PWL TEST STRIP VOLUMETRICS (EACH) | HMA PWL TEST STRIP DENSITY (EACH) |
|-------------------|----------|---------------------------------------|-----------------------------------|
| 97+65 - 936+15 | MAINLINE | 2 | 2 |
| TOTALS = | | 2 | 2 |

RUMBLE STRIPS

| STATION - STATION | LOCATION | ASPHALTIC RUMBLE STRIPS 2-LANE RURAL CENTERLINE (LF) |
|-------------------|----------|--|
| 97+65 - 936+15 | MAINLINE | 72,200 |
| TOTALS = | | 72,200 |

CURB & GUTTER

| STATION - STATION | LOCATION | 601.0411 CONCRETE CURB & GUTTER 30-INCH TYPED (LF) | 601.0957 CONCRETE CURB & GUTTER 36-INCH SLOPED 36-INCH TYPED D (LF) | 650.5500 CONSTRUCTION STAKING CURB & GUTTER (LF) |
|-------------------|--------------|--|---|--|
| 257+35 - 257+84 | MAINLINE, RT | 95 | 95 | 95 |
| 297+99 - 298+57 | MAINLINE, RT | 96 | 96 | 96 |
| 298+82 - 299+21 | MAINLINE, RT | 85 | 85 | 85 |
| 455+03 - 455+50 | MAINLINE, RT | 54 | 54 | 54 |
| 872+12 - 873+07 | MAINLINE, RT | 87 | 87 | 87 |
| 907+63 - 907+95 | MAINLINE, LT | 32 | 32 | 32 |
| 908+05 - 908+37 | MAINLINE, RT | 32 | 32 | 32 |
| 932+42 - 936+06 | MAINLINE, LT | 252 | 252 | 252 |
| 933+24 - 935+22 | MAINLINE, LT | 250 | 250 | 250 |
| 933+43 - 934+01 | MAINLINE, RT | 93 | 93 | 93 |
| TOTAL = | | 151 | 905 | 1,066 |

HMA PAVEMENT

| STATION - STATION | LOCATION | HMA COLD WEATHER PAVING (TON) | TACK COAT (GAL) | PAVEMENT 4 MT 58-34 V (TON) | HMA PAVEMENT 5 MT 58-34 V (TON) | ASPHALTIC SURFACE PATCHING (TON) |
|-------------------|----------|-------------------------------|-----------------|-----------------------------|---------------------------------|----------------------------------|
| 97+65 - 936+15 | MAINLINE | 13,600 | 13,500 | 28,000 | 25,000 | 4,000 |
| TOTALS = | | 13,600 | 24,850 | 28,000 | 25,000 | 6,200 |

Addendum No. 01
ID 8510-01-70
Revised Sheet 110
September 29, 2022



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|--|--------------------------------|------------|------------|
| 0002 | 201.0105 Clearing | 4.000 STA | _____. | _____. |
| 0004 | 201.0205 Grubbing | 4.000 STA | _____. | _____. |
| 0006 | 203.0100 Removing Small Pipe Culverts | 38.000 EACH | _____. | _____. |
| 0008 | 204.0115 Removing Asphaltic Surface Butt Joints | 10,900.000 SY | _____. | _____. |
| 0010 | 204.0120 Removing Asphaltic Surface Milling | 300,500.000 SY | _____. | _____. |
| 0012 | 204.0150 Removing Curb & Gutter | 1,070.000 LF | _____. | _____. |
| 0014 | 204.0165 Removing Guardrail | 2,055.000 LF | _____. | _____. |
| 0016 | 204.0180 Removing Delineators and Markers | 44.000 EACH | _____. | _____. |
| 0018 | 204.9090.S Removing (item description) 01. Stone Masonry Retaining Wall | 9.000 LF | _____. | _____. |
| 0020 | 211.0100 Prepare Foundation for Asphaltic Paving (project) 01. 8510-01-70 | LS | LUMP SUM | _____. |
| 0022 | 211.0400 Prepare Foundation for Asphaltic Shoulders | 40.000 STA | _____. | _____. |
| 0024 | 213.0100 Finishing Roadway (project) 01. 8510-01-70 | 1.000 EACH | _____. | _____. |
| 0026 | 305.0110 Base Aggregate Dense 3/4-Inch | 8,100.000 TON | _____. | _____. |
| 0028 | 305.0120 Base Aggregate Dense 1 1/4-Inch | 12,000.000 TON | _____. | _____. |
| 0030 | 305.0500 Shaping Shoulders | 1,664.000 STA | _____. | _____. |
| 0032 | 416.0610 Drilled Tie Bars | 10.000 EACH | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|--|--------------------------------|------------|------------|
| 0034 | 450.4000 HMA Cold Weather Paving | 13,600.000 TON | _____. | _____. |
| 0036 | 455.0605 Tack Coat | 24,850.000 GAL | _____. | _____. |
| 0038 | 460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics | 2.000 EACH | _____. | _____. |
| 0040 | 460.0110.S HMA Percent Within Limits (PWL) Test Strip Density | 2.000 EACH | _____. | _____. |
| 0042 | 460.2005 Incentive Density PWL HMA Pavement | 43,265.000 DOL | 1.00000 | 43,265.00 |
| 0044 | 460.2007 Incentive Density HMA Pavement Longitudinal Joints | 41,500.000 DOL | 1.00000 | 41,500.00 |
| 0046 | 460.2010 Incentive Air Voids HMA Pavement | 54,400.000 DOL | 1.00000 | 54,400.00 |
| 0048 | 460.6645 HMA Pavement 5 MT 58-34 V | 25,000.000 TON | _____. | _____. |
| 0050 | 460.9000.S Material Transfer Vehicle 0.1 8510-01-70 | 1.000 EACH | _____. | _____. |
| 0052 | 465.0105 Asphaltic Surface | 6,200.000 TON | _____. | _____. |
| 0054 | 465.0110 Asphaltic Surface Patching | 250.000 TON | _____. | _____. |
| 0056 | 465.0315 Asphaltic Flumes | 47.000 SY | _____. | _____. |
| 0058 | 465.0475 Asphalt Centerline Rumble Strips 2-Lane Rural | 72,200.000 LF | _____. | _____. |
| 0060 | 504.0900 Concrete Masonry Endwalls | 11.000 CY | _____. | _____. |
| 0062 | 511.1100 Temporary Shoring | 25,330.000 SF | _____. | _____. |
| 0064 | 520.1018 Apron Endwalls for Culvert Pipe 18-Inch | 2.000 EACH | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0066 | 520.1024 Apron Endwalls for Culvert Pipe 24-Inch | 41.000 EACH | _____. | _____. |
| 0068 | 520.1030 Apron Endwalls for Culvert Pipe 30-Inch | 21.000 EACH | _____. | _____. |
| 0070 | 520.1036 Apron Endwalls for Culvert Pipe 36-Inch | 5.000 EACH | _____. | _____. |
| 0072 | 520.1048 Apron Endwalls for Culvert Pipe 48-Inch | 2.000 EACH | _____. | _____. |
| 0074 | 520.1054 Apron Endwalls for Culvert Pipe 54-Inch | 4.000 EACH | _____. | _____. |
| 0076 | 520.3154 Culvert Pipe Class III 54-Inch | 268.000 LF | _____. | _____. |
| 0078 | 520.4118 Culvert Pipe Class IV 18-Inch | 42.000 LF | _____. | _____. |
| 0080 | 520.4124 Culvert Pipe Class IV 24-Inch | 1,354.000 LF | _____. | _____. |
| 0082 | 520.4130 Culvert Pipe Class IV 30-Inch | 506.000 LF | _____. | _____. |
| 0084 | 520.4136 Culvert Pipe Class IV 36-Inch | 64.000 LF | _____. | _____. |
| 0086 | 520.8700 Cleaning Culvert Pipes | 16.000 EACH | _____. | _____. |
| 0088 | 521.1283 Apron Endwalls for Pipe Arch Steel 83x57-Inch | 4.000 EACH | _____. | _____. |
| 0090 | 521.3783 Pipe Arch Corrugated Steel 83x57-Inch | 174.000 LF | _____. | _____. |
| 0092 | 522.0430 Culvert Pipe Reinforced Concrete Class IV 30-Inch | 202.000 LF | _____. | _____. |
| 0094 | 522.0436 Culvert Pipe Reinforced Concrete Class IV 36-Inch | 420.000 LF | _____. | _____. |
| 0096 | 522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch | 2.000 EACH | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0098 | 522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch | 4.000 EACH | _____. | _____. |
| 0100 | 601.0411 Concrete Curb & Gutter 30-Inch Type D | 151.000 LF | _____. | _____. |
| 0102 | 601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D | 905.000 LF | _____. | _____. |
| 0104 | 603.8000 Concrete Barrier Temporary Precast Delivered | 2,530.000 LF | _____. | _____. |
| 0106 | 603.8125 Concrete Barrier Temporary Precast Installed | 5,060.000 LF | _____. | _____. |
| 0108 | 603.8500 Anchoring Concrete Barrier Temporary Precast | 5,060.000 LF | _____. | _____. |
| 0110 | 606.0300 Riprap Heavy | 190.000 CY | _____. | _____. |
| 0112 | 614.0010 Barrier System Grading Shaping Finishing | 16.000 EACH | _____. | _____. |
| 0114 | 614.0905 Crash Cushions Temporary | 14.000 EACH | _____. | _____. |
| 0116 | 614.2300 MGS Guardrail 3 | 1,440.000 LF | _____. | _____. |
| 0118 | 614.2500 MGS Thrie Beam Transition | 480.000 LF | _____. | _____. |
| 0120 | 614.2610 MGS Guardrail Terminal EAT | 16.000 EACH | _____. | _____. |
| 0122 | 618.0100 Maintenance And Repair of Haul Roads (project) 01. 8510-01-70 | 1.000 EACH | _____. | _____. |
| 0124 | 619.1000 Mobilization | 1.000 EACH | _____. | _____. |
| 0126 | 624.0100 Water | 310.000 MGAL | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0128 | 625.0500 Salvaged Topsoil | 17,300.000 SY | _____. | _____. |
| 0130 | 627.0200 Mulching | 19,000.000 SY | _____. | _____. |
| 0132 | 628.1504 Silt Fence | 9,000.000 LF | _____. | _____. |
| 0134 | 628.1520 Silt Fence Maintenance | 22,355.000 LF | _____. | _____. |
| 0136 | 628.1905 Mobilizations Erosion Control | 9.000 EACH | _____. | _____. |
| 0138 | 628.1910 Mobilizations Emergency Erosion Control | 5.000 EACH | _____. | _____. |
| 0140 | 628.2006 Erosion Mat Urban Class I Type A | 12,500.000 SY | _____. | _____. |
| 0142 | 628.2008 Erosion Mat Urban Class I Type B | 100.000 SY | _____. | _____. |
| 0144 | 628.7010 Inlet Protection Type B | 18.000 EACH | _____. | _____. |
| 0146 | 628.7015 Inlet Protection Type C | 1.000 EACH | _____. | _____. |
| 0148 | 628.7504 Temporary Ditch Checks | 72.000 LF | _____. | _____. |
| 0150 | 628.7555 Culvert Pipe Checks | 35.000 EACH | _____. | _____. |
| 0152 | 629.0210 Fertilizer Type B | 12.000 CWT | _____. | _____. |
| 0154 | 630.0130 Seeding Mixture No. 30 | 350.000 LB | _____. | _____. |
| 0156 | 630.0200 Seeding Temporary | 525.000 LB | _____. | _____. |
| 0158 | 630.0500 Seed Water | 110.000 MGAL | _____. | _____. |
| 0160 | 633.5200 Markers Culvert End | 104.000 EACH | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0162 | 638.2102 Moving Signs Type II | 34.000 EACH | _____. | _____. |
| 0164 | 638.4000 Moving Small Sign Supports | 33.000 EACH | _____. | _____. |
| 0166 | 642.5001 Field Office Type B | 1.000 EACH | _____. | _____. |
| 0168 | 643.0300 Traffic Control Drums | 1,400.000 DAY | _____. | _____. |
| 0170 | 643.0420 Traffic Control Barricades Type III | 70.000 DAY | _____. | _____. |
| 0172 | 643.0715 Traffic Control Warning Lights Type C | 700.000 DAY | _____. | _____. |
| 0174 | 643.0900 Traffic Control Signs | 8,800.000 DAY | _____. | _____. |
| 0176 | 643.1000 Traffic Control Signs Fixed Message | 32.000 SF | _____. | _____. |
| 0178 | 643.5000 Traffic Control | 1.000 EACH | _____. | _____. |
| 0180 | 645.0120 Geotextile Type HR | 557.000 SY | _____. | _____. |
| 0182 | 646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch | 165,900.000 LF | _____. | _____. |
| 0184 | 646.3020 Marking Line Epoxy 8-Inch | 65.000 LF | _____. | _____. |
| 0186 | 646.3040 Marking Line Grooved Wet Ref Epoxy 8-Inch | 180.000 LF | _____. | _____. |
| 0188 | 646.4520 Marking Line Same Day Epoxy 4-Inch | 95,600.000 LF | _____. | _____. |
| 0190 | 646.6120 Marking Stop Line Epoxy 18-Inch | 48.000 LF | _____. | _____. |
| 0192 | 646.8220 Marking Island Nose Epoxy | 3.000 EACH | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0194 | 646.9000 Marking Removal Line 4-Inch | 2,975.000 LF | _____. | _____. |
| 0196 | 649.0120 Temporary Marking Line Epoxy 4-Inch | 172,550.000 LF | _____. | _____. |
| 0198 | 649.0150 Temporary Marking Line Removable Tape 4-Inch | 5,070.000 LF | _____. | _____. |
| 0200 | 649.0850 Temporary Marking Stop Line Removable Tape 18-Inch | 336.000 LF | _____. | _____. |
| 0202 | 650.4500 Construction Staking Subgrade | 2,700.000 LF | _____. | _____. |
| 0204 | 650.5000 Construction Staking Base | 2,700.000 LF | _____. | _____. |
| 0206 | 650.5500 Construction Staking Curb Gutter and Curb & Gutter | 1,056.000 LF | _____. | _____. |
| 0208 | 650.6000 Construction Staking Pipe Culverts | 38.000 EACH | _____. | _____. |
| 0210 | 650.8000 Construction Staking Resurfacing Reference | 83,850.000 LF | _____. | _____. |
| 0212 | 650.9910 Construction Staking Supplemental Control (project) 01. 8510-01-70 | LS | LUMP SUM | _____. |
| 0214 | 650.9920 Construction Staking Slope Stakes | 2,700.000 LF | _____. | _____. |
| 0216 | 661.0100 Temporary Traffic Signals for Bridges (structure) 01. Sta. 327+81 Culvert Replacement | LS | LUMP SUM | _____. |
| 0218 | 661.0100 Temporary Traffic Signals for Bridges (structure) 02. Sta. 389+01 Culvert Replacement | LS | LUMP SUM | _____. |
| 0220 | 661.0100 Temporary Traffic Signals for Bridges (structure) 03. Sta. 580+11 Culvert Replacement | LS | LUMP SUM | _____. |



Proposal Schedule of Items

Proposal ID: 20221011011 Project(s): 8510-01-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0222 | 661.0100 Temporary Traffic Signals for Bridges (structure) 04. Sta. 636+99 Culvert Replacement | LS | LUMP SUM | _____. |
| 0224 | 661.0100 Temporary Traffic Signals for Bridges (structure) 05. Sta. 711+96 Culvert Replacement | LS | LUMP SUM | _____. |
| 0226 | 661.0100 Temporary Traffic Signals for Bridges (structure) 06. Sta. 731+12 Culvert Replacement | LS | LUMP SUM | _____. |
| 0228 | 661.0100 Temporary Traffic Signals for Bridges (structure) 07. Sta. 829+77 Culvert Replacement | LS | LUMP SUM | _____. |
| 0230 | 690.0150 Sawing Asphalt | 6,800.000 LF | _____. | _____. |
| 0232 | 690.0250 Sawing Concrete | 18.000 LF | _____. | _____. |
| 0234 | 740.0440 Incentive IRI Ride | 63,530.000 DOL | 1.00000 | 63,530.00 |
| 0236 | SPV.0060 Special 01. Dewatering | 1.000 EACH | _____. | _____. |
| 0238 | SPV.0180 Special 01. Removing Distressed Pavement Milling | 14,650.000 SY | _____. | _____. |
| 0240 | 460.6644 HMA Pavement 4 MT 58-34 V | 28,000.000 TON | _____. | _____. |
| Section: 0001 | | | Total: | _____. |
| | | | Total Bid: | _____. |



Wisconsin Department of Transportation

October 6, 2022

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

NOTICE TO ALL CONTRACTORS:

Proposal #11: 8510-01-70
Port Wing - Superior
CTH H to Engdahl Road
STH 13
Douglas County

Letting of October 11, 2022

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

Plan Sheets:

| Revised Plan Sheets | |
|---------------------|---|
| Plan Sheet | Plan Sheet Title (brief description of changes to sheet) |
| 15 | Construction Details: Paving Sequence of Operations; Removed Longitudinal Wedge Joint |

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

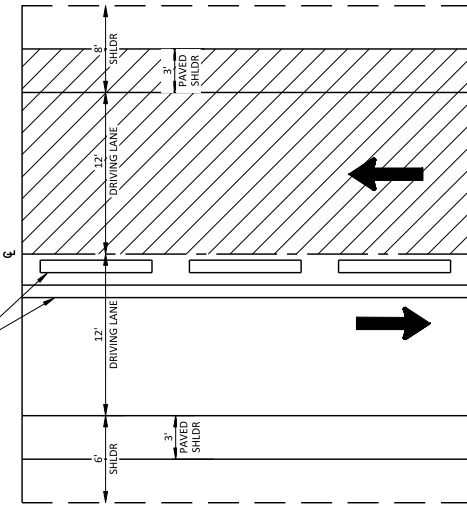
Sincerely,

Mike Coleman

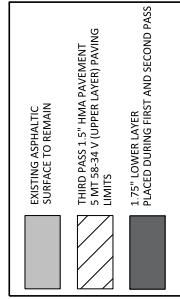
Proposal Development Specialist
Proposal Management Section

END OF ADDENDUM

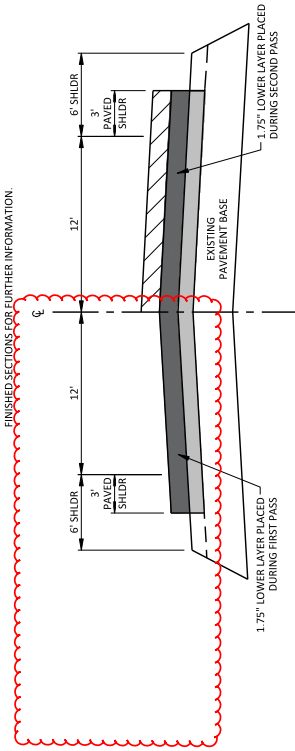
TEMPORARY MARKING LINE EPOXY 4-INCH PLACED AFTER FIRST PASS TO REMAIN FOR THIRD PASS.



PLAN VIEW



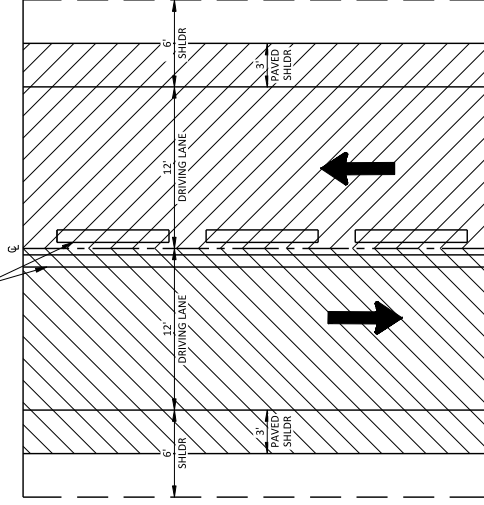
NOTE: CURB & GUTTER AREAS SIMILAR. SEE TYPICAL FINISHED SECTIONS FOR FURTHER INFORMATION.



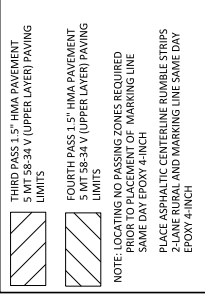
CROSS SECTION VIEW

THIRD PASS DETAIL

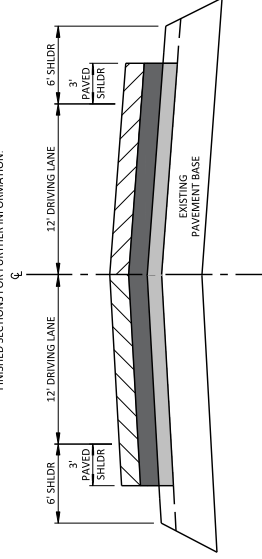
TEMPORARY MARKING LINE EPOXY 4-INCH TO BE PLACED SAME DAY AS PAVING OPERATION.



PLAN VIEW



NOTE: CURB & GUTTER AREAS SIMILAR. SEE TYPICAL FINISHED SECTIONS FOR FURTHER INFORMATION.



CROSS SECTION VIEW

FOURTH PASS DETAIL

Addendum No. 02
ID 8510-01-70
Revised Sheet 15
October 6, 2022