

HIGHWAY WORK PROPOSAL

Wisconsin Department of Transportation
06/2017 s.66.0901(7) Wis. Stats

Proposal Number: **018**

<u>COUNTY</u>	<u>STATE PROJECT</u>	<u>FEDERAL</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Door	4140-19-72	N/A	Gibraltar - Sister Bay; Gibraltar Road - Country Walk Dr	STH 042

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: \$75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: April 9, 2019 Time (Local Time): 9:00 am	Firm Name, Address, City, State, Zip Code
Contract Completion Time October 31, 2019	SAMPLE NOT FOR BIDDING PURPOSES
Assigned Disadvantaged Business Enterprise Goal 0%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

(Bidder Signature)

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

(Print or Type Bidder Name)

(Date Commission Expires)

(Bidder Title)

Notary Seal

Type of Work: Grading, Milling, Base, Asphalt Pavement, Storm Sewer, Guardrail, Pavement Markings, Signs	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 department's web site listed above or by picking up the addenda at the Bureau of Highway Construction, 4th floor, 4822 Madison Yards Way, Madison, WI, during regular business hours.

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

B Submitting Electronic Bids

B.1 On the Internet

- (1) Do the following before submitting the bid:
 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)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

(Signature of Attorney-in-Fact)

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

(Signature of Authorized Contractor Representative)

(Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

[illegible]

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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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 4140-19-72, Gibraltar - Sister Bay, Gibraltar Road - Country Walk Drive, STH 42, Door 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, 2019 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 (20180628)

2. Scope of Work.

The work under this contract shall consist of milling asphaltic pavement, prepare foundation for asphaltic shoulders, excavation common, asphaltic pavement, storm sewer, guardrail, signing, pavement marking 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 start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the approved start date.

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

Dewatering and mitigation efforts for high water table elevations shall not be considered adverse weather delays to construction. Costs for dewatering is considered incidental to construction.

The department will not grant time extensions to the interim or completion dates for the following:

1. Severe weather as specified in standard spec 108.10.2.2.
2. Labor disputes that are not industry wide.
3. Delays in material deliveries.

Summer Work Restrictions

Do not work on or adjacent to STH 42 from noon June 28 to 6:00 AM September 3, 2019.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 42 traffic, and entirely clear the state-owned right-of-way of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the peak summer tourist season, unless allowed in writing by the engineer.

Where the existing asphalt has been milled, pave the lower and upper layers of HMA pavement, place shoulder aggregate, appropriately sign, and install permanent pavement markings prior to the summer work restrictions.

Grade areas adjacent to the roadway to a minimum 3:1 shoulder or flatter. There shall be no drop-offs along live traffic lanes.

Removal and Installation of Guardrail

The existing guardrail protecting the hazardous slopes from 475+00 – 486+00 is to remain in place at all times when the adjacent shoulders are open to traffic. Prior to removal and replacement of the guardrail, close the adjacent shoulder of STH 42. Once removal of the existing guardrail begins, complete installation of the new guardrail system within 5 calendar days. Do not open the shoulder of STH 42 until the guardrail has been replaced and the hazard is fully protected.

Interim Liquidated Damages

Station 306+00-374+00

Complete all work from Station 306+00-374+00 prior to noon June 14, 2019.

If the contractor fails to complete the work between Stations 306+00-374+00 prior to 11:59 AM June 14, the department will assess the contractor \$10,000 in interim liquidated damages. If the work remains incomplete at 12:01 AM June 15, the department will assess the contractor \$10,000 in interim liquidated damages for each calendar day that work between these stations is not complete after 12:01 AM, June 15, 2019. An entire calendar day will be charged for any period of time within a calendar day that the requirements are not met beyond 12:01 AM. Interim liquidated damages will be assessed under administrative item Failing to Open Road to Traffic.

Peak Tourist Season Work Suspension

Complete all work necessary to meet the Summer Work Restrictions prior to noon June 28, 2019.

If the contractor fails to meet the Summer Work Restriction requirements prior 11:59 AM June 28, the department will assess the contractor \$10,000 in interim liquidated damages. If the work remains incomplete at 12:01 AM June 29, the department will assess the contractor \$10,000 in interim liquidated damages for each calendar day that the Summer Work Restriction are not met after 12:01 AM June 29, 2019. An entire calendar day will be charged for any period of time within a calendar day that the requirements are not met beyond 12:01 AM. Interim liquidated damages will be assessed under administrative item Failing to Open Road to Traffic.

Removal and Installation of Guardrail

If the contractor fails to complete the work necessary to replace guardrail within 5 calendar days of beginning guardrail removal the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the required work remains incomplete. An entire calendar day will be charged for any period of time within a calendar day that the guardrail is not fully installed beyond 12:01 AM. Interim liquidated damages will be assessed under administrative item Failing to Open Road to Traffic.

Northern Long-eared Bat (*Myotis septentrionalis*)

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. Roosts 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).

If additional construction activities beyond what was originally specified are required to complete the work, approval from the engineer, following coordination with WisDOT REC, is required prior to initiating these activities.

4. Traffic.

General

A milled surface open to through traffic shall not remain in place for longer than 72 hours.

Provide an even cross-sectional profile of the roadway at the end of each day's milling operations on roadways open to through traffic. Uneven lanes on roadways open to through traffic will not be allowed except during that day's milling operations.

For paved surfaces open to through traffic, provide an even cross sectional profile of the roadway within 72 hours of paving the adjacent lane.

All storm sewer and culvert trenches shall be covered with asphaltic material within 72 hours of excavation. Temporary gravel backfill shall be maintained as necessary or as directed by the engineer to safely facilitate vehicles over the trench.

Maintain access to all properties throughout the duration of the project. Driveways and/or sidewalks within the project may be closed for the minimum amount of time necessary to construct the new access. Provide the affected property owners of the driveways and/or walkways a 48-hour minimum notice of the impending work/closure. Allow emergency vehicles access throughout the construction zone at all times.

Peak Hours

Maintain simultaneous two-way traffic on all roadways open to through traffic during peak hours. Maintain two-way traffic along STH 42 and local roads where the roadway is open to through traffic and/or local access. The contractor may reduce traffic to one lane during daylight non-peak hours by using flagging operations. Maintain traffic with a minimum of 12-foot travel lanes. Lane rental will be assessed according to the Lane Rental Fee Assessment article for each lane closure outside of non-peak hours.

Peak hours are defined as follows:

- From May 31 through October 14
 - Noon on Fridays to 9:00 PM on Sundays

Non-Peak hours are defined as all times that are not peak hours.

Portable Changeable Message Sign – Message Prior Approval

After coordinating with department construction field staff, notify the Northeast Region Traffic Section at (920) 266-8033 (secondary contact number is (920) 360-3107) three business days prior to deploying or changing a message on a PCMS to obtain approval of the proposed message. The Northeast Region Traffic Unit will review the proposed message and either approve the message or make necessary changes.

Wisconsin Lane Closure System Advanced Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

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

Clear Zone Working Restrictions

Do not store materials or equipment within the clear zone of traffic lanes. Remove materials from the clear zone prior to opening lane closures. Do not leave any slopes steeper than 3:1 or any drop offs at the edge of the traveled way greater than 2 inches within the clear zone prior to opening lane closures.

Park equipment and store materials, including stockpiles, a minimum of 18-feet from the edge of the traveled way unless protected by concrete barrier temporary precast, which shall be incidental to the contract.

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

~~(NER17-1018)~~

5. Lane Rental Fee Assessment.

A General

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

The allowable lane closure times are during non-peak hours as stated in the traffic article Peak Hours section.

B Lane Rental Fee Assessment

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

- On Peak - \$375 per lane, per direction of travel, per hour broken into 15 minute increments

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

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

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

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

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

stp-108-070 (20161130)

6. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 42 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 periods:

- From noon Friday May 3, 2019 to 6:00 AM Monday May 6, 2019 for the Door County Half Marathon;
- From noon Friday, May 24, 2019 to 6:00 AM Tuesday, May 28, 2019 for Memorial Day;
- From noon Friday, June 14, 2019 to 6:00 AM Monday, June 17, 201 for Village of Ephraim's Fyr Bal Festival;
- From noon Friday, June 28, 2019 to 6:00 AM Monday, July 8, 2019 for Independence Day;
- From noon Friday, August 30, 2019 to 6:00 AM Tuesday, September 3, 2019 for Labor Day;
- From noon Friday, October 4, 2019 to 6:00 AM Monday, October 7, 2019 for Egg Harbor Pumpkin Patch Days;
- From noon Friday, October 11, 2019 to 6:00 AM Tuesday, October 15; 2019 for Sister Bay's Fall Fest and Columbus Day;
- From noon Friday, October 25, 2019 to 6:00 AM Monday, October 28, 2019, for Fish Creek's Jack O' Lantern Days.

stp-107-005 (20050502)

7. Utilities.

This contract comes under the provisions of Wisconsin Administrative Code Ch. Trans 220.

107-065 (20080501)

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 14 to 16 days in advance of when the prior work will be completed, and the site will be available to the utility owner, unless otherwise modified hereinafter. Follow-up with a confirmation notice to the engineer and the utility owner not less than three days before the site will be ready for the utility owner to begin its work.

Additional detailed information regarding the location of vacated, relocated, and/or removed utility facilities is available in the work plan provided by each utility company or on the permits issued to them. View these documents at the region WisDOT office during normal working hours.

Charter Communications – Communication maintains overhead and underground facilities within the project limits.

Overhead facilities are located jointly on poles maintained by Wisconsin Public Services. Charter Communications will coordinate with Wisconsin Public Service to transfer communications facilities prior to construction.

Underground facilities are located parallel STH 42 between Station 419+00 - 420+00, Station 422+00 – 430+00, Station 500+00-Station 506+00, and Station 516+00, and crossing locations at Station 127+00, Station 371+75, Station 497+00, and Station 516+00. No conflict is anticipated with the underground facilities.

The field contact is Bruce Henry, 1623 Broadway Avenue, Sheboygan, WI 53081, Telephone: (920) 263-0074, Email: bruce.henry@charter.com

Ephraim Wastewater Treatment Facility – Sewer maintains underground facilities along STH 42 from Station 295+47 to Station 459+39; to be adjusted during construction.

Adjust 31 sanitary manhole covers to match the new finished pavement elevations according to the requirements of the bid item: Adjusting Manhole Covers.

Notify Ephraim Wastewater Treatment Facility at least 3-days prior to adjusting the manholes, to be on site to inspect the adjustment.

The field contact is Russell Salfi, P.O. Box 138, Ephraim, WI 54211, Telephone: (920) 854-0154, Email: rsalfi@ephrain-wisconsin.com

Fish Creek Sanitary District #1 – Sewer maintains underground facilities throughout the project limits. No conflicts are anticipated.

Fish Creek Sanitary District #1 maintains underground sanitary line along the south side of STH 42 from approximately Station 160+00 to Station 175+00 RT.

The field contact is Joe Burress, P.O. Box 55, Fish Creek, WI 54212, Telephone: (920) 868-3372.

Frontier Communications – Communications maintains overhead and underground facilities within the project limits in conflict with the proposed improvement and will be relocated prior to construction.

Notify Frontier Communications at least 7 days prior to excavation at Station 370+00 for Frontier Communications to be on-site to protect the existing underground 25 pair cable.

Frontier Communications will adjust the existing pedestal at Station 457+15 LT, prior to construction

The field contact is Cal Klade, 521 4th Street, Wausau, WI 54403, Telephone: (715) 573-2110, Email: calvin.klade@ftr.com

Net Lec LLC – Communication maintains overhead and underground facilities within the project limits; no conflict is anticipated.

The field contact is Dennis LaFave, 1700 Industrial Drive, Green Bay, WI 54302, Telephone: (920) 619-9774, Email: dlafave@mi-tech.us

Village of Sister Bay – Sewer has underground facilities along the south side of STH 42, from approximately Station 480+00 to Station 531+27. Sanitary manholes to be adjusted during construction to match final pavement grade.

Notify the Village of Sister Bay at least 10 days prior to the adjustment of 3 sanitary manholes. The Village of Sister Bay will require 3 days to complete the sanitary manhole adjustment.

The field contact is Michael C. Schell, 2124 Autumn Court, P.O. Box 91, Sister Bay, WI 54234, Telephone: (920) 854-2246, Mobile: (920) 421-0257, Email: mike.schell@sisterbaywi.gov

Village of Sister Bay – Water has underground facilities along the south side of STH 42, from approximately Station 480+00 to Station 531+27. Water valves to be adjusted during construction to match final pavement grade.

Notify the Village of Sister Bay at least 10 days prior to the adjustment of 11 water valves. The Village of Sister Bay will require 3 days to complete the water valve adjustments.

The field contact is Michael C. Schell, 2124 Autumn Court, P.O. Box 91, Sister Bay, WI 54234, Telephone: (920) 854-2246, Mobile: (920) 421-0257, Email: mike.schell@sisterbaywi.gov

Wisconsin Public Service Corporation – Electricity has overhead and underground facilities throughout the project limits on both sides of STH 42.

As part of the utility owner's general facility upgrade, Wisconsin Public Services will replace all poles along the north side of STH 42 from Station 159+00 to the Village of Ephraim. This work will be completed prior to construction.

The field contact is Scott Gauger, 2850 Ashland Avenue, Green Bay, WI 54307, Telephone: (920) 617-5151, Mobile: (920) 660-0430, Email: scott.gauger@wisconsinpublicservice.com

8. Work by Others.

Village of Ephraim STH 42 Reconstruction (Station 317+25 – 342+25)

The Village of Ephraim has elected to reconstruct a portion of STH 42 from 317+25-343+19. This project is locally let and occurs concurrently with the STH 42 resurfacing project 4140-19-72. This section of STH 42 is exempt from the STH 42 resurfacing project. Coordinate work operations and traffic control with the Village of Ephraim. Contact the Village of Ephraim 30 days prior to beginning construction at (920) 854-5501 to discuss project details.

9. 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-S066796-01). A certificate of permit coverage is available from the regional office by contacting Jeremy Ashauer at (920) 412-6381. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

10. Environmental Protection, Dewatering.

Supplement standard spec 107.18 as follows:

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

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

(NER12-1010)

11. Environmental Protection, By-Pass Pumping.

Add to standard spec 107.18:

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

(NER 11-0711)

12. Coordination with Businesses and Residents.

The contractor shall arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week before the start of work under this contract and no further meetings will be required unless directed by the engineer. The contractor shall arrange for a suitable location for meetings that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for meetings. The contractor shall schedule meetings with at least two weeks' prior notice to the engineer to allow for these notifications.

stp-108-060 (20141107)

13. Notice to Contractor – Driveways.

There are several driveways located within the construction limits that are constructed of alternative materials, including but limited to brick pavers and field stone. Take necessary precautions to avoid damage to driveways. Repairs to damaged driveways will be considered incidental to the contract.

14. Notice to Contractor – Work Outside of Right-of-Way.

From approximately Station 307+00 - 374+00 sections of asphalt shoulder, parking lanes, and side roads are located outside of the right-of-way. Construction permits have been signed by the appropriate property owners that allow the contractor access onto private property to perform work on the existing shoulders.

Two property owners have elected not to sign the construction permit. Do not access or perform work on the following properties: Parcel #15, located from approximately Station 342+75 – 343+75 LT, and Parcel #33 located at approximately Station 353+50 – 356+50 LT. The approximate location of these parcels are shown in the plan.

Notify the engineer a minimum of seven days prior to performing construction activities in these areas to stake the existing right-of-way.

15. Notice to Contractor – Karst Features.

Karst features are formed from the dissolution of soluble rocks such as limestone, dolomite, and gypsum. Karst features act as natural underground drainageways and can vary in size from minor fissures to caves or caverns. Existing Karst features may be present within the project limits. Protect exposed karst features as the plans show or as the engineer directs. Do not excavate, cover, or fill known karst locations. If karst features are exposed during excavation suspend work operations in the immediate area and inform the construction engineer. The construction engineer will notify NE Region DNR liaison Matt Schaeve at (920) 366-1544 of the feature and discuss further actions or precautions.

16. General Requirements for Blasting Rock.

Add the following to standard spec 205.3.7:

Perform all blasting in compliance with the Wisconsin Administrative Code Department of Safety and Professional Services SPS 307.43.

Blasting Plan Submittal

Not less than two weeks before commencing blasting operations, or at any time when changes to the drilling and blasting methods are proposed, submit a Blasting Plan to the engineer for review. The blasting plan shall contain full details of the drilling and blasting patterns and controls proposed for both the controlled and production blasting. Include the following minimum information in the blasting plan:

1. Station limits of proposed shot.
2. Plan and section views of proposed drill pattern including free face, burden, blasthole spacing, blasthole diameters, blasthole angles, lift height, and subdrill depth.

3. Loading diagram showing type and amount of explosives, primers, initiators, and location and depth of stemming.
4. Initiation sequence of blastholes including delay times and delay system.
5. Manufacturer's data sheets for all explosives, primers, and initiators to be employed.

The blasting plan submittal is for quality control and record keeping purposes. Review of the blasting plan by the engineer does not relieve the contractor of responsibility for the accuracy and adequacy of the plan when implemented in the field.

Safety

Immediately notify the engineer of any incidents of fly rock, damage to any personal property, or existing roadway that is open to traffic, and any violations of the Wisconsin Administrative Code Department of Safety and Professional Services SPS 307.43. Failure to do so shall be considered a safety violation under standard spec 107 and all work on the project may be stopped under standard spec 105.1(1).

Notify the engineer of the station, location, and 'size' of all blasts at least one hour before the blast.

Observe the entire blast area for a minimum of five minutes following a blast to guard against rock or debris fall before commencing work in the area.

The engineer has the authority to prohibit or halt the contractor's blasting operations if it is apparent that through the methods being employed, the required slopes are not being obtained in a stable condition, the safety and convenience of the traveling public is being jeopardized, or vibration levels above the allowable levels occur.

Condition Surveys

Conduct and document pre-blast and post-blast surveys of any nearby buildings or structures as required by the scaled-distance equation specified in the Wisconsin Administrative Code Department of Safety and Professional Services SPS 307.43. Make right of entry arrangements with the property owners for these condition surveys. Before any blasting, make the pre-blast survey records available to the engineer for review. After completion of blasting operations, perform a post-blast survey and make these records available to the engineer for review. The contractor shall be responsible for any damage resulting from blasting.

These condition surveys shall consist of visually inspecting and recording all existing defects in the structures before and after blasting operations. Photographs and/or videotape may be used to assist in documentation. Submit a written report to the department detailing the visual and photographic investigation of potentially affected structures. This report will include copies of the pre-blast and post-blast surveys and discuss any discrepancies and findings of these surveys.

If at any time during the progress of the work, the methods of drilling and blasting do not produce the desired result of a uniform slope and shear face, within the tolerances specified, drill, blast, and excavate in short sections, not exceeding 100 feet in length, until a technique is arrived at that will produce the desired results. Extra cost resulting from this requirement shall be borne by the contractor.

Vibration Control and Monitoring

All vibration control and monitoring shall comply with Wisconsin Administrative Code Department of Safety and Professional Services SPS 307.43, Instrumentation and SPS 307.44, Control of Adverse Effects.

Whenever there is a potential for vibration damage to adjacent buildings, structures, or utilities, monitor each blast with an approved seismograph located, as approved, between the blast area and the closest structure subject to blast damage, and as close as practical to the subject structure. Peak particle velocity shall not be allowed to exceed the safe limits of the nearest structure subject to vibration damage.

A vibration specialist, approved by the engineer, shall perform vibration monitoring. The vibration specialist shall monitor vibration levels according to the Wisconsin Administrative Code Department of Safety and Professional Services SPS 307.43 and interpret the seismograph records to ensure that the seismograph data shall be effectively utilized in the control of the blasting operations with respect to the existing structures and utilities.

According to the Wisconsin Administrative Code Department of Safety and Professional Services SPS 307.43 consult with the owner of any structure or utility not listed in SPS 307.43 to establish maximum allowable limits on ground vibrations. In no case shall these vibration limits exceed the following criteria:

Structure Type	Maximum Peak Particle Velocity (inches/second)
Reinforced Concrete, Structures, Unoccupied	4.0
Steel Structures, Unoccupied	4.0
Buried Utilities	2.0
Wells and Aquifers	2.0
Green Concrete (Less than 7 days)	1.0

Furnish data recorded for each shot to the engineer before the next blast; the data shall include the following:

1. Identification of vibration monitoring instrument used.
2. Name of qualified observer and interpreter.
3. Distance and direction of recording station from blast area.
4. Type of ground at recording station and material on which the instrument is sitting.
5. Peak particle velocity and principal frequency in each component.
6. A dated and signed copy of records of seismograph readings.
7. A comparison of measured seismograph readings to maximum allowable readings identified in the Wisconsin Administrative Code Department of Safety and Professional Services SPS 307.43 or as specified in this special provision.

If the recorded vibration data exceeds the allowable levels established in the Wisconsin Administrative Code Department of Safety and Professional Services SPS 307.43 or as specified in this special provision, immediately halt blasting operations. Submit a revised blasting plan to the engineer and do not resume blasting operations until the engineer approves the revised plan.

All costs associated with the work described herein shall be considered included in the bid item Excavation Rock.

stp-205-050 (20141107)

17. Abandoning Sewer, Item 204.0291.S.

A Description

This special provision describes abandoning existing sewer by filling it with cellular concrete as the plans show and conforming to standard spec 204 and standard spec 501 as modified in this special provision.

B Materials

Provide cellular concrete meeting the following specifications: 1 part cement, 1 part fly ash, 8 parts sand, or an approved equal, and water. Provide cement meeting the requirements of standard spec 501.2.1 for Type 1 Portland Cement. Provide sand meeting the requirements of standard spec 501.2.5.3. Provide water meeting the requirements of standard spec 501.2.4.

C Construction

Fill the abandoned sewer pipe with cellular concrete as the engineer directs. In the event that the sewer cannot be completely filled from existing manholes, tap the sewer where necessary and fill from these locations.

D Measurement

The department will measure Abandoning Sewer in volume by the cubic yard as specified in standard spec 109.1.3.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.

stp-204-050 (20080902)

18. Asphaltic Base, Item 315.0100.

Replace standard spec 315.2 with the following:

(1) Furnish asphaltic mixture meeting the requirements specified for either type LT mix under 460.2; except the engineer will not require the contractor to conform to the quality management program specified under standard spec 460.2.8.

Submit a mix design for the Asphaltic Base bid item. Furnish asphaltic mixture meeting 3 LT gradation as specified in standard spec 460.2; except the engineer will not require the contractor to conform to the quality management program specified under standard spec 460.2.8.

Replace standard spec 315.3.1 with the following:

(1) Conform to the general requirements for asphaltic pavements specified in standard spec 450, except as modified here in standard spec 315.3. Place the mixture in 2.25-inch compacted layers unless the engineer directs otherwise.

19. 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 8-36. 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>
<u>1</u>	50 to $\frac{T}{3}$
<u>2</u>	$\frac{T}{3}$ to $\frac{2T}{3}$
<u>3</u>	$\frac{2T}{3}$ 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) in accordance with 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

A gauge comparison according to CMM 8-15.7 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 8-15.8. 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 in accordance with 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 volumetric test is to be taken in a density-only test strip, a non-random three-part split mix sample will be taken and tested for Gmm by the department representative. The department Gmm test results from this non-random test will be entered in the HMA PWL Test Strip Spreadsheet and must conform to the Acceptance Limits presented in C.2.1.

Exclusions such as shoulders and appurtenances shall be tested and reported according to CMM 8-15. 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 8-15.11.

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 according to AASHTO T 209. Bulk specific gravities of both gyratory compacted samples and field cores shall be determined according to AASHTO T 166. 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 according to WisDOT Modified ASTM D8159.

^[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 to the applicable density shown in the following table:

TABLE 460-3 MINIMUM REQUIRED DENSITY^[1]

LAYER	MIXTURE TYPE	
	LT & MT	HT
LOWER	93.0 ^[2]	93.0 ^[3]
UPPER	93.0	93.0

^[1] If any individual core density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer will investigate the acceptability of that material per CMM 8-15.11.

^[2] Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

^[3] Minimum reduced by 1.0 percent for lower layer constructed directly on crushed aggregate or recycled base courses.

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 in accordance with Appendix A.

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

PWL Test Strip Approval and Material Conformance Criteria

PWL Value for Air Voids and Density	Test Strip Approval	Material Conformance	Post-Test Strip Action
Both PWL ≥ 75	Approved ¹	Material paid for according to Section E.	Proceed with Production
$50 \leq$ 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) & (ii), while density must accomplish (iii) & (iv). If any applicable criteria are not achieved for a given test strip, the engineer, with authorization from the department's Bureau of Technical Services, will direct an additional test strip (or alternate plan approved by the department) be conducted to prove the criteria can be met prior to additional paving of that mix. For a density-only test strip, determination of mix conformance will be according to main production, i.e., HMA Pavement Percent Within Limits (PWL) QMP special provision.

D Measurement

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

E Payment

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

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

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

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

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

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

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

PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY

PERCENT WITHIN LIMITS

(PWL)

≥ 90 to 100

≥ 50 to < 90

<50

PAYMENT FACTOR, PF

(percent of \$65/ton)

PF = ((PWL – 90) * 0.4) + 100

(PWL * 0.5) + 55

50%^[1]

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

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

For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density will be according to Table 460-3 as modified herein. 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:

Parameter	WP
Air Voids	0.5
Density	0.5

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

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

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

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

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20. 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 project, unless approved by the engineer. The use of more than one mix design for each HMA pavement layer will require the contractor to construct a new test strip according to HMA Pavement Percent Within Limits (PWL) QMP Test Strip Volumetrics and HMA Pavement Percent Within Limits (PWL) QMP Test Strip Density articles at no additional cost to the department.

Replace standard spec 460.2.8.2.1.3.1 for 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 document 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, the QC sample shall be discarded, and the QC team shall test a split of the QV sample.
- (3) Sampling from the truck box and three-part splitting of HMA samples shall be done according to CMM 8-36. 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. Samples shall be labeled according to CMM 8-36. Additional handling instructions for retained samples are found in CMM 8-36.
- (4) Use the test methods identified below to perform the following tests at a frequency greater than or equal to that indicated:
 - Blended aggregate gradations according to AASHTO T 30
 - Asphalt content (AC) in percent according to WisDOT Modified AASHTO T 308 per CMM 8-36.6.3.6 (ignition oven), AASHTO T 164 Method A or B (chemical extraction), or WisDOT Modified ASTM D8159 per CMM 8-36.6.3.1 (automated extraction).
 - Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166.
 - Maximum specific gravity (Gmm) according to AASHTO T 209.
 - 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 on the project. Add a random sample for any fraction of 750 tons at the end of production for a specific mixture design for each project. Partial lots with less than three subplot tests will be included into the previous lot for data analysis and pay adjustment. Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.
- (6) Conduct field tensile strength ratio tests according to AASHTO T283, without freeze-thaw conditioning cycles, on each qualifying mixture according to CMM 8-36.6.14. 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 ^[1]	-0.3	-0.5
Va		- 1.5 & +2.0
VMA in percent ^[2]	- 0.5	-1.0

^[1] The department will not adjust pay based on a QC AC in percent test results; however corrective action will be applied to nonconforming material according to 460.2.8.2.1.7(3) as modified herein.

^[2] 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 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 and/or remove and replace.

⁽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. The engineer may allow such material to remain in place with a price reduction. The department will pay for the 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 project mixtures.

⁽²⁾ Under departmental observation, a contractor TMS technician will 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 provide an organizational chart 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 provide 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. Retention of samples will be provided until surpassing the analysis window of up to 5 lots, as defined in 460.2.8.3.1.7(2) of this document. Additional sampling details are found in Appendix A.

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

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

- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166.
- Maximum specific gravity (Gmm) according to AASHTO T 209.
- 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 by ignition oven according to WisDOT Modified AASHTO T 308 per CMM 8-36.6.3.6 (ignition oven), AASHTO T 164 Method A or B (chemical extraction), or WisDOT Modified ASTM D 8159 per CMM 8-36.6.3.1 (automated extraction).

(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 project (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 most recent lot in the analysis window (specifically the subplot identifying that variances or means do not compare) shall be referee tested by the bureau's AASHTO accredited laboratory and certified personnel. If the non-comparison occurs following Lot 3, 4, or 5, all previous lots are subject to referee testing. 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 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 be credited for the additional testing of the remaining 4 sublots at \$2,000/lot under the Regional 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 absorb 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 contractor pays for the additional referee testing at \$2,000/lot. This will be credited to the department 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 project data, and inspecting the completed pavement according to 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. 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 shall 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 8-15. 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 into the previous lot for data analysis/acceptance and pay, by the engineer. If density lots/sublots are determined prior to construction of the test strip, any random locations within the test strip shall be omitted. Exclusions such as shoulders and appurtenances shall be tested and recorded according to CMM 8-15. 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 8-15.11.

(4) The three QC locations per subplot will 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 document. If additional density data identifies unacceptable material, proceed according to CMM 8-15.11.

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 shall be recorded in the HMA PWL Production Spreadsheet for analysis in chronological order. The engineer, upon completion of the analysis lot, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. 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 project data, and inspecting the completed pavement according to Standard Spec, this document, and accompanying Appendix.

(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 shall 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 according to CMM 8-15.11. 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 here within.

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 provided to the contractor by the department as soon as practicable upon completion of each lot. The department will pay for measured quantities of mix based on this price multiplied by the following pay adjustment calculated according to the HMA PWL Production spreadsheet:

PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY

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

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

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

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

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

*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:

Parameter	WP
Air Voids	0.5
Density	0.5

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

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

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

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

The department will administer a disincentive under the Disincentive HMA Binder Content administrative item for each individual QV test result indicating asphalt binder content below the Action Limit in 460.2.8.2.1.7 presented herein. The department will adjust pay per 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:

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

^[1]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. Such material will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction according to WisDOT Modified ASTM D8159.

Note: PWL value determination is further detailed in the *Calculations* worksheet of the HMA PWL Production spreadsheet.

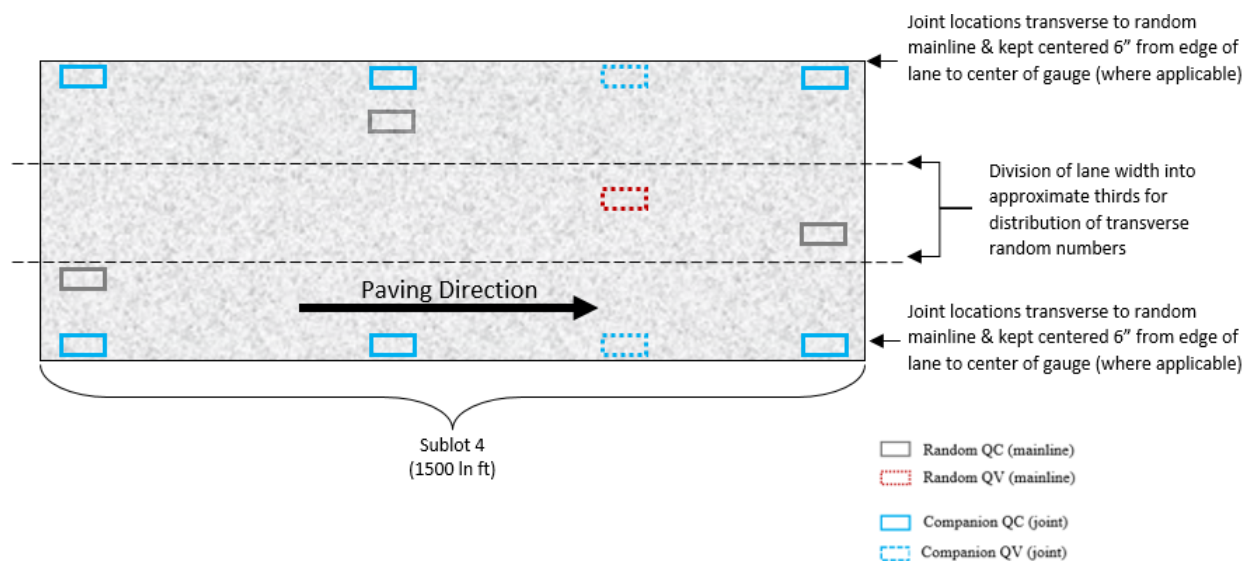
bts-HMA PWL QMP (20181030)

21. Appendix A.

WisDOT Longitudinal Joint – Nuclear Gauge Density Layout

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

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



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

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

	Unconfined				
	Lower Layer (On Base)		Upper Layer		
	LT/MT	HT	LT/MT	HT	
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

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

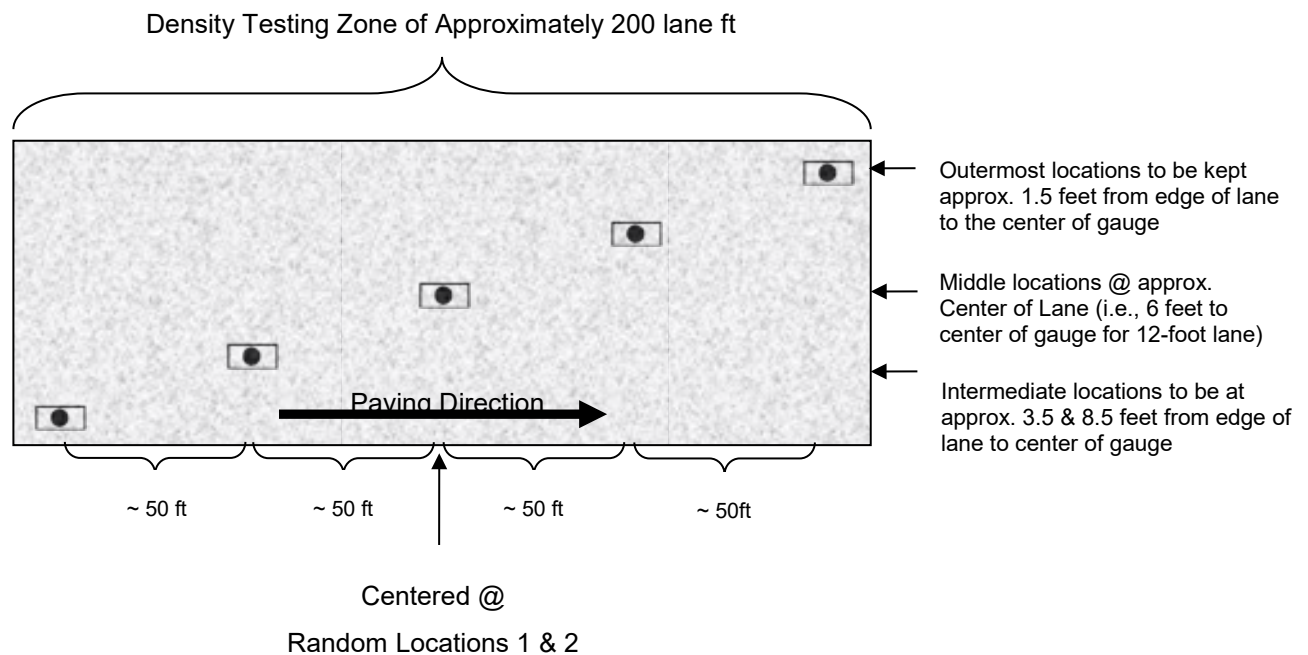


Figure 1: Nuclear/Core Correlation Location Layout


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:



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 150 mm (6 inches) in diameter will be taken at locations as identified in Figure 1. Each random core will be full thickness of the layer being placed. The contractor is responsible for thoroughly drying cores obtained from the mat according to ASTM D 7227 prior to using specimens for in-place density determination according to AASHTO T 166.

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 according to CMM 8-15). 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 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.

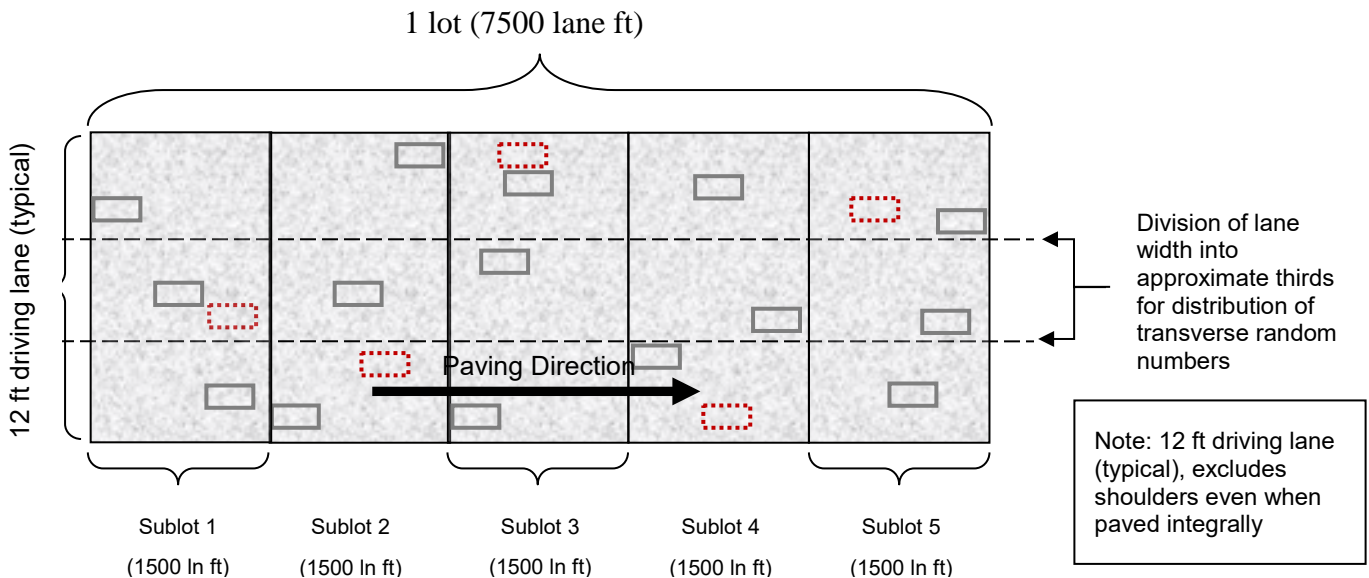


Figure 4: Locations of main lane HMA density testing (QC=solid lines, QV=dashed)

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

Sampling for WisDOT HMA PWL QMP Production

Sampling of HMA mix for QC, QV and Retained samples shall conform to CMM 8-36 except as modified here.

Delete CMM 8-36.4 Sampling Hot Mix Asphalt and replace with the following to update subplot tonnages:

Sampling Hot Mix Asphalt

At the beginning of the project, 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 8-36.4.1 and 8-36.4.2. The contractor must submit the random numbers for all mix sampling to the department before production begins.

Example 1

Expected project production 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 project.

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 project. 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 the plant operator is involved in recording a Pb (%AC) to match up with the mix sample tonnage, then notification need not be earlier than 60 minutes before the mix sample being 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 8-36.5.2.

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 sublot eligible for density incentive or disincentive.

Solution:

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

Appendix A-Test Methods & Sampling for HMA PWL QMP Projects (20181030)

22. Incentive Density HMA Pavement Longitudinal Joints, Item 460.2007.

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 1500 lane feet. This excludes any joint with one side defined as a shoulder and ramp lanes of any length. 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

Revise standard spec 460.3.3.1(1) table 460-3 by adding footnotes [6] and [7]:

TABLE 460-3 MINIMUM REQUIRED DENSITY^{[1][6][7]}

LOCATION	LAYER	PERCENT OF TARGET MAXIMUM DENSITY		
		MIXTURE TYPE		
		LT and MT	HT	SMA ^[5]
TRAFFIC LANES ^[2]	LOWER	93.0 ^[3]	93.0 ^[4]	—
	UPPER	93.0	93.0	—
SIDE ROADS, CROSSOVERS, TURN LANES, & RAMPS	LOWER	93.0 ^[3]	93.0 ^[4]	—
	UPPER	93.0	93.0	—
SHOULDERS & APPURTENANCES	LOWER	91.0	91.0	—
	UPPER	92.0	92.0	—

^[1] The table values are for average lot density. If any individual density test result falls more than 3.0 percent below the minimum required target maximum density, the engineer may investigate the acceptability of that material.

^[2] Includes parking lanes, bike lanes as determined by the engineer

^[3] Minimum reduced by 2.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

^[4] Minimum reduced by 1.0 percent for a lower layer constructed directly on crushed aggregate or recycled base courses.

[5] The minimum required densities for SMA mixtures are determined according to [CMM 8-15](#).

[6] Minimum reduced by 1.5 percent at longitudinal joint with lateral confinement (i.e., confined).

[7] Minimum reduced by 3.0 percent at longitudinal joint having no lateral confinement (i.e., unconfined).

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. Sublot and lot numbering remains the same as mainline densities, however, in addition to conventional naming, joint identification must clearly indicate “M” for inside/median side of lane or “O” for outside shoulder side of lane, as well as “U” for an unconfined joint or “C” for a confined joint (e.g., XXXXX-MC or XXXXX-OU).
- (6) Each joint will be measured, reported, and accepted under methods, testing times, and procedures consistent with the program employed for mainline density, i.e., PWL.
- (7) For single nuclear density test results greater than 3.0% below specified minimums, the department will perform the following per [standard spec 460.3.3.1](#) as modified here within:
 - 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 the contractor's responsibility. This material and labor related to removal of such shall be considered waste and not the responsibility of 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. Inlay paving operations (e.g. where one lane is milled and paved prior to the adjacent lane being milled and paved) will limit payment for additional material to 2 inches wider than the final paving lane width at the centerline and will be considered confined joints.
- (10) If echelon paving is performed at the contractor's choice to increase longitudinal joint density, additional cost related to echelon paving will be the contractor's responsibility. The joint between echelon paving lanes will be placed at the centerline and both sides of the joint will be considered confined joints.

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.

E Payment

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

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

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

^[1] Remedial action must be approved by the engineer and agreed upon at the time of the pre-pave meeting, and may include partial sublots as determined and defined in 460.3.3.2(7) of this document

- (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.

23. Storm Sewer

Replace standard spec 608.2.2.2(1) and (2) with the following:

- (1) Furnish foundation backfill material that conforms with standard spec 305.2 for 1 ¼-Inch Base Aggregate Dense.

Replace standard spec 608.2.2.3(1) with the following:

- (1) Furnish trench backfill material that conforms with standard spec 305.2 for 1 ¼-Inch Base Aggregate Dense.

Revise standard spec 608.5(2) as follows:

Payment for the Storm Sewer Pipe bid items is full compensation for providing storm sewer; for excavating, except for rock excavation; for forming foundation; for providing and removing sheeting and shoring; for laying pipe; for sealing joints and making connections to new or existing fixtures; for

backfilling; providing 1 1/4 –inch base aggregate dense as granular backfill material, including bedding material; for cleaning out; and absent the pertinent contract bid items, for restoring the work site.

24. Adjusting Manhole Covers.

This special provision describes adjusting manhole covers conforming to standard spec 611 as modified in this special provision.

Adjust manhole covers located in pavement areas in two separate operations. Initially, remove designated manhole covers along with sufficient pavement to permit installation of temporary cover plate over the opening. Fill the excavated area with asphaltic pavement mixture, which shall remain in place until contract milling and paving operations permit setting the manhole frames to grade. During the second phase, remove the asphaltic pavement mixture surrounding the manhole plus the temporary cover plate, and set the manhole cover to final grade. The department will measure and pay for the items of asphaltic pavement mixture, temporary cover plate, milling, and paving separately.

Revise standard spec 611.3.7 by deleting the last paragraph.

Set the manhole frames so that they comply with the surface requirements of standard spec 450.3.2.9. At the completion of the paving, a 6-foot straightedge shall be placed over the centerline of each manhole frame parallel to the direction of traffic. A measurement shall be made at each side of the frame. The two measurements shall be averaged. If this average is greater than 5/8 inches, reset the manhole frame to the correct plane and elevation. If this average is 5/8 inches or less but greater than 3/8 inches, the manhole frame shall be allowed to remain in place but shall be paid for at 50 percent of the contract unit price.

If the manhole frame is higher than the adjacent pavement, the two measurements shall be made at each end of the straightedge. These two measurements shall be averaged. The same criteria for acceptance and payment as above, shall apply.

stp-611-005 (20030820)

25. Cover Plates Temporary, Item 611.8120.S.

A Description

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

B Materials

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

C (Vacant)

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	EACH

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

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

stp-611-006 (20151210)

26. Survey Monument Coordination.

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

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

ner-621-010 (20171213)

27. Temporary Portable Rumble Strips, Item 643.0310.S.

A Description

This special provision describes providing, relocating, maintaining, and removing temporary portable rumble strips.

B Materials

Furnish RoadQuake2 or Roadquake2F temporary portable rumble strips, by Plastic Safety Systems. Do not use alternate products or methods without preapproval by the Bureau of Traffic Operations.

C Construction

C.1 Placement

Provide rumble strips where the plans show or the engineer directs as follows:

1. Before placing rumble strips, clean the roadway of sand and other materials that may cause slippage.
2. Place one end of the rumble strips 6 inches from the roadway centerline. Extend the strips perpendicular to the direction of travel. Ensure strips lay flat on the roadway surface.
3. Only one series of rumble strips, placed before the first work zone, is required per direction of travel for multiple work zones spaced 1 mile or less apart. Work zones spaced greater than 1 mile apart require a separate series of rumble strips.

C.2 Maintenance

Maintain rumble strips as follows:

1. If rumble strips slide, become out of alignment, or are no longer in the wheel path of approaching vehicles during the work period, thoroughly clean both sides of the rumble strips and reset on a clean roadway.
2. Repair or replace damaged rumble strips immediately.

D Measurement

The department will measure temporary portable rumble strips as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.0310.S	Temporary Portable Rumble Strips	LS

Payment is full compensation for providing, relocating, maintaining or replacing, and removing temporary portable rumble strips.

stp-643-020 (20161130)

28. Traffic Control.

Perform this work according to the requirements of standard spec 643, and as shown on the plans or as approved by the engineer, except as hereinafter modified.

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control detail as shown on the plans. Submit this plan ten days prior to the preconstruction conference.

Provide 24 hours-a-day availability of equipment and forces to expeditiously restore lights, signs, or other traffic control devices that are damaged or disturbed. The cost to maintain and restore the above items shall be considered incidental to the item as bid and no additional payment will be made therefore.

Supply the name and telephone number of a local contact person for traffic control repair before starting work.

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

The turning of traffic control devices when not in use to obscure the message will not be allowed under this contract.

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

Cover existing signs which conflict with traffic control as directed by the engineer.

Conduct operations in such a manner that causes the least interference and inconvenience to the free flow of vehicles on the roadways. This includes the following:

- a. Do not park or store any vehicle, piece of equipment, or construction materials on the right-of-way, unless otherwise specified in the traffic control article or without approval of the engineer.
- b. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic.
- c. Equip all vehicles and equipment entering or leaving the live traffic lanes with a hazard identification beam (flashing yellow signal) capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1000 feet. Activate the beam when merging into or exiting a live traffic lane.

Do not disturb, remove or obliterate any traffic control signs, advisory signs, shoulder delineators or beam guard in place along the traveled roadways without the approval of the engineer. Immediately repair or replace any damage done to the above during the construction operations at contractor expense.

The traffic requirements are subject to change at the direction of the engineer in the event of an emergency.

(NER17-1018)

29. Pavement Marking and Centerline Rumble Strip.

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

ner-646-001 (20180205)

30. Locating No-Passing Zones, Item 648.0100.

For this project, the spotting sight distance in areas with a 55 mph posted speed limit is 0.21 miles (1108 feet).

stp-648-005 (20060512)

31. Reconnecting Existing Storm Sewer Laterals, Item SPV.0060.01.

A Description

This special provision describes reconnecting existing storm sewer laterals to new structures or existing pipe.

B Materials

Provide culvert pipe concrete collars according to standard spec 520.2.4.

Provide couplings that meet standard spec 608.2.

C Construction

Identify all private laterals in existing structures prior to that structure's removal. Remove existing lateral pipes to the next good joint and replace in-kind. Verify that positive drainage is achieved when connecting to the new inlet or curb outlet structure. The contractor will be allowed to salvage any structurally sound pipe that was removed with prior approval by the engineer. Connect the existing pipes to the new pipes with the appropriate coupling, concrete collar or by means approved by the engineer. Any additional pipe or materials required to reconnect the storm sewer laterals are considered incidental to this bid item.

D Measurement

The department will measure Reconnect Existing Storm Sewer Laterals by each lateral, acceptably connected and approved in the field.

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	Reconnect Existing Storm Sewer Lateral	EACH

Payment is full compensation for removal of existing pipes, furnishing and installing all materials, couplings, concrete collars, and pipe.

(NER13-0813)

32. Inlets Median 1 Grate, Special, Item SPV.0060.02.

A Description

This special provision describes installing Inlets Median 1 Grate Special as shown in the plans and as hereinafter described.

B Materials

Furnish materials according to standard spec 611.2.

C Construction

Construct according to standard spec 611.3.

Structure will include a 2-foot sump below lowest pipe invert as shown in the plan construction detail.

D Measurement

The department will measure Inlets Median 1 Grate Special as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Inlets Median 1 Grate	EACH

Payment for Inlets Median 1 Grate will meet requirements for inlets shown in standard spec 611.5.

ADDITIONAL SPECIAL PROVISION 4

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 may also withhold routine 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.

Release of Routine Retainage

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

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.

ADDITIONAL SPECIAL PROVISION 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

107.17.1 General

Replace paragraph seven with the following effective with the December 2018 letting:

- (7) Have a professional engineer registered in the state of Wisconsin sign and seal the shop drawings. At least 30 calendar days before starting falsework, form, or shoring construction; submit a PDF file of shop drawings to the railroad's chief engineering officer and to the engineer. The engineer and the railroad may review the shop drawings. If the engineer or the railroad finds the shop drawings unsatisfactory, the contractor shall make the required changes. A satisfactory shop drawing review does not relieve the contractor of responsibility and liability for the structural integrity and proper functioning of the falsework, forms, or shoring.
-

109.1.1 General

Replace the entire text with the following effective with the January 2019 letting:

- (1) The engineer will use the US standard system to measure all work completed under the contract. The engineer will determine quantities of materials the contractor furnishes and work the contractor performs using measurement methods and computations conforming to standard engineering practice, modified to meet department requirements. The engineer will document these measurements using department procedures.
- (2) The engineer will measure the work as the contract measurement subsection for individual items specifies. The department will measure the actual quantities of work the contractor acceptably completes and make final payment based on those actual measured quantities except as follows:
 1. If the measurement subsection for a bid item specifically restricts the quantity measured for payment or allows for use of conversion factors.
 2. If the engineer executes a contract change order modifying the method of measurement for specific bid items, the engineer will measure the quantities of applicable bid items for payment using the change order methods.
 3. If the engineer, under 105.3.1(2), approves a contractor-requested plan dimension change between US standard and SI metric dimensions, the engineer will measure whichever of the following is less:
 - Actual quantities constructed.
 - Quantities derived from the original plan dimensions.
 4. For substitutions made under 106.2.3 between US standard and SI metric products, the engineer will measure the actual quantities of the substitute products using the original contract measuring system.

205.5.2 Excavation

Replace the entire text with the following effective with the April 2019 letting:

205.5.2.1 General

- (1) Payment for the Excavation bid items under this section is full compensation for work specified for those excavation classes under 205 with no separate contract bid items; for hauling; and for constructing and removing temporary drainage installations as specified under 205.3.3.
- (2) Payment also includes removing walls, foundations, etc. with no separate contract bid items; for disposal of resulting material; and for backfilling basements or openings resulting from removing walls, foundations, etc.

205.5.2.2 Associated Work

- (1) The department will pay separately for removing concrete structures under the 203 and 204 bid items.
- (2) The department will pay separately for granular backfill the contract or engineer requires under the Backfill Granular bid items.
- (3) The department will pay separately for erosion control, fertilizing, and seeding of material disposal sites as specified for material disposal sites in 628.5.1.
- (4) If the contract does not include the Excavation Rock bid item, the department will pay 5 times the contract bid price of the Excavation Common bid item to remove boulders having volumes of one cubic yard or more. The department will pay for these boulder removals under the Removing Large Boulders administrative item.

205.5.2.3 Excavation Below Subgrade**205.5.2.3.1 General**

- (1) The department will only pay for engineer-approved EBS to correct problems beyond the contractor's control.

205.5.2.3.2 Quantity Overruns

- (1) The department will provide additional compensation for EBS quantity overruns if the following conditions are met:
 - The quantity of engineer-approved EBS, calculated exclusive of work covered under 205.5.2.3.3 or 301.5, exceeds the total contract EBS quantity the earthwork summary sheet shows by more than 25 percent.
 - The material exceeding that 25 percent threshold cannot be disposed of within the project right-of-way.
- (2) The department will pay 2 times the contract unit price, up to \$25,000, for the quantity of EBS meeting the above conditions. After exceeding \$25,000 per contract, the department will pay for additional EBS as determined under 109.4.

205.5.2.3.3 Subgrade Correction

- (1) Work performed under 105.3 to correct unacceptable work is the contractor's responsibility. For EBS work performed where the engineer did not approve the subgrade for subsequent operations, the department will pay for EBS at the contract price under the pertinent excavation and backfill bid items, or absent those bid items as extra work. For EBS work performed where the engineer approved the underlying layers for subsequent operations, the department will pay for EBS as follows:
 1. Up to a maximum of \$25,000 per contract, the department will pay as follows:
 - 1.1 For excavation: 3 times the contract unit price for the Excavation Common bid item under the EBS Post Grading administrative item.
 - 1.2 For backfill with the materials the engineer directs: at the contract unit price for the bid items of each material used to fill the excavation.
 - 1.3 For excavation or backfill without contract bid items: as extra work.
 2. After exceeding \$25,000 per contract, the department will pay for additional EBS in engineer-approved areas as determined under 109.4.

305.2.1 General

Replace paragraph two with the following effective with the December 2018 letting:

- (2) Where the contract specifies or allows 1 1/4-inch base, do not place reclaimed asphalt, reprocessed material, or blended materials below virgin aggregate materials unless the contract specifies or the engineer allows in writing. The department will allow virgin aggregate above reclaimed asphalt, reprocessed material, or blended materials in shoulder areas adjacent to concrete pavement.
-

420.3.2.1 General

Replace paragraph one with the following effective with the December 2018 letting:

- (1) Use self-propelled grinding machines with depth, grade, and slope controls designed for grinding and texturing concrete. Equip grinding machines with diamond blades and a vacuuming system capable of removing liquid and solid residue from the ground surface. Shroud the machine to prevent discharging loosened material into adjacent work areas or live traffic lanes. Provide the specified effective wheelbase, defined as the center of the front to center of the rear main support wheels.
-

420.3.2.2 Continuous Grinding

Replace paragraph one with the following effective with the December 2018 letting:

- (1) Under the Continuous Diamond Grinding Concrete Pavement bid item, ensure that the grinding machine, including the grinding head, weighs 35,000 pounds or more, will grind a strip at least 4 feet wide, and has an effective wheel base of 25 feet or more. For pavements with a design speed less than 40 miles per hour and areas difficult to access, the contractor may use equipment with an effective wheel base of 12 feet or more.
-

450.3.2.8 Jointing

Replace paragraphs three through five with the following effective with the December 2018 letting:

- (3) Construct notched wedge longitudinal joints for mainline paving if the pavement thickness conforms to the minimums specified in 460.3.2, unless the engineer directs or allows an alternate joint. Construct the wedge using a slope no steeper than 3:1. Extend the wedge 12 inches beyond the normal lane width, or as the engineer directs. Ensure that the wedge for all layers directly overlaps and slopes in the same direction.
 - (4) Locate the joint at the pavement centerline for 2-lane roadways, or at lane lines if the roadway has more than 2 lanes. Construct a vertical notch 1/2-inch to 3/4-inch high on the centerline or lane line at the top of each wedge. Place a 1/2-inch to 3/4-inch notch at the outside bottom edge of the wedge after compacting each layer. Align the finished longitudinal joint line of the upper layer with the centerline or lane line.
 - (5) Construct the wedge for each layer using an engineer-approved strike-off device that will provide a uniform slope and will not restrict the main screed. Shape and compact the wedge with a weighted steel side roller wheel the same width as the wedge. Apply a tack coat to the wedge surface and both notches before placing the adjacent lane.
-

455.2.4.3 Emulsified Asphalts

Replace paragraph two with the following effective with the December 2018 letting:

- (2) The bill of lading for emulsified asphalts shall indicate the asphalt content of the original emulsion and dilution rate of the additional water added to the original emulsion. If undiluted samples are not available, test the diluted material and modify AASHTO M140, M208, or M316 to reflect properties resulting from dilution of the asphalt.

460.2.8.3.1.4 Department Verification Testing Requirements

Replace paragraph three with the following effective with the December 2018 letting:

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

Bulk specific gravity (G_{mb}) of the compacted mixture according to AASHTO T166.

Maximum specific gravity (G_{mm}) according to AASHTO T209.

Air voids (V_a) by calculation according to AASHTO T269.

VMA by calculation according to AASHTO R35.

Asphalt content by ignition oven according to AASHTO T308 as modified in CMM 8-36.6.3.6, chemical extraction according to AASHTO T-164, or Asphalt Analyzer™ according to manufacturer recommendations.

460.2.8.3.1.6 Acceptable Verification Parameters

Replace paragraph one with the following effective with the December 2018 letting:

- (1) The engineer will provide test results to the contractor within 2 mixture-production days after obtaining the sample. The quality of the product is acceptably verified if it meets the following limits:
- V_a is within a range of 2.0 to 4.3 percent. For SMA, V_a is within a range of 2.7 to 5.3 percent.
 - VMA is within minus 0.5 of the minimum requirement for the mix design nominal maximum aggregate size.
 - Asphalt content is within minus 0.3 percent of the JMF.
-

460.2.8.3.1.7 Dispute Resolution

Replace paragraph one with the following effective with the December 2018 letting:

- (1) When QV test results do not meet the specified limits for 100 percent pay, the bureau's AASHTO accredited laboratory and certified personnel will referee test the retained portion of the QV sample and the retained portion of the required forward and backward QC retained samples according to CMM 8-36.

460.5.2.1 General

Replace paragraphs five and six with the following effective with the December 2018 letting:

- (5) The department will reduce pay for nonconforming QMP HMA mixtures as specified in 460.2.8.2.1.7, starting from the stop point to the point when the running average of 4 is back inside the warning limits. The engineer will determine the quantity of material subject to pay reduction based on the testing data and an inspection of the completed pavement. The department will reduce pay as follows:

PAYMENT FOR MIXTURE^{[1] [2] [3]}		
ITEM	PRODUCED WITHIN WARNING BANDS	PRODUCED OUTSIDE JMF LIMITS
Gradation	90%	75%
Asphalt Content ^[4]	—	—
Air Voids	70%	50%
VMA	90%	75%

^[1] For projects or plants where the total production of each mixture design requires less than 4 tests refer to CMM 8-36.

^[2] Payment is in percent of the contract unit price for the HMA Pavement bid item. The department will reduce pay based on the nonconforming property with lowest percent pay. If the quantity of material subject to pay adjustment based on the running average of 4 is also subject to pay adjustment resulting from dispute resolution in accordance with 460.2.8.3.1.7, the department will apply the single pay adjustment resulting in the lowest percent pay.

^[3] In addition to any pay adjustment listed in the table above, the department will adjust pay for nonconforming binder under the Nonconforming QMP Asphaltic Material administrative item. The department will deduct 25 percent of the contract unit price of the HMA Pavement bid item per ton of pavement placed with nonconforming PG binder the engineer allows to remain in place.

^[4] The department will not adjust pay based on a running average of 4 asphalt content tests; however, corrective action will be applied to nonconforming material according to 460.2.8.2.1.7.

- (6) If during a QV dispute resolution investigation the department discovers unacceptable mixture defined by one or more of the following:
- Va greater than 5.0 or less than 1.5.
 - VMA more than 1.0 below the minimum allowed in table 460-1.
 - AC more than 0.5 % below the JMF target.

Remove and replace the material, or if the engineer allows the mixture to remain in place, the department will pay for the quantity of affected material at 50 percent of the contract price.

501.3.8.2.1 General

Replace paragraph two with the following effective with the April 2019 letting:

- (2) If the concrete temperature at the point of placement exceeds 90 F, do not place concrete under the following structure and concrete barrier bid items:

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

506.3.2 Shop Drawings

Replace paragraph four with the following effective with the December 2018 letting:

- (4) Ensure that the fabricator submits a PDF file of shop drawings for railroad structures to the railroad company's chief engineering officer upon contract completion.

603.3.1.1 General

Replace paragraph three with the following effective with the April 2019 letting:

- (3) Cast permanent barrier and transitions in place. Use construction methods conforming to 502 and conform to the hot weather placement requirements of 501.3.8.2. Use forms or engineer-approved slip form methods for barrier. Use forms for transitions. Construct barrier on horizontal curves as a series of 12-foot or shorter chords.

646.3.1.2 Liquid Marking

Replace paragraph five with the following effective with the January 2019 letting:

- (5) Apply liquid marking and glass beads across the line at or exceeding the following:

LIQUID MARKING	PAVEMENT TYPE	THICKNESS (mils)	BEAD APPLICATION (pounds per gallon)
Paint	all	16	8
Epoxy	SMA, seal coats, and polymer overlays	25	25
Epoxy	all other	20	22.5
Wet Reflective Epoxy	all	20	18

646.3.2.3.2 Wet Reflective Epoxy

Replace paragraph five with the following effective with the January 2019 letting:

- (1) Apply wet reflective epoxy binder in a grooved slot. and provide a double drop bead system as follows:
- First: wet reflective/recoverable elements at the application rate specified for the product chosen from the department's APL.
 - Second: glass beads at the application rate specified in 646.3.1.2(5).

650.3.1 General

Replace the entire text with the following effective with the December 2018 letting:

- (1) Department and contractor responsibilities for construction staking are specified in 105.6. Conform to 105.6 and the additional requirements specified here in 650.3 for the individual contractor-staking bid items the contract includes.
- (2) Protect and preserve known property and survey marks and land monuments as specified in 107.11.3. The contract may require related work under the 621 bid items.
- (3) Obtain or calculate benchmark data, grades, and alignment from plan information. The engineer will furnish data for the horizontal and vertical control points, control point ties, horizontal alignments, profiles, and elevations. Reestablish, set additional, and maintain the horizontal and vertical control points and control point ties, as needed for bid items.
- (4) Check horizontal and vertical information including but not limited to alignments, locations, elevations, and dimensions, that either the plans show or the engineer provides, for compatibility with existing field conditions. Conduct similar compatibility checks and accuracy checks of horizontal and vertical positions either the department or the contractor establishes in the field.
- (5) Perform survey work using conventional methods, or AMG methods capable of achieving the lines and grades the plans show for the work in question. Establish additional benchmarks and control points as necessary to support the method of operation.

650.3.1.1 Staking

- (1) Furnish, set, reference, and maintain stakes and markings necessary to establish the alignment, location, benchmarks, elevations, and continuous profile-grades for road and structure work as needed for bid items. Supervise and coordinate construction staking.
- (2) Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. Make the survey notes and computations available to the engineer within 24 hours, upon request, as the work progresses.
- (3) Furnish surveying equipment, stakes, flags, pins, lath, whiskers, and other materials necessary to perform this work, subject to the engineer's approval.

650.3.1.2 Automated Machine Guidance**650.3.1.2.1 General**

- (1) The contractor may substitute AMG for conventional staking on all or part of the work under the individual staking bid items. Coordinate with the engineer throughout the course of construction to ensure that work performed using AMG conforms to the contract tolerances and that the methods employed conform to the contractor's AMG work plan and accepted industry standards. Revert to conventional staking methods for all or part of the work at any point during construction if AMG is producing unacceptable results.

650.3.1.2.2 AMG Work Plan

- (1) Submit a comprehensive written AMG work plan for department review at least 5 business days before the preconstruction conference. In that plan discuss how AMG technology will be integrated into other technologies employed on the project. List the staking bid items that will have work performed using AMG and, for each bid item listed, include the following:
 1. Designate which portions of the contract will be done using AMG and which portions will be done using conventional staking.
 2. Designate a single staff person as the primary contact for AMG technology issues.
 3. List and map the primary and secondary control points required under 105.6.2 enveloping the site.
 4. Describe the contractor's quality control procedures. Include the frequency and type of checks performed to ensure that the work conforms to the contract plans.
- (2) The engineer will review the plan to determine if it conforms to the contract. Do not perform AMG work until the engineer approves the governing portion of the AMG workplan. Perform the work as the contractor's AMG work plan provides. Update the plan as necessary.

650.3.1.2.3 Geometric and Surface Information**650.3.1.2.3.1 Department Responsibilities**

- (1) At any time after the contract is awarded the contractor may request the contractor data packet. The department will provide the packet within 5 business days of receiving the contractor's request.

650.3.1.2.3.2 Contractor Responsibilities

- (1) Develop and maintain a contractor construction model for areas of the project employing AMG. Confirm that the resulting model agrees with the contract plans.
- (2) If the engineer requests, provide the construction model to the department in LandXML or other engineer-approved format.

650.3.1.2.4 Managing and Updating Information

- (1) Notify the department of any errors or discrepancies in department-provided information. The department will determine what revisions may be required. The department will revise the contract plans, if necessary, to address errors or discrepancies that the contractor identifies. The department will provide the best available information related to those contract plan revisions.
- (2) Revise the construction model as required to support construction operations and to reflect any contract plan revisions the department makes. Perform checks to confirm that the revised construction model agrees with the contract plan revisions. If the engineer requests, provide construction model updates to the engineer. The department will pay for costs incurred to incorporate contract plan revisions as extra work.

650.3.1.2.5 Construction Checks

- (1) Check the work against the plan elevation at randomly selected points on cross-sections located at stations evenly divisible by 100 at the frequency the engineer approved as a part of the AMG work plan. Submit the results of these random checks to the engineer daily. Notify the engineer immediately if a check exceeds the tolerances specified in 650.3.1.2.6 below.
- (2) Check the work at additional points as the engineer directs. The department may conduct periodic independent checks.

650.3.1.2.6 Construction Tolerances

- (1) Ensure that the finished work vertically matches existing or other completed features. Ensure that the work conforms to revised plan elevations as follows:
 - Subgrade : +/- 0.10 feet.
 - Base : within the tolerance specified in 301.3.4.1(2).

650.3.3 Subgrade

Retitle and replace the entire text with the following effective with the December 2018 letting:

650.3.3 Subgrade Staking

- (1) Set construction stakes or marks at intervals of 100 feet, or more frequently, for rural sections and at intervals of 50 feet, or more frequently, for urban sections. Include additional stakes at each cross-section as necessary to match the plan cross-section, achieve the required accuracy, and to support construction operations. Also set and maintain stakes as necessary to establish the horizontal and vertical positions of intersecting road radii, auxiliary lanes, horizontal and vertical curves, and curve transitions. Locate stakes to within 0.25 feet horizontally and establish the grade elevation to within 0.03 feet vertically.

Errata

520.3.3 Laying Pipe

Correct errata by replacing "sections" with "joints" to clarify the intent that the last 3 joints need ties.

- (5) Provide joint ties on the upstream and downstream ends of circular and horizontal elliptical concrete culvert and concrete cattle pass installations. Tie the next 3 pipe joints or, if using apron endwalls, the endwall joint and the last 2 pipe joints. Ties are not required on culverts with masonry endwalls unless the plans show otherwise.
-

608.3.3 Laying Pipe

Correct errata by replacing "sections" with "joints" to clarify the intent that the last 3 joints need ties.

- (5) Provide joint ties on concrete storm sewer system infall and outfall pipes. Tie the last 3 pipe joints or, if using apron endwalls, the endwall joint and the next 2 pipe joints. Ties are not required on installations with masonry endwalls unless the plans show otherwise.

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. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
 6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.
- B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to paul.ndon@dot.wi.gov 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 August 2015 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 WS4567, 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 WS4567 is available at:

<https://wisconsindot.gov/hcciDocs/contracting-info/ws4567.doc>



Proposal Schedule of Items

Page 1 of 7

Proposal ID: 20190409018 Project(s): 4140-19-72

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	3.000 STA	_____.	_____.
0004	201.0205 Grubbing	3.000 STA	_____.	_____.
0006	203.0100 Removing Small Pipe Culverts	1.000 EACH	_____.	_____.
0008	204.0115 Removing Asphaltic Surface Butt Joints	1,160.000 SY	_____.	_____.
0010	204.0120 Removing Asphaltic Surface Milling	140,330.000 SY	_____.	_____.
0012	204.0165 Removing Guardrail	1,740.000 LF	_____.	_____.
0014	204.0215 Removing Catch Basins	1.000 EACH	_____.	_____.
0016	204.0220 Removing Inlets	2.000 EACH	_____.	_____.
0018	204.0245 Removing Storm Sewer (size) 01. 12-Inch	63.000 LF	_____.	_____.
0020	204.0245 Removing Storm Sewer (size) 02. 15-Inch	66.000 LF	_____.	_____.
0022	204.0245 Removing Storm Sewer (size) 03. 18-Inch	8.000 LF	_____.	_____.
0024	204.0280 Sealing Pipes	1.000 EACH	_____.	_____.
0026	204.0291.S Abandoning Sewer	2.000 CY	_____.	_____.
0028	205.0100 Excavation Common	827.000 CY	_____.	_____.
0030	205.0200 Excavation Rock	31.000 CY	_____.	_____.
0032	211.0100 Prepare Foundation for Asphaltic Paving (project) 01. 4140-19-72	LS	LUMP SUM	_____.



Proposal Schedule of Items

Page 2 of 7

Proposal ID: 20190409018 Project(s): 4140-19-72

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	211.0400 Prepare Foundation for Asphaltic Shoulders	50.000 STA	_____.	_____.
0036	213.0100 Finishing Roadway (project) 01. 4140-19-72	1.000 EACH	_____.	_____.
0038	305.0110 Base Aggregate Dense 3/4-Inch	5,220.000 TON	_____.	_____.
0040	305.0120 Base Aggregate Dense 1 1/4-Inch	2,705.000 TON	_____.	_____.
0042	305.0500 Shaping Shoulders	52.000 STA	_____.	_____.
0044	315.0100 Asphaltic Base	70.000 TON	_____.	_____.
0046	455.0605 Tack Coat	15,750.000 GAL	_____.	_____.
0048	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	2.000 EACH	_____.	_____.
0050	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.	_____.
0052	460.2005 Incentive Density PWL HMA Pavement	20,141.000 DOL	1.00000	20,141.00
0054	460.2007 Incentive Density HMA Pavement Longitudinal Joints	13,853.000 DOL	1.00000	13,853.00
0056	460.2010 Incentive Air Voids HMA Pavement	29,990.000 DOL	1.00000	29,990.00
0058	460.5223 HMA Pavement 3 LT 58-28 S	14,800.000 TON	_____.	_____.
0060	460.5224 HMA Pavement 4 LT 58-28 S	15,190.000 TON	_____.	_____.
0062	465.0120 Asphaltic Surface Driveways and Field Entrances	286.000 TON	_____.	_____.



Proposal Schedule of Items

Page 3 of 7

Proposal ID: 20190409018 Project(s): 4140-19-72

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	465.0475 Asphalt Centerline Rumble Strips 2-Lane Rural	5,181.000 LF	_____.	_____.
0066	520.8000 Concrete Collars for Pipe	1.000 EACH	_____.	_____.
0068	521.1030 Apron Endwalls for Culvert Pipe Steel 30-Inch	2.000 EACH	_____.	_____.
0070	521.3130 Culvert Pipe Corrugated Steel 30-Inch	4.000 LF	_____.	_____.
0072	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	1.000 EACH	_____.	_____.
0074	606.0200 Riprap Medium	2.000 CY	_____.	_____.
0076	608.0005 Storm Sewer Rock Excavation	14.000 CY	_____.	_____.
0078	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	63.000 LF	_____.	_____.
0080	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	20.000 LF	_____.	_____.
0082	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	103.000 LF	_____.	_____.
0084	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	37.000 LF	_____.	_____.
0086	611.0535 Manhole Covers Type J-Special	1.000 EACH	_____.	_____.
0088	611.0612 Inlet Covers Type C	2.000 EACH	_____.	_____.
0090	611.0645 Inlet Covers Type MS-A	1.000 EACH	_____.	_____.
0092	611.1003 Catch Basins 3-FT Diameter	2.000 EACH	_____.	_____.



Proposal Schedule of Items

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Proposal ID: 20190409018 Project(s): 4140-19-72

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
0094	611.2005 Manholes 5-FT Diameter	1.000 EACH	_____.	_____.
0096	611.8110 Adjusting Manhole Covers	32.000 EACH	_____.	_____.
0098	611.8120.S Cover Plates Temporary	32.000 EACH	_____.	_____.
0100	614.2300 MGS Guardrail 3	1,266.000 LF	_____.	_____.
0102	614.2330 MGS Guardrail 3 K	575.000 LF	_____.	_____.
0104	614.2610 MGS Guardrail Terminal EAT	4.000 EACH	_____.	_____.
0106	618.0100 Maintenance And Repair of Haul Roads (project) 01. 4140-19-72	1.000 EACH	_____.	_____.
0108	619.1000 Mobilization	1.000 EACH	_____.	_____.
0110	624.0100 Water	30.500 MGAL	_____.	_____.
0112	625.0100 Topsoil	699.000 SY	_____.	_____.
0114	625.0500 Salvaged Topsoil	3,353.000 SY	_____.	_____.
0116	627.0200 Mulching	1,235.000 SY	_____.	_____.
0118	628.1504 Silt Fence	3,809.000 LF	_____.	_____.
0120	628.1520 Silt Fence Maintenance	3,809.000 LF	_____.	_____.
0122	628.1905 Mobilizations Erosion Control	4.000 EACH	_____.	_____.
0124	628.1910 Mobilizations Emergency Erosion Control	4.000 EACH	_____.	_____.



Proposal Schedule of Items

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Proposal ID: 20190409018 Project(s): 4140-19-72

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	628.2004 Erosion Mat Class I Type B	3,097.000 SY	_____.	_____.
0128	628.7010 Inlet Protection Type B	11.000 EACH	_____.	_____.
0130	628.7020 Inlet Protection Type D	2.000 EACH	_____.	_____.
0132	628.7504 Temporary Ditch Checks	20.000 LF	_____.	_____.
0134	628.7555 Culvert Pipe Checks	24.000 EACH	_____.	_____.
0136	628.7570 Rock Bags	126.000 EACH	_____.	_____.
0138	629.0210 Fertilizer Type B	3.300 CWT	_____.	_____.
0140	630.0130 Seeding Mixture No. 30	45.000 LB	_____.	_____.
0142	630.0140 Seeding Mixture No. 40	33.000 LB	_____.	_____.
0144	630.0200 Seeding Temporary	85.000 LB	_____.	_____.
0146	633.5200 Markers Culvert End	3.000 EACH	_____.	_____.
0148	634.0614 Posts Wood 4x6-Inch X 14-FT	125.000 EACH	_____.	_____.
0150	634.0616 Posts Wood 4x6-Inch X 16-FT	62.000 EACH	_____.	_____.
0152	637.2210 Signs Type II Reflective H	756.540 SF	_____.	_____.
0154	637.2230 Signs Type II Reflective F	461.420 SF	_____.	_____.
0156	638.2602 Removing Signs Type II	163.000 EACH	_____.	_____.
0158	638.3000 Removing Small Sign Supports	173.000 EACH	_____.	_____.



Proposal Schedule of Items

Page 6 of 7

Proposal ID: 20190409018 Project(s): 4140-19-72

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	642.5401 Field Office Type D	1.000 EACH	_____.	_____.
0162	643.0300 Traffic Control Drums	1,095.000 DAY	_____.	_____.
0164	643.0310.S Temporary Portable Rumble Strips	1.000 LS	_____.	_____.
0166	643.0900 Traffic Control Signs	3,766.000 DAY	_____.	_____.
0168	643.1050 Traffic Control Signs PCMS	28.000 DAY	_____.	_____.
0170	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0172	645.0120 Geotextile Type HR	5.000 SY	_____.	_____.
0174	646.1020 Marking Line Epoxy 4-Inch	27,790.000 LF	_____.	_____.
0176	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	43,400.000 LF	_____.	_____.
0178	646.4520 Marking Line Same Day Epoxy 4-Inch	45,956.000 LF	_____.	_____.
0180	646.6120 Marking Stop Line Epoxy 18-Inch	34.000 LF	_____.	_____.
0182	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	1,060.000 LF	_____.	_____.
0184	646.8320 Marking Parking Stall Epoxy	894.000 LF	_____.	_____.
0186	648.0100 Locating No-Passing Zones	6.960 MI	_____.	_____.
0188	649.0105 Temporary Marking Line Paint 4-Inch	81,375.000 LF	_____.	_____.
0190	649.0120 Temporary Marking Line Epoxy 4-Inch	1,236.000 LF	_____.	_____.



Proposal Schedule of Items

Page 7 of 7

Proposal ID: 20190409018 Project(s): 4140-19-72

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	650.4000 Construction Staking Storm Sewer	5.000 EACH	_____.	_____.
0194	650.4500 Construction Staking Subgrade	3,047.000 LF	_____.	_____.
0196	650.5000 Construction Staking Base	3,047.000 LF	_____.	_____.
0198	650.6000 Construction Staking Pipe Culverts	1.000 EACH	_____.	_____.
0200	650.8000 Construction Staking Resurfacing Reference	34,633.000 LF	_____.	_____.
0202	650.9910 Construction Staking Supplemental Control (project) 01. 4140-19-72	LS	LUMP SUM	_____.
0204	650.9920 Construction Staking Slope Stakes	3,047.000 LF	_____.	_____.
0206	690.0150 Sawing Asphalt	4,953.000 LF	_____.	_____.
0208	740.0440 Incentive IRI Ride	13,118.000 DOL	1.00000	13,118.00
0210	SPV.0060 Special 01. Reconnecting Storm Sewer Laterals	2.000 EACH	_____.	_____.
0212	SPV.0060 Special 02. Inlets Median 1 Grate Special	1.000 EACH	_____.	_____.

Section: 0001

Total:

Total Bid:

PLEASE ATTACH SCHEDULE OF ITEMS HERE



Wisconsin Department of Transportation

March 26, 2019

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 #18: 4140-19-72
Gibraltar – Sister Bay
Gibraltar Road – Country Walk Dr
STH 42
Door County

Letting of April 9, 2019

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

Special Provisions:

Added Special Provisions	
Article No.	Description
33	QMP HMA Pavement Nuclear Density

Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
455.0605	Tack Coat	GAL	15,750	-180	15,570
460.2005	Incentive Density PWL HMA Pavement	DOL	20,141	-2,091	18,050
460.2010	Incentive Air Voids HMA Pavement	DOL	29,990	-2,830	27,160

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
460.2000	Incentive Density HMA Pavement	DOL	1,810	1.00	1,810

Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
63	Miscellaneous Quantities (Asphalt Quantity Table)

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

4140-19-72

March 26, 2019

Special Provisions

33. QMP HMA Pavement Nuclear Density.

A Description

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

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

<http://wisconsindot.gov/rdwy/cmm/cm-08-00toc.pdf>

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

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

B Materials

B.1 Personnel

- (1) Nuclear gauge owners and personnel using nuclear gauges shall comply with WisDOT requirements according to 460.3.3 and CMM 8-15.

B.2 Testing

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

B.3 Equipment

B.3.1 General

- (1) Furnish nuclear gauges according to CMM 8-15.2.
- (2) Furnish nuclear gauges from the department's approved product list at

<http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

B.3.2 Comparison of Nuclear Gauges

B.3.2.1 Comparison of QC and QV Nuclear Gauges

- (1) Compare QC and QV nuclear gauges according to CMM 8-15.7.

B.3.2.2 Comparison Monitoring

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

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

- (1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 8-15.10.2.
- (2) Determine required number of tests according to CMM 8-15.10.2.1.
- (3) Determine random testing locations according to CMM 8-15.10.3.

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

- (1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 8-15.10.2.
- (2) Determine required number of tests according to CMM 8-15.10.2.2.
- (3) Determine random testing locations according to CMM 8-15.10.3.

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

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

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

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

B.4.2.2.2 Width of 5 Feet or Less

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

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

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

B.4.2.4 Documentation

- (1) Document QC density test data as specified in CMM 8.15. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

B.4.3 Corrective Action

- (1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.
- (2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec

460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted subplot. Testing in a previously accepted subplot will not be used to recalculate a new lot density.

- (3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full subplot width within the traffic lanes or shoulders.
- (4) Retesting and acceptance of replaced pavement will be as specified in standard spec 105.3.
- (5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the subplot and lot densities.
- (6) If 2 consecutive subplot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

- (1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one subplot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.
- (2) The QV tester will test each selected subplot using the same testing requirements and frequencies as the QC tester.
- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft³ of the QC subplot average, use the QC tests for acceptance.
- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft³ each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft³, use the original QC tests for acceptance.
- (6) If the QV and QC subplot averages differ by more than 1.0 lb/ft³ after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

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

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

B.7 Acceptance

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

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

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

E.2 Disincentive for HMA Pavement Density

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

E.3 Incentive for HMA Pavement Density

- (1) The department will administer density incentives as specified in standard spec 460.5.2.3.
stp-460-020 (20181119)

Schedule of Items

Attached, dated March 26, 2019, are the revised Schedule of Items Pages 2 and 7.

Plan Sheets

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

Revised: 63.

END OF ADDENDUM

Addendum No. 01
ID 4140-19-72
Revised Sheet 63
March 26, 2019

ASPHALTIC DRIVEWAYS

465.0120 ASPHALTIC SURFACE FIELD ENTRANCES*				465.0120 ASPHALTIC SURFACE FIELD ENTRANCES*				465.0120 ASPHALTIC SURFACE FIELD ENTRANCES*			
CATEGORY	STA.	OFFSET	TON	CATEGORY	STA.	OFFSET	TON	CATEGORY	STA.	OFFSET	TON
0010	163+72	RT	2	0010	393+00	LT	3	0010	492+01	RT	2
0010	164+95	RT	2	0010	394+30	RT	2	0010	493+17	RT	2
0010	167+70	RT	3	0010	395+20	LT	1	0010	496+68	LT	6
0010	169+02	RT	3	0010	395+62	RT	1	0010	497+31	RT	3
0010	171+85	RT	3	0010	396+78	RT	3	0010	498+10	RT	3
0010	175+58	RT	3	0010	397+56	RT	1	0010	498+14	LT	2
0010	179+69	RT	5	0010	398+75	RT	2	0010	498+82	RT	3
0010	189+16	RT	1	0010	398+92	LT	7	0010	499+79	LT	4
0010	195+27	RT	1	0010	399+62	RT	1	0010	500+65	RT	4
0010	196+67	RT	3	0010	401+05	RT	2	0010	501+73	LT	1
0010	202+23	RT	5	0010	410+26	RT	1	0010	502+38	LT	1
0010	206+78	RT	3	0010	413+65	RT	5	0010	506+52	RT	11
0010	229+31	RT	1	0010	414+76	RT	6	0010	508+01	LT	5
0010	242+25	RT	4	0010	415+66	RT	2	0010	512+66	LT	2
0010	244+98	RT	5	0010	422+56	RT	4	0010	514+45	RT	2
0010	256+75	RT	2	0010	427+51	LT	3	0010	514+52	LT	1
0010	259+13	RT	2	0010	427+59	RT	3	0010	516+03	LT	2
0010	261+39	LT	2	0010	428+86	RT	3	0010	516+03	RT	3
0010	264+23	LT	2	0010	429+11	LT	4	0010	519+34	LT	2
0010	269+74	LT	1	0010	430+79	LT	2	0010	521+87	RT	3
0010	271+39	LT	4	0010	431+64	LT	2	0010	525+08	LT	2
0010	273+98	LT	4	0010	433+85	LT	3	0010	526+12	LT	2
0010	278+03	LT	5	0010	436+68	LT	1	0010	527+01	RT	3
0010	288+32	LT	2	0010	440+42	RT	4	0010	527+42	LT	2
0010	295+80	LT	1	0010	441+37	LT	1	0010	528+20	RT	4
0010	302+02	RT	1	0010	447+23	LT	2	0010	528+39	LT	2
0010	304+27	RT	1	0010	447+72	RT	2	0010	529+81	LT	2
0010	305+58	RT	1	0010	448+33	RT	3	SUBTOTAL 0010			
0010	384+15	RT	4	0010	448+46	LT	2	TOTAL			
0010	385+29	RT	3	0010	450+54	RT	2	286			
0010	385+82	LT	17	0010	454+64	RT	6				
0010	387+36	LT	2	0010	455+28	LT	4				
0010	388+61	LT	2	0010	457+02	RT	7				
0010	389+64	LT	2	0010	467+83	RT	5				
0010	390+94	LT	2	0010	490+57	RT	3				
TOTAL				70	15,570	1,810	14,800	9,710	14,800	15,190	8,340
				30							12,360

*SEE CONSTRUCTION DETAIL FOR DRIVEWAY DEPTH

ASPHALT ITEMS

211.0400 PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS				315.0100 455.0605 ASPHALTIC BASE				460.2000 INCENTIVE DENSITY HMA PAVEMENT				460.2000 HMA PAVEMENT 3 LT 58-28 S				HMA PAVEMENT 4 LT 58-28 S			
CATG.	FROM	TO	LOCATION	STA	TON	TON**	DOL	TACK COAT GAL	TON	TON**	DOL	TON	TON**	TON**	TON**	TON**	TON**	TON**	TON**
0010	139+00	306+00	STH 42	---	---	---	---	6,870	---	---	---	7,650	4,850	7,650	6,080	4,170	6,080	---	---
0010	306+00	384+00	STH 42	---	70	1,680	---	7,020	---	---	---	7,150	4,860	7,150	2,830	4,170	6,280	---	---
0010	384+00	531+27	STH 42	50	---	---	---	---	---	---	---	14,800	9,710	14,800	15,190	8,340	12,360	---	---
SUBTOTAL 0010				50	70	15,570	1,810	15,570	70	15,570	1,810	14,800	9,710	14,800	15,190	8,340	12,360	---	---
TOTAL				50	70	15,570	1,810	15,570	70	15,570	1,810	14,800	9,710	14,800	15,190	8,340	12,360	---	---

(1) EXCLUDES EMBANK RECONSTRUCT FROM STA. 317+25 - 343+19.
(2) PREPARE FOUNDATION FOR ASPHALTIC SHOULDERING = STA. 423+23-459+20 & STA. 474+67-486+25
**TONNAGE IS ELIGIBLE FOR INCENTIVE DENSITY PAVEMENT 460.2005.
**TONNAGE IS ELIGIBLE FOR INCENTIVE AIR Voids 460.2010 AND DENSITY IS TESTED FOR ACCEPTANCE IN THOSE AREAS.

ASPHALT TEST STRIPS

460.0105 S				460.0110 S			
HMA PAV. TEST STRIP	VOLUMETRICS	HMA PAV. TEST STRIP	DENSITY	HMA PAV. TEST STRIP	VOLUMETRICS	HMA PAV. TEST STRIP	DENSITY
3 LT 58-28 S	EACH	4 LT 58-28 S	EACH	3 LT 58-28 S	EACH	4 LT 58-28 S	EACH
1	1	1	1	1	1	1	1
SUBTOTAL 0010				SUBTOTAL 0010			
2				2			
TOTAL				TOTAL			
2				2			

PREPARE FOUNDATION FOR ASPHALTIC PAVING

CATEGORY	STATION	LOCATION	REMARKS
0010	139+00 - 531+27	STH 42	211.0100.01
SUBTOTAL 0010			1
TOTAL			1

PROJECT NO: 4140-19-72

HWY: STH 42

COUNTY: DOOR

MISCELLANEOUS QUANTITIES

SHEET: 63

E

FILE NAME: N:\PDS\1030200_mq.pptx

PLOT DATE: June 14, 1911

PLOT BY: A.R.H.

PLOT NAME:

PLOT SCALE: 1:1



Proposal Schedule of Items

Page 2 of 7

Proposal ID: 20190409018 Project(s): 4140-19-72

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	211.0400 Prepare Foundation for Asphaltic Shoulders	50.000 STA	_____.	_____.
0036	213.0100 Finishing Roadway (project) 01. 4140-19-72	1.000 EACH	_____.	_____.
0038	305.0110 Base Aggregate Dense 3/4-Inch	5,220.000 TON	_____.	_____.
0040	305.0120 Base Aggregate Dense 1 1/4-Inch	2,705.000 TON	_____.	_____.
0042	305.0500 Shaping Shoulders	52.000 STA	_____.	_____.
0044	315.0100 Asphaltic Base	70.000 TON	_____.	_____.
0046	455.0605 Tack Coat	15,570.000 GAL	_____.	_____.
0048	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	2.000 EACH	_____.	_____.
0050	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.	_____.
0052	460.2005 Incentive Density PWL HMA Pavement	18,050.000 DOL	1.00000	18,050.00
0054	460.2007 Incentive Density HMA Pavement Longitudinal Joints	13,853.000 DOL	1.00000	13,853.00
0056	460.2010 Incentive Air Voids HMA Pavement	27,160.000 DOL	1.00000	27,160.00
0058	460.5223 HMA Pavement 3 LT 58-28 S	14,800.000 TON	_____.	_____.
0060	460.5224 HMA Pavement 4 LT 58-28 S	15,190.000 TON	_____.	_____.
0062	465.0120 Asphaltic Surface Driveways and Field Entrances	286.000 TON	_____.	_____.



Proposal Schedule of Items

Page 7 of 7

Proposal ID: 20190409018 Project(s): 4140-19-72

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	650.4000 Construction Staking Storm Sewer	5.000 EACH	_____.	_____.
0194	650.4500 Construction Staking Subgrade	3,047.000 LF	_____.	_____.
0196	650.5000 Construction Staking Base	3,047.000 LF	_____.	_____.
0198	650.6000 Construction Staking Pipe Culverts	1.000 EACH	_____.	_____.
0200	650.8000 Construction Staking Resurfacing Reference	34,633.000 LF	_____.	_____.
0202	650.9910 Construction Staking Supplemental Control (project) 01. 4140-19-72	LS	LUMP SUM	_____.
0204	650.9920 Construction Staking Slope Stakes	3,047.000 LF	_____.	_____.
0206	690.0150 Sawing Asphalt	4,953.000 LF	_____.	_____.
0208	740.0440 Incentive IRI Ride	13,118.000 DOL	1.00000	13,118.00
0210	SPV.0060 Special 01. Reconnecting Storm Sewer Laterals	2.000 EACH	_____.	_____.
0212	SPV.0060 Special 02. Inlets Median 1 Grate Special	1.000 EACH	_____.	_____.
0214	460.2000 Incentive Density HMA Pavement	1,810.000 DOL	1.00000	1,810.00
Section: 0001			Total:	_____.
			Total Bid:	_____.



Wisconsin Department of Transportation

April 4, 2014

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 #18: 4140-19-72
Gibraltar – Sister Bay
Gibraltar Rd – Country Walk Drive
STH 42
Door County

Letting of April 9, 2019

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

Special Provisions:

Added Special Provisions	
Article No.	Description
34	Adjusting Covers Resurfacing
35	Manhole Extension Ring, Item SPV.0060.03

Deleted Special Provisions	
Article No.	Description
24	Adjusting Manhole Covers
25	Cover Plate Temporary, Item 611.8120.S

Schedule of Items:

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
SPV.0060.03	Manhole Extension Ring	EA	0	32	32

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
611.8110	Adjusting Manhole Covers	EA	32	-32	0
611.8120.S	Cover Plates Temporary	EA	32	-32	0

Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
13	Construction Detail – Removes adjusting manhole construction detail.
65	Miscellaneous Quantities – Update miscellaneous quantities for changed items.
85-116	Plan Sheets – Change “Adjusting Manhole Cover” to “Manhole Extension Ring” in the legend.

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

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 02

4140-19-72

April 4, 2019

Special Provisions

24. DELETED

25. DELETED

34. Adjusting Covers Resurfacing

Adjusting Manhole Covers

Conform to standard spec 611 except as follows:

Delete standard spec 611.3.7 and replace with the following:

- (1) Adjust the lids of covers on resurfacing projects using adjustment castings designated for the purpose. Adjustment castings shall conform to the material requirements of standard spec 611. Provide the manufacturer's Certification of Compliance, product data sheet, and installation instructions to the engineer at least 14 days before the work.

ner-611-005 (20171213)

35. Manhole Extension Ring, Item SPV.0060.03

A Description

This special provision describes providing manhole extension rings to adjust existing manhole covers as the plans show and as follows.

B Materials

Use materials conforming to standard spec 611.2(4).

C Construction

Construct conforming to manufacturer instructions, construction details, and as follows.

Adjust the final cover elevation to be equivalent to or a maximum of 1/2-inch below the final asphalt surface.

Assemble the manhole cover, extension ring and frame in a manner that prevents rocking or chattering.

D Measurement

The department will measure Manhole Extension Ring as each individual unit acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Manhole Extension Ring	EACH

Payment is full compensation for furnishing and placing the manhole extension ring to the necessary elevation and removing and reinstalling the existing manhole cover.

ner-611-040 (20180423)

Schedule of Items

Attached, dated April 4, 2019, are the revised Schedule of Items Pages 1 - 7.

Plan Sheets

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

Revised: 13, 65, and 85-116.

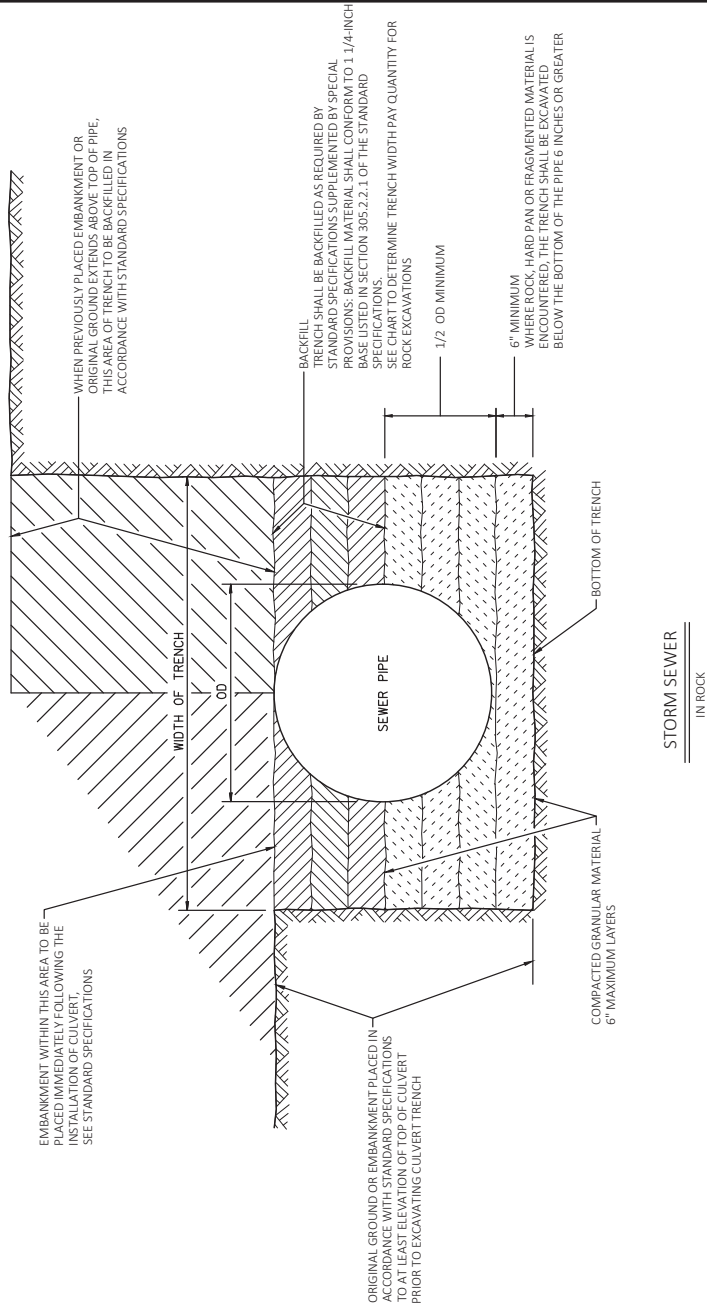
END OF ADDENDUM



Addendum No. 02
ID 4140-19-72
Revised Sheet 13
April 4, 2019

NOTE:
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT
SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD
SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

PIPE HORIZONTAL DIAMETER	TRENCH WIDTH PAY QUANTITY WHEN IN ROCK
12"	52"
15"	56"
18"	59"
24"	66"
30"	73"
36"	80"
38"	82"
45"	90"
53"	99"



FILE NAME : N:\PDS\330\41401972\SHEETS\PLAN\021001-CD.DWG

LAYOUT NAME - 021005-CD

PLOT DATE : 4/4/2019 11:08 AM

PLOT BY : KIRST, DOUGLAS P

PLOT NAME :

PLOT SCALE : 1" = 1'

WISDOT/CADD SHEET 42

Addendum No. 02
ID 4140-19-72
Revised Sheet 65
April 4, 2019

MANHOLE EXTENSION KING

CATEGORY	STATION	LOCATION	SPV.0060.03 EACH	REMARKS
0010	301+33	STH 42 44' RT	1	STORM SEWER
SUBTOTAL 0010				1
0070	295+47	STH 42 RT	1	SANITARY
0070	296+81	STH 42 RT	1	SANITARY
0070	298+44	STH 42 RT	1	SANITARY
0070	301+46	STH 42 RT	1	SANITARY
0070	304+46	STH 42 RT	1	SANITARY
0070	386+36	STH 42 RT	1	SANITARY
0070	389+12	STH 42 RT	1	SANITARY
0070	391+82	STH 42 RT	1	SANITARY
0070	394+59	STH 42 RT	1	SANITARY
0070	398+82	STH 42 RT	1	SANITARY
0070	398+95	STH 42 RT	1	SANITARY
0070	400+88	STH 42 RT	1	SANITARY
0070	402+92	STH 42 RT	1	SANITARY
0070	404+92	STH 42 RT	1	SANITARY
0070	406+94	STH 42 RT	1	SANITARY
0070	409+18	STH 42 RT	1	SANITARY
0070	413+16	STH 42 RT	1	SANITARY
0070	415+18	STH 42 RT	1	SANITARY
0070	417+17	STH 42 RT	1	SANITARY
0070	420+58	STH 42 RT	1	SANITARY
0070	422+30	STH 42 RT	1	SANITARY
0070	427+61	STH 42 RT	1	SANITARY
0070	427+63	STH 42 RT	1	SANITARY
0070	431+94	STH 42 RT	1	SANITARY
0070	435+53	STH 42 RT	1	SANITARY
0070	440+35	STH 42 RT	1	SANITARY
0070	445+35	STH 42 RT	1	SANITARY
0070	450+29	STH 42 RT	1	SANITARY
0070	451+92	STH 42 RT	1	SANITARY
0070	456+58	STH 42 RT	1	SANITARY
0070	459+29	STH 42 RT	1	SANITARY
SUBTOTAL 0070				31
TOTAL				32

GUARDRAIL ITEMS

CATEGORY	STATION TO	STATION	LOCATION	LF	LF	GUARDRAIL 3 K	GUARDRAIL TERMINAL EAT	REMARKS
0010	475+10	-	475+63	STH 42 LT	---	---	1	
0010	474+97	-	475+50	STH 42 RT	---	---	1	
0010	475+63	-	485+01	STH 42 LT	938	---	---	
0010	475+50	-	476+00	STH 42 RT	50	---	---	
0010	476+00	-	481+25	STH 42 RT	---	575	---	
0010	481+25	-	484+53	STH 42 RT	278	---	---	
0010	483+53	-	485+54	STH 42 LT	---	---	1	
0010	484+53	-	485+06	STH 42 RT	---	---	1	
SUBTOTAL 0010				1,266	575	4		
TOTAL				1,266	575	4		

MARKERS CULVERT END

CATG.	STATION	LOCATION	633.5200 EACH	REMARKS
0010	370+03	STH 42 LT	1	
0010	450+30	STH 42	2	
SUBTOTAL 0010			3	
TOTAL			3	

PROJECT NO: 4140-19-72

HWY: STH 42

COUNTY: DOOR

MISCELLANEOUS QUANTITIES

SHEET: 65

E

FILE NAME : N:\PDS\1\030200_mq.pptx

PLOT DATE : June 14, 1911

PLOT BY : A.R.H.

PLOT NAME :

PLOT SCALE : 1:1

Addendum No. 02
ID 4140-19-72
Revised Sheet 85
April 4, 2019

OR03

ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE

AG01

BASE AGGREGATE DENSE 1-INCH

AP02

2-INCHES HMA PAVEMENT LT 58-28 S

4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2-INCH

AP04

4-INCHES HMA PAVEMENT LT 58-28 S

MO2

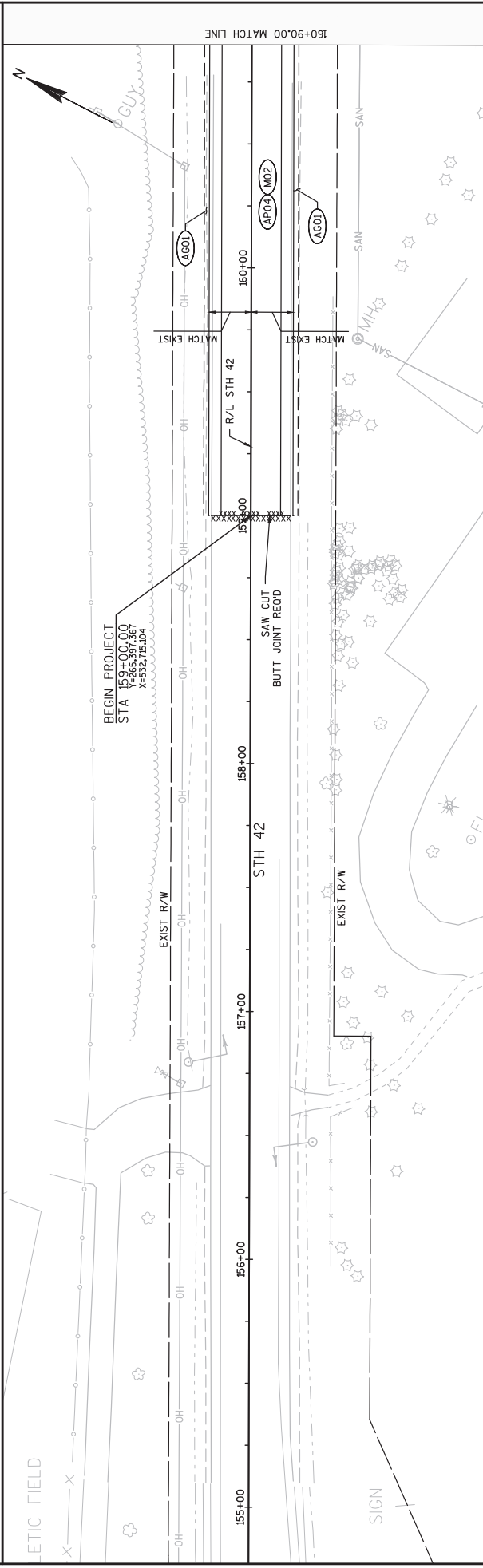
REMOVING ASPHALTIC SURFACE MILLING 2-INCH

SM01

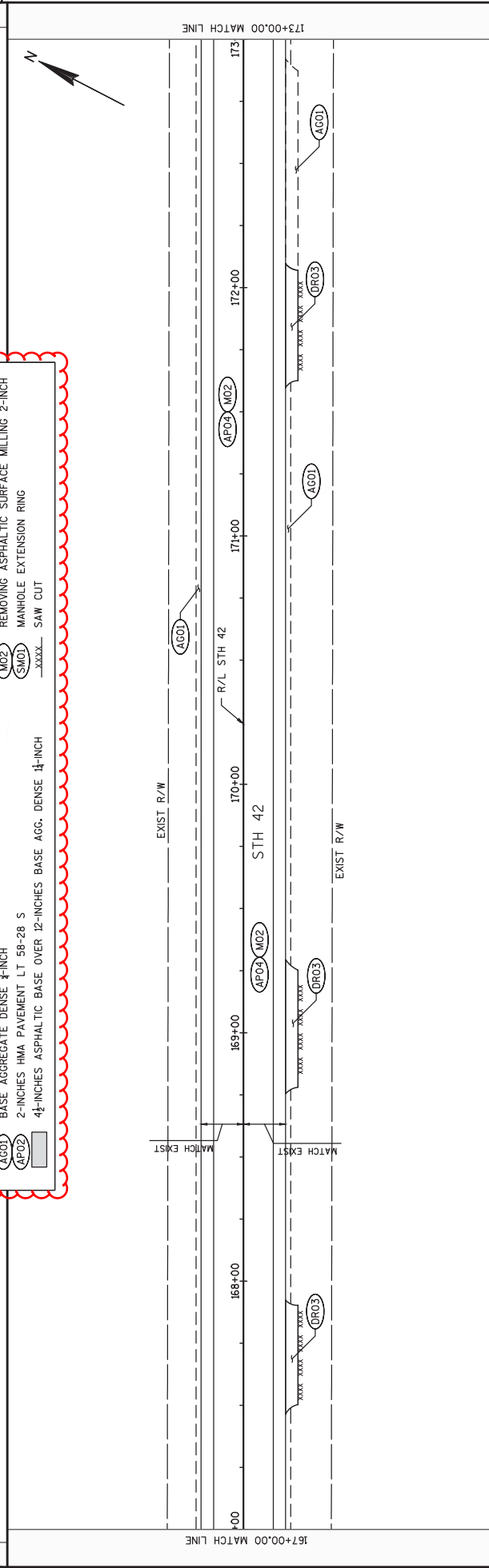
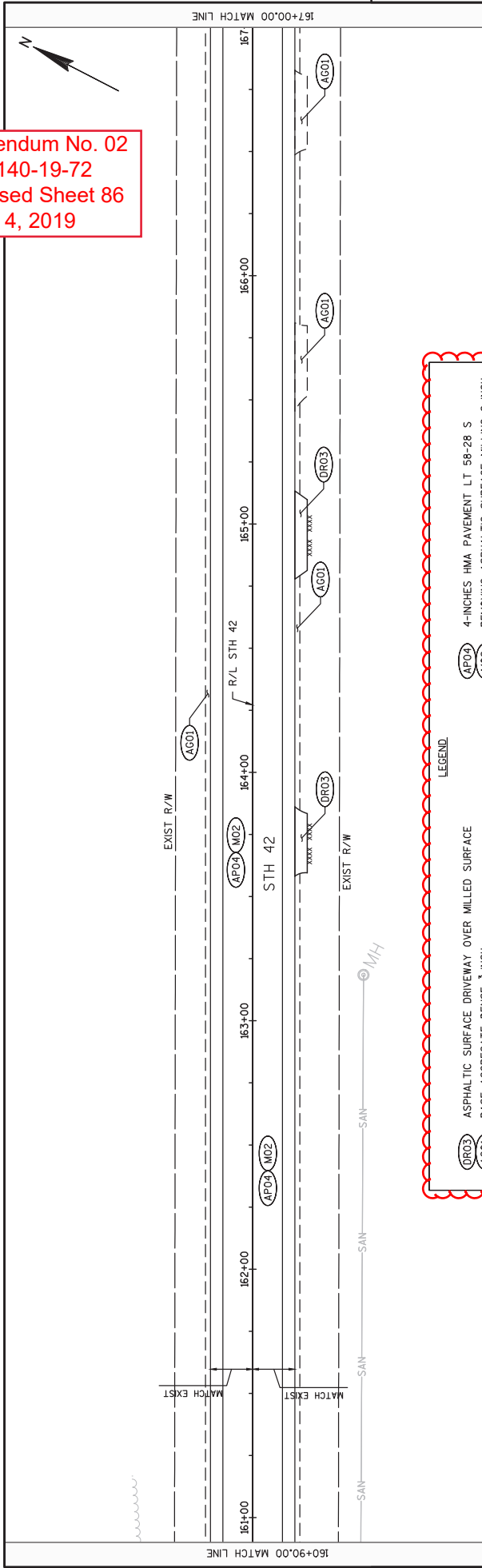
MANHOLE EXTENSION RING

XXXX

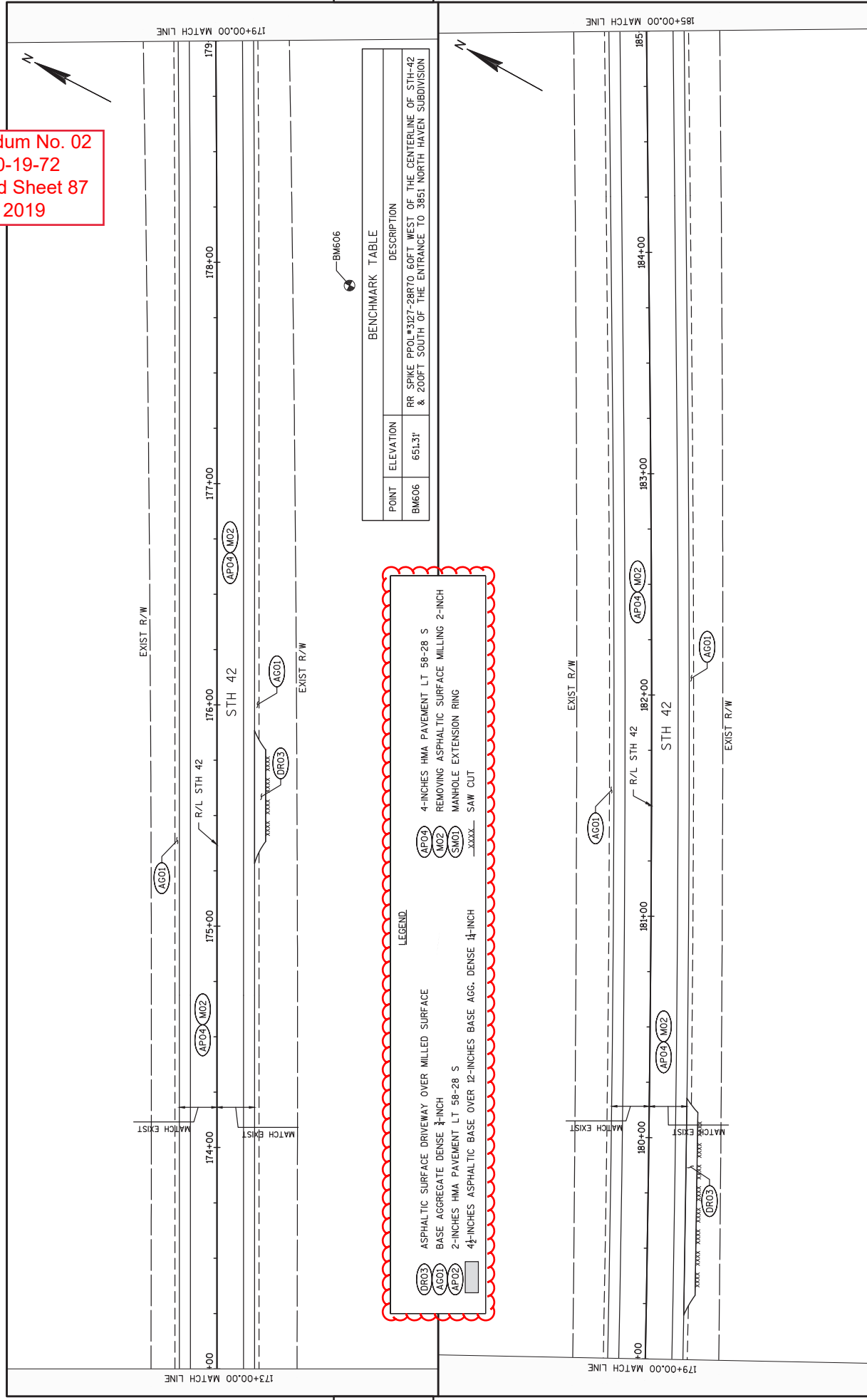
SAW CUT



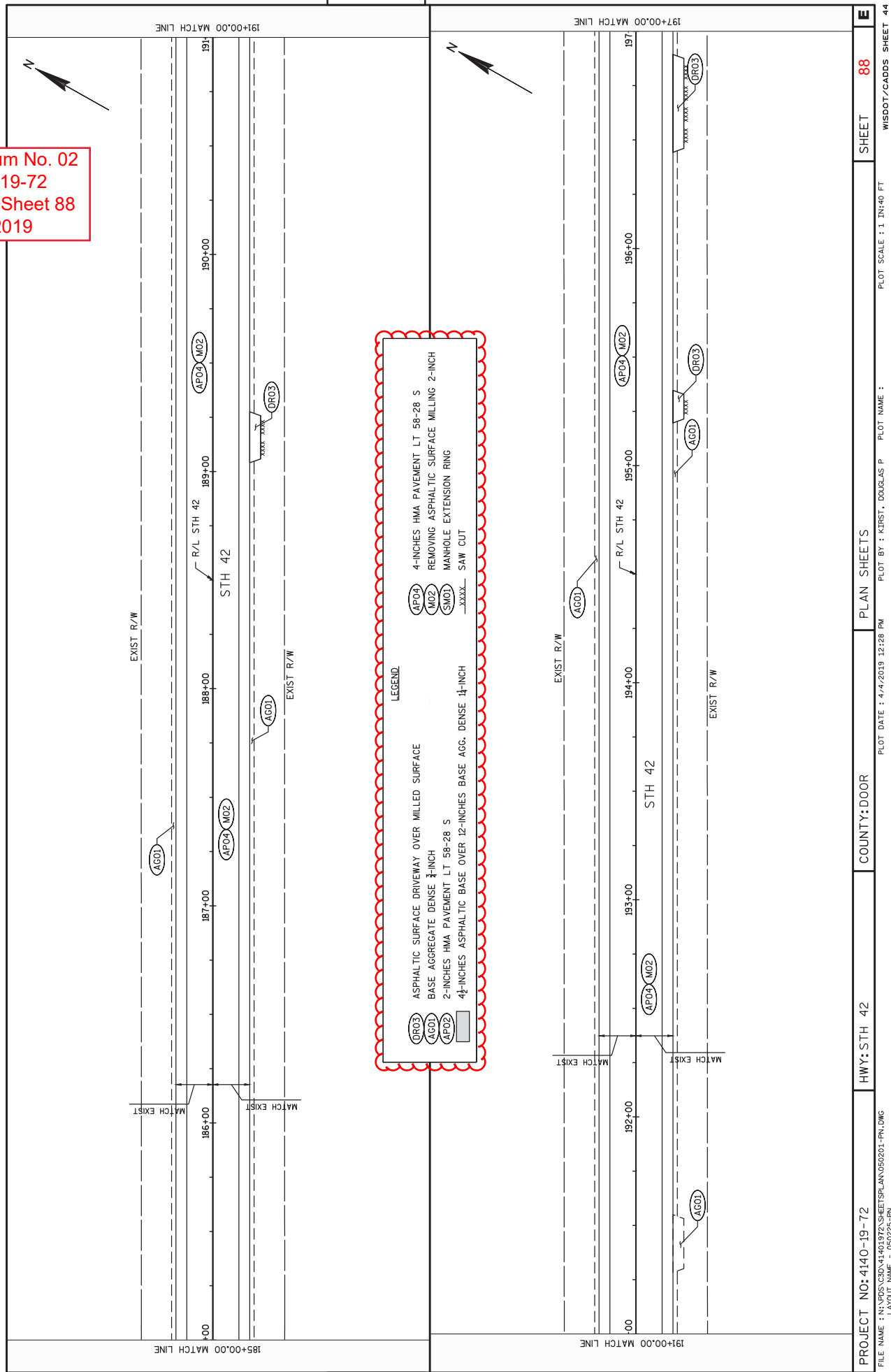
Addendum No. 02
ID 4140-19-72
Revised Sheet 86
April 4, 2019



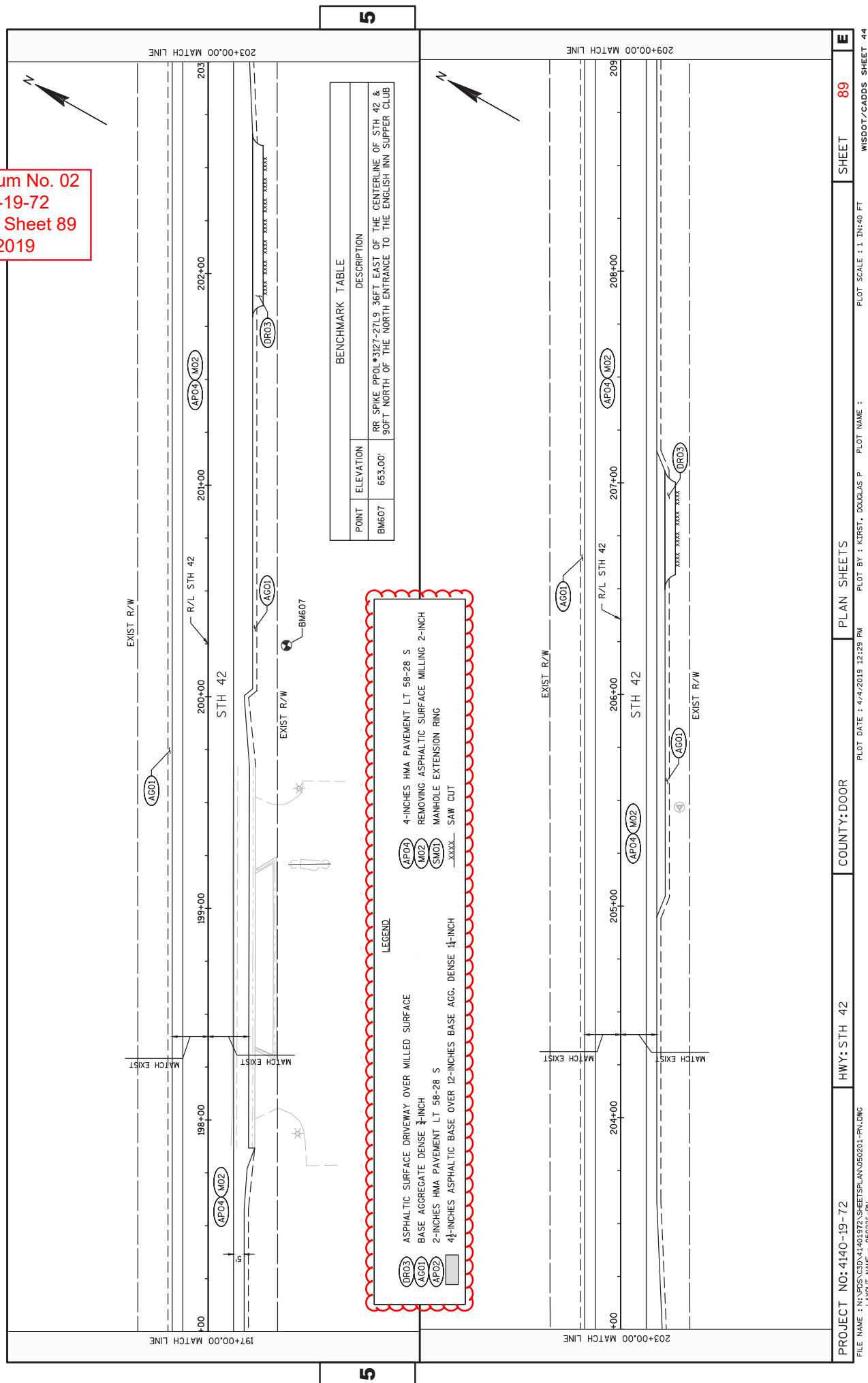
Addendum No. 02
ID 4140-19-72
Revised Sheet 87
April 4, 2019



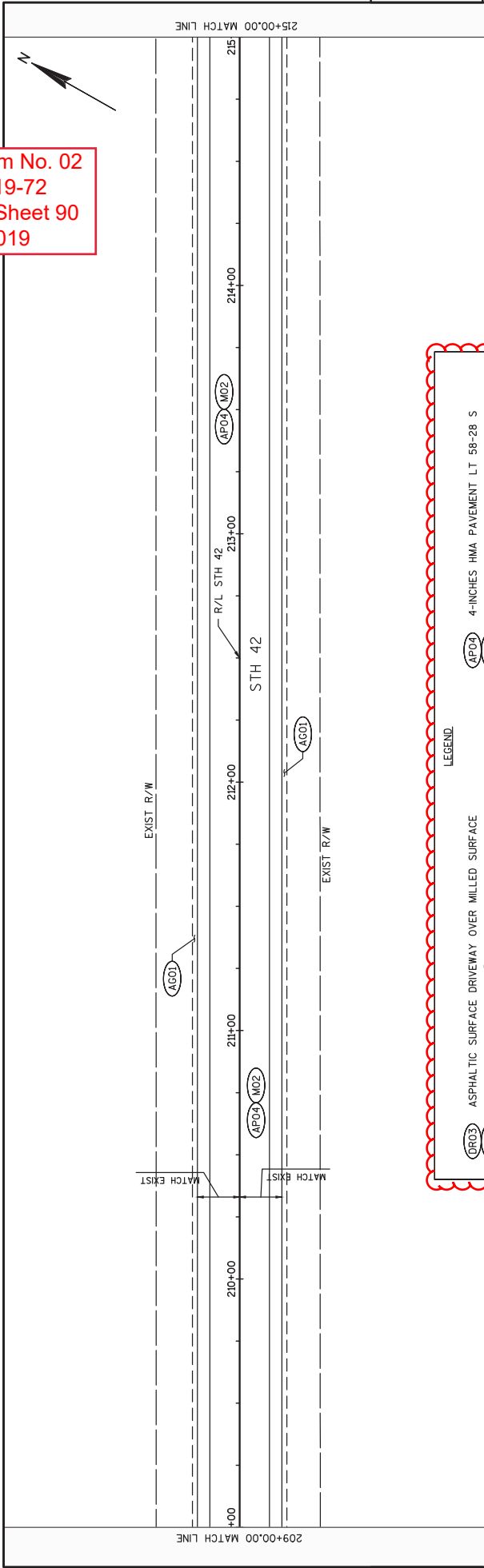
Addendum No. 02
ID 4140-19-72
Revised Sheet 88
April 4, 2019



Addendum No. 02
ID 4140-19-72
Revised Sheet 89
April 4, 2019

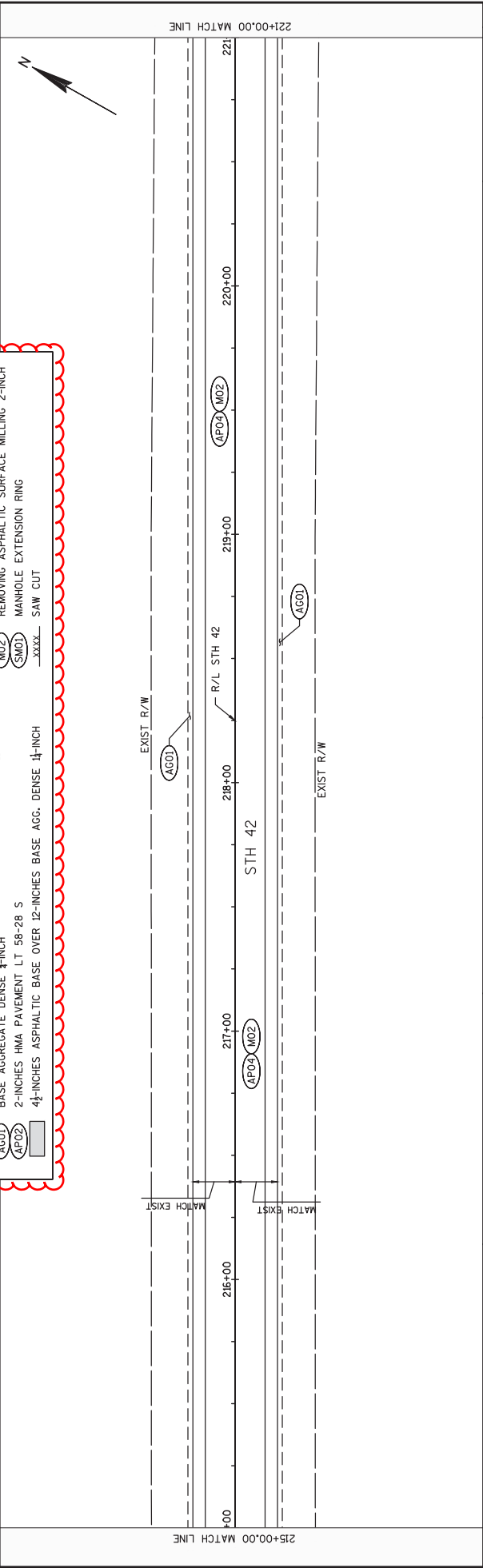


Addendum No. 02
ID 4140-19-72
Revised Sheet 90
April 4, 2019



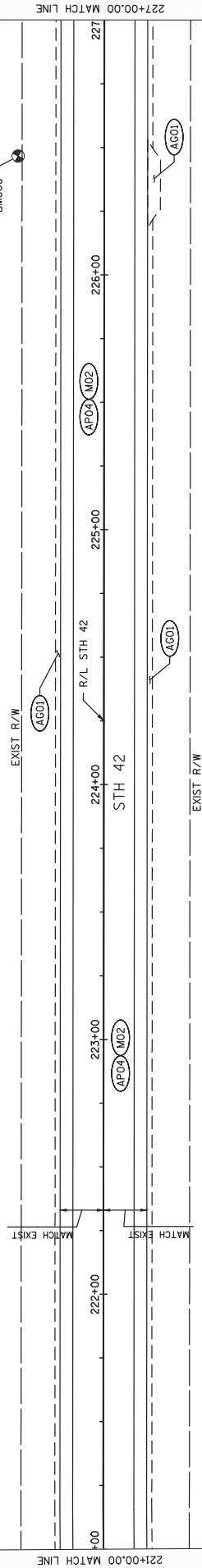
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5



Addendum No. 02
ID 4140-19-72
Revised Sheet 91
April 4, 2019

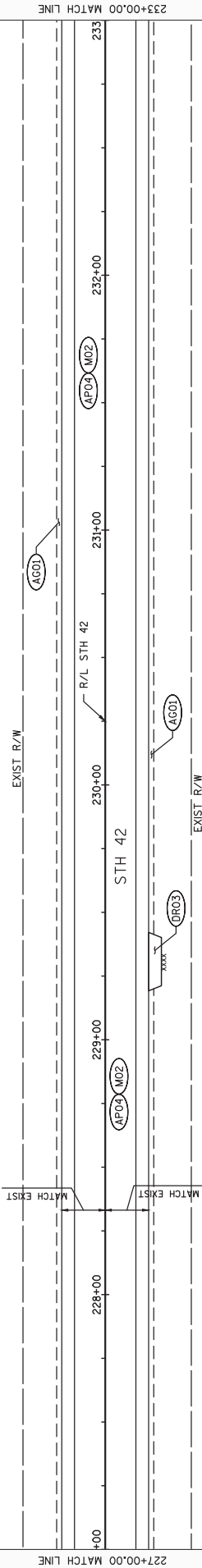
BENCHMARK TABLE	
POINT	DESCRIPTION
BM608	RR SPIKE IN A 24" RED OAK 35FT EAST OF THE CENTERLINE OF STH 42 & 10 FT NORTH OF THE EXTENDED CENTERLINE OF A PRIVATE ENTRANCE FIRE #3565
BM608	725.67'



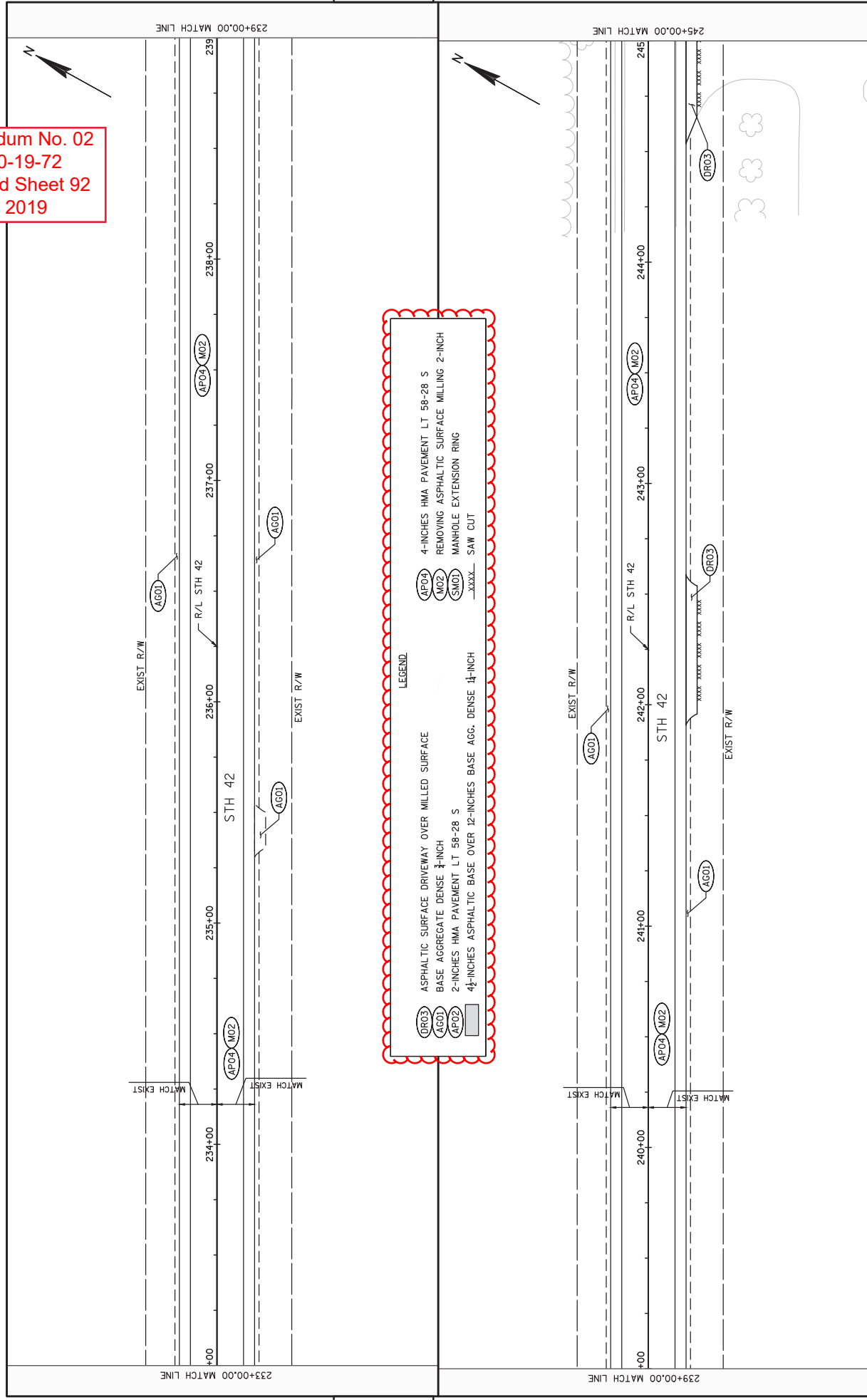
5

5

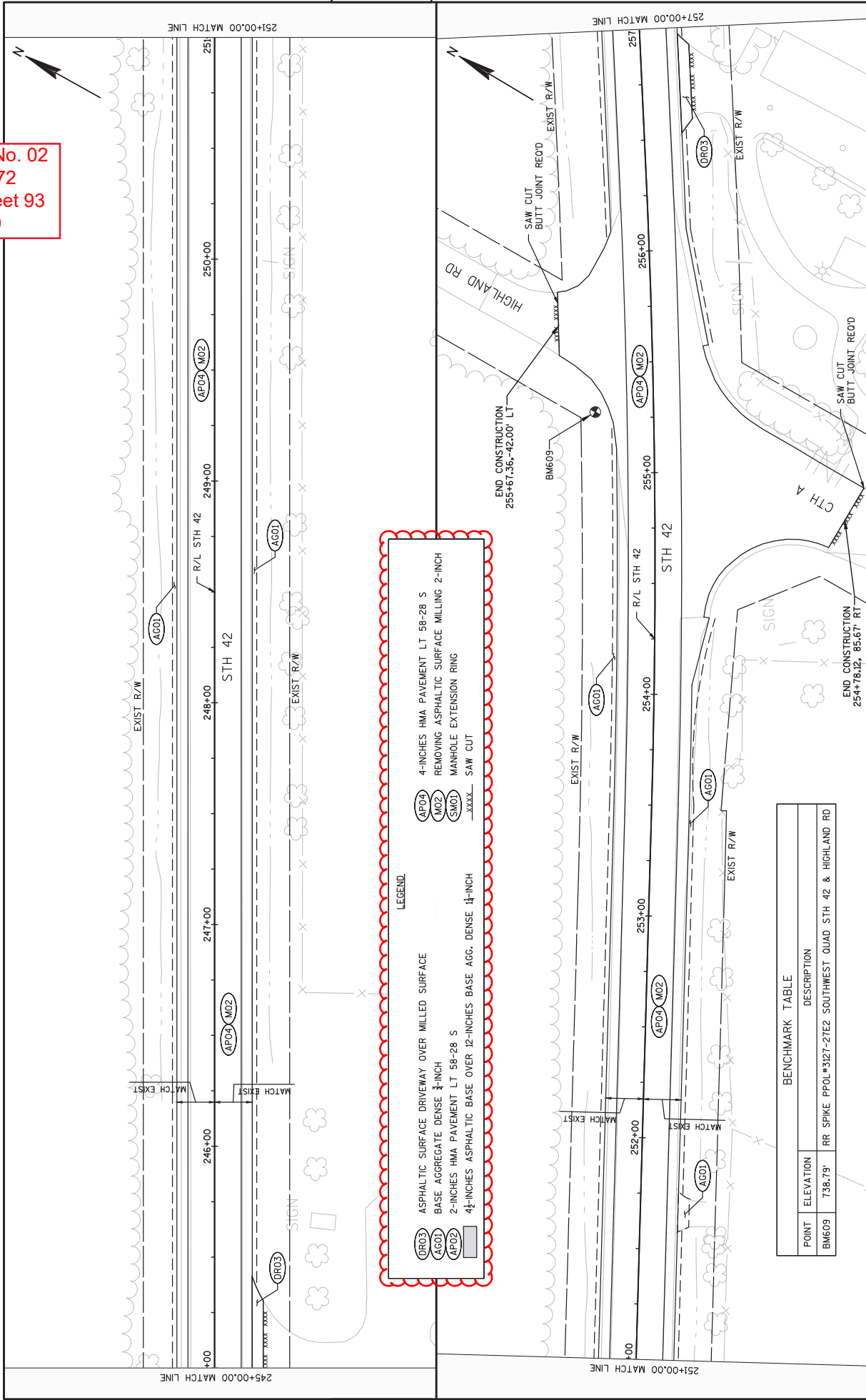
LEGEND	
(OR03)	ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE
(AG01)	BASE AGGREGATE DENSE 1 1/2-INCH
(AP02)	2-INCHES HMA PAVEMENT LT 58-28 S
(AP03)	4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2-INCH
(AP04)	4-INCHES HMA PAVEMENT LT 58-28 S
(M02)	REMOVING ASPHALTIC SURFACE MILLING 2-INCH
(SM01)	MANHOLE EXTENSION RING
XXXX	SAW CUT



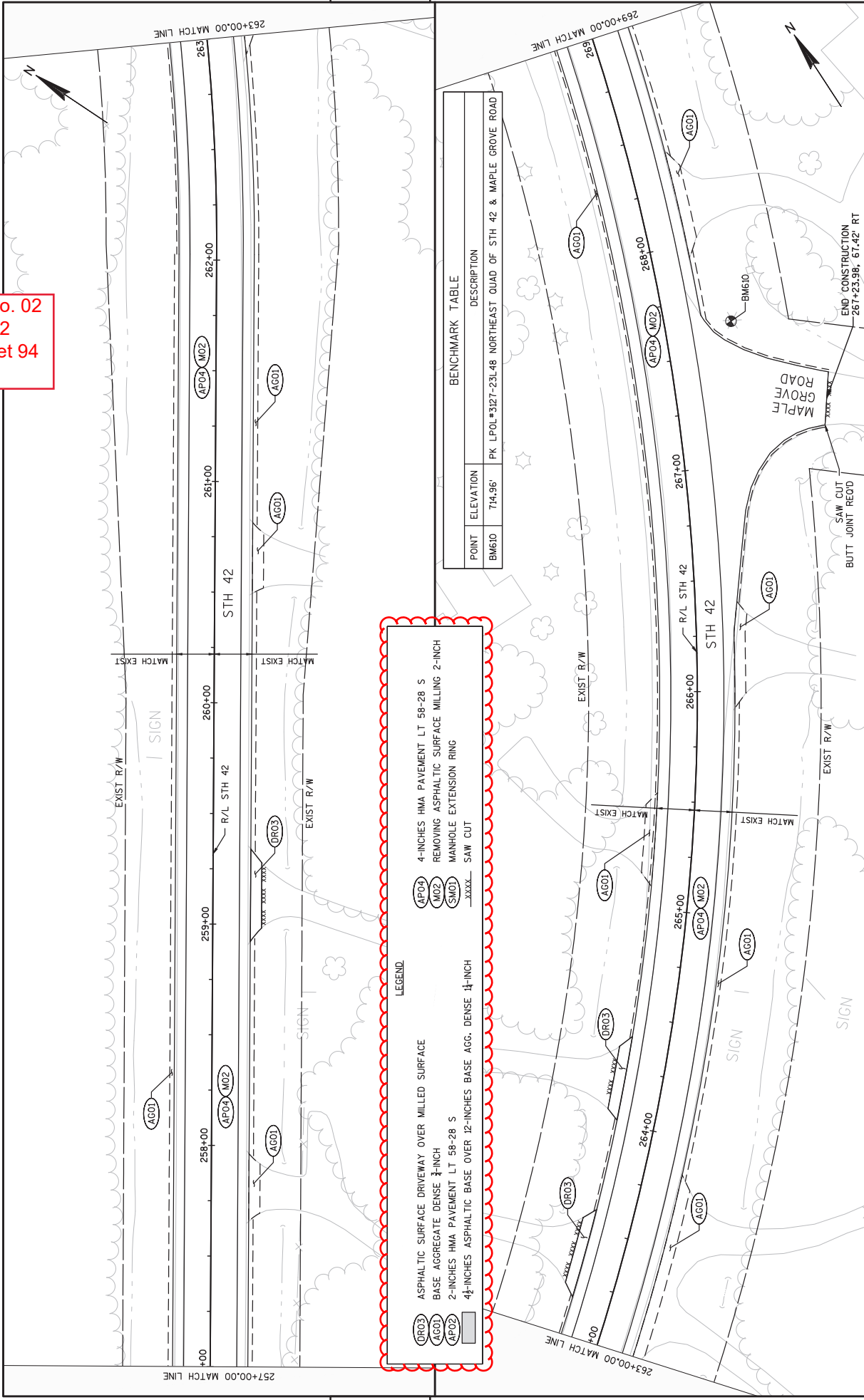
Addendum No. 02
ID 4140-19-72
Revised Sheet 92
April 4, 2019



Addendum No. 02
ID 4140-19-72
Revised Sheet 93
April 4, 2019



Addendum No. 02
ID 4140-19-72
Revised Sheet 94
April 4, 2019

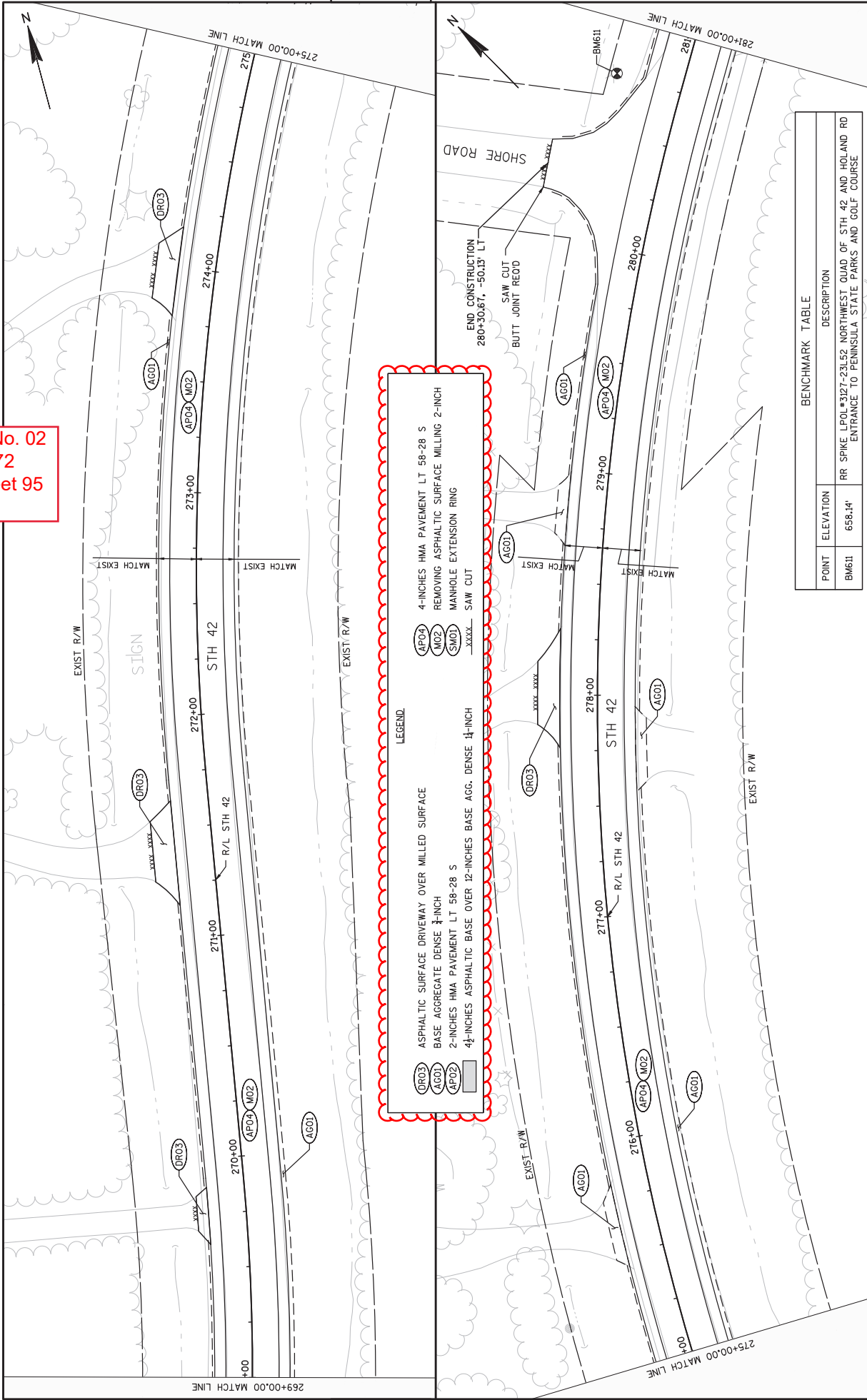


LEGEND

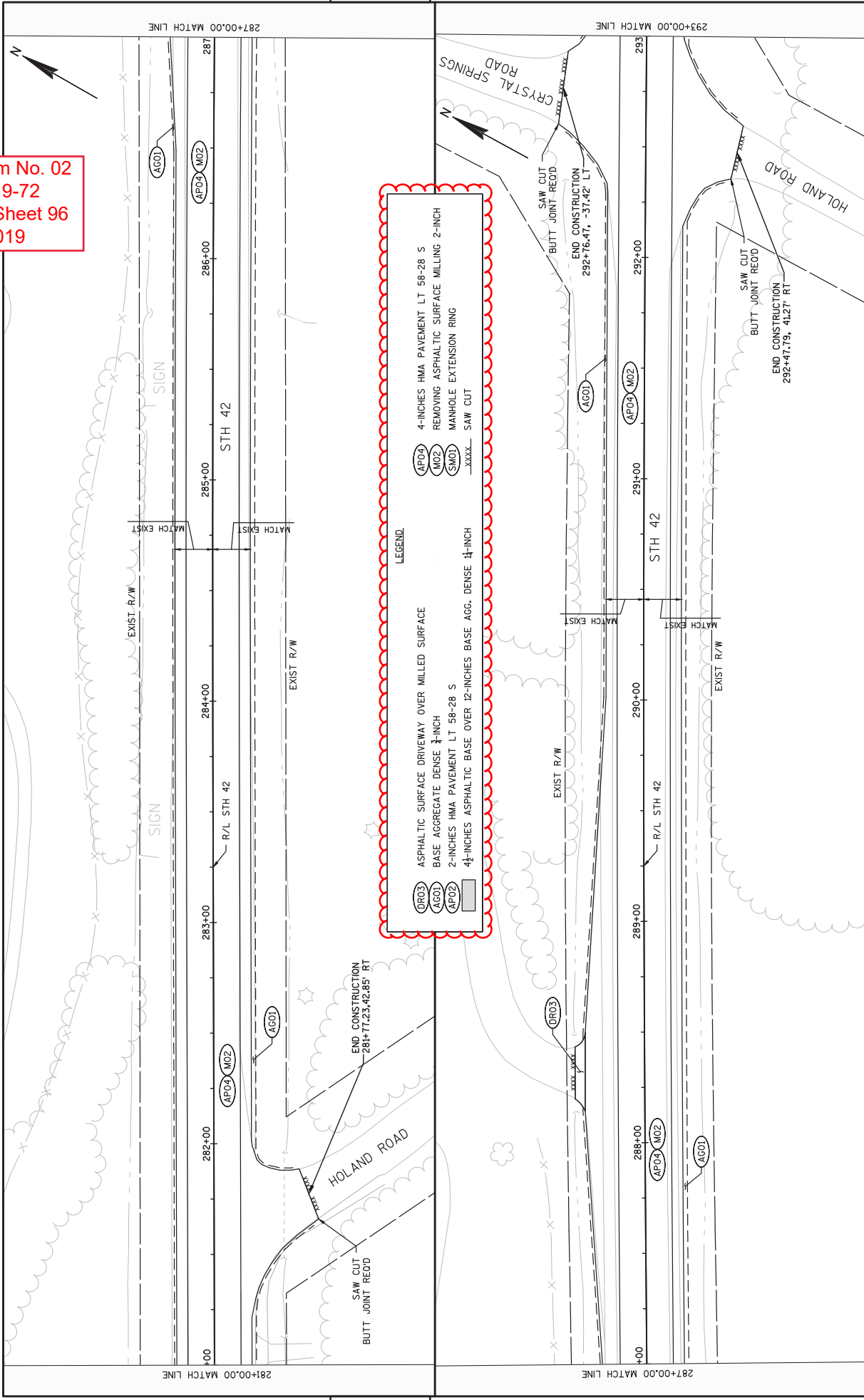
	ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE
	BASE AGGREGATE DENSE 1/2 INCH
	2-INCHES HMA PAVEMENT LT 58-28 S
	4-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2 INCH
	4-INCHES HMA PAVEMENT LT 58-28 S
	REMOVING ASPHALTIC SURFACE MILLING 2-INCH MANHOLE EXTENSION RING
	SAW CUT

BENCHMARK TABLE	
POINT	ELEVATION
BM610	714.96'
PK LPOL*3127-23L48 NORTHEAST QUAD OF STH 42 & MAPLE GROVE ROAD	

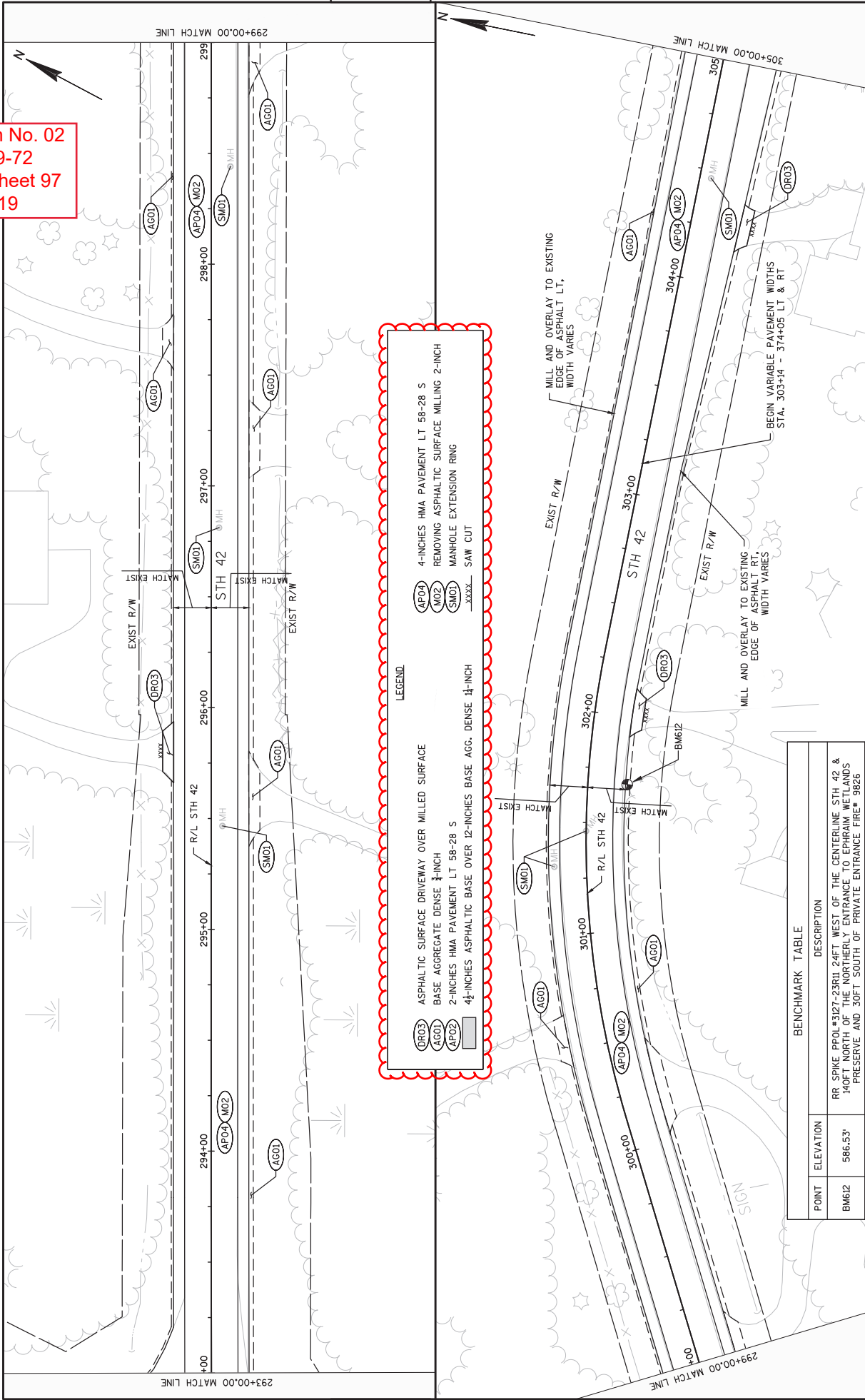
Addendum No. 02
ID 4140-19-72
Revised Sheet 95
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Addendum No. 02
ID 4140-19-72
Revised Sheet 96
April 4, 2019



Addendum No. 02
ID 4140-19-72
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April 4, 2019

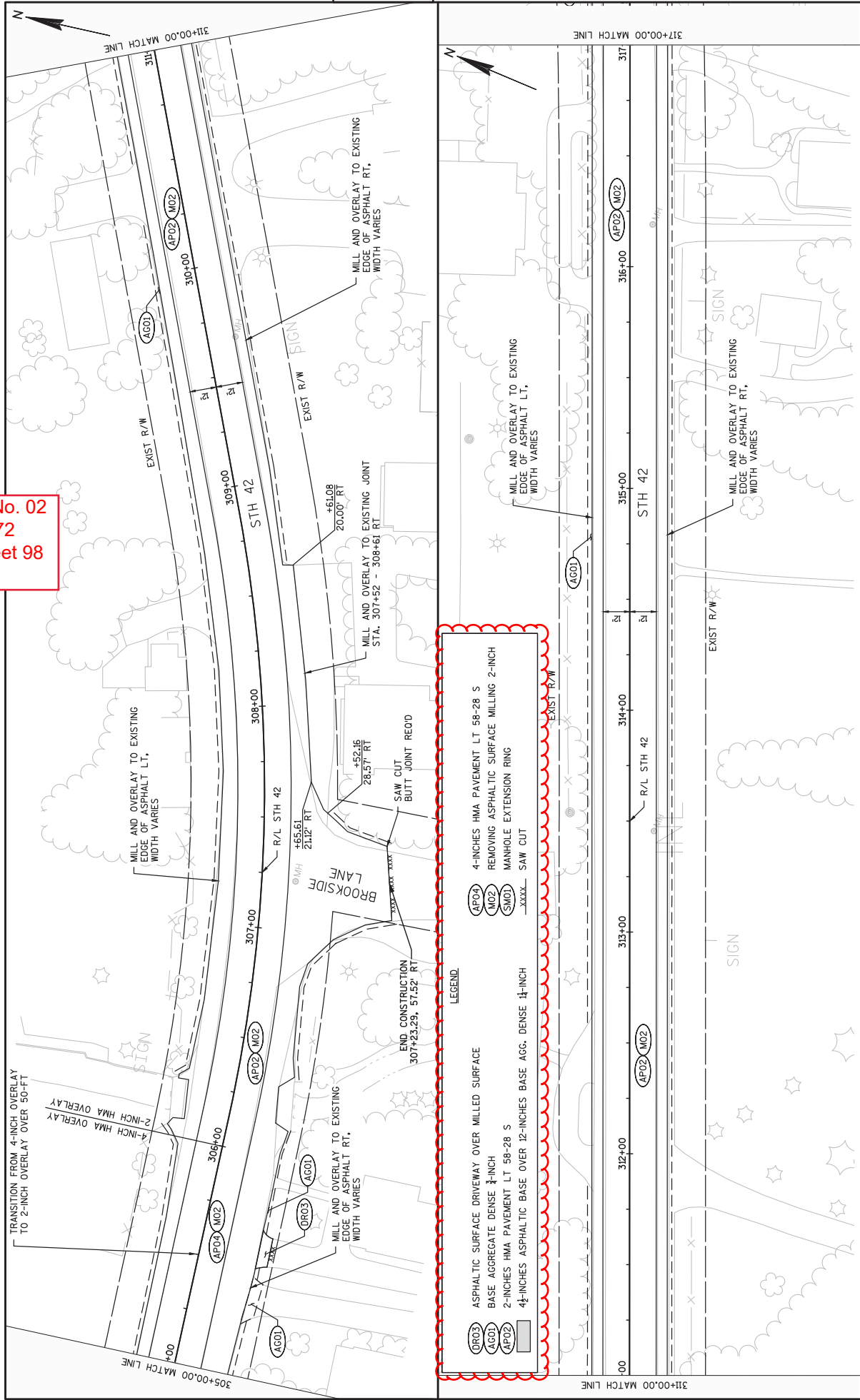


LEGEND

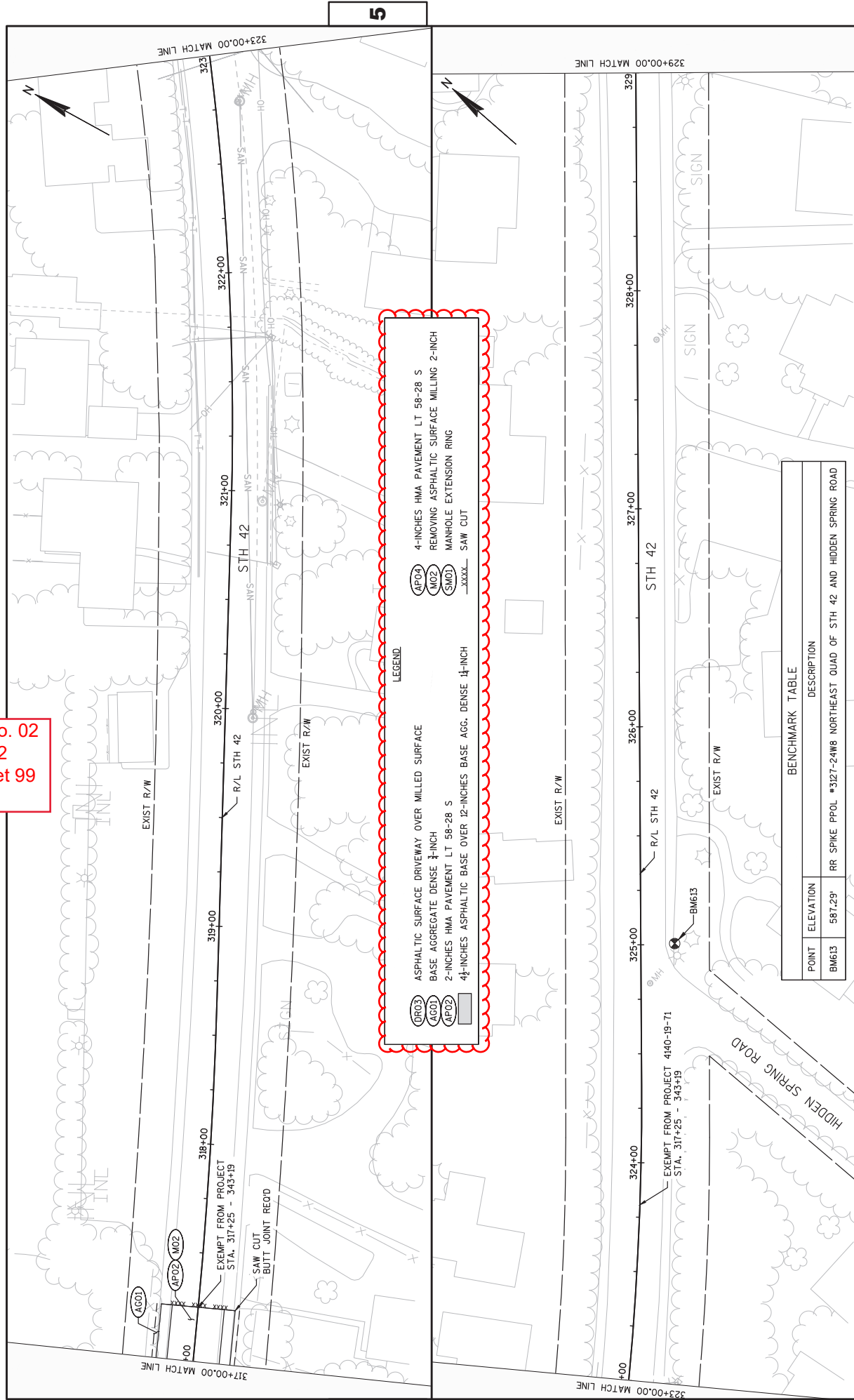
DR03	ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE
AG01	BASE AGGREGATE DENSE 1 1/2-INCH
AP02	2-INCHES HMA PAVEMENT LT 58-28 S
AP04	4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2-INCH
SM01	4-INCHES HMA PAVEMENT LT 58-28 S
SM02	REMOVING ASPHALTIC SURFACE MILLING 2-INCH
SM03	MANHOLE EXTENSION RING
XXXX	SAW CUT

BENCHMARK TABLE	
POINT	DESCRIPTION
BM612	RR SPIKE POB #107-23RH 24FT WEST OF THE CENTERLINE STH 42 & 100 FT NORTH OF THE NORWAY ENTRANCE TO PRIVATE WEIR WEIR PRESERVE AND 30FT SOUTH OF PRIVATE ENTRANCE FIRE 3826

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Revised Sheet 99
April 4, 2019



PROJECT NO: 4140-19-72		HWY: STH 42	COUNTY: DOOR	PLAN SHEETS	SHEET 100	E
FILE NAME : N:\SYNCS\320\41401372\SHEETS\PLAN\050201-PN.DWG						
PLOT DATE : 4/4/2019 12:37 PM				PLOT BY : KIRST, DOUGLAS P	PLOT NAME : WISDOT/CADD'S SHEET 414	
				PLOT SCALE : 1 IN=40 FT		

BENCHMARK TABLE

POINT	ELEVATION	DESCRIPTION
BM614	584.02'	CHISELED X ON THE NORTHWEST BOLT OF A FLAG POLE BASE 100FT EAST OF THE CENTERLINE STH 42 AT VILLAGE OF EPHRAIM FIRE HOUSE EPHRAIM FIRE HOUSE LAUNCH

Map details include:
- Stationing: 340+00 MATCH LINE, 342+00, 343+00, 344+00, 345+00, 346+00, 347+00 MATCH LINE.
- Roadway: STH 42, R/L STH 42.
- Features: CHERRY STREET, SIGN, STATUE, MILL AND OVERLAY TO EXISTING EDGE OF ASPHALT LT., DO NOT PERFORM WORK ON PARCEL #15. SEE SPECIAL PROVISIONS, SAW CUT BUT JOINT REQ'D, EXEMPT FROM PROJECT 4140-19-71 STA. 317+25 - 343+19.
- Elevation points: +86.69 -20.00' LT, +16.69 22.66' RT, +81.70 21.63' RT, +36.31 22.28' RT, +75.09 19.49' RT.

[illegible]

[illegible]

LEGEND:

- AP02: 41-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2-INCH
- MO2: 2-INCHES HMA PAVEMENT LT 58-28 S
- SM02: REMOVING ASPHALTIC SURFACE MILLING 2-INCH
- XXXX: MANHOLE EXTENSION RING
- XXXX: SAW CUT

CONSTRUCTION DETAILS:

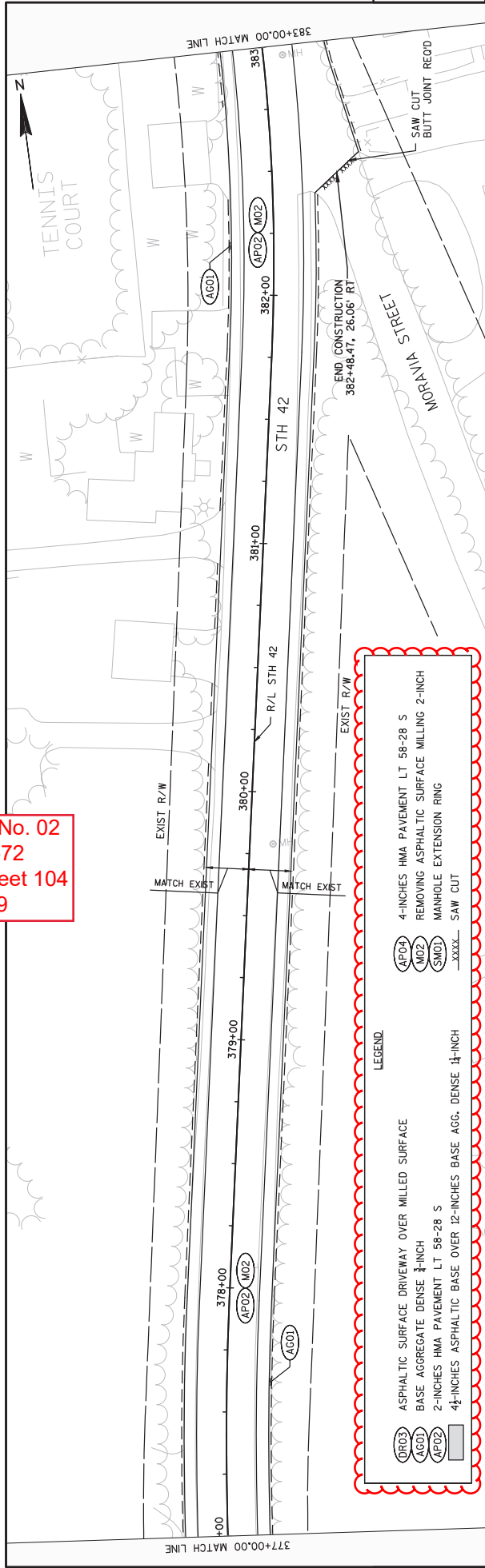
- MILL AND OVERLAY TO EXISTING EDGE OF ASPHALT LT. WIDTH VARIES
- MILL AND OVERLAY TO EXISTING ASPHALT JOINT STA. 371+46 - 371+99 LT
- MILL AND OVERLAY TO EXISTING EDGE OF ASPHALT LT. WIDTH VARIES
- SAW CUT BUTT JOINT RECD
- END CONSTRUCTION 371+59.31, 32.00' RT
- END VARIABLE PAVEMENT WIDTHS STA. 303+14 - 374+05 LT & RT

BENCHMARK TABLE

POINT	ELEVATION	DESCRIPTION
BM616	600.29'	RR SPIKE TPO1#18 24FT EAST OF THE CENTERLINE STH 42 & 240FT NORTH OF ANDERSON RD

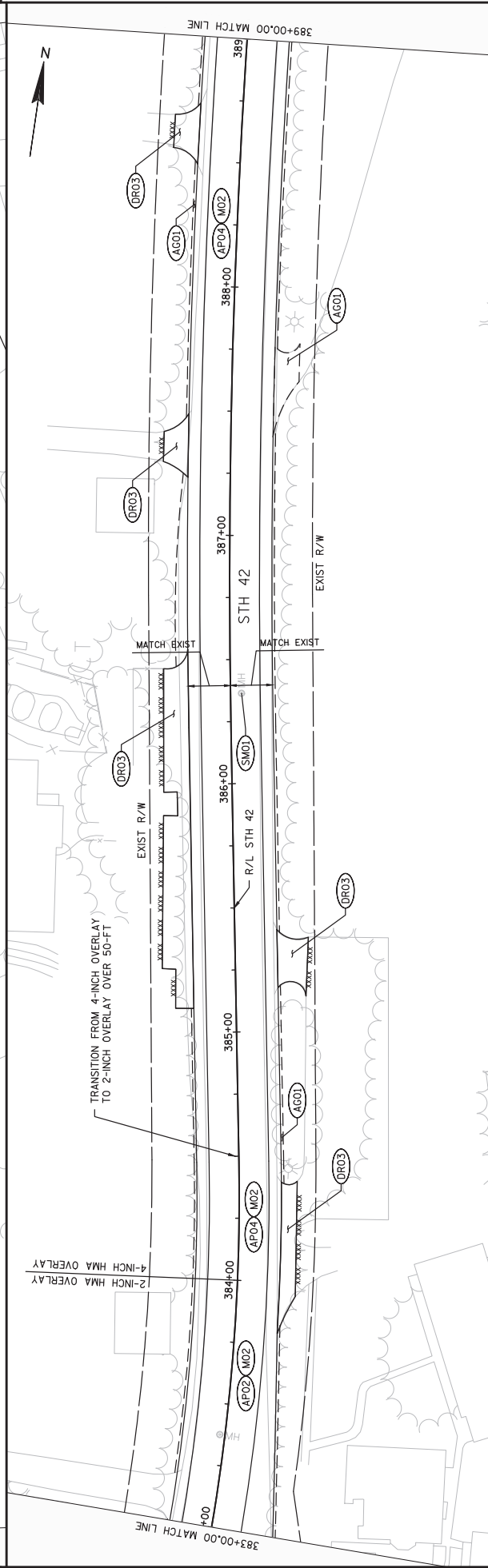
BENCHMARK TABLE		
POINT	ELEVATION	DESCRIPTION
BM615	600.29'	RR SPIKE TPO#18 24FT EAST OF THE CENTERLINE STH 42 & 240FT NORTH OF ANDERSON RD

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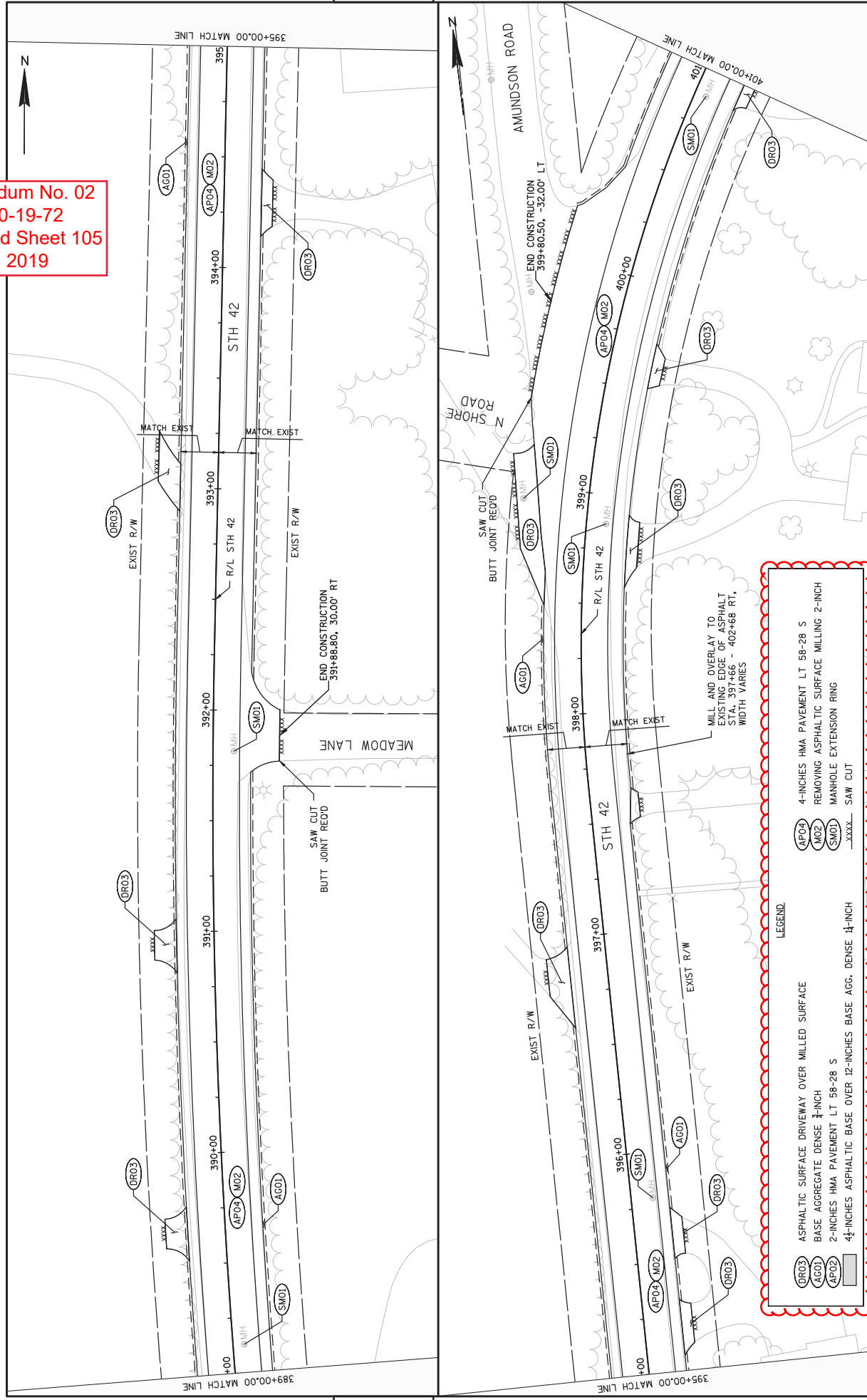


LEGEND

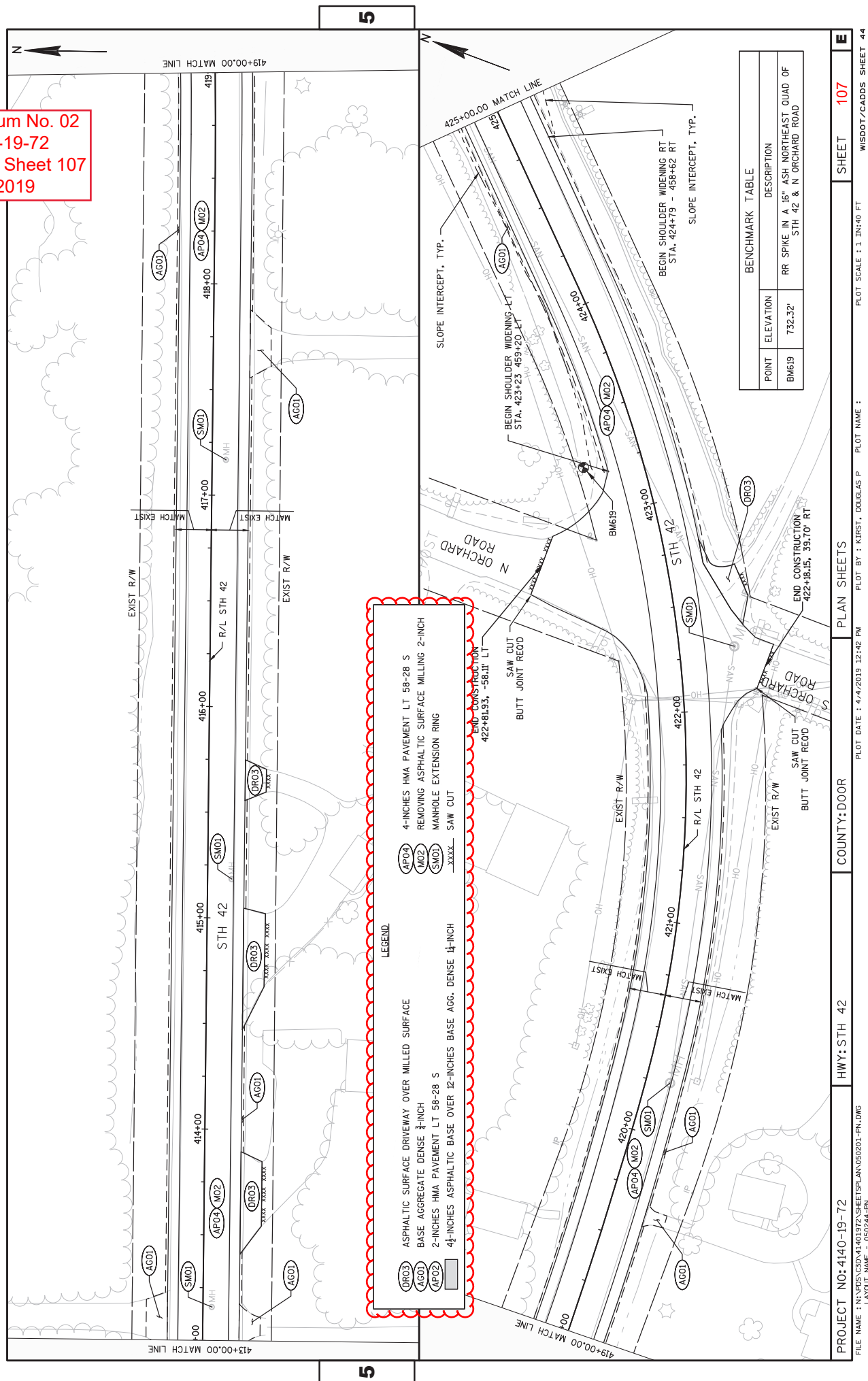
	4-INCHES ASPHALTIC DRIVEWAY OVER MILLED SURFACE		4-INCHES HMA PAVEMENT LT 58-28 S
	BASE AGGREGATE DENSE 1 1/2-INCH		REMOVING ASPHALTIC SURFACE MILLING 2-INCH
	2-INCHES HMA PAVEMENT LT 58-28 S		MANHOLE EXTENSION RING
	4-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2-INCH		SAW CUT



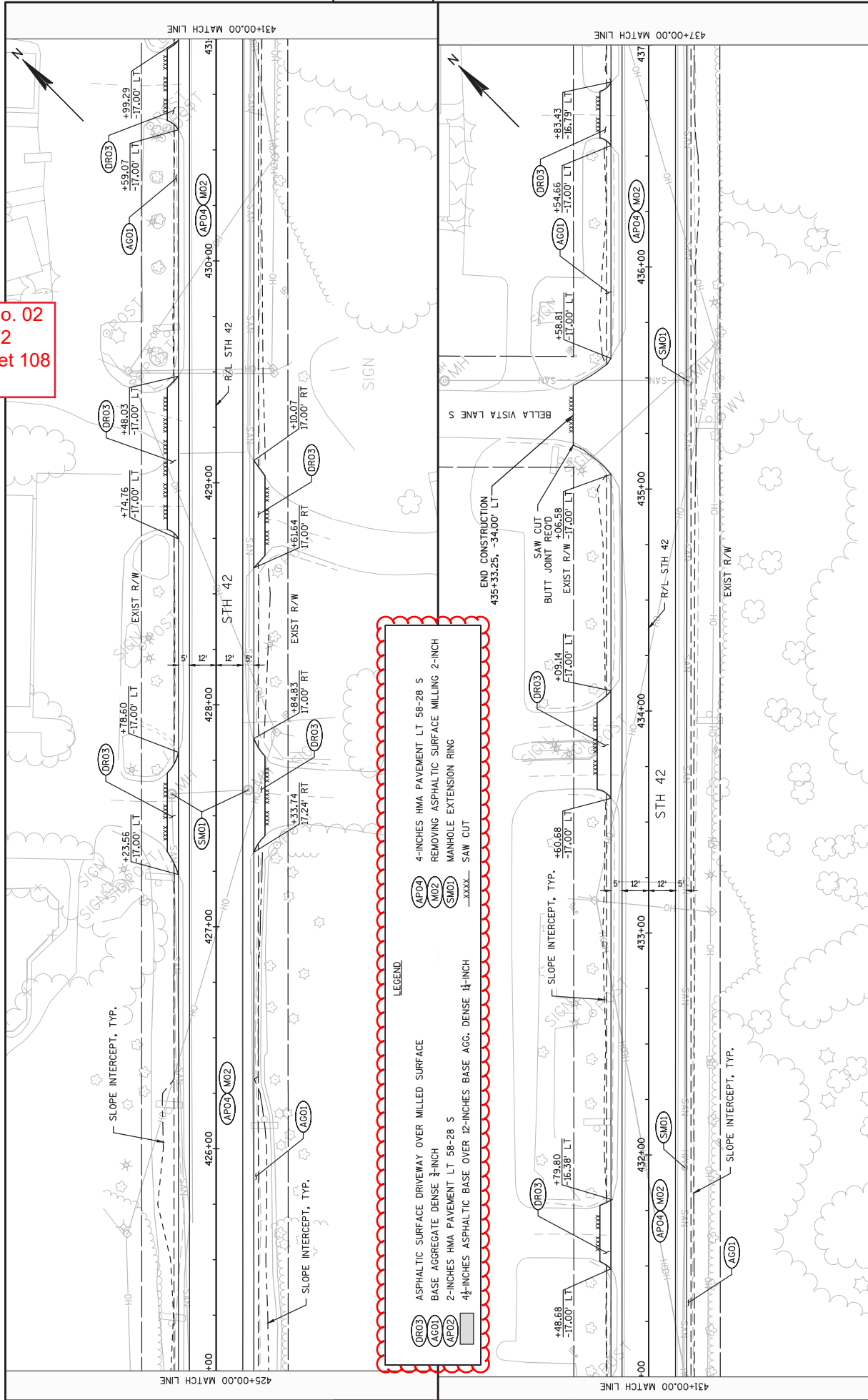
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ID 4140-19-72
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ID 4140-19-72
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April 4, 2019



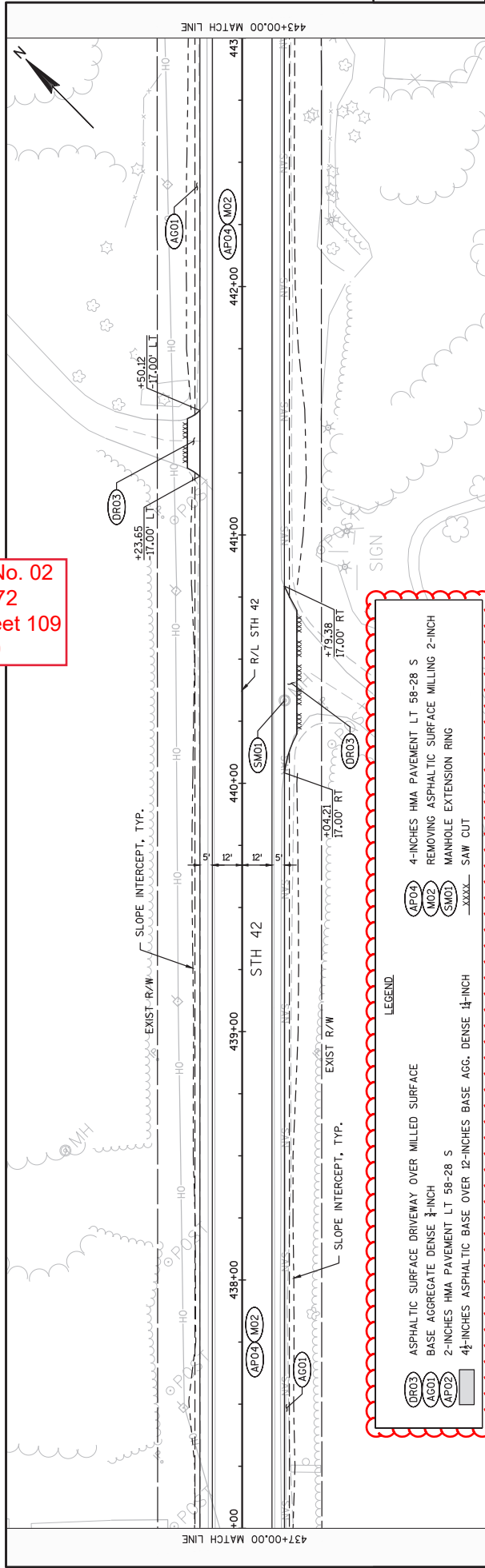
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Revised Sheet 108
April 4, 2019



LEGEND

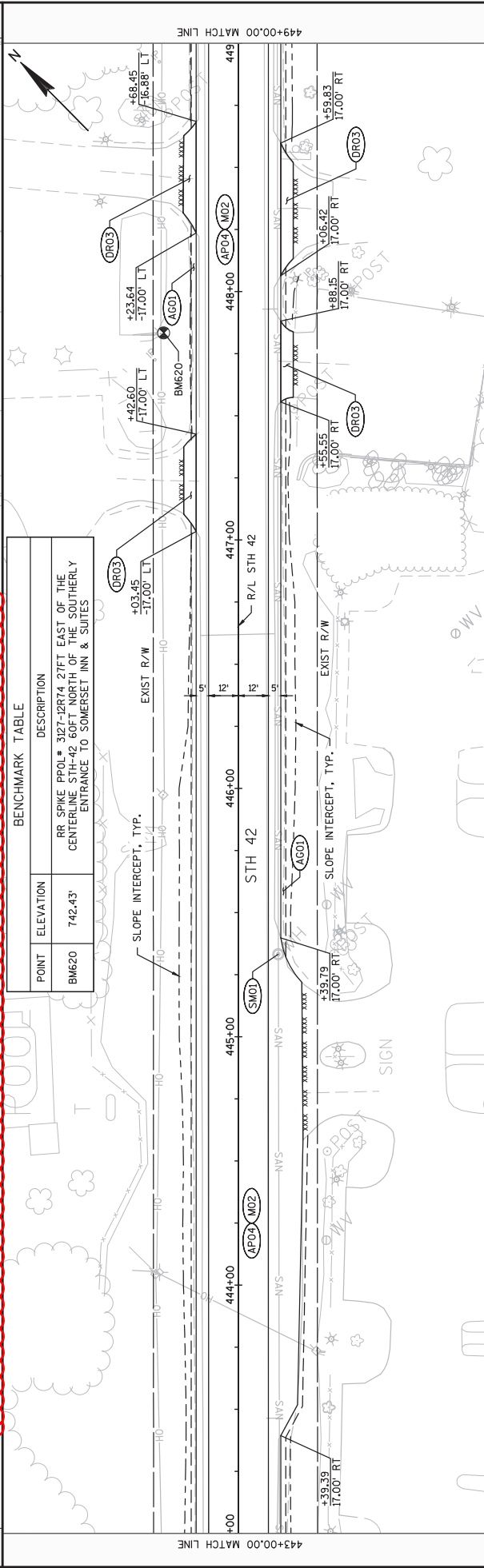
DR03	ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE	AP04	4-INCHES HMA PAVEMENT LT 58-28 S
AG01	BASE AGGREGATE DENSE 1 1/2-INCH	M02	REMOVING ASPHALTIC SURFACE MILLING 2-INCH
AP02	2-INCHES HMA PAVEMENT LT 58-28 S	SM01	MANHOLE EXTENSION RING
	4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG, DENSE 1 1/2-INCH	XXXX	SAW CUT

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LEGEND

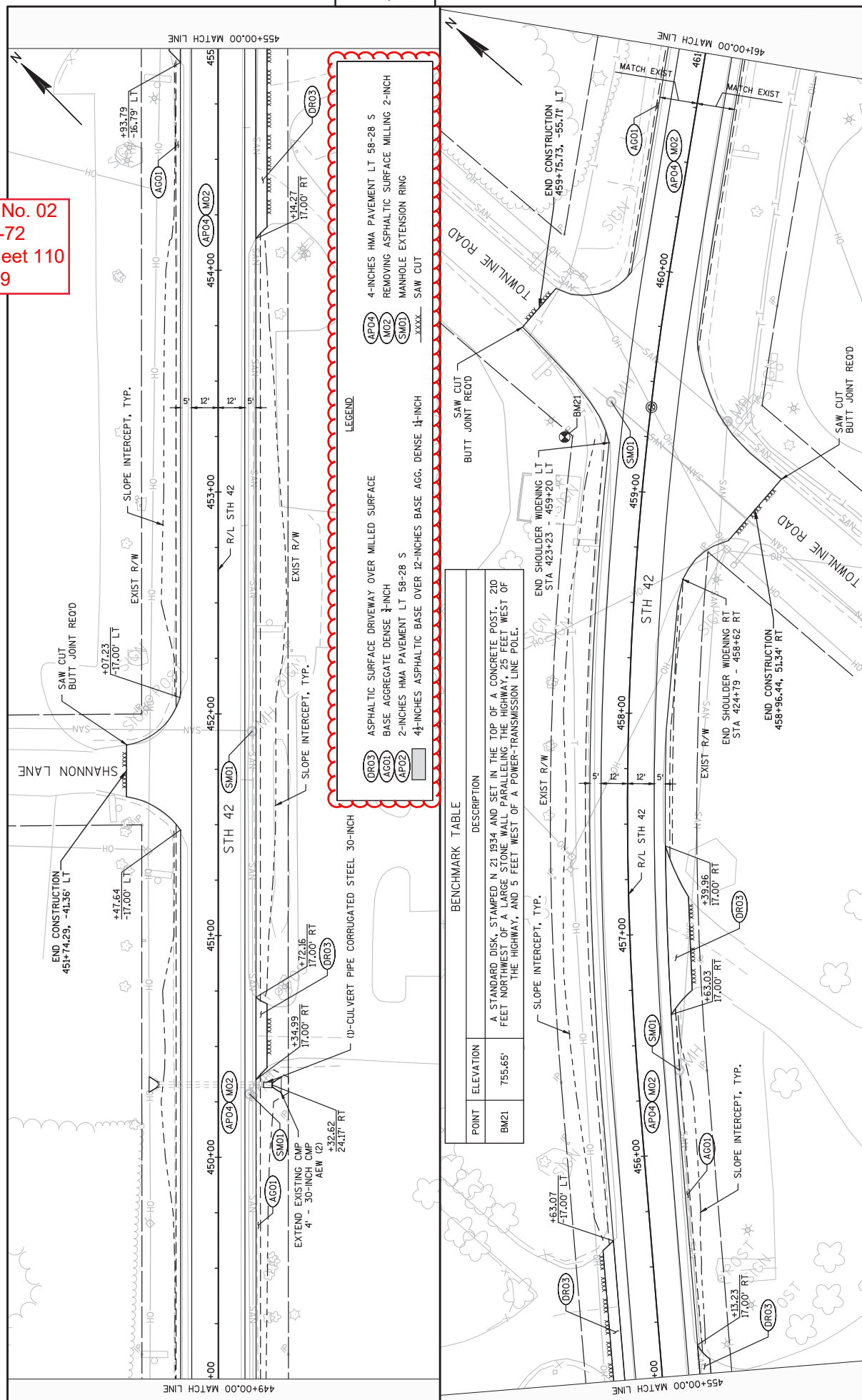
- AP03 ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE
- AG01 BASE AGGREGATE DENSE 3-INCH
- AP02 2-INCHES HMA PAVEMENT LT 58-28 S
- AP04 4-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2-INCH
- SM01 4-INCHES HMA PAVEMENT LT 58-28 S
- SM02 REMOVING ASPHALTIC SURFACE MILLING 2-INCH
- SM03 MANHOLE EXTENSION RING
- XXXX SAW CUT



BENCHMARK TABLE

POINT	ELEVATION	DESCRIPTION
BM620	742.43'	RR SPIKE PPOL# 3127-12R74 27FT EAST OF THE CENTERLINE STH-42 60FT NORTH OF THE SOUTHERLY ENTRANCE TO SOMERSET INN & SUITES

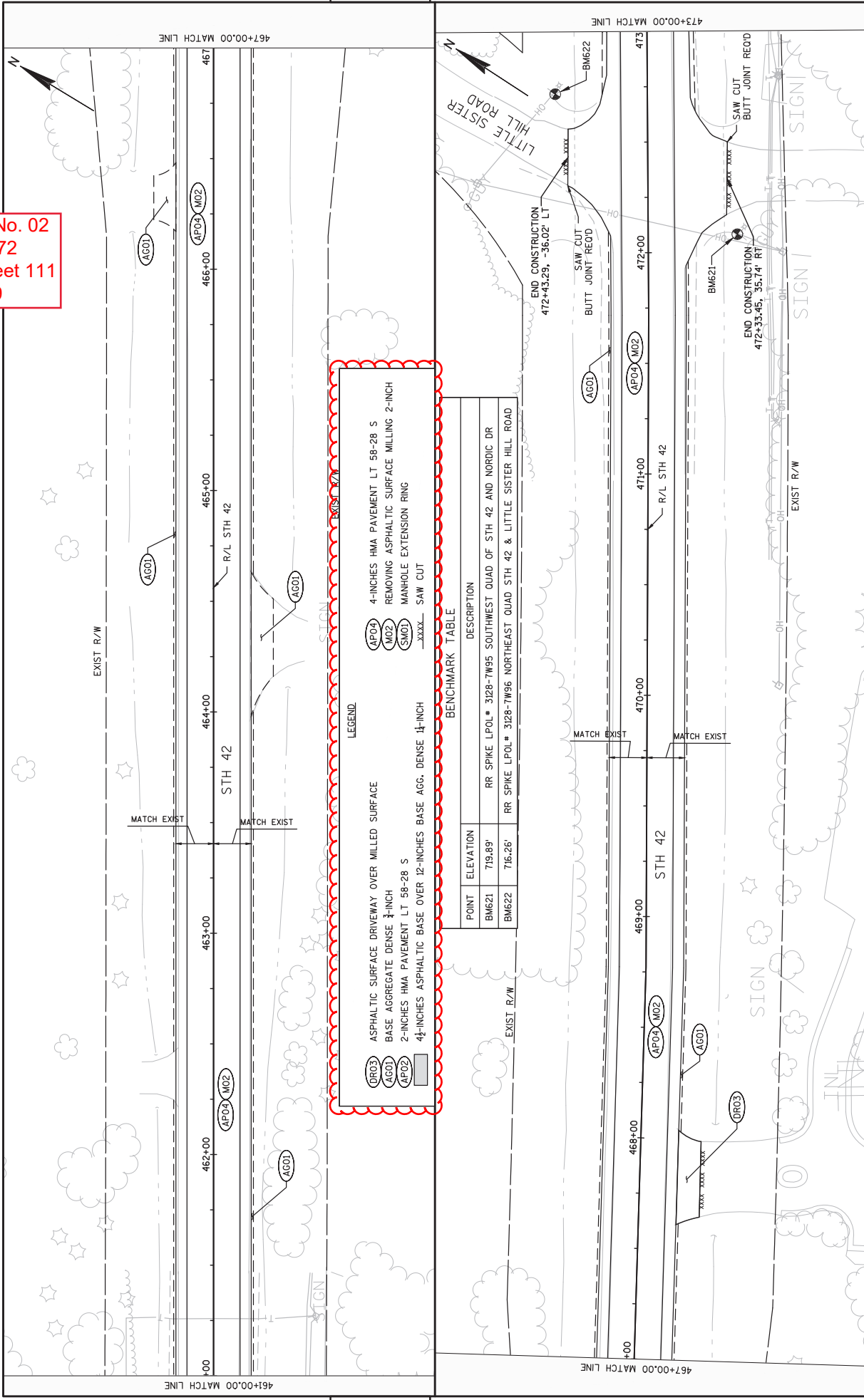
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BENCHMARK TABLE	
POINT	ELEVATION
BM21	755.65'
A STANDARD DISK, STAMPED N 21 1934 AND SET IN THE TOP OF A CONCRETE POST. 210 FEET NORTHWEST OF A LARGE STONE WALL PARALLELING THE HIGHWAY, 25 FEET WEST OF THE HIGHWAY, AND 5 FEET OF A POWER-TRANSMISSION LINE POLE.	

PROJECT NO: 4140-19-72		HWY: STH 42	COUNTY: DOOR	PLAN SHEETS	SHEET 110
FILE NAME : N:\PROJ\CD\41401972\SHEETSPR\LAN050201-FIN.DWG LAYOUT NAME : 050241-FIN PLOT DATE : 4/4/2019 12:44 PM PLOT BY : KRIST, DOUGLAS P PLOT SCALE : 1:1 IN=40 FT WISDOT/CADDs SHEET 44					

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LEGEND

4-INCHES ASPHALTIC DRIVEWAY OVER MILLED SURFACE (A003)
BASE AGGREGATE DENSE 1 1/2-INCH (A001)
2-INCHES HMA PAVEMENT LT 58-28 S (A002)
4-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2-INCH (A004)

4-INCHES HMA PAVEMENT LT 58-28 S (A004)
REMOVING ASPHALTIC SURFACE MILLING 2-INCH (M02)
MANHOLE EXTENSION RING (SM01)
SAW CUT (XXXX)

BENCHMARK TABLE

POINT	ELEVATION	DESCRIPTION
BM621	719.89'	RR SPIKE LPOL # 3128-7W95 SOUTHWEST QUAD OF STH 42 AND NORDIC DR
BM622	716.26'	RR SPIKE LPOL # 3128-7W96 NORTHEAST QUAD STH 42 & LITTLE SISTER HILL ROAD

BENCHMARK TABLE

POINT	ELEVATION	DESCRIPTION
BM631	648.28'	RR SPIKE LPOL# 3128-7W66 NORTHEAST QUAD OF STH-42 & LITTLE SISTER ROAD

LEGEND

- DR03 ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE
- AG01 BASE AGGREGATE DENSE 3-INCH
- AP02 2-INCHES HMA PAVEMENT LT 58-28 S
- 4-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2-INCH

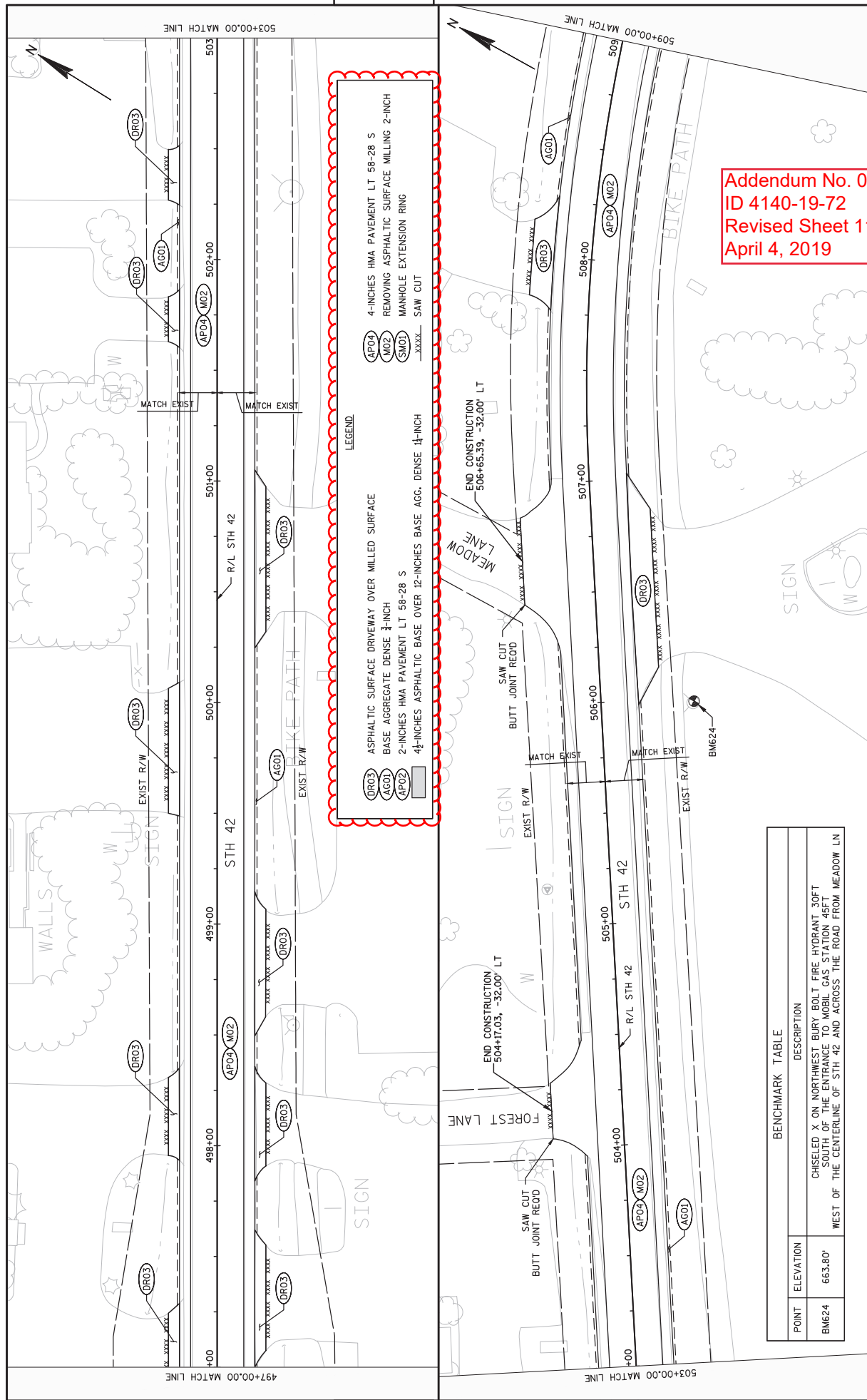
END CONSTRUCTION
486+54.58, 62.55' RT
493+40.85, -38.29' LT

STATIONING: 485+00, 486+00, 487+00, 488+00, 489+00, 490+00, 491+00, 492+00, 493+00, 494+00, 495+00, 496+00, 497+00

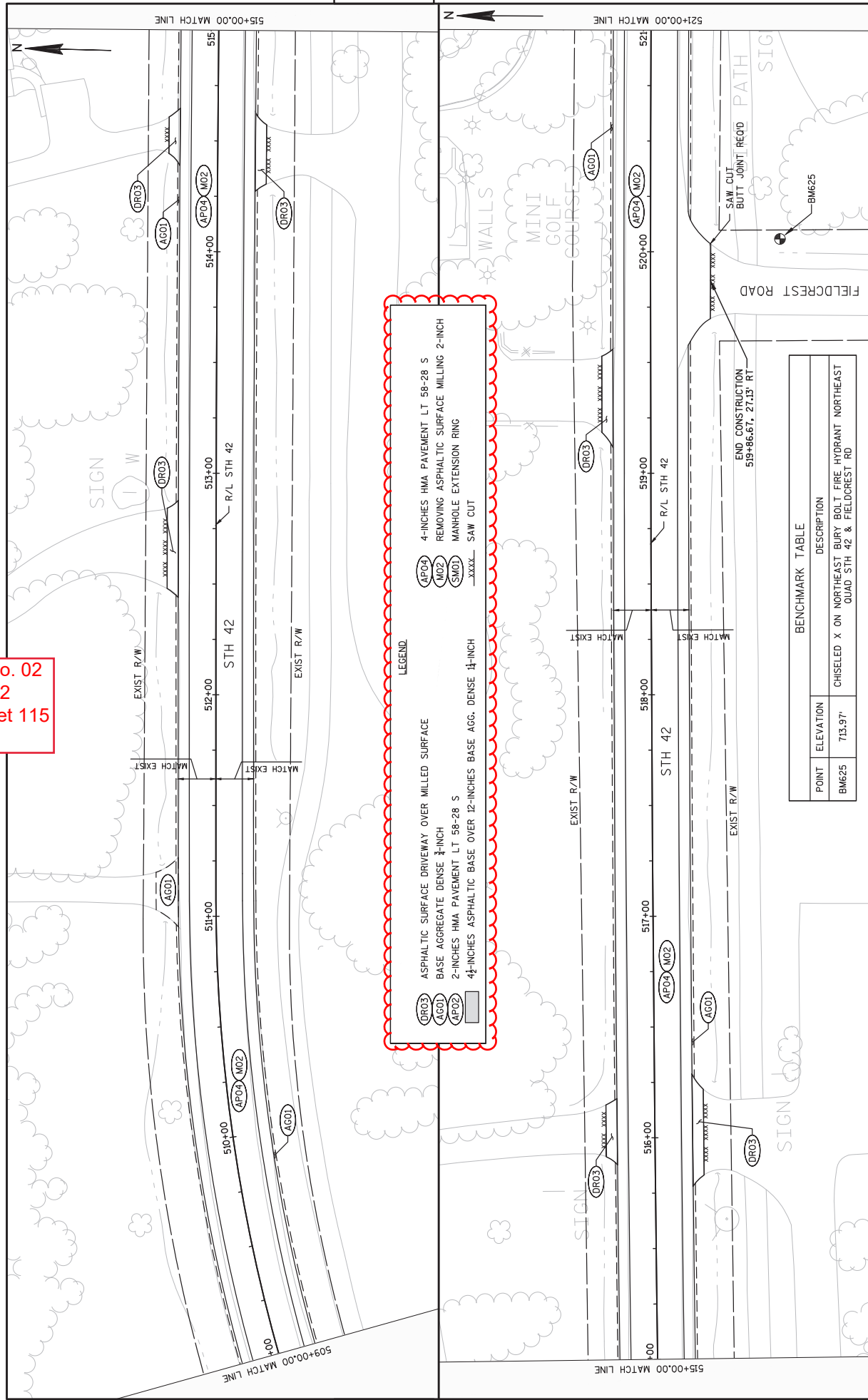
ROADS: STH 42, COUNTRY LANE, WESTWOOD DRIVE

FEATURES: BIKE PATH, SLOPE INTERCEPT, TYP., BUTT JOINT REOD, MILL & OVERLAY EXTENDS THROUGH INTERSECTION CURB RETURNS, SAW CUT, EXIST R/W, MATCH EXIST

Other labels: S BAY SHORE DRIVE, STH 42, COUNTRY LANE, WESTWOOD DRIVE, BIKE PATH, SLOPE INTERCEPT, TYP., BUTT JOINT REOD, MILL & OVERLAY EXTENDS THROUGH INTERSECTION CURB RETURNS, SAW CUT, EXIST R/W, MATCH EXIST



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LEGEND

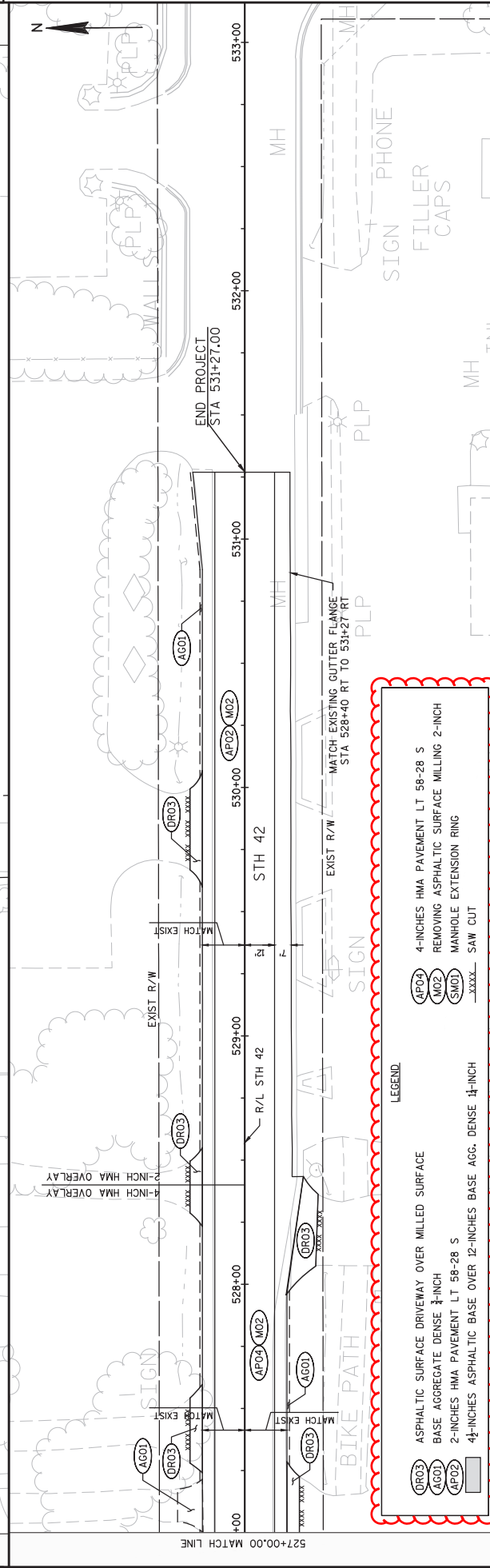
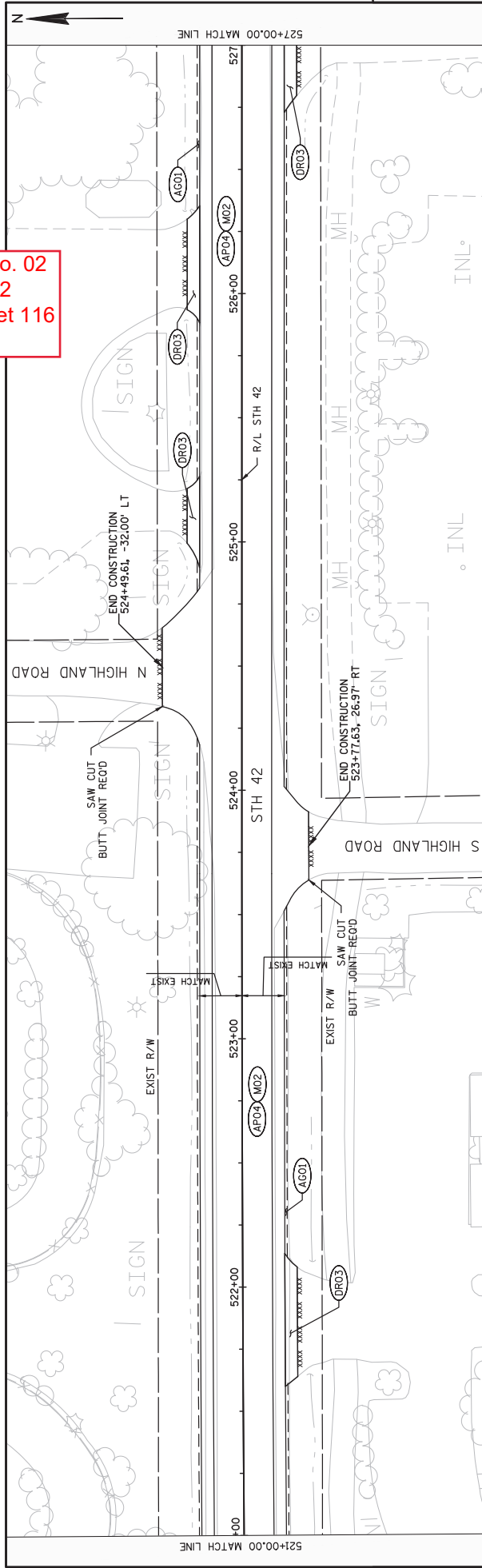
DR03	4-INCHES HMA PAVEMENT LT 58-28 S
AG01	REMOVING ASPHALTIC SURFACE MILLING 2-INCH
AP04	MANHOLE EXTENSION RING
M02	SAW CUT
SM01	SAW CUT
XXXX	SAW CUT

LEGEND

DR03	4-INCHES HMA PAVEMENT LT 58-28 S
AG01	REMOVING ASPHALTIC SURFACE MILLING 2-INCH
AP04	MANHOLE EXTENSION RING
M02	SAW CUT
SM01	SAW CUT
XXXX	SAW CUT

BENCHMARK TABLE	
POINT	ELEVATION
BM625	713.97'
END CONSTRUCTION 519+86.67, 27.13' RT	

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LEGEND

(DR03)	ASPHALTIC SURFACE DRIVEWAY OVER MILLED SURFACE
(AG01)	BASE AGGREGATE DENSE 1 1/2-INCH
(AG02)	2-INCHES HMA PAVEMENT LT 58-28 S
(AG03)	4 1/2-INCHES ASPHALTIC BASE OVER 12-INCHES BASE AGG. DENSE 1 1/2-INCH
(AG04)	4-INCHES HMA PAVEMENT LT 58-28 S
(M02)	REMOVING ASPHALTIC SURFACE MILLING 2-INCH
(SM03)	MANHOLE EXTENSION RING
(XXXX)	SAW CUT



Proposal Schedule of Items

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Proposal ID: 20190409018 Project(s): 4140-19-72

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	3.000 STA	_____.	_____.
0004	201.0205 Grubbing	3.000 STA	_____.	_____.
0006	203.0100 Removing Small Pipe Culverts	1.000 EACH	_____.	_____.
0008	204.0115 Removing Asphaltic Surface Butt Joints	1,160.000 SY	_____.	_____.
0010	204.0120 Removing Asphaltic Surface Milling	140,330.000 SY	_____.	_____.
0012	204.0165 Removing Guardrail	1,740.000 LF	_____.	_____.
0014	204.0215 Removing Catch Basins	1.000 EACH	_____.	_____.
0016	204.0220 Removing Inlets	2.000 EACH	_____.	_____.
0018	204.0245 Removing Storm Sewer (size) 01. 12-Inch	63.000 LF	_____.	_____.
0020	204.0245 Removing Storm Sewer (size) 02. 15-Inch	66.000 LF	_____.	_____.
0022	204.0245 Removing Storm Sewer (size) 03. 18-Inch	8.000 LF	_____.	_____.
0024	204.0280 Sealing Pipes	1.000 EACH	_____.	_____.
0026	204.0291.S Abandoning Sewer	2.000 CY	_____.	_____.
0028	205.0100 Excavation Common	827.000 CY	_____.	_____.
0030	205.0200 Excavation Rock	31.000 CY	_____.	_____.
0032	211.0100 Prepare Foundation for Asphaltic Paving (project) 01. 4140-19-72	LS	LUMP SUM	_____.



Proposal Schedule of Items

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Proposal ID: 20190409018 Project(s): 4140-19-72

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	211.0400 Prepare Foundation for Asphaltic Shoulders	50.000 STA	_____.	_____.
0036	213.0100 Finishing Roadway (project) 01. 4140-19-72	1.000 EACH	_____.	_____.
0038	305.0110 Base Aggregate Dense 3/4-Inch	5,220.000 TON	_____.	_____.
0040	305.0120 Base Aggregate Dense 1 1/4-Inch	2,705.000 TON	_____.	_____.
0042	305.0500 Shaping Shoulders	52.000 STA	_____.	_____.
0044	315.0100 Asphaltic Base	70.000 TON	_____.	_____.
0046	455.0605 Tack Coat	15,570.000 GAL	_____.	_____.
0048	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	2.000 EACH	_____.	_____.
0050	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.	_____.
0052	460.2005 Incentive Density PWL HMA Pavement	18,050.000 DOL	1.00000	18,050.00
0054	460.2007 Incentive Density HMA Pavement Longitudinal Joints	13,853.000 DOL	1.00000	13,853.00
0056	460.2010 Incentive Air Voids HMA Pavement	27,160.000 DOL	1.00000	27,160.00
0058	460.5223 HMA Pavement 3 LT 58-28 S	14,800.000 TON	_____.	_____.
0060	460.5224 HMA Pavement 4 LT 58-28 S	15,190.000 TON	_____.	_____.
0062	465.0120 Asphaltic Surface Driveways and Field Entrances	286.000 TON	_____.	_____.



Proposal Schedule of Items

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Proposal ID: 20190409018 Project(s): 4140-19-72

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	465.0475 Asphalt Centerline Rumble Strips 2-Lane Rural	5,181.000 LF	_____.	_____.
0066	520.8000 Concrete Collars for Pipe	1.000 EACH	_____.	_____.
0068	521.1030 Apron Endwalls for Culvert Pipe Steel 30-Inch	2.000 EACH	_____.	_____.
0070	521.3130 Culvert Pipe Corrugated Steel 30-Inch	4.000 LF	_____.	_____.
0072	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	1.000 EACH	_____.	_____.
0074	606.0200 Riprap Medium	2.000 CY	_____.	_____.
0076	608.0005 Storm Sewer Rock Excavation	14.000 CY	_____.	_____.
0078	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	63.000 LF	_____.	_____.
0080	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	20.000 LF	_____.	_____.
0082	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	103.000 LF	_____.	_____.
0084	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	37.000 LF	_____.	_____.
0086	611.0535 Manhole Covers Type J-Special	1.000 EACH	_____.	_____.
0088	611.0612 Inlet Covers Type C	2.000 EACH	_____.	_____.
0090	611.0645 Inlet Covers Type MS-A	1.000 EACH	_____.	_____.
0092	611.1003 Catch Basins 3-FT Diameter	2.000 EACH	_____.	_____.



Proposal Schedule of Items

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Proposal ID: 20190409018 Project(s): 4140-19-72

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
0094	611.2005 Manholes 5-FT Diameter	1.000 EACH	_____.	_____.
0100	614.2300 MGS Guardrail 3	1,266.000 LF	_____.	_____.
0102	614.2330 MGS Guardrail 3 K	575.000 LF	_____.	_____.
0104	614.2610 MGS Guardrail Terminal EAT	4.000 EACH	_____.	_____.
0106	618.0100 Maintenance And Repair of Haul Roads (project) 01. 4140-19-72	1.000 EACH	_____.	_____.
0108	619.1000 Mobilization	1.000 EACH	_____.	_____.
0110	624.0100 Water	30.500 MGAL	_____.	_____.
0112	625.0100 Topsoil	699.000 SY	_____.	_____.
0114	625.0500 Salvaged Topsoil	3,353.000 SY	_____.	_____.
0116	627.0200 Mulching	1,235.000 SY	_____.	_____.
0118	628.1504 Silt Fence	3,809.000 LF	_____.	_____.
0120	628.1520 Silt Fence Maintenance	3,809.000 LF	_____.	_____.
0122	628.1905 Mobilizations Erosion Control	4.000 EACH	_____.	_____.
0124	628.1910 Mobilizations Emergency Erosion Control	4.000 EACH	_____.	_____.
0126	628.2004 Erosion Mat Class I Type B	3,097.000 SY	_____.	_____.
0128	628.7010 Inlet Protection Type B	11.000 EACH	_____.	_____.



Proposal Schedule of Items

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Proposal ID: 20190409018 Project(s): 4140-19-72

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
0130	628.7020 Inlet Protection Type D	2.000 EACH	_____.	_____.
0132	628.7504 Temporary Ditch Checks	20.000 LF	_____.	_____.
0134	628.7555 Culvert Pipe Checks	24.000 EACH	_____.	_____.
0136	628.7570 Rock Bags	126.000 EACH	_____.	_____.
0138	629.0210 Fertilizer Type B	3.300 CWT	_____.	_____.
0140	630.0130 Seeding Mixture No. 30	45.000 LB	_____.	_____.
0142	630.0140 Seeding Mixture No. 40	33.000 LB	_____.	_____.
0144	630.0200 Seeding Temporary	85.000 LB	_____.	_____.
0146	633.5200 Markers Culvert End	3.000 EACH	_____.	_____.
0148	634.0614 Posts Wood 4x6-Inch X 14-FT	125.000 EACH	_____.	_____.
0150	634.0616 Posts Wood 4x6-Inch X 16-FT	62.000 EACH	_____.	_____.
0152	637.2210 Signs Type II Reflective H	756.540 SF	_____.	_____.
0154	637.2230 Signs Type II Reflective F	461.420 SF	_____.	_____.
0156	638.2602 Removing Signs Type II	163.000 EACH	_____.	_____.
0158	638.3000 Removing Small Sign Supports	173.000 EACH	_____.	_____.
0160	642.5401 Field Office Type D	1.000 EACH	_____.	_____.
0162	643.0300 Traffic Control Drums	1,095.000 DAY	_____.	_____.



Proposal Schedule of Items

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Proposal ID: 20190409018 Project(s): 4140-19-72

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
0164	643.0310.S Temporary Portable Rumble Strips	LS	LUMP SUM	_____.
0166	643.0900 Traffic Control Signs	3,766.000 DAY	_____.	_____.
0168	643.1050 Traffic Control Signs PCMS	28.000 DAY	_____.	_____.
0170	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0172	645.0120 Geotextile Type HR	5.000 SY	_____.	_____.
0174	646.1020 Marking Line Epoxy 4-Inch	27,790.000 LF	_____.	_____.
0176	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	43,400.000 LF	_____.	_____.
0178	646.4520 Marking Line Same Day Epoxy 4-Inch	45,956.000 LF	_____.	_____.
0180	646.6120 Marking Stop Line Epoxy 18-Inch	34.000 LF	_____.	_____.
0182	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	1,060.000 LF	_____.	_____.
0184	646.8320 Marking Parking Stall Epoxy	894.000 LF	_____.	_____.
0186	648.0100 Locating No-Passing Zones	6.960 MI	_____.	_____.
0188	649.0105 Temporary Marking Line Paint 4-Inch	81,375.000 LF	_____.	_____.
0190	649.0120 Temporary Marking Line Epoxy 4-Inch	1,236.000 LF	_____.	_____.
0192	650.4000 Construction Staking Storm Sewer	5.000 EACH	_____.	_____.
0194	650.4500 Construction Staking Subgrade	3,047.000 LF	_____.	_____.



Proposal Schedule of Items

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Proposal ID: 20190409018 Project(s): 4140-19-72

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
0196	650.5000 Construction Staking Base	3,047.000 LF	_____.	_____.
0198	650.6000 Construction Staking Pipe Culverts	1.000 EACH	_____.	_____.
0200	650.8000 Construction Staking Resurfacing Reference	34,633.000 LF	_____.	_____.
0202	650.9910 Construction Staking Supplemental Control (project) 01. 4140-19-72	LS	LUMP SUM	_____.
0204	650.9920 Construction Staking Slope Stakes	3,047.000 LF	_____.	_____.
0206	690.0150 Sawing Asphalt	4,953.000 LF	_____.	_____.
0208	740.0440 Incentive IRI Ride	13,118.000 DOL	1.00000	13,118.00
0210	SPV.0060 Special 01. Reconnecting Storm Sewer Laterals	2.000 EACH	_____.	_____.
0212	SPV.0060 Special 02. Inlets Median 1 Grate Special	1.000 EACH	_____.	_____.
0214	460.2000 Incentive Density HMA Pavement	1,810.000 DOL	1.00000	1,810.00
0216	SPV.0060 Special 03. Manhole Extension Ring	32.000 EACH	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.

