HIGHWAY WORK PROPOSAL

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

Proposal Number: 026

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Milwaukee	1228-22-71	WISC 2021226	Ih 43 North South Freeway; Capitol Dr-2100 Ft N Of Hampton Ave	IH 043

ADDENDUM REQUIRED

ATTACHED AT BACK

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

Proposal Guaranty Required: $1,000,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: April 13, 2021 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time November 30, 2023	
Assigned Disadvantaged Business Enterprise Goal 10%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)	(Bidder Signature)
(Print or Type Name, Notary Public, State Wisconsin)	(Print or Type Bidder Name)
(Date Commission Expires)	(Bidder Title)

Notary Seal

Type of Work: **For Department Use Only**

Mill, Grade, Storm Sewer, Base, Concrete Pavement, Asphalt Pavement, Curb & Gutter, Sidewalk, Concrete Barrier, Beam Guard, Lighting, Signals, FTMS, Signing, Pavement Marking, Structures B-40-116, 1014, 1016, 1018 - 1021, C-40-111, N-40-94 - 96, R-40-706, 707, 709 - 713, 726, 727, and S-40-3018 - 3023

Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

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

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:
https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

1. Have a properly executed annual bid bond on file with the department.

2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.

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

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

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

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

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at:
https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.

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

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

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.

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1228-22-71, North-South Freeway, Capitol Drive to 2100' N of Hampton Avenue, I-43, Milwaukee County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2021 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 (20200629)

2. Scope of Work.

The work under this contract shall consist of removals, grading, dense graded base, concrete pavement concrete curb and gutter, concrete sidewalk, concrete barrier, HMA pavement, storm sewer, erosion control, permanent signing, traffic signals, traffic control, pavement marking, street lighting, structures, bridges, retaining walls, noise barriers, overhead sign structures, restoration, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

Structures:

Bridges

B-40-1014	B-40-1016	B-40-1018	B-40-1019	
B-40-1020	B-40-1021	B-40-116		

Noise Barriers

N-40-94	N-40-95	N-40-96

Retaining Walls

R-40-706	R-40-707	R-40-709	R-40-710	R-40-711
R-40-712	R-40-713	R-40-726	R-40-727	

Sign Structures

S-40-3018	S-40-3019	S-40-3020	S-40-3021
S-40-3022	S-40-3023		

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.

Do not begin work on the Clear Channel property (Parcel 4) until the parcel title work is clear and the Cell Towers have been moved, anticipated date is August 1, 2021.

Enhanced Liquidated Damages

Replace standard spec 108.11 paragraph (3) as follows:

The department will assess $40,000 in daily liquidated damages. These liquidated damages reflect the cost of engineering, supervision, and a portion of road user costs.

A Fish Spawning

There shall be no instream disturbance of the Milwaukee River as a result of construction activity under or for this contract, from March 1 to June 1 both dates inclusive, in order to avoid adverse impacts upon the spawning of Lake Sturgeon.

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

Instream disturbance of the Milwaukee River as a result of construction activity under or for this contract, from September 1 to November 30 both dates inclusive, shall be limited to daylight hours to allow for passage of fish.

B Migratory Birds

Swallow and other migratory birds' nests have been observed on or under the existing bridges. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

The nesting season for swallows and other birds is usually between May 1 and August 30. Either prevent active nests from becoming established or apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds or clearing nests from all structures before the nests become active in early spring. As a last resort, prevent birds from nesting by installing a suitable netting device on the remaining structure prior to nesting activity. Include the cost for preventing nesting in the cost of Removing Old Structure or Removing Old Structure Over Waterway with Minimal Debris.

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).

According to the final 4(d) rule issued for the NLEB, the department has determined that the proposed activity may affect, but will not result in prohibited take of the NLEB. The activity involves tree removal, but will not occur within 0.25 miles of a known hibernacula, nor will the activity remove a known maternity roost tree or any other tree within 150 feet of a known maternity roost tree.

If additional trees need to be removed, no Clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the United States Fish and Wildlife Service (USFWS) and may require a bat presence/absence survey. Notify the engineer if additional Clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary.

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

C Schedule of Operations

Traffic shifts shown in a given stage may occur at different times during that stage depending on the controlling elements for a given traffic movement. The department anticipates that the schedule for each stage shall be as follows:

Anticipated schedule:

Do not move to the next stage until all work in the current stage is completed or as approved by the engineer.

Stage 1 Construction:

- Construct IH 43 NB Mainline Structure B-40-1016 over Milwaukee River.
- Construct IH 43 NB Exit Ramp to Hampton Avenue Structure B-40-1021 over Glendale Avenue (Ramp HAA).
- Construct IH 43 NB Mainline Sections North and South of Structure B-40-1016.
- Construct IH 43 SB Mainline Outside Two Lanes and Shoulder Along Existing Structure B-40-115.
- Construct Retaining Walls R-40-707 and portion of R-40-709, R-40-712, and R-40-713.
- Construct Sign Structure S-40-3021 (Alt. Stage 2A)
- Construct Noise Walls N-40-95 and N-40-96
- Construct IH 43 NB Temporary Pavement from Existing Structure B-40-115 to New Structure B-40-1021 over Glendale Avenue (Ramp HAA).
- Construct IH 43 NB Temporary Pavement from New Structure B-40-1021 over Glendale Avenue (Ramp HAA) to Mainline Section South of Structure B-40-1016.
- Construct IH 43 SB Temporary Pavement from North End of New Pavement to Existing Pavement at Glendale Avenue.
- Construct Temporary Cut Wall Along IH 43 SB at North End of Existing Structure B-40-115.
- Construct Portion Temporary Fill Wall Along IH 43 SB at South End of Existing Structure B-40-115.

Stage 2A Construction:

- Construct IH 43 NB Mainline Pavement South of New Structure B-40-1016.
- Construct IH 43 NB Mainline Pavement South End Inside Lanes and Shoulder.
- Construct IH 43 SB Mainline Outside Two Lanes and Shoulder Along Existing Structure B-40-115.
- Construct Portion of Retaining Wall R-40-713.
- Construct Sign Structure S-40-3021 (Alt. Stage 1).
- Construct IH 43 NB Temporary Pavement North of Glendale Avenue to New Pavement.
- Construct Temporary Additional IH 43 NB Temporary Pavement from North End of New Pavement to Existing Pavement South of Existing Structure B-40-994 (Oak Leaf Trail over IH-43).

Stage 2B Construction:

- Demolish IH 43 NB Half of Existing Structure over Milwaukee River (B-40-66).

Stage 2C Substage 1 Construction:

- Construct IH 43 SB South End Conform and Temporary Pavement from Existing Pavement to New Pavement North of Ramp GBC.
- Construct Remaining South End of Temporary Fill Wall Along IH 43 SB at South End of Existing Structure B-40-115.
- Construct Median Storm Sewer and Drainage Structures near Existing Structure B-40-994.
- Construct Temporary Crossover at North End of Project.

Stage 2C Substage 2 Construction:

- Construct IH 43 SB Crossover just south of Glendale Ave.

Stage 2D Construction:

- Demolish IH 43 SB Half of Existing Structure B-40-115.
- Demolish IH 43 SB Half of Existing Structure over Milwaukee River (B-40-66).
- Construct IH 43 SB Mainline Structure over Milwaukee River (B-40-1018).
- Construct IH 43 SB Mainline Structure over Glendale Avenue (B-40-1020).
- Construct IH 43 SB Mainline Pavement North of Milwaukee River Structure to North project Limit.
- Construct IH 43 SB Mainline Pavement from Milwaukee River Structure (B-40-1018) to Structure over Glendale Avenue (B-40-1020).
- Construct IH 43 SB Mainline Pavement Inside Lanes and Shoulder South of Glendale Avenue.
- Construct IH 43 NB mainline B-40-116 Concrete Overlay on Inside Lanes and Shoulders.
- Construct IH 43 and SB Mainline Pavement South End Inside Lanes and Shoulder.
- Construct IH 43 SB Exit Ramp to Capitol Drive Structure B-40-1014 (Ramp GBC).
- Construct portion of Retaining Walls R-40-710, R-40-711, R-40-712, and R-40-713.
- Construct Sign Structure S-40-2020.
- Construct Noise Wall N-40-94.
- Construct Temporary Cut Wall Along IH 43 SB at North End of Existing Structure B-40-115.
- Construct Temporary Fill Wall Along IH 43 SB at South End of Existing Structure B-40-115.
- Construct Temporary Crossover South of Structure B-40-116.

Stage 3A Construction:

- Construct IH 43 SB Mainline Outside Lane and Shoulder Pavement South of Glendale Avenue.
- Construct IH 43 SB Mainline Outside Lane and Shoulder Pavement at South End.
- Construct IH 43 SB Mainline B-40-116 Concrete Overlay on Outside Lanes and Shoulder.
- Construct IH 43 SB Exit Ramp Pavement to Capitol Drive (Ramp GBC).
- Construct portion of Retaining Walls R-40-710, R-40-711, R-40-712, and R-40-713.

Stage 3B Construction:

- Construct IH 43 SB Mainline Inside Lanes and Shoulder Pavement South of Glendale Avenue.

Stage 3C Construction:

- None

Stage 4 Construction:

- Construct IH 43 NB Mainline Structure over Glendale Avenue (B-40-1019).
- Construct IH 43 NB Mainline Pavement Between Ramp GBD and Ramp HAA.
- Construct IH 43 NB Entrance Ramp from Capitol Drive (Ramp GBD).
- Construct IH 43 NB Entrance Ramp from Hampton Avenue (Ramp HAA).
- Construct IH 43 NB Mainline B-40-116 Concrete Overlay on Outside Lanes and Shoulder.
- Construct Retaining Wal R-40-706 and Portions of R-40-709, R-40-712, and R-40-713.
- Construct Sign Structures S-40-3018, S-40-3018, S-40-3019, S-40-3022, S-40-3023.

Stage 5 Construction:

- Construct IH 43 Median Barrier from Station 926+40 to Station 940+00.
- Construct Median Parapets on B-40-116.
- Construct IH 43 Median Barrier and Shoulders at North end Temporary Cross over.
- Construct Pavement Overlay on IH 43 on IH 43 Station 926+40 to 934+50, Ramp GBA2, Ramp GBB2, and at the terminus of Ramp GBC.

Provide an individual to serve as the contractor's sole point of contact for field utility coordination and communication for the duration of the project.

SEF Rev. 13_1107

Obtain prior acceptance from the engineer and the SEF Construction WZ Engineer for Full Freeway Closures. Notify local emergency and police agencies seven calendar days prior to freeway closure.

D Ramp Closures

All entrance and exit ramps shall be posted three business days in advance of their closure with dates and time of closure.

No two consecutive entrance ramps or consecutive exit ramps may be closed unless it is shown in the traffic control plans or approved by the engineer.

E Freeway and Ramp Work Restrictions

Definitions

The following definitions apply to this contract for freeway work restrictions:

System Ramps Freeway to freeway ramps
Service Ramps Freeway to/from local road ramps

Weekday Peak Hours

- 5:30 AM – 7:00 PM Monday, Tuesday, Wednesday, Thursday
- 5:30 AM – 11:00 PM Friday

Weekend Peak Hours

- 8:00 AM – 7:00 PM Saturday
- 8:00 AM – 7:00 PM Sunday

Weekday Off-Peak Hours

- 7:00 PM – 9:30 PM Monday, Tuesday, Wednesday, Thursday

Weekend Off-Peak Hours

- 7:00 PM – 11:00 PM Saturday
- 7:00 PM – 9:30 PM Sunday

Nighttime Hours

- 9:30 PM – 5:30 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)
- 11:00 PM – 8:00 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM) (All Segments)

Full Freeway and System Ramp Closure Hours

- 11:00 PM – 4:30 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)
- 11:00 PM – 6:00 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM)

Service Ramp Closure Hours

- 9:00 PM – 6:00 AM (Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM)
- 10:30 PM – 8:30 AM (Friday PM to Saturday AM, Saturday PM to Sunday AM)

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

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

Do not, at any time, conduct construction operations in the median area and adjacent outside shoulder area of the freeway at the same time without obtaining prior permission of the engineer, beyond that shown on the traffic control plans.

F Rolling Closure

Short term freeway mainline, system ramp, service ramp, and State Highway rolling closures may be allowed for a maximum of 15 minutes for the removal and erection of sign structures, equipment moves across the road, or other required work as determined by the engineer. The department will allow short term rolling closures only between 2:00 AM and 4:00 AM, and they may only be performed by freeway law enforcement.

Obtain approval from the engineer before coordinating these closures with freeway law enforcement. Coordinate 14 calendar days in advance of closure. Present the scheduled time for the short term rolling closure at the weekly traffic meeting a minimum of one week prior to the closure.

SEF Rev. 14_1212

G Closure Restrictions

General

Full closure and detouring of freeway roads will be restricted to Full Freeway and System Ramp Closure/Hours unless otherwise specified. The freeway may be closed to facilitate the removal of structures and erection of girders, storm sewer trunk line crossings, bridge deck polymer overlays, to perform work related to major traffic shifts and other work approved by the engineer. Provide signed detour routes, as shown in the plans, fully open and free of construction during all full roadway and system ramp closures.

Submit requests for extended nighttime closure hours 14 calendar days prior to the planned closure events. Obtain prior approval from the engineer and the SEF Construction WZ Engineer, (414) 750-1397, for said closures. Notify local emergency and police agencies 7 calendar days prior to closures.

H Work Zone Ingress/Egress

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

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

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

SEF Rev. 13_0425_revised

I Local Street Work Restrictions

General

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

Keep sidewalks open unless otherwise shown on the plans, or to facilitate the removal of structures and erection of girders or as approved by the engineer. Maintain pedestrian access to adjacent properties, businesses, schools, and at bus stops or provide where necessary, as directed by the engineer. Protect pedestrians from falling debris at all times when sidewalks are open.

Provide adequate temporary sidewalk and bridging between the curb and right-of-way line over freshly paved concrete or other obstructions in the sidewalk area, as directed by the engineer.

Construct temporary sidewalk surfaces with a minimum of 2 inches of temporary asphaltic surface, any grade of concrete, skid resistant steel plating, or alternative material as approved by the engineer and a minimum of 4-feet wide. Compact the surface of temporary asphaltic surface until smooth and capable of supporting a wheelchair. The separate payment for the construction of temporary sidewalks including materials, labor, removal and restoration, will be made by the department under the bid item Temporary Crosswalk/Sidewalk, unless otherwise shown on the plans.

Inform engineer, property owners and tenants at least 48 hours prior to removing a driveway approach that serves that property. Schedule sidewalk and driveway approach removal and replacement so that the time lapse between removal and replacement is minimal.

Do not close residential approaches or remove from service without giving sufficient notice to the occupants of the premises to remove their vehicles prior to driveway removal or closing of the driveway approach access. If necessary, make other access arrangements, agreed to in writing and signed by the contractor and the property owner serviced by the driveway. Obtain approval from the engineer prior to alternating construction sequencing.

Existing trees, street light poles, hydrants and other utility poles are to remain in place during construction unless otherwise noted in the plan. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the trees, hydrants and poles and the paving equipment. No additional compensation will be made.

J All Work Restrictions

Excavation material and cleared and grubbed material should be stockpiled on upland areas an adequate distance away from wetlands, storm sewer inlets, floodplains, and the waterways as determined by engineer.

Provide the Wisconsin State Patrol, Milwaukee County Highway Maintenance, the City of Milwaukee Police Department, the City of Glendale Police Department, and Milwaukee County Sheriff’s Department with a 24-hour emergency contact number for when maintenance is required.

Replace standard spec 108.10.2.2(2) with the following:

Include requests for severe weather delays in the Monthly CPM Progress Schedule Updates. Indicate the number of adverse weather days that occurred during that month. Provide CPM progress schedule documentation as required under Section 108.4.7 of the Baseline CPM Progress Schedule/Monthly CPM Progress Schedule Updates special provision to show that the controlling item of work was delayed. Show that the delay was beyond the control of the contractor. The engineer will assess the contractor's submittal and indicate how many adverse weather days are confirmed.

Replace standard spec 108.10.2.2(3) with the following:

For each calendar month, the engineer will grant a severe weather day for each confirmed adverse weather day that exceeds the number of anticipated adverse weather days standard spec 108.10.2.2(1) shows. When the contractor requests severe weather days, the engineer will give the contractor a monthly written statement showing the number of days credited for severe weather. The engineer will only extend time for interim and contract completion dates for severe weather days that have been validated through an accepted CPM Progress Schedule Update.

K Interim Closures and Liquidated Damages

Southbound Exit Ramp to Green Bay/Capitol Dr, October 14, 2021

At the beginning of Stage 2A, close the northbound exit ramp to Green Bay Ave/Capitol Dr to through traffic. If the contractor fails to complete all work necessary to open northbound exit ramp to Green Bay Ave/Capitol Dr as shown in the plans, prior to 12:01 AM on October 15, 2021, the department will assess the contractor $2,000 in interim liquidated damages for each calendar day after 12:01 AM on October 15, 2021, that the ramp is closed to traffic. An entire calendar day will be charged for any period of time the road remains closed beyond 12:01 AM.

IH 43 Northbound Entrance Ramp from Fiebrantz Ave., December 9, 2021

At the beginning of Stage 2A, close the IH 43 northbound entrance ramp from Fiebrantz Ave. to through traffic. If the contractor fails to complete all work necessary to open the IH 43 northbound entrance ramp from Fiebrantz Ave. as shown in the plans, prior to 12:01 AM on December 10, 2021, the department will assess the contractor $3,000 in interim liquidated damages for each calendar day after 12:01 AM on December 10, 2021, that the ramp is closed to traffic. An entire calendar day will be charged for any period of time the road remains closed beyond 12:01 AM.

IH 43 Northbound Lanes, December 9, 2021

At the beginning of Stage 2A, reduce the number of IH 43 northbound lanes to 2 lanes of through traffic. If the contractor fails to complete all work necessary to open all lanes of IH 43 northbound to through traffic as shown in the plans, prior to 12:01 AM on December 10, 2021, the department will assess the contractor $40,000 in interim liquidated damages for each calendar day after 12:01 AM on December 10, 2021 that lanes remain closed to traffic. An entire 24- hour period will be charged for any period of time the lanes remain closed beyond 12:01 AM.

IH 43 Northbound Lanes, December 16, 2022

At the beginning of Stage 2C1, reduce the number of IH 43 northbound lanes to 2 lanes of through traffic. If the contractor fails to complete all work necessary to open all lanes of northbound IH 43 to through traffic as shown in the plans, prior to 12:01 AM on December 17, 2022, the department will assess the contractor $40,000 per direction in interim liquidated damages for each calendar day after 12:01 AM on December 17, 2022 that lanes remain closed to traffic. An entire calendar day will be charged for any period of time the lanes remain closed beyond 12:01 AM.

IH 43 Southbound Lanes, December 16, 2022

At the beginning of Stage 2C1, reduce the number of IH 43 southbound lanes to 2 lanes of through traffic. If the contractor fails to complete all work necessary to open all lanes of southbound IH 43 to through traffic as shown in the plans, prior to 12:01 AM on December 17, 2022, the department will assess the contractor $40,000 per direction in interim liquidated damages for each calendar day after 12:01 AM on December 17, 2022 that lanes remain closed to traffic. An entire calendar day will be charged for any period of time the lanes remain closed beyond 12:01 AM.

Southbound Exit Ramp to Green Bay/Capitol Dr, December 16, 2022

At the beginning of Stage 2C1, close the southbound exit ramp to Green Bay Ave/Capitol Dr to through traffic. If the contractor fails to complete all work necessary to open southbound exit ramp to Green Bay Ave/Capitol Dr as shown in the plans, prior to 12:01 AM on December 17, 2022, the department will assess the contractor $2,000 in interim liquidated damages for each calendar day after 12:01 AM on December 17, 2022, that the ramp is closed to traffic. An entire calendar day will be charged for any period of time the road remains closed beyond 12:01 AM.

IH 43 Northbound Entrance Ramp from Fiebrantz Ave., December 16, 2022

At the beginning of Stage 2C1, close the IH 43 northbound entrance ramp from Fiebrantz Ave. to through traffic. If the contractor fails to complete all work necessary to open the IH 43 northbound entrance ramp from Fiebrantz Ave. as shown in the plans, prior to 12:01 AM on December 17, 2022, the department will assess the contractor $3,000.00 in interim liquidated damages for each calendar day after 12:01 AM on December 17, 2022 that the ramp is closed to traffic. An entire calendar day will be charged for any period of time the road remains closed beyond 12:01 AM.

Southbound Entrance Ramp from Hampton Ave. December 16, 2022

At the beginning of Stage 2C2, close the southbound entrance ramp from Hampton Ave. to through traffic. If the contractor fails to complete all work necessary to open the southbound entrance ramp from Hampton Ave. as shown in the plans, prior to 12:01 AM on December 17, 2022, the department will assess the contractor $4,000 in interim liquidated damages for each calendar day after 12:01 AM on December 17, 2022 that the ramp is closed to traffic. An entire calendar day will be charged for any period of time the road remains closed beyond 12:01 AM.

Southbound Exit Ramp to Green Bay/Capitol Dr, November 8, 2023

At the beginning of Stage 4, close the southbound exit ramp to Green Bay Ave/Capitol Dr to through traffic. If the contractor fails to complete all work necessary to open southbound exit ramp to Green Bay Ave/Capitol Dr as shown in the plans, prior to 12:01 AM on November 9, 2023, the department will assess the contractor $2,000 in interim liquidated damages for each calendar day after 12:01 AM on November 9, 2023, that the ramp is closed to traffic. An entire calendar day will be charged for any period of time the road remains closed be 12:01 AM.

IH 43 Northbound Entrance Ramp from Fiebrantz Ave., November 8, 2023

At the beginning of Stage 4, close the IH 43 northbound entrance ramp from Fiebrantz Ave. to through traffic. If the contractor fails to complete all work necessary to open the IH 43 northbound entrance ramp from Fiebrantz Ave. as shown in the plans, prior to 12:01 AM on November 9, 2023, the department will assess the contractor $3,000 in interim liquidated damages for each calendar day after 12:01 AM on November 9, 2023 that the ramp is closed to traffic. An entire calendar day will be charged for any period of time the road remains closed beyond 12:01 AM.

IH 43 Northbound Exit Ramp to Port Washington Rd/Hampton Ave., November 8, 2023

At the beginning of Stage 1, close the IH 43 northbound exit ramp to Port Washington Rd/Hampton Ave. to through traffic. If the contractor fails to complete all work necessary to open the IH 43 northbound exit ramp to Port Washington Rd/Hampton Ave.as shown in the plans, prior to 12:01 AM on November 9, 2023, the department will assess the contractor $2,000 in interim liquidated damages for each calendar day after 12:01 AM on November 9, 2023 that the ramp is closed to traffic. An entire calendar day will be charged for any period of time the road remains closed beyond 12:01 AM.

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

Other Interim Closures

At the beginning of Stage 4, reduce the number of IH 43 northbound and southbound lanes to two lanes of through traffic in each direction as discussed in these special provision under Traffic. Closure is allowed until the overall completion date.

4. Lane Rental Fee Assessment.

A General

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

The allowable lane closure times are shown in the Traffic article.

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

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

B Lane Rental Fee Assessment

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

IH 43 Nighttime Lane Closure Extending into Weekday Peak Hours

- 3 lanes to 2 lanes: $8,000 per lane, per direction of travel, per hour broken into 15 minute increments
- 2 lanes to 1 lane: $12,000 per lane, per direction of travel, per hour broken into 15 minute increments

IH 43 Nighttime Lane Closure Extending into Weekend Peak Hours

- $4,000 per lane, per direction of travel, per hour broken into 15 minute increments

IH 43 Service Ramp

- $4,000 per lane, per direction of travel, per hour broken into 15 minute increments

IH 43 Full Freeway Closure

- 4:30 AM to 5:30 AM: $4,000 per lane, per direction of travel, per hour broken into 15 minute increments
- After 5:30 AM: $8,000 per lane, per direction of travel, per hour broken into 15 minute increments

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.

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5. Traffic.

A General

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

B Residential and Business Property Access

Maintain access to properties along Capitol Drive, Hampton Avenue, Port Washington Road, and all adjacent side streets, and any other local road effected by construction for local residents, businesses, and emergency vehicles. Maintain and keep open the access to all driveways and parking lots where alternative access is not available at all times by closing one driveway at a time, building half the driveway at a time and/or plating concrete work. Plating of concrete work, as directed by the engineer, is included in the item that is being plated. In parking lots that are being reconstructed, stage operations so that parking and access is maintained on existing or proposed base aggregate or pavement.

C Pedestrian Access

Maintain sidewalk at all times except under direction of the engineer. Provide a temporary surface for pedestrian access at all times in areas of sidewalk construction. Construct the temporary surface to meet Americans with Disabilities Act Accessibility Guidelines (ADAAG) requirements consisting of temporary asphaltic surface, any grade of concrete, skid resistant steel plating, or alternative material as approved by the engineer. Gravel or base course material is not acceptable. Maintain sidewalk access to all businesses and residences at all times.

Maintain pedestrian movements crossing the construction zone at all intersections at all times, unless otherwise directed by the engineer. Construct pedestrian crossings of intersections to meet the requirements of the ADAAG consisting of temporary asphaltic surface, any grade of concrete, skid resistant steel plating, or alternative material as approved by the engineer. Gravel or base course material is not acceptable. At all times, ADAAG accessible pedestrian walkways shall be maintained free from mud, sand, construction debris, and construction equipment. Closures of sidewalk must be approved by the engineer and conform to signing shown on the traffic control plan. At locations where crosswalks exist on both sides of the intersection, closure of one of the two crosswalks is permitted as long as all other crossings are completely open. At intersections where only one crosswalk exists stage work to maintain a crosswalk at all times.

D Schedule of Operations

Traffic shifts shown in a given stage may occur at different times during that stage depending on the controlling elements for a given traffic movement as approved by the engineer. The department anticipates that the schedule of major traffic shifts and roadway openings and closings for each stage shall be as follows, unless approved by the engineer:

Stage 1 Traffic:

- IH 43 NB: Three Lanes of Traffic on Existing Pavement
- IH 43 SB: Three Lanes of Traffic on Existing Pavement
- Ramp GBA2: Open to Traffic (Closed during Noise Wall Construction)
- Ramp GBB2: Open to Traffic (Closed during Noise Wall Construction)
- Ramp GBC: Open to Traffic

- Ramp GBD: Open to Traffic
- Ramp HAA: Closed to Traffic (Open during Noise Wall Construction
- Ramp HAB: Open to Traffic

Stage 2A Traffic:

- IH 43 NB: Two Lanes of Traffic on Existing Pavement, Temporary Pavement, and New Structure B-40-1021 (Ramp HAA)
- IH 43 SB: ThreeLanes of Traffic on Existing Pavement
- Ramp GBA2: Open to Traffic
- Ramp GBB2: Open to Traffic
- Ramp GBC: Open to Traffic
- Ramp GBD: Closed to Traffic
- Ramp HAA: Closed to Traffic
- Ramp HAB: Open to Traffic

Stage 2B Traffic:

- IH 43 NB: Three Lanes of Traffic on Existing Pavement, Temporary Pavement, New Pavement and New Structure B-40-1021 (Ramp HAA)
- IH 43 SB: Three Lanes of Traffic on Existing Pavement
- Ramp GBA2: Open to Traffic
- Ramp GBB2: Open to Traffic
- Ramp GBC: Open to Traffic
- Ramp GBD: Open to Traffic
- Ramp HAA: Closed to Traffic
- Ramp HAB: Open to Traffic

Stage 2C Substage 1 Traffic:

- IH 43 NB: Two Lanes of Traffic on Existing Pavement, Temporary Pavement, New Pavement and New Structure B-40-1021 (Ramp HAA)
- IH 43 SB: Two Lanes of Traffic on Existing Pavement
- Ramp GBA2: Open to Traffic
- Ramp GBB2: Open to Traffic
- Ramp GBC: Closed to Traffic
- Ramp GBD: Closed to Traffic
- Ramp HAA: Closed to Traffic
- Ramp HAB: Open to Traffic

Stage 2C Substage 2 Traffic:

- IH 43 NB: Two Lanes of Traffic on Existing Pavement, Temporary Pavement, New Pavement and New Structure B-40-1021 (Ramp HAA)
- IH 43 SB: Two Lanes of Traffic on Existing Pavement
- Ramp GBA2: Open to Traffic
- Ramp GBB2: Open to Traffic
- Ramp GBC: Closed to Traffic
- Ramp GBD: Closed to Traffic
- Ramp HAA: Closed to Traffic
- Ramp HAB: Closed to Traffic

Stage 2D Traffic:

- IH 43 NB: Two Lanes of Traffic on Existing Pavement, Temporary Pavement, New Pavement and New Structure B-40-1021 (Ramp HAA)
- IH 43 SB: Two Lanes of Traffic on Existing Pavement, Temporary Pavement, Temporary Crossover and New IH 43 NB Pavement
- Ramp GBA2: Open to Traffic (Short Term Closures for B-40-1014 Work)
- Ramp GBB2: Open to Traffic
- Ramp GBC: Closed to Traffic
- Ramp GBD: Closed to Traffic
- Ramp HAA: Closed to Traffic
- Ramp HAB: Closed to Traffic
- SB Entrance Ramp from Silver Spring Drive : Open to Traffic

Stage 3A Traffic:

- IH 43 NB: Two Lanes of Traffic on Existing Pavement, Temporary Pavement, New Pavement and New Structure B-40-1021 (Ramp HAA)
- IH 43 SB: Two Lanes of Traffic on Existing Pavement, Temporary Pavement, Temporary Crossover and New IH 43 NB Pavement
- Ramp GBA2: Open to Traffic (Short Term Closures for B-40-1014 Work)
- Ramp GBB2: Open to Traffic
- Ramp GBC: Closed to Traffic
- Ramp GBD: Closed to Traffic
- Ramp HAA: Closed to Traffic
- Ramp HAB: Closed to Traffic
- SB Entrance Ramp from Silver Spring Drive: Open to Traffic

Stage 3B Traffic:

- IH 43 NB: Two Lanes of Traffic on Existing Pavement, Temporary Pavement, New Pavement and New Structure B-40-1021 (Ramp HAA), Temporary Crossover and New IH 43 SB Pavement
- IH 43 SB: Two Lanes of Traffic on New Pavement
- Ramp GBA2: Open to Traffic
- Ramp GBB2: Open to Traffic
- Ramp GBC: Closed to Traffic
- Ramp GBD: Closed to Traffic
- Ramp HAA: Closed to Traffic
- Ramp HAB: Closed to Traffic
- SB Entrance Ramp from Silver Spring Drive: Open to Traffic

Stage 3C Traffic:

- IH 43 NB: Three Lanes of Traffic on Existing Pavement, Temporary Pavement, And New Pavement
- IH 43 SB: Three Lanes of Traffic on New Pavement
- Ramp GBA2: Open to Traffic
- Ramp GBB2: Open to Traffic
- Ramp GBC: Open to Traffic
- Ramp GBD: Open to Traffic
- Ramp HAA: Closed to Traffic
- Ramp HAB: Open to Traffic

Stage 4 Traffic:

- IH 43 NB: Two Lanes of Traffic on IH 43 SB New Pavement
- IH 43 SB: Two Lanes of Traffic on New Pavement
- Ramp GBA2: Open to Traffic
- Ramp GBB2: Open to Traffic
- Ramp GBC: Closed to Traffic
- Ramp GBD: Closed to Traffic
- Ramp HAA: Closed to Traffic
- Ramp HAB: Closed to Traffic

Stage 5 Traffic:

- IH 43 NB: Two Lanes of Traffic on New Pavement, Auxiliary Lane Open from Capitol Drive Entrance Ramp (Ramp GBD) To Hampton Avenue exit Ramp (Ramp HAA)
- IH 43 SB: Two Lanes of Traffic on New Pavement, Auxiliary Lane Open from Hampton Avenue Entrance Ramp (Ramp HAB) To Capitol Drive Exit Ramp (Ramp GBC)
- Ramp GBA2: Open to Traffic
- Ramp GBB2: Open to Traffic
- Ramp GBC: Open to Traffic
- Ramp GBD: Open to Traffic
- Ramp HAA: Open to Traffic
- Ramp HAB: Open to Traffic

E Wisconsin Lane Closure System Advance Notification

Notify the engineer and SEF Construction Program Work Zone and Traffic Engineer, Stephanie Leranth, (414) 750-1397, if there are any changes in the schedule, early completions, or cancellations of scheduled work. Coordinate the locations of messages of portable changeable message sign with engineer and WisDOT TMC. Notify WisDOT Signal Operations, (414) 750-2605, and WisDOT electrical Field Unit, (414) 266-1170, regarding changes for alternate routes and detours.

Provide the engineer with a schedule of lane and ramp closures by 9:00 AM on Wednesday for the next ten calendar days. In addition, provide the following minimum advance notification to the engineer for incorporation into the Wisconsin Lane Closure System. (LCS).

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

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

6. Holiday and Special Event Restrictions.

Do not perform work nor haul materials of any kind, and entirely clear the traveled way and shoulders 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 28, 2021 to 6:00 AM Tuesday, June 1, 2021 for Memorial Day;
- From noon Friday, July 2, 2021 to 6:00 AM Tuesday, July 6, 2021 for Independence Day;
- From noon Friday, September 3, 2021 to 6:00 AM Tuesday, September 7, 2021 for Labor Day;
- From noon Wednesday, November 24, 2021 to 6:00 AM Monday, November 29, 2021 for Thanksgiving;
- From noon Friday, December 24, 2021 to 6:00 AM Monday, December 27, 2021 for Christmas;
- From noon Friday, December 31, 2021 to 6:00 AM Tuesday, January 4, 2022 for New Year's Day;
- From noon Friday, May 27, 2022 to 6:00 AM Tuesday, May 31, 2022 for Memorial Day;
- From noon Friday, July 1, 2022 to 6:00 AM Tuesday, July 5, 2022 for Independence Day;
- From noon Friday, September 2, 2022 to 6:00 AM Tuesday, September 6, 2022 for Labor Day;
- From noon Wednesday, November 23, 2022 to 6:00 AM Monday, November 28, 2022 for Thanksgiving;
- From noon Friday, December 23, 2022 to 6:00 AM Tuesday, December 27, 2022 for Christmas;
- From noon Friday, December 30, 2022 to 6:00 AM Tuesday, January 3, 2023 for New Year's Day;
- From noon Friday, May 26, 2023 to 6:00 AM Tuesday, May 30, 2023 for Memorial Day;
- From noon Monday, July 3, 2023 to 6:00 AM Wednesday, July 5, 2023 for Independence Day;
- From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023 for Labor Day;
- From noon Wednesday, November 22, 2023 to 6:00 AM Monday, November 27, 2023 for Thanksgiving.

Long term ramp and roadway closures shown on the plans may remain in place during holiday work restrictions. New long-term closures of ramps and roadways must be coordinated with the holiday work restrictions.

Freeway Special Event Restrictions

During Summer Fest, (currently scheduled for the following dates: September 2 – September 4, 2021; September 9 – September 11, 2021; September 16 – September 18, 2021; June 29 – July 10, 2022; and June 28 – July 9, 2023), keep open the following roadways until one hour after the event closes each night:

- Two open lanes on northbound IH 43
- Service interchange ramps at the Capitol Drive, Hampton Avenue, and Silver Spring Drive service interchanges (those that are not already closed long-term per the staging plans)

During Wisconsin State Fair, scheduled for August 5 - 15, 2021; August 4 - 14, 2022 and August 3 - 13, 2023, keep open the following roadways until one hour after the event closes each night:

- Two open lanes on northbound IH 43
- Service interchange ramps at the Capitol Drive, Hampton Avenue, and Silver Spring Drive service interchanges (those that are not already closed long-term per the staging plans)

On days with a Milwaukee Brewer home game at American Family Field (former Miller Park), maintain two open lanes on northbound IH 43 until four hours after the event begins. IH 43 restrictions during other special events at American Family Field (former Miller Park) will be determined on an as needed basis as determined by the engineer.

On days with a Milwaukee Bucks home game at Fiserv Forum, maintain all inbound travel lanes on IH 43, to Fiserv Forum starting at two hours before the game. Maintain all outbound lanes on IH 43 from Fiserv Forum until three hours after the start of the game. Restrictions during other special events at Fiserv Forum will be determined on an as needed basis as determined by the engineer.

On days with a Green Bay Packers "Gold Package" games at Lambeau Field, no additional lane closures will be allowed from that shown in the plans, 4 hours prior to 4 hours after the game. Restriction during other special events at Lambeau Field will be determined on an as needed basis as determined by the engineer.

Special event work restrictions do not apply to roadways or ramps already closed long term during construction as shown on the plans. New long-term closures of ramps and roadways must be coordinated with the special event work restrictions.

These restrictions also apply to hauling of materials and equipment.

7. Utilities.

This contract comes under the provisions of Wisconsin Administrative Code Chapter TRANS 220.

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

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

Utility companies will be performing utility work and adjustments within the limits during the life of the project. The contractor shall cooperate and coordinate construction activities with these companies.

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

Known utilities in the projects are as follows:

AT&T Local Network (aka TCA) has existing underground facilities within the project limits at the following locations:

- TCA has facilities approximately 27 to 29-Feet south of Glendale Avenue centerline. Prior to and during construction, TCA will install new conduit from a new handhole at Station 10+74GD, 23'RT and stay 23'RT of alignment Glendale Avenue centerline to a new handhole at Station 15+40GD, 44'RT. TCA will discontinue the old conduit between Station 10+74, 28'RT – 15+40, 44RT once new conduit had been installed.
- The TCA Handhole at Station 100+75PW, 58' LT is in conflict with proposed reconstruction of Ramp HAA. Prior to and during construction, TCA to place a new handhole at Station 100+77PW, 190'LT. Install new conduit from the new handhole east to intercept existing conduit at Station 100+61PW, 32'RT. TCA proposed elevation to be 622 under proposed Storm pipe P496 between Structure 495 and P497. TCA proposed elevation to be 621 under proposed Storm pipeP518 between Structure 517 and 519.

Anticipated construction time for all work described above is 30 working days.

AT&T Wisconsin operates facilities within the project limits as shown and described as follows:

- AT&T has aerial facilities attached to We Energies poles between Station 929GBA2, RT to Station 934GBA2, RT. Prior to and during construction, AT&T Wisconsin to relocate with We Energies upon B-form notice.
- AT&T Wisconsin will need to verify relocation of the (2) Cell Towers Between Station 942+50 LT and Station 945 LT to confirm aerial relocations to these service points and obtain easements to re-service the carrier customers associated with the towers.
- AT&T has an existing underground service at Station 943 LT to RT under the existing 1-43 bridge. During construction, AT&T will replace direct buried crossing at approx. Station 943 LT to RT under proposed I-43 and associated proposed walls.
- AT&T Wisconsin has (2) cabinets and a handhole in existing easement that are in conflict with the proposed storm P376 between Structure 375 and E377 as well as the future bike path west side of I-43 at Station 966+91, 101' LT, Station 966+96, 101'LT, and Station 967+04, 102' LT these cabinets and the hand hole are enclosed in a 10' x 20' x 6" concrete slab. During construction, the cabinets and hand hole will be relocated and removed. There is a power service that will need to

be disconnected in order for We Energies service to be removed. These facilities will be submitted to the PSC to retire copper in the network, this requires 180 days notice to be provided all customers prior notice to move service to fiber facilities or other carrier solutions, in order to turn down power service and remove the cabinets.

- AT&T has an existing Down Guy and anchor (not shown on plan) Station 966+84, 112’ LT associated with joint use We Energies Pole at Station 967+13, 111’ LT, holding the aerial line going north. During construction the down guy anchor will be removed and replaced as sidewalk guy at Station 967+00, 111’ LT.
- AT&T has an existing Down Guy and anchor Station 967+18, 98’ LT associated with joint use We Energies Pole at Station 967+13, 111’ LT. During construction, the Down Guy and anchor will need to be removed and replaced with a new pole Station 967+08, 141’ LT and anchor Station 967+11, 121’ LT – 30-Feet west of existing pole to hold overhead line west.
- AT&T has an existing pedestal located at Station 11+09, 21' RT and facilities buried along the south side of W Glendale Avenue Station 11GD+09, 25’ RT to Station 14GD+57, 21’ RT to remain in place.

AT&T Wisconsin anticipated construction time for all work described above 90 working days. Anticipated start date is April 1, 2021, after PSC Network Change Notice.

ATC Management, Inc. - Electricity-transmission

CenturyLink Communications, LLC - Communication Line

Charter Communications - Communication Line

City of Glendale - Sewer

City of Glendale - Street Lighting has existing overhead and underground lighting facilities throughout the project limits. Construct, relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans and bid items.

City of Glendale – Water has existing overhead and underground lighting facilities throughout the project limits. Construct, relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans and bid items

City of Milwaukee - Conduit has existing facilities throughout the project limits. No relocation work is anticipated.

City of Milwaukee – Forestry has existing lawn sprinkling facilities in medians throughout the project limits. No relocation work is anticipated.

City of Milwaukee – Sewer has existing sewer facilities throughout the project limits. No relocation work is anticipated.

City of Milwaukee - Street Lighting has existing lighting facilities throughout the project limits. No relocation work is anticipated.

City of Milwaukee - Water has existing water facilities throughout the project limits. No relocation work is anticipated**.**

Everstream - Communication Line

Midwest Fiber Networks LLC has an existing communications fiber cable in WisDOT Communications duct that is in conflict with the roadway plans, there will be a temporary relocation required and a permanent relocation required.

Milwaukee Metropolitan Sewerage District has existing sewer facilities throughout the project limits. No relocation work is anticipated**.**

Verizon Business - Communication Line

Wisconsin Department of Transportation (WISDOT) has existing overhead and underground communications facilities throughout the project limits. Install the facilities show in the plans to be installed in Stage 1 prior to impacting the existing communication facilities. Install the facilities so that they are not impacted by other proposed construction included in the plans. Abandon, remove, leave in place, and reconstruct all other remaining facilities as shown in the plans.

Contact John Mittlestadt, (608) -205-7859, of WisDOT - TMC 14 days in advance to coordinate locations and any excavation near their facilities.

Wisconsin Department of Transportation (WISDOT) has existing overhead and underground lighting facilities throughout the project limits. Construct, relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans and bid items.

Wisconsin Department of Transportation (WISDOT) has existing traffic signal facilities within the project limits. Construct, relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans and bid items.

Wisconsin Independent Network, LLC (WIN) has an existing communications fiber cable in WisDOT Communications duct that is in conflict with the roadway plans, there will be a temporary relocation required and a permanent relocation required.

- During construction, WIN will install a conventional 288ct SASJ FOC in a 2-Inch WisDOT provided duct from the WisDOT handhole on the east side of IH-43 n/o Oak Leaf Trail (EXCV1004) south to the WisDOT handhole at the Fiebrantz Avenue NB on-ramp (EXCV936). WIN will share a single 2” duct with WisDOT and Midwest Fiber in the parapet conduit in the SB Hampton Avenue on ramp. Are the new hand-holes planned for the temp/permanent route going to be the double-stacked.

It is anticipated that this temporary path will be required June 2021 to mid-2022.

- During construction, after the new WisDOT conduit has been installed (as shown in the plans and bid items). WIN will cut the 288ct conventional cable at CV984 at the southwest corner of Hampton Avenue and N Port Washington Road. This fiber cable will be pulled back to CV974 and then pulled back into the new duct in the bridge parapet back to CV984 and re-spliced.
- WIN and Midwest Fiber Network to install fiber cables at the same time in the new temporary path, fiber cable to be removed separately and installed into the new path between CV-984 and CV-974.

Anticipated construction time for all work described above is 30 working days.

We Energies – Electricity has existing underground and overhead facilities within the project limits at the following locations:

The following power poles will be removed or relocated prior to and during construction:

- Pole at Station 982+97 RT 50’ will be removed.
- Pole at Station 981+90 RT 54’ will be relocated to Station 981+93 RT 126’.
- Pole at Station 981+00 RT 59’ will be relocated to Station 981+04 RT 136’.
- Pole at Station 977+93 RT 78’ will be relocated to Station 977+67 RT 175’.
- Pole at Station 977+06 RT 83’ will be relocated to Station 977+51 RT 176’.
- Pole at Station 976+90 RT 82’ will be relocated to Station 977+41 RT 178’.
- Pole at Station 976+75 RT 84’ will be relocated to Station 977+31 RT 179’.
- Pole at Station 976+60 RT 86’ will be removed.
- Pole at Station 967+25 LT 54’ will be removed.
- Pole at Station 967+52 RT 92’ will be removed.
- Pole at Station 967+57 RT 118’ will be removed.
- Pole at Station 967+27 RT 124’ will be relocated to Station 966+70 RT 135’.
- New primary riser pole will be installed at Station 966+93 RT 130’
- New primary riser pole will be installed at Station 967+73 LT 127’
- New primary riser pole will be installed at Station 966+77 LT 118’
- Pole at Station 966+25 LT 98’ will be relocated to Station 965+36 LT 124’
- Guy and anchor at Station 962+51 LT 132’ will be relocated to Station 962+47 LT115’ and buried extra deep, with extension, to accommodate proposed grade cuts.
- Pole at Station 954+36 LT 90’ will be relocated to Station 954+96 LT 107’
- A new pole will be installed at Station 953+49 LT 111’.
- Pole at Station 953+10 LT 92’ will be removed and overhead primary conductors will be attached to proposed ATC structure at approximately Station 952+83 LT 126’. Guy wires will also be attached to the proposed ATC structure, extending to new anchors at Station 952+96 LT 105’, and Station 952+70 LT 105’.
- Pole at Station 939(GBC)+00 LT 105’ will be removed.
- Pole at Station 940(GBC)+68 LT 57’ will be removed.
- Pole at Station 941(GBC)+30 LT 23’ will be removed.
- Pole at Station 942(GBC)+07 RT 17’ will be removed.
- Pole at Station 942(GBC)+35 RT 21’ will be removed.
- Pole at Station 943+17 LT 44’ will be removed.
- Pole at Station 944+26 LT 51’ will be removed.
- Pole at Station 932+05 LT 82’ will be relocated to Station 932+12 LT 79’.
- Pole at Station 932(GBA2)+15 RT 37’ will be relocated to Station 932(GBA2)+23 RT 38’.
- New primary riser pole will be installed at Station 933(GBA2)+08 RT 47’. This overhead crossing has 2 circuits. One of the circuits will be raised to avoid the proposed noise wall and be attached to the first 2 poles listed above. The other circuit will be converted underground and cross the freeway at approximately Station 932+10.

The following underground facilities will discontinued in place prior to and during construction:

- Underground primary conductors from Station 976+90 RT 82’, east to Station 977+00 RT 324’ (crossing Port Washington road at PW100+59).
- Underground primary conductors from Station 976+75 RT 84’ east to Station 976+79 RT 223’, then south to Station 975+88 RT 190’.
- Underground secondary conductors from Station 976+75 RT 84’ to Station 976+84 RT 202’.
- Underground primary conductors from Station 976+60 RT 86’ to Station 976+94 RT 324’ (crossing Port Washington road at PW100+56).

New underground primary conductors will be installed prior to and during construction:

- From Station 977+51 RT 176' east to 977+56 RT 318' (crossing Port Washington road at PW101+11), then south to Station 976+94 RT 327' splicing into existing conductors.
- From Station 977+41 RT 178' east to Station 977+32 RT 218', then continuing east to Station 977+42 RT 318' (crossing Port Washington road at PW100+97), then south to Station 977+00 RT 324' splicing into existing conductors.
- From Station 977+31 RT 179' to a new padmounted transformer at Station 977+26 RT 203'. From this transformer, new underground primary conductors will be installed west to Station 977+24 RT 186, then south to Station 975+88 RT 190', splicing into existing conductors.
- From the new padmounted transformer at Station 977+26 RT 203' to Station 976+84 RT 202' splicing into existing conductors to feed the existing traffic signal service.
- From the new pole at Station 967+73 LT 127', south to Station 967+50 LT 114', then east to Station 967+88 RT 133', then north to a new padmounted VFI at Station 968+27 RT 157'. Underground conductors will be installed from VFI, south to Station 966+98 RT 148, then to new pole at Station 966+93 RT 130'.
- From new pole at Station 965+36 LT 124' northeast to Station 966+98 RT 152', then north to Station 967+35 RT 144', splicing into existing cable.
- From Station 952+68 LT 167' to Station 955+50 RT 256' will be discontinued in place. To replace this, underground primary conductors will be installed from Station 952+58 LT 145' to Station 955+30 RT 271'.
- From Station 942+10 LT 48' to 942+05 RT 113' will be discontinued in place. To replace this service We Energies will extend new underground primary conductors from an existing padmounted transformer at Station 945+00 RT 397', north to Station 945+47 RT 387', then west to Station 944+84 RT 102', then south to a new padmounted transformer at approximately Station 944+46 RT 108'. Underground secondary conductors will then run from that transformer to the customer's meter at approximately Station 942+05 RT 113'.
- From the existing pole at Station 938(GBC)+50 LT 74', going northwest to Station 393(GBC)+00 LT 128'. From there it will stay 3' east of the west proposed right-of-way line to a new padmounted transformer at Station 942(GBC)+12 LT 83'. From there We Energies will have buried secondary conductors 3' east of the west proposed right-of-way line, going north to a new pole at Station 943+79 LT 139'.

Prior to and during construction, a Secondary pedestal at Station 944+27 RT 52' will be removed.

The overhead freeway crossing will be discontinued. We Energies will install underground primary conductors from the new pole at Station 966+77 LT 118', north to Station 967+18 LT 123', then east to 967+89 RT 270', and south to Station 967+77 RT 273'.

Anticipated construction time for all work described above is 200 working days.

We Energies – Gas has existing underground facilities within the project limits at the following locations:

- A 3-Inch PE Gas main that crosses I-43 at approximately Station 942+00GBD and turns North to approximately Station 945+25GBD and crosses under the proposed retaining wall. Prior construction 3-Inch PE Gas main will be discontinued and not replaced at this location.
- An 8-Inch steel Gas main that runs parallel with N. Port Washington Rd at approximately Station 978+10HAA is in conflict with proposed Storm Sewer pipe P524 between Structure 523 and E535. Prior to construction, We Energies will lower the existing main in its existing location 15-feet in each direction (North and South) of the proposed Storm Sewer pipe P524.

Anticipated construction time for all work described above is 30 working days.

8. Other Contracts.

Coordinate your work according to standard spec 105.5.

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

The following projects may be under construction concurrently with the work under this contract. Coordinate activities, detours, work zone traffic control, roadway and lane closures, and other work items as required with other contracts.

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

Project 1228-22-70

IH 43, North-South Freeway

Brown Street to Capitol Drive

WisDOT contact: Josh Leveque; (414) 750-1468

Project 1229-04-70

IH 43, North-South Freeway

Silver Spring Dr. to STH 60

WisDOT contact: Steve Hoff, (262) 548-6718

Project 2565-09-70

STH 57, Green Bay Avenue

Ramps with Silver Spring Drive

WisDOT contact: Robert Bellin, (262) 521-4405

Project 2565-02-71

STH 57, Green Bay Avenue

Intersection with CTH PP

WisDOT contact: Robert Bellin, (262) 521-4405

9. Hauling Restrictions.

Replace standard spec 107.2 with the following:

(1) Present to the department, five business days before proposed hauling, a proposed haul route plan detailing haul routes that are not part of the state trunk highway system. Include the months, days of the week, time of day, number of trucks, types of trucks and maximum loads of trucks anticipated to accomplish the project work in the haul route submittal.

(2) The department will review the submittal and either approve or provide a letter with comments and proposed revisions to the contractor within five business days of its receipt. If approved, the department will subsequently survey the existing condition of that haul route to establish a baseline for assessing damage that the contractor's hauling operations might cause.

(3) At all times, conduct operations in a manner that will cause a minimum of disruption to traffic on existing roadways.

sef-107-015 (20170310)

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

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting David Pittman at (414) 548-6739.

stp-107-054 (20080901)

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

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting David Pittman at (414) 548-6739. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

12. Environmental Protection, Aquatic Exotic Species Control.

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

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

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

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

Use the following inspection and removal procedures:

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

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

stp-107-055 (20130615)

13. Construction Over or Adjacent to Navigable Waters.

The Milwaukee River is classified as a state navigable waterway under standard spec 107.19.

stp-107-060 (20171130)

14. Notice to Contractor – Milwaukee County Parks Permit.

The department has coordinated a draft permit with Milwaukee County Parks to occupy Milwaukee County Parks land outside of the existing roadway right-of-way at specified locations and for closing the Oak Leaf Trail in order to perform construction operations. Prior to preparing bids, the contractor shall contact the department to obtain a copy of the draft permit to obtain permit access locations, permit terms and conditions, and fees associated with the permit. The contractor shall be responsible for executing the permit with Milwaukee County Parks by signing the permit and paying the $3,500 permit fee as specified in the draft permit. Information on the permit can be obtained from the regional office by contacting David Pittman at (262) 548-6439. The contractor shall be responsible for returning the signed permit and fee to Milwaukee County Parks. The cost of the permit fee is incidental to construction. The contractor must obtain this permit in order to perform construction operations for this project.

15. Erosion Control

Add the following to standard spec 107.20 as paragraphs nine through fifteen:

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

(10) Provide the ECIP 14 days before the pre-construction conference. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaison (Kristina Betzold, (414) 507-4946, Kristina.Betzold@Wisconsin.gov). Do not implement the ECIP until department approval, and perform all work conforming to the approved ECIP.

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

(12) Stockpile excess materials or spoils on upland areas away from wetlands, floodplains, and waterways. Install perimeter silt fence protection around stockpiles within a timeframe acceptable to the engineer. If stockpiled materials will be left for more than 14 days, install temporary seed and mulch or other temporary erosion control measures the engineer orders.

(13) Re-apply topsoil on graded areas, as designated by the engineer, within a timeframe acceptable to the engineer after grading is completed within those areas. Seed, fertilize, and mulch/erosion mat top-soiled areas, as designated by the engineer, within 5 days after placement of topsoil. If graded areas are left not completed and exposed for more than 14 days, seed those areas with temporary seed and mulch.

(14) Do not allow excavation for; structures, utilities, grading, maintaining drainage that requires dewatering (mechanical pumping) of water containing sediments (sand, silt, and clay particles) to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Before each dewatering operation, submit to the department a separate ECIP amendment describing in words and pictorial format an appropriate BMP for sediment removal, conforming to WisDNR Storm Water Construction Technical Standard, Code 1061, Dewatering. Include reasoning, location, and schedule duration proposed for each operation. Per Code 1061, include all selection criteria: site assessment, dewatering practice selection, calculations, plans, specifications, operations, maintenance, and location of proposed treated water discharge. Provide a stabilized discharge area. If directing discharge towards or into an inlet structure, provide additional inlet protection for back-up protection.

(15) Dewatering is paid separately.

sef-107-010 (20180104)

The project ECIP should detail how erosion control devices shown in the plan set will be implemented for the worksite. Additional devices may be needed based on sequence of operations and field conditions. A ‘staged’ ECIP may be required for this project, as new areas are disturbed. Each new ‘stage’ of the ECIP needs to be submitted to the project staff and the WDNR liaison for review as an amendment to the ECIP with a standard 14-day review period. Work should not commence in new areas until the project staff and WDNR has reviewed and concurred with the corresponding ECIP amendment.

All disturbed areas should be adequately protected and restored as soon as feasible. Any disturbed area that will not be ‘re-worked’ for 14 days or more should be temporary seeded and mulched to prevent offsite erosion. The project team may identify ‘sensitive’ areas in the field that require additional temporary stabilization to protect resources from being contaminated by sediment-laden water discharging from the work site. Any ‘release’ of sediment-laden water from the work site that enters a wetland or waterway should be reported to the WDNR liaison within 24 hours.

If dewatering is required for any reason, the water must be pumped into a properly selected and sized dewatering basin before the clean/filtered water is allowed to enter any waterway or wetland. The basin must remove suspended solids and contaminants to the maximum extent practicable. A properly designed and constructed dewatering basin must take into consideration maximum pumping volume (gpm or cfs) and the sedimentation rate for soils to be encountered. Do not house any dewatering technique in a wetland or floodplain.

The contractor should restrict the removal of vegetative cover and exposure of bare ground to the minimum amounts necessary to complete construction. Restoration of disturbed soils should take place as soon as conditions permit. If sufficient vegetative cover will not be achieved because of late season construction, the site must be properly winterized. A plan for ‘over-wintering’ the project or a specific project area should be compiled and submitted to the project staff and WDNR for review in an amendment to the ECIP.

All temporary stockpiles must be in an upland location and protected with erosion control measures (e.g. silt fence, rock filter-bag berm, etc.). Proposed stockpile locations should be included in the ECIP. Do not stockpile fill or other construction materials in or adjacent to wetlands, waterways or floodplain.

The DOT Select Site process must be adhered to for clean fill or any other material that leaves the work site. The project staff and the WDNR liaison will review all proposed select sites and a site visit may be required. Filling of wetlands, waterways or floodplain is not allowed under the select site process, unless the site owner has proof of required local/state/federal permits. No new impermeable surfaces can be left at a select site (including gravel roads or pads), unless the site owner attains required permits. Contaminated materials leaving the site need to adhere to the Hazardous Material Management Plan.

Construction materials and debris, including fuels, oil, and other liquid substances, will not be stored in the construction area in a manner that would allow them to enter a wetland or waterbody as a result of spillage, natural runoff, or flooding. If a spill of any potential pollutant should occur, it is the responsibility of the permittee to remove such material, to minimize any contamination resulting from this spill, and to immediately notify the State Duty Officer at 1 (800) 943-0003.

Construction of structure over navigable waterways shall be completed as quickly as possible in order to minimize disruption. Construction shall minimize the removal of shoreline vegetation below the ordinary high water mark (OHWM), unless otherwise directed by the WDNR Transportation Liaison. Construction equipment should not operate on the bed of the stream or below the OHWM, except for that which is necessary for the placement of the structure. The contractor must provide a means of separating the live flow channel of the waterway from disturbed areas (cofferdam, turbidity barrier, etc.). Any plan for diverting the flow of a navigable waterway (listed under Fish Spawning provision) needs to be submitted, reviewed and approved by the project staff and the WDNR liaison.

When performing concrete or asphalt sawcutting operations, the slurry shall be squeegeed off to the shoulder gravel or shoveled into the gravel behind curbs and not allowed into storm sewers, ditches, waterways or wetlands.

16. Erosion Control Structures.

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

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

stp-107-070 (20191121)

17. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

Check for and comply with local ordinances governing the hours of operation of construction equipment. Do not operate motorized construction equipment from 9:00 PM until the following 7:00 AM, unless prior written approval is obtained from the engineer.

stp-107-001 (20060512)

18. Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found.

John Roelke, License Number AII-119523, inspected Structure B-40-066 for asbestos on April 13-14, 2015. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: David Pittman, (262) 548-6439.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Andrew Malsom, (262) 548-6705 and DOT BTS-ESS attn: Hazardous Materials Specialist, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-40-066, IH 43-N-S-FREEWAY, over W HAMPTON AVE
- Site Address: 1.1 MI N JCT STH 190
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187
- Contact: Steven Kuhl
- Phone: (414) 531-6932
- Age: 62 years old. This structure was constructed in 1959.
- Area: 59317 SF of deck

Insert the following paragraph in Section 6.g.:

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

Jennifer Reed, License Number AII-155710, inspected Structure B-40-073 for asbestos on 42199. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: David Pittman, (262) 548-6439.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Andrew Malsom, (262) 548-6705 and DOT BTS-ESS attn: Hazardous Materials Specialist, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-40-073, IH 43-N-S FREEWAY, over GLENDALE AVE
- Site Address: 0.9 MI N JCT STH 190
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187
- Contact: Steven Kuhl
- Phone: (414) 531-6932
- Age: 61 years old. This structure was constructed in 1960.
- Area: 14024 SF of deck

Insert the following paragraph in Section 6.g.:

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

John Roelke, License Number AII-119523, inspected Structure B-40-115 for asbestos on 40859. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: David Pittman, (262) 548-6439.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Andrew Malsom, (262) 548-6705 and DOT BTS-ESS attn: Hazardous Materials Specialist, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-40-115, IH 43-N-S FREEWAY, over LAND
- Site Address: 0.4M N JCT STH 190
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187
- Contact: Steven Kuhl
- Phone: (414) 531-6932
- Age: 59 years old. This structure was constructed in 1962.
- Area: 177640 SF of deck

Insert the following paragraph in Section 6.g.:

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

John Roelke, License Number AII-119523, inspected Structure B-40-116 for asbestos on April 13-14, 2015. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: David Pittman, (262) 548-6439.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Andrew Malsom, (262) 548-6705 and DOT BTS-ESS attn: Hazardous Materials Specialist, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-40-116, IH 43-N-S FREEWAY, over RAMP IH 43NBL-STH57
- Site Address: 0.3 M N JCT STH 190 TO E
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187
- Contact: Steven Kuhl
- Phone: (414) 531-6932
- Age: 60 years old. This structure was constructed in 1961.
- Area: 14306 SF of deck

Insert the following paragraph in Section 6.g.:

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

John Roelke, License Number AII-119523, inspected Structure B-40-117 for asbestos on April 13-14, 2015. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: David Pittman, (262) 548-6439.

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 4/11), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Andrew Malsom, (262) 548-6705 and DOT BTS-ESS attn: Hazardous Materials Specialist, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-40-117, RAMP IH 43 SB-STH 57, over RAMP IH 43 NB-STH 57
- Site Address: 5.9 Mi. South JCT STH 100
- Ownership Information: WisDOT SE Region, 141 NW Barstow Street, Waukesha, WI 53187
- Contact: Steven Kuhl
- Phone: (414) 531-6932
- Age: 60 years old. This structure was constructed in 1961.
- Area: 3497 SF of deck

Insert the following paragraph in Section 6.g.:

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

stp-107-125 (20120615)

19. Notice to Contractor – Milwaukee County Transit System.

The Milwaukee County Transit System (MCTS) operates the following bus routes within and/or directly adjacent to the construction limits: Routes 15 (Port Washington Rd), 80 (Green Bay Ave), 49 Flyer (Brown Deer Park and Ride), 49U (Brown Deer Park and Ride-UWM), 143 Flyer (Ozaukee Co Express), and GreenLine (Oakland Ave-Bayshore Mall). Invite MCTS to all coordination meetings between the contractor, the department, local officials and business stakeholders to discuss the project schedule of operations including vehicular and pedestrian access during construction operations.

Notify MCTS at least 10 business days prior to beginning work. If necessary, MCTS will remove their existing bus stop shelters before work begins and reinstall bus stop shelters before new pavement opens to vehicular traffic. The contactor may remove bus stop standards and signs and stow nearby within the work zone during construction. MCTS will be responsible for the reinstallation of bus stop standards and signs, with the contractor granting access to MCTS personnel for the purposes reinstallation before new pavement opens to vehicular traffic.

MCTS contacts:

David Locher
Milwaukee County Transit System
1942 N. 17th St.
Milwaukee, WI 53205
Phone: (414) 343-1727
dlocher@mcts.org

Melanie Flynn
Milwaukee County Transit System
1942 N. 17th St.
Milwaukee, WI 53205
Phone: (414) 343-1764
mflynn@mcts.org

SER-107-004 (20180413)

20. Notice to Contractor – Airport Operating Restrictions.

Fill out the FAA Notice Criteria tool for all permanent structure (bridge, light pole, etc.) or equipment (crane, etc.) used during construction.

https://oeaaa.faa.gov/oeaaa/external/portal.jsp

If required by the Notice Criteria tool, and for all crane or construction equipment higher than 200 feet above the ground, submit completed form 7460-1 (Notice of Proposed Construction or Alteration) to The Federal Aviation Administration (FAA) at least 45 days before starting construction.

Contact Levi Eastlick, (608) 267-5018, WisBOA airspace/tall structure manager for assistance submitting forms.

sef-107-020 (20171004)

21. Public Involvement Meetings.

Participate in department-sponsored public involvement meetings as the engineer requests. Ensure that representatives of subcontractors also participate in those meetings if the engineer requests.

sef-999-040 (20160915)

22. Traffic Meetings and Traffic Control Scheduling.

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

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

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

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

sef-643-040 (20150319)

23. Material and Equipment Staging

Submit a map showing all proposed material stockpile and equipment storage locations to the engineer 14 calendar days before either the preconstruction conference or proposed use, whichever comes first. Identify the purpose; length, width and height; and duration of material stockpile or equipment storage at each location. Obtain written permission and necessary permits from the property owner and local governments/agencies and submit two copies to the engineer. Do not stockpile material or store equipment until the engineer approves. Do not stockpile or store materials or equipment on wetlands.

SER-107-011 (20181019)

24. Available Documents.

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

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

These documents are available from David Pittman at 141 NW Barstow Street, Waukesha, WI 53187, (262) 548-6439.

Reproduction costs will be applied to all copies requested.

sef-102-005 (20170310)

25. Contractor Notification.

Replace standard spec 104.2.2.2(2) with the following:

(2) If the contractor discovers the differing condition, provide a written notice, as specified in 104.3.3, of the specific differing condition before further disturbing the site and before further performing the affected work.

Replace standard spec 104.3.2 and 104.3.3 with the following:

104.3.2 (Vacant)

104.3.3 Contractor Initial Written Notice

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

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

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

sef-104-005 (20141211)

26. Contractor Document Submittals.

This special provision describes minimum requirements for submitting project documents to the department. This special provision does not apply to shop drawing submittals.

Provide one electronic copy of all documents requiring department review, acceptance, or approval. Attach a completed engineer-provided transmittal sheet to each email submittal. The department will reject submittals with incomplete transmittal sheets and require re-submittal.

The department will return one reviewed, accepted, or approved original to the contractor. Additional return originals can be requested. Submit an additional original for each additional return original requested.

Submit electronic copies in PDF format to the engineer-designated folder within the department's SharePoint site. Send alerts with a link to the document via email to accounts the engineer determines. If possible, create PDFs from original documents in their native format (e.g. Word, Excel, AutoCAD, etc.). Scan other documents to PDF format with a minimum resolution of 600 dpi.

All costs for contractor document submittals are incidental to the contract.

sef-105-010 (20150619)

27. Dust Control Implementation Plan.

A Description

This special provision describes developing, updating, and implementing a detailed Dust Control Implementation Plan (DCIP) for all land-disturbing construction activities and associated impacts both within the project site boundaries and outside the project site boundaries. Incorporate contract bid items that this article specifies into the DCIP.

B (Vacant)

C Construction

C.1 General

Control dust on the project as specified in standard spec 107.18. Minimize dust emissions resulting from land disturbing activities. Do not generate excessive air borne particulate matter (PM) or nuisance dust conditions. Control dust at all times during the contract.

Submit a DCIP to the engineer for review at least 14 calendar days before the preconstruction conference. Coordinate with the department, if requested, to resolve DCIP related issues before the preconstruction conference. The department will either approve the DCIP or request revisions. Do not initiate land-disturbing activities without the department's approval of the DCIP.

C.2 DCIP Contents

Develop a DCIP tailored to the specific needs of the project. Consider potential impacts to businesses and residences adjacent to the job site. Describe in detail all land disturbing, dust generating activities. Identify strategies to prevent, mitigate, and collect excess dust. Establish clear lines of communication with the engineer to ensure that all dust control issues can be dealt with promptly.

Include all of the following:

1. A single contact person with overall responsibility for the DCIP development as well as surveillance and remediation of job-related dust. Provide:
   - Name, firm, address, and working-hours phone number.
   - Non-working-hours phone number.
   - Email address.
2. A site map locating project features, the job site boundaries, all ingress and egress points, air intakes and other dust-sensitive areas, and all public and private paved surfaces within and adjacent to the job site. Show where specific land disturbing, dust generating activities will occur and, to the extent possible, where employing various dust control or prevention strategies.
3. A matrix, or plan, for each anticipated land disturbing, dust generating activity, showing the following:
   - Preventive measures that shall be employed.
   - The applicable contact person.
   - The contractor's timetable and surveillance measures used to determine when remediation is required.
   - The specific dust control and remediation measures that shall be employed. Identify the specific contract bid items that shall be used for payment. Indicate costs and practices that are incidental to the contract.
   - Both maintenance and cleanup schedules and procedures.
   - Excess and waste materials disposal strategy.
4. A description of monitoring and resolving off-site impacts.

C.3 Updating the DCIP

Update the DCIP during the contract or as the engineer directs. Obtain the engineer's approval for all DCIP alterations. Also obtain the engineer's approval for routine DCIP adjustments for weather, job conditions, or emergencies that will have an impact on payment under the bid items listed in the approved DCIP.

C.4 Dust Control Deficiencies

Coordinate with engineer to determine deadlines for resolving dust control deficiencies. Deficiencies include actions or lack of actions resulting in excessive dust, non-compliance with the contractor's DCIP or associated special provisions, and not properly maintaining equipment.

D Measurement

The department will measure the various bid items associated with dust control as specified in the applicable measurement subsections of either the standard specs or other contract special provisions. The department will not measure work performed under a DCIP alteration unless the engineer specifically approves that alteration.

Measurement under the DCIP includes the contract bid items listed in this special provision:

623.0200	Dust Control Surface Treatment
624.0100	Water
628.7560	Tracking Pads
SPV.0075.0601	Pavement Cleanup Project 1228-22-71

The department will measure work completed under other existing contract bid items if approved as a part of the DCIP. The department will consider new bid items to the contract if proposed under the DCIP. The department will not measure work required under the DCIP that is not included in contract bid items.

E Payment

All costs associated with the development and updating of the DCIP are incidental to the contract. The department will pay separately for the work required to implement the actions approved in the DCIP under the contract bid items approved as a part of the DCIP. All other costs associated with work approved under the DCIP are incidental to the contract.

sef-107-005 (20170323)

28. Project Site Air Quality

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

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

Portable Concrete Crusher Plants

Portable concrete crusher plants may need a NR 440 Concrete Crusher Plant Air Permit for air emissions. Please contact Wisconsin Department of Natural Resources to request additional information and permit application materials. Complete permit applications may take 3 months to process.

sef-999-039 (20160929)

29. Maintaining Drainage.

Maintain drainage at and through worksite during construction conforming to standard spec 107.22, 204, 205 and 520.

Use existing storm sewers, existing culvert pipes, existing drainage channels, temporary culvert pipes, or temporary drainage channels to maintain existing surface and pipe drainage. Pumps may be required to drain the surface, pipe, and structure discharges during construction. Costs for furnishing, operating, and maintaining the pumps is considered incidental to the project.

Dewatering (Mechanical Pumping) for Bypass Water (sediment-free) Operations

If dewatering bypass operations are required from one pipe structure to another downstream pipe structure or from the upstream to downstream end of a culvert and the bypass flow is not transporting sediments (sand, silt, and clay particles) from a tributary work site area, bypass pumping operations will be allowed provided that the department has been made aware of and approves operation. When pumping bypass flows, the discharge location will need to be stable and not produce erosion from the discharge velocity that would cause release of sediment downstream.

Dewatering (Mechanical Pumping) for treatment Water (sediment-laden) Operations

If dewatering operations require pumping of water containing sediments (sand, silt, and clay particles), the discharge will not be allowed to leave the worksite or discharge to a stormwater conveyance system without sediment removal treatment. Refer to article Erosion Control in these special provisions for additional requirements.

sef-107-016 (20170310)

30. Subletting the Contract.

Replace standard spec 108.1.1 (3) with the following:

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

sef-108-035 (20171004)

31. Pavement Breaking Equipment.

Use only hydraulic pavement breaking equipment for breaking pavement within 300 feet of any structure. Do not use guillotine, drop hammer, falling weight, gravity impact breakers or equivalent equipment. A multi-head hydraulic drop hammer is allowed unless a structure is within 50 feet of the roadway.

32. Removing Old Culverts and Bridges

Add the following to standard spec 203.3.1:

203.3.1.1 Structure Removal Site Safety Plan

(1) Prepare a Structure Removal Site Safety Plan covering all structure removal work included in the contract. Maintain posted copies of the Structure Removal Site Safety Plan at the site in the project field office. Provide two copies of the Structure Removal Site Safety Plan to the engineer at least four weeks before beginning removal work.

203.3.1.2 Structure Removal Plans

(1) Prepare a structure specific removal plan for each of the following existing structures indicating the methods and sequence of demolition:

Existing Structure	Structure Type	Feature On	Feature Under
B-40-0066	9-Span Prestressed Concrete Deck Girder	IH 43	Milwaukee River / Hampton Avenue
B-40-0073	3-Span Steel Deck Girder	IH 43	Glendale Avenue
B-40-0115	12-Span Continuous Steel Deck Girder	IH 43	LAND
B-40-0117	4-Span Steel Deck Girder	SB Off-Ramp to Green Bay Ave/Capitol Dr	NB Off-Ramp to Green Bay Ave/Capitol Dr

This table does not include all the structure removals included in the contract. It is a list of existing structure removals included in the contract for which a structure specific detailed removal plan is required to be submitted.

Examine the existing structure plans and visit the site before preparing and submitting the structure removal plan(s). The contractor is responsible for the methods and sequence of demolition, including effects on the overall stability of each structure being removed. At a minimum, each removal plan shall include:

1. The name of the professional engineer, registered in the state of Wisconsin who will be on site and monitoring the removal of existing structures as required in this specification.
2. The name of the contractor's on-site-employee designated in responsible charge of all removal operations.
3. The removal method and sequence of removal for each individual structure, including the staging of bridge removals.
4. Analysis of the stability of the structure based on the methods and sequence of demolition proposed, to ensure that the structure is demolished in a safe and controlled manner. The analysis computations shall be prepared, signed and sealed by a professional engineer registered in the State of Wisconsin.
5. Design and details of temporary supports, shoring or temporary bracing, if required to stabilize portions of partially remaining structures during the removal sequence or support partially remaining structures after staged removals. Include design computations and detail drawings for all temporary supports, shoring and bracing that indicate the exact placement of the temporary supports, shoring or bracing; verification of design loads; attachment details; and methods for the safe transfer of loads from existing structural elements to be removed to the temporary supports, shoring, or bracing. Temporary support, shoring, or bracing design computations and drawings details are to be prepared, signed and sealed by a professional engineer registered in the State of Wisconsin.
6. Design and details of temporary support foundations. Include in the foundation design the evaluation of expected foundation settlement and the effect that this will have on the structure being supported. Temporary support foundation design computations and drawing details are to be prepared, signed and sealed by a professional engineer registered in the State of Wisconsin.
7. Equipment type and locations of equipment on the structure(s) or adjacent roadways during the removal operations
8. Locations and type of work to be performed directly adjacent to traffic.
9. Details and locations of protective covers and other measures to ensure that people, property and improvements will not be endangered or damaged as a result of the removal operations. Include methods for protecting any pavement surfaces including shoulders, concrete barriers, and other highway features.

10. Methods of removal, hauling and disposal, including haul routes and disposal destination.
11. A schedule of anticipated roadway and lane closures to accommodate removal operations. Include the timing of individual lane or temporary roadway closures and the nature of removal operations that will be performed during the lane or roadway closures.
12. Acknowledgement that the contractor and removal design engineer responsible for preparing the removal plan have visited the site and reviewed the existing structure plans in preparing the removal plan.

Structure Pre-Removal Meetings

After submission of the Structure Removal Site Safety Plan and required Structure Removal Plan(s), schedule and conduct structure pre-removal meetings at a time agreed to by the engineer. Hold structure pre-removal meetings at least three working days before beginning structure removal activities. If the engineer agrees before, multiple structure removals can be combined and discussed at one structure pre-removal meeting. Otherwise, schedule and conduct a separate structure pre-removal meeting for each structure to be removed.

Supplement standard spec 203.3.2.1 with the following:

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

Supplement standard spec 203.5.1(2) with the following:

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

33. Removing Old Structure Over Waterway With Minimal Debris Station 977+50, Item 203.0600.S.0001; Removing Old Structure Over Waterway With Minimal Debris Station 980+00, Item 203.0600.S.0002.

Conform to standard spec 203 as modified in this special provision.

Add the following to standard spec 203:

203.3.6 Removals Over Waterways and Wetlands

203.3.6.2 Removing Old Structure Over Waterway with Minimal Debris

(1) Remove the existing Structure B-40-66 over the Milwaukee River in large sections and conforming to the contractor's approved structure removal and clean-up plan. During superstructure removal, prevent all large pieces and minimize the number of small pieces from entering the waterway or wetland. Remove all reinforcing steel, all concrete, and all other debris that falls into the waterway or wetland. The contractor may leave limited amounts of small concrete pieces scattered over the waterway floor or wetland only if the engineer allows.

(2) Submit a structure removal and clean-up plan as part of the erosion control implementation plan required under standard spec 107.20. Do not start work under the structure removal and clean-up plan without the department's written approval of the plan. Include the following information in the structure removal and clean-up plan:

- Methods and schedule to remove the structure.
- Methods to control potentially harmful environmental impacts.
- Methods for superstructure removal that prevent all large pieces and minimize the number of small pieces from entering the waterway or wetlands.
- Methods to control dust and contain slurry.
- Methods for removing piers and abutments. If blasting in water, include restrictions that regulatory agencies and the contract require.
- Methods for cleaning the waterway or wetlands.

(3) If stockpiling spoil material, place it on an upland site an adequate distance from the waterway, wetland, or any open water created by excavation. Install silt fence between the spoil pile and the waterway, wetland, or excavation site.

Add the following Removing Old Structure bid item to standard spec 203.5.1:

ITEM NUMBER	DESCRIPTION	UNIT
203.0600.S.0001	Removing Old Structure Over Waterway With Minimal Debris Station 977+5	LS
203.0600.S.0001	Removing Old Structure Over Waterway With Minimal Debris Station 980+00	LS

stp-203-020 (20190618)

34. Removing Concrete Barrier.

Add the following to standard spec 204.3.2.2.1 as paragraph fourteen:

(14) Under the Removing Concrete Barrier bid item, remove barrier and footing, unless specified in the plans, at the locations the plans show. Removal includes all required sawing conforming to standard spec 690.

Add the following to standard spec 204.5.1(2) as paragraph two:

(2) Payment for Removing Concrete Barrier is full compensation for all required sawing and removal of existing barrier and footing, and sludge removal.

sef-204-025 (20180104)

35. Removing or Abandoning Miscellaneous Structures.

Replace standard spec 204.5.1(3) with the following:

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

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

Add the following to standard spec 204.3.2.2:

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

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

SEF Rev. 14_1215

36. Storm Sewer.

Supplement standard spec 204.5.1 with the following:

QMP sampling, testing and documentation if applicable is incidental to removing storm sewer bid item and no separate payment will be made.

Supplement standard spec 608.2 with the following:

Two weeks prior to start of storm sewer construction, provide a shoring design and installation sequence for each location where shoring is to be used. Have a professional engineer, currently registered in the State of Wisconsin and knowledgeable of the specific site conditions and requirements, verify the adequacy of the design. Submit one electronic copy in portable document format of each shoring design, signed and sealed by the same professional engineer verifying the design, to the engineer for incorporation into the permanent project record.

Supplement standard spec 608.3.1 with the following:

(1) Incorporate excavated material in the work to the extent practicable. Use materials with suitable engineering properties for embankment.

(2) Dispose of surplus or unsuitable material as specified in standard spec 205.3.12.

Supplement standard spec 608.3.3 with the following:

Place rubber gasket joints over the spigot end or tongue of the entering pipe for all round storm sewer pipes horizontal and elliptical pipes with a rise less than or equal to 40-inches. Clean the gasket and the ends of the pipe from sand and gravel. If the gasket provided is neither factory lubricated nor self-lubricating, lubricate the outside of the gasket and the inside of the bell or groove of the last pipe with an engineer - approved vegetable lubricant immediately before making the joint. Place the spigot or tongue of the pipe being laid with the gasket in place into the bell or groove end of the previously laid pipe. Set pipe carefully to line and grade, and push or jack home. The engineer may order the use of ajack or “come-along” if deemed necessary to ensure that the joints are completely tight.

For horizontal elliptical pipe rise greater than 40-inches use mastic joint compound. Where factory lubricated rubber gasket joints are not available, clean the ends of the pipe from sand and gravel. Place engineer-approved mastic joint sealer on both the spigot and bell ends of the pipe being laid. Apply additional mastic around each joint exterior and wrap each joint with Geotextile Fabric Type DF laid flat meeting requirements of standard spec 645. Wrap each joint so that the Geotextile Fabric overlaps each joint a distance of approximately ½ of the pipe diameter.

Replace standard spec 608.5(2) with the following:

Payment for the Storm Sewer Pipe bid items is full compensation for providing all materials, including all special Y’s, mitered sections, elbows and connections required; for all submittals; for excavating and wasting excess material, except rock excavation; for providing rubber gaskets; Lubrication of rubber gaskets; mastic joint sealer; for supporting utilities in storm sewer trench; for shoring design, providing a signed and sealed copy of the design; for installation, monitoring, and removal of shoring; for forming foundation; for laying pipe; for sealing joints and making connections to new or existing features, bedding material; for backfilling and granular backfill material; for QMP sampling, testing and documentation; for cleaning out; and absent the pertinent contract bid items, for restoring the work site.

37. Removing Concrete Surface Partial Depth, Item 204.0109.S.

A Description

This special provision describes removing a portion of concrete surfaces as the plans show and conforming to standard spec 204.

B (Vacant)

C Construction

C.1 Equipment

Use a machine that provides a surface finish acceptable to the engineer. Shroud the machine to prevent discharge of any loosened material into adjacent work areas or live traffic lanes.

Use a machine that is equipped with electronic devices that provide accurate depth, grade and slope control, and acceptable dust control system.

C.2 Methods

Remove existing concrete to the depths as shown on the plan by grinding, planing, chipping, sawing, milling, or by using other methods approved by the engineer.

Perform the removal operation in such a manner as to preclude damage to the remaining pavement and results in a reasonable uniform plane surface free of excessive large scarification marks and having a uniform transverse slope.

The sequence of removal operations shall be such that no exposed longitudinal joints 2 inches or more in depth remain during non-working hours. Windrowing or storing of the removed material on the roadway will only be permitted in conjunction with a continuous removal and pick-up operation. During non-working hours, clear the roadway of all materials and equipment.

Removed pavement becomes the property of the contractor. Properly dispose of it as specified in standard spec 204.3.1.3.

D Measurement

The department will measure Removing Concrete Surface Partial Depth in area by the square foot of surface area removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0109.S	Removing Concrete Surface Partial Depth	SF

Payment is in full compensation for removing the concrete; and for disposing of materials.

stp-204-041 (20080902)

38. Abandoning Sewer, Item 204.0291.S.

A Description

This special provision describes abandoning existing sewer by filling it with cellular concrete according to the pertinent requirements of standard spec 204 and standard spec 501, as shown in the plans, and as hereinafter provided.

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 directed by the engineer. 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 according to 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)

39. Removing Advance Flasher Assemblies Type 1, Item 204.9001.S.

A Description

This special provision describes removing advance flasher assemblies from the locations the plans show. Rewire and disconnect wiring in the control cabinet as necessary and properly dispose of materials conforming to standard spec 204.3.1.3.

B Materials

Dispose of all materials resulting from removing the Advance Flasher Assemblies including but not limited to poles, break-a-way bases, signal assemblies, bulbs, and wire off the job site.

C Construction

Do not remove existing advance flasher assemblies until proper disconnects and wiring changes in the controller cabinet have been made.

Where an existing advance flasher assembly is mounted to a light pole, remove all signal hardware including wire, conduit, signal assemblies and mounts. Where existing conduit has been installed under concrete sidewalk or roadway, do not remove buried conduit unless directed otherwise by the engineer or unless it is not possible to install new wire through the existing conduit.

D Measurement

The department will measure Removing Advance Flasher Assemblies Type 1 by the unit, acceptably removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9001.S	Removing Advance Flasher Assemblies, Type 1	EACH

Payment is full compensation for removing advanced flasher assemblies; for rewiring, as necessary; for disconnecting wiring as necessary in the controller cabinet; and for properly disposing of all materials.

Removal of concrete bases and signs associated with this item will be measured and paid for separately.

stp-204-060 (20170615)

40. Removing Apron Endwall, Item 204.9060.S.0002.

A Description

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

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Apron Endwall as each individual apron endwall, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.0002	Removing Apron Endwall	EACH

stp-204-025 (20150630)

41. Removing Lighting Units, Item 204.9060.S.1001.

A Description

This special provision describes the removing lighting units as the plans show, conforming to standard spec 204, and as follows.

B Materials

All removed material shall become the property of the contractor and be disposed off the project site. Lamps, which are considered a hazardous material, become property of the contractor and shall be disposed of an environmentally sound manner.

C Construction

Remove lighting units consisting of pole, arm, luminaire, lamp, wires, breakaway device, and associated hardware and appurtenances.

No removal work will be permitted without approval from the engineer. Removal shall start as soon as the temporary lighting or permanent lighting, as applicable, is placed in approved operation. An inspection and approval by the engineer will take place before any associated proposed permanent or temporary lighting is approved for operation.

D Measurement

The department will measure Removing Lighting Units by each individual unit removed, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.1001	Removing Lighting Units	EACH

SER-204.15 (20171021)

42. Removing Traffic Signals IH-43 NB Off Ramp & Port Washington Rd, Item 204.9105.S.0001; Removing Traffic Signals IH-43 SB On Ramp & W. Hampton Ave., Item 204.9105.S.0003.

A Description

This special provision describes removing existing traffic signals at the intersection of IH-43 NB Off Ramp & Port Washington Rd, according to the pertinent provisions of standard spec 204 and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

Arrange for the de-energizing of the traffic signals with the local electrical utility after receiving approval from the engineer that the existing traffic signals can be removed.

Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the traffic signals. Complete the removal work as soon as possible following shut down of this equipment.

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

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

DOT forces shall remove the signal cabinet from the footing. The signal cabinet and associated signal cabinet equipment will be removed from the site by DOT forces and will remain the property of the department.

D Measurement

The department will measure Remove Traffic Signals as a single lump sum unit of work for each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S.0001	Remove Traffic Signals IH-43 NB Off Ramp & Port Washington Rd	LS
204.9105.S.0003	Remove Traffic Signals IH-43 SB On Ramp & W. Hampton Ave.	LS

Payment is full compensation for removing, disassembling traffic signals, scrapping of some materials, disposing of scrap material, for delivering the requested materials to the department, and incidentals necessary to complete the contract work.

43. Removing Loop Detector Wire and Lead-in Cable, IH-43 NB Off Ramp & Port Washington Rd, Item 204.9105.S.0002;

A Description

This special provision describes removing loop detector wire and lead-in cable at the IH-43 NB Off Ramp & Port Washington Rd. Removal will be according to standard spec 204, as shown in the plans, and as hereinafter provided.

B (Vacant)

C Construction

Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the loop detector wire and lead-in cable.

Remove and dispose of detector lead-in cable including loop wire for abandoned loops off the right-of-way.

D Measurement

The department will measure Remove Loop Detector Wire and Lead-in Cable as a single lump sum unit of work for each intersection, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S.0002	Remove Loop Detector Wire and Lead in Cable, IH-43 NB Off Ramp & Port Washington Rd	LS

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

44. Roadway Excavation.

Borrow or excavation common will not be paid for structure excavation used in embankments.

Add the following to standard spec 205.5.2(1):

Provide the department with an earth flow diagram within 30 calendar days of receiving the contract Notice to Proceed.

Identify all excavation required for the project, all sources of embankment fill, shrinkage and swell factors, proposed stockpile material, structure excavation (if used in embankments), waste, and fills anticipated to be treated with a soil drying agent. Provide start and finish dates for each grading area within the division. These dates should correspond to the dates shown on the project schedule.

The earth flow diagram will show placement of roadway embankment utilizing excavated material under the Excavation, Hauling, and Reuse of Solid Waste Soil item.

Add the following to standard spec 205.5.2(2):

The department will not pay EBS to remove frost from embankments or cut sections, unless directed by the engineer. It is the contractor's responsibility to stage construction so that exposed subgrades do not freeze or to provide adequate frost protection. Any work necessary to remove and replace frozen materials from newly constructed embankments or exposed cut sections is considered incidental to the excavation bid items.

45. QMP Subgrade.

A Description

This special provision describes requirements for subgrade materials within the roadway foundation as defined in standard spec 101.3. Conform to standard spec 207 as modified in this special provision for all work within the roadway foundation at the following locations:

- IH 43 mainline
- IH 43 ramps
- All temporary left in place and permanent freeway ramps
- Cross roads
- Local roads
- Temporary roads

Provide and maintain a quality control program. A quality control program is defined as all activities, including process control inspection, sampling and testing, documentation, and necessary adjustments in the process that are related to the construction of subgrade which meets all the requirements of this provision.

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:

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

B Materials

B.1 Quality Control Plan

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

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

- An organizational chart with names, telephone numbers, current certifications or titles, and roles and responsibilities of QC, QV, and IA personnel.
- The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
- An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
- Location of the QC laboratory, retained sample storage, and control charts and other documentation.
- A summary of the locations and calculated quantities to be tested under this provision.
- An explanation regarding the basis of acceptance for material that cannot be tested by nuclear methods due to a high percentage of oversized particles.

B.2 Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a grading technician certified under HTCP at level I (or ACT Grading Technician under the direction of a certified technician) present at the site during all subgrade preparation, fill placement, compaction, and nuclear testing activities. Have a nuclear density technician certified under HTCP at level I perform field density and field moisture content testing.

B.3 Laboratory

Perform quality control testing in a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Laboratory
3502 Kinsman Boulevard
Madison, Wisconsin 53704-2583
Telephone: (608) 246-7938

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

B.4 Equipment

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

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

http://www.atwoodsystems.com/.

Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge within 12 months before using it on the project. Retain a copy of the calibration certificate with the gauge. Nuclear density gauge calibration verification is required daily when earthwork construction operations require testing under this special provision article. This calibration verification shall be performed using the departments "Validator" apparatus which is located at the 94 N-S construction field office. Establish a standard gauge reading for the "Validator" using the ten test average method. The source emitter depth for calibration verification, in the direct transmission mode, will be determined by the engineer. This procedure will establish the "Validator" apparatus, as the contractor's project reference site.

Conform to ASTM D 2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

B.5 Soil Source Study

Conduct and submit a soil source study before beginning of grading operations. Ensure that this study identifies each distinct soil type on the project within the top 15 feet of cut areas and all borrow material. Provide the in-bank natural moisture content for each soil. Develop moisture-density curves for each identified soil type by utilizing AASHTO T 99, with a minimum of 5 individual points, and a zero air voids curve at a specific gravity of 2.65. If a different specific gravity is used perform a specific gravity test. Determine the maximum density and corresponding optimum moisture level for each soil type. Develop a site-specific family of Proctor curves for this contract from the completed soil source study and submit to the engineer for review and acceptance.

Perform characterization tests on each of the soil types selected for the soil source study. The tests for roadway include AASHTO T 89, AASHTO T 90, AASHTO T 27, and AASHTO T 11. Classify each soil type selected according to the AASHTO soil classification system based on the characterization tests. Do not begin grading operations until the engineer accepts the soil source study.

Use the soil types identified in the soil source study with corresponding maximum densities and optimum moisture values to determine the compaction compliance on the project. Continue the soil source study in those areas of cuts greater than 15 feet that were not accessible during the initial study. Include data on additional soil types if project conditions change. Ensure that tests of additional soil types are complete, and the engineer accepts the results before incorporating the material into the roadway foundation.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the field office

Retain and identify two representative samples of each Proctor. Submit one sample to the engineer. Retain one sample on site for use when performing textural identification.

B.6 Quality Control Documentation

B.6.1 Control Charts

Maintain separate control charts for the field density and field moisture content of each grading area. Designate grading areas within the project as follows:

- Embankment portions of the project, except within 200 feet of bridge abutments.
- Embankment within 200 feet of bridge abutments.
- Subgrade cut portions of the project.
- Embankment in pipe culvert, sewer and waterline trenches.
- Structure and granular backfill placed at bridge abutments.
- Embankments of the project where embankments are 20 feet or higher regardless of location to be known as special compaction area.

Ensure that all tests are recorded and become part of the project records. Plot required test results on the control charts. Include random and engineer-requested testing but only include the contractor's randomly selected QC test results in the 4-point running average. The contractor may plot other contractor-performed process control or informational tests on the control charts, but do not include them in 4-point running averages.

Post control charts in an engineer-approved location and update daily. Ensure that the control charts include the project number, the test number, each test element, the applicable control limits, the contractor's individual test results, the running average of the last 4 data points, and the engineer's quality verification test data points. Use the control charts as part of a process control system for identifying potential problems and assignable causes. Format control charts according to the CMM.

Submit control charts to the engineer in a neat and orderly manner within 10 business days after completing subgrade construction.

B.6.2 Records

Document all observations, inspection records, and adjustments to fill placement procedures, soil changes, and test results daily. Note the results of the observations and inspection records as they occur in a permanent field record.

Provide copies of the field density and field moisture running average calculation sheets, records of procedure adjustments, and soil changes to the engineer and QV personnel daily.

Submit original testing records to the engineer in a neat and orderly manner within 10 business days after completing subgrade construction.

B.7 Contractor Testing

B.7.1 General

Have a grading technician certified under HTCP at level I (or ACT Grading Technician under the direction of a certified technician) present during all subgrade preparation, fill placement, compaction, and testing. Have a nuclear density technician certified under HTCP at level I perform the testing for field density and field moisture content. During subgrade construction, use sampling and testing methods identified in the CMM to perform the required tests at randomly selected locations at the indicated minimum frequency for each grading area.

Determine the cubic yards for testing based on a total load count system the engineer and contractor agree to.

For each test, provide the cubic yards represented and the test location to within 2 feet horizontally and 0.5 feet vertically. Use project stationing to determine horizontal location and grade stakes to determine vertical location.

Test areas of suspect compaction or areas which appear to be nonconforming as determined by the engineer.

B.7.2 Field Density and Field Moisture

Perform the field density and field moisture tests using the nuclear density meter method according to AASHTO T 310. Ensure that each field density test material is related to one of the specific soil types identified in the soil source study in determining the percent compaction. Use textural identification as the primary method of establishing this relationship. Use the representative samples retained from the soil source study when performing the textural identification. Use a coarse particle correction according to AASHTO T 224.

If field density and field moisture tests cannot be performed by the nuclear density method due to a high percentage of oversized particles as determined according to AASHTO T 99 for highway embankments, observe the placement of the embankment and document the basis of acceptance. Document daily quantities of untested embankment and locations where untested embankment is placed and keep a cumulative quantity of untested embankment material during the project. Include the daily documentation and a summary of the cumulative quantity of untested embankment material with the project records.

B.7.3 Testing Frequency

B.7.3.1 Subgrade Embankment portions of the project, except within 200 Feet of bridge abutments

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 2,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.

B.7.3.2 Subgrade Embankment Within 200 Feet of Bridge Abutments

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 1,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.

B.7.3.3 Subgrade Cut

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 1,000 linear feet of cut or one test per cut area whichever yields the most tests. The testing will be completed at the finished subgrade elevation.

B.7.3.4 Subgrade Embankment in Pipe Removals, Pipe Culvert, Sewer and Waterline Trenches

Perform the required tests at the following minimum frequencies per trench run between structures. Test trenches individually at the frequency listed in this section. For example, lateral lines and trunk lines are to be considered individual trenches:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 100 CY of backfill placed per lift or one test per day whichever yields the most tests.

B.7.3.5 Structure and Granular Backfill at Bridge Abutments

Perform the required tests at the following minimum frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 2 feet of vertical backfill height per abutment.

B.7.3.6 Embankments of the project 20 feet or higher regardless of location to be known as special compaction area

Perform the required tests at the following minimum frequencies but exclude MSE wall backfill:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 2,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.

B.7.4 Control Limits

B.7.4.1 Field Density

B.7.4.1.1 General Conditions

The lower control limit for field density measurements is a minimum of 95.0 percent of the maximum dry density as determined by AASHTO T 99 or T 272for the 4-point running average and a minimum of 92.0 percent of the maximum dry density for any individual test.

B.7.4.1.2 Embankments of the project 20 feet or higher regardless of zone to be known as special compaction area excluding MSE wall backfill

The lower control limit for field density measurements in the special compaction area is a minimum of 98.0 percent of the maximum dry density as determined by AASHTO T 99 or T 272 for the 4-point running average and a minimum of 95.0 percent of the maximum dry density for any individual test.

B.7.4.2 Field Moisture Content

The upper control limit for the field moisture content is 105.0 percent of the optimum moisture as determined by AASHTO T 99 or T 272 for the 4-point running average.

The lower control limit for the field moisture content is 65.0 percent of the determined optimum moisture for the 4-point running average. There is no lower control limit for the field moisture of material having less than 5 percent passing the No. 200 sieve.

B.7.5 Corrective Action

Notify the engineer if an individual field density test falls below the individual test control limit. The subgrade in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the density of the subgrade material. After corrective action, perform a randomly located retest within the represented quantity to ensure that the material is acceptable.

Notify the engineer if the field density or field moisture running average point falls below the running average control limit for field density or outside the control limits for field moisture. The subgrade in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the quality of the material represented by the running average point. Retest each corrected area at a new random location within its represented quantity and determine a new 4-point running average. If the new running average is not acceptable, perform further corrective actions and retest at new random locations.

If the contractor's control data is proven incorrect resulting in a field density or field moisture point falling below the control limit for field density or outside the control limits for field moisture, the subgrade is unacceptable. Employ the methods described in this special provision for unacceptable material.

B.8 Department Testing

B.8.1 General

The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all verification and independent assurance personnel for the project.

The department will provide field density and field moisture test results to the contractor on the day of testing. Test results from Proctor split samples will be provided to the contractor within 7 business days after the sample has been received by the department.

B.8.2 Verification Testing

The department will have an HTCP technician, or ACT under the direction of a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified for contractor testing personnel for each test being verified. The department will notify the contractor before testing so the contractor can observe QV testing.

The department will test field density and field moisture randomly at locations independent of the contractor's QC work. The department will use split samples for verification of Proctor testing. In all cases, the department will conduct the verification tests in a separate laboratory and with separate equipment from the contractor's QC tests.

The department will perform verification testing as follows:

1. The department will conduct verification tests on Proctor split samples taken by the contractor. These samples may be from the Soil Source Study or sample locations chosen by the engineer from anywhere in the process. The minimum verification testing frequency is one per 90,000 cubic yards, with at least one for each soil type identified in the Soil Source Study.
2. The engineer may select any contractor-retained sample for verification testing.
3. The department will conduct at least one verification test for field density and field moisture per 20,000 cubic yards.

Plot verification tests on the contractor's quality control charts as specified in B.6.1. Do not include verification tests in the 4-point running average.

If verification tests are within specified control limits, no further action is required. If verification tests are not within specified control limits, the engineer and contractor will jointly investigate any testing discrepancies. The investigation may include additional testing as well as review and observation of both the department's and contractor's sampling and testing procedures and equipment. Both parties will document all investigative work.

Correct all deficiencies. If the contractor does not respond to an engineer request to correct a deficiency or resolve a testing discrepancy, the engineer may suspend grading work until action is taken. Resolve disputes as specified in B.9.

B.8.3 Independent Assurance Testing

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, which may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

Plot the independent assurance tests on the contractor's quality control charts as specified in B.6.1. Do not include independent assurance tests in the 4-point running average.

If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or cooperate in resolving identified deficiencies, the engineer may suspend grading work until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

If the project personnel cannot resolve a dispute and the dispute affects payment or could result in incorporating nonconforming product, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party tests to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B.10 Acceptance

The department will accept the material tested under this provision based on the contractor QC tests unless it is shown through verification testing or the dispute resolution process that the contractor's test results are in error.

C (Vacant)

D (Vacant)

E Payment

Costs for all sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor does not 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.

46. Select Crushed Material.

Replace standard spec 312.2(6) with the following:

The department will assess Select Crushed Material acceptability based primarily on the engineer's visual inspection. The department may require the contractor to sample, test, and report gradation or the fracture results to show conformance of the material. One test per source, production process, or change of production process may be required.

Replace standard spec 312.5(2) with the following:

Payment for Select Crushed Material is full compensation for providing and compacting Select Crushed Material and all work necessary to provide gradation or fracture test results.

SER-321-001 (20160831)

47. Concrete Pavement Joint Layout, Item 415.5110.S.

A Description

This special provision describes providing a concrete pavement or concrete base joint layout design for intersections and marking the location of joints in the field

B (Vacant)

C Construction

Plan and locate all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete to prevent uncontrolled cracking. Submit a joint layout design to the engineer at least 7 calendar days before paving each intersection. Do not lay out joints until the engineer has reviewed the joint layout design. Mark the location of concrete joints in the field. Follow the plan details for joints in concrete making adjustments as required to fit field conditions.

D Measurement

The department will measure Concrete Pavement Joint Layout as a single lump sum unit for all joint layout designs and marking, 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
415.5110.S	Concrete Pavement Joint Layout	LS

Payment is full compensation for providing the intersection joint layout designs and marking all joints in the field.

The department will adjust pay for crack repairs as specified in standard spec 415.5.3.

stp-415-020 (20170615)

48. QMP HMA Pavement Nuclear Density.

A Description

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

(1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 except as modified in this special provision.

(2) Provide and maintain a quality control program defined as all activities and documentation of the following:

1. Selection of test sites.
2. Testing.
3. Necessary adjustments in the process.
4. Process control inspection.

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

https://wisconsindot.gov/rdwy/cmm/cm-08-00toc.pdf

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

http://www.atwoodsystems.com/

B Materials

B.1 Personnel

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

B.2 Testing

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

B.3 Equipment

B.3.1 General

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

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

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

B.3.2 Comparison of Nuclear Gauges

B.3.2.1 Comparison of QC and QV Nuclear Gauges

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

B.3.2.2 Comparison Monitoring

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

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

(1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 8-15.10.2.

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

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

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

(1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 8-15.10.2.

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

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

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

(1) Calculate the average sublot densities using the individual test results in each sublot.

(2) If all sublot averages are no more than one percent below the target density, calculate the daily lot density by averaging the results of each random QC test taken on that day's material.

(3) If any sublot average is more than one percent below the target density, do not include the individual test results from that sublot when computing the lot average density and remove that sublot's tonnage from the daily quantity for incentive. The tonnage from any such sublot is subject to disincentive pay as specified in standard spec 460.5.2.2.

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

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

B.4.2.2.2 Width of 5 Feet or Less

(1) If all sublot test results are no more than 3.0 percent below the minimum target density, calculate the daily lot density by averaging all individual test results for the day.

(2) If a sublot test result is more than 3.0 percent below the target density, the engineer may require the unacceptable material to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine the limits of the unacceptable material according to B.4.3.

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

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

B.4.2.4 Documentation

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

B.4.3 Corrective Action

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

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

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

(4) Retesting and acceptance of replaced pavement will be as specified in standard spec 105.3.

(5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the sublot and lot densities.

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

B.5 Department Testing

B.5.1 Verification Testing

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

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

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

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

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

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

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

(1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge comparison according to B.3.2.1.

(2) The testers may use comparison monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.

(3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV sublot density test results or retesting of the sublot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.

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

B.7 Acceptance

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

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

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

E.2 Disincentive for HMA Pavement Density

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

E.3 Incentive for HMA Pavement Density

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

stp-460-020 (20181119)

49. Cold Patch, Item 495.1000.S.

A Description

This special provision describes furnishing cold patch and filling potholes and other voids in existing pavement surfaces as the engineer directs.

B Materials

Furnish a mixture of course aggregate, natural sand, and MC-250 bituminous material designed to have a workability range of 15-100º F without heating. Ensure that the mixture:

- Adheres to wet surfaces.
- Resists damage from water, salt, and deicing products.
- Requires no mixing or special handling before use.
- Supports traffic immediately after placement and compaction.

Conform to the following gradation:

SIEVE SIZE	PERCENT PASSING (by weight)
1/2-inch (12.5 mm)	100
3/8-inch (9.5 mm)	90 - 100
No. 4 (4.75 mm)	90 max
No. 8 (2.38 mm)	20 - 65
No. 200 (0.074 mm)	2 - 10
Bitumen	4.8 - 5.4

The department will accept cold patch based primarily on the engineer's visual inspection. The department may also test for gradation.

C Construction

Stockpile cold patch on site on a smooth, firm, well-drained area cleared of vegetation and foreign material. Cover the stockpile and ensure that it is easily accessible. Replenish the stockpile throughout the project duration but limit the size at any given time to 10 tons on site unless the engineer approves otherwise. Dispose of unused material at project completion unless the engineer directs otherwise.

Place cold patch by hand. Remove ponded water and loose debris before placement. Compact flush with a tamper, roller, or vehicle tire after placement.

Refill patched areas as necessary to maintain a flush pavement surface until project completion.

D Measurement

The department will measure Cold Patch by the ton, acceptably stockpiled on site.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
495.1000.S	Cold Patch	TON

Payment for Cold Patch is full compensation for providing and maintaining patches; for furnishing and replenishing stockpiled material on-site; and for disposing of excess material at project completion.

stp-495-010 (20160607)

50. Ice Hot Weather Concreting, Item 501.1000.S.

Conform to standard spec 501.3.8.2 except the department will pay for ice at the contract unit price under the Ice Hot Weather Concreting bid item. This special provision only applies to work done under the following contract 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
High Performance Concrete (HPC) Masonry Structures	

Replace standard spec 501.4 and 501.5 with the following:

501.4 Measurement

(1) The department will measure Ice Hot Weather Concreting by the pound acceptably completed, measured only if the conditions prescribed in standard spec 501.3.8.2 are met.

501.5 Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
501.1000.S	Ice Hot Weather Concreting	LB

(2) Payment for Ice Hot Weather Concreting is full compensation for ice used to cool concrete placed in hot weather as specified in standard spec 501.3.8.2.

(3) The department will not pay directly for the concrete specified under this section. Concrete is incidental to the various bid items using it. Payment under those bid items includes providing all materials, including aggregates and associated aggregate source testing, cement, fly ash, slag, and admixtures; for preparing, transporting, storing, protecting and curing concrete; and for contractor requirements related to testing specified in standard spec 501.3.10.

(4) If required to remove and replace any concrete damaged by lack of proper protection. Perform this work at no expense to the department.

stp-501-010 (20151210)

51. Backfill Slurry.

This special provision describes furnishing and placing backfill slurry for, but not limited to, removing and abandoning utility pipes and structures, installation of storm sewer, sanitary sewer and water pipes and structures, and exposing existing utility items as shown on the plans.

Use fine aggregate according to standard spec 501.2.5.3, number 1 and number 2 coarse aggregates conforming to standard spec 501.2.5.4, and water conforming to standard spec 501.2.4 in the backfill slurry mix. Provide a combined aggregate gradation for the backfill slurry mix conforming to standard spec 715.2.2. Weigh aggregates at a batch plant suitable for batching concrete masonry. Mix and deliver to the project site using a truck mixer. Add enough water to enable the mixture to flow readily. Submit a mix design for the engineers review prior to placement. Backfill Slurry is considered a class III concrete mix and the department will accept the mix by certification and will follow the QMP process per standard spec 716. Mix acceptance and testing in the field is not required.

Prior to placement of backfill slurry provide for positive drainage of the area to be backfilled. Discharge from the truck in a manner to prevent segregation. Consolidation or compaction effort will not be required. Twelve hours shall elapse before paving over the backfill.

Material placed within the roadway foundation as defined in standard spec 101.3 is subject to the quality control for the zone that the material is located in and shall conform to QMP Subgrade article listed elsewhere in this special provision document. Non-conforming slurry will be replaced at no additional cost to the department.

Include backfill slurry used for, but not limited to, removing and abandoning utility pipes and structures, installation of storm sewer, sanitary sewer and water pipes and structures, and exposing existing utility items under appropriate bid items. No separate payment will be made for providing positive drainage of the area to be backfilled; for providing mix design; for furnishing, mixing, transporting and placing backfill slurry, and for QMP certification.

52. Concrete Maturity Testing.

A Description

This special provision requires using concrete maturity testing to determine strength for project control of concrete pavement, falsework removal, and structural concrete under the designated standard specs as follows:

Duration of the curing period.....415.3.12
Duration of the cold weather protection period 415.3.13
Opening to service.....415.3.15
Removing falsework.....502.3.4.2
Duration of the required curing period.....502.3.8
Duration of the cold weather protection period 502.3.9
Opening to service.....502.3.10.1

The requirement for determining strength by the concrete maturity testing method supersedes all provisions for strength determination by other methods or provisions based on equivalent days within those designated subsections. The concrete maturity testing requirement also applies to all other provisions referencing strength determination under these designated subsections.

B Materials

Provide a maturity testing system that uses data-encrypted sensor devices permanently embedded in the field-placed concrete. Data-encrypted sensors have a chip that records both temperature and time information that can be downloaded to a reading device not permanently attached to those sensors.

Provide the department with a maturity reading device for each maturity testing system used on the project. Devices provided for the department use will become department property under the contract.

C Construction

Perform concrete maturity testing conforming to standard specification 502.3.10.1.3.3. Develop a strength/maturity relationship for each concrete mix design used under the contract. Base that relationship on strength results of cylinders from pavement, appurtenant construction, ancillary concrete, or structural masonry units incorporated into the work and using those same mixes.

D (Vacant)

E Payment

No additional payment will be made by the department for maturity testing.

sef-502-005 (20170310)

53. Expansion Device, Item 502.3101.

A Description

This special provision describes furnishing and installing an expansion device as the plans show conforming to standard spec 502 as modified in this special provision.

B Materials

The minimum thickness of the polychloroprene strip seal shall be 1/4 inch for non-reinforced elastomeric glands and 1/8 inch for reinforced glands. Furnish the strip seal gland in lengths suitable for a continuous one-piece installation at each individual expansion joint location. Provide preformed polychloroprene strip seals that conform to the requirements ASTM D3542, and have the following physical properties:

Property Requirements	Value	Test Method
Tensile Strength, min.	2000 psi	ASTM D412
Elongation @ Break, min	250%	ASTM D412
Hardness, Type A, Durometer	55 ± 5 pts.	ASTM D2240
Compression Set, 70 hours @212˚F, max.	35%	D395 Method B Modified
Ozone Resistance, after 70 hrs. at 100˚F under 20% Strain with 100 pphm ozone	No Cracks	ASTM D1149 Method A
Mass Change in Oil 3 after 70 hr. 212˚F Mass Change, max.	45%	ASTM D471

Install the elastomeric strip seal gland with tools recommended by the manufacturer, and with a lubricant adhesive conforming to the requirements of ASTM D4070.

The manufacturer and model number shall be one of the following approved strip seal expansion device products:

	Model Number Strip Seal Gland Size[1]		
Manufacturer	**4-Inch**	**5-Inch**	**6-Inch**
D.S. Brown	SSA2-A2R-400	SSA2-A2R-XTRA	SSA2-A2R-XTRA
R.J. Watson	RJA-RJ400	RJA-RJ500	RJA-RJ600
Watson Bowman Acme	A-SE400	A-SE500	A-SE800
Commercial Fabricators	A-AS400	-----	-----

[1] Expansion device strip seal gland size requirement of 4", 5", and 6" shall be as the plans show.

Furnish manufacturer's certification for production of polychloroprene represented showing test results for the cured material supplied and certifying that it meets all specified requirements.

The steel extrusion or retainer shall conform to ASTM designation A 709 grade 36 steel. After fabrication, steel shall be galvanized conforming to the requirements ASTM A123.

Manufacturer's certifications for adhesive and steel shall attest that the materials meet the specification requirements.

stp-502-020 (20200629)

54. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.

A Description

This special provision describes furnishing and placing stainless steel reinforcing bars and associated stainless steel bar couplers.

Conform to standard spec 505 as modified in this special provision.

B Materials

B.1 General

Furnish stainless steel reinforcing bars conforming to ASTM A955 and to one of the following Unified Numbering System (UNS) designations: S31653, S31803, S32205, or S32304. Supply grade 60 bars, all of the same UNS designation. Conform to the chemical composition specified for the given UNS designation in ASTM A276 table 1.

Supply bars that are free of dirt, mill scale, oil, and debris by pickling to a bright or uniform light finish. The department may reject bars displaying rust/oxidation, questionable blemishes, or lack of a bright or uniform pickled surface.

Furnish chairs or continuous supports made of stainless steel or recycled plastic to support high-strength stainless bar steel reinforcement subject to the plastic chair restriction stated in standard spec 505.3.4(1).

Furnish couplers made from one of the UNS alloys allowed for bar steel.

Furnish tie wire made from one of the UNS alloys allowed for bar steel or from an engineer-approved plastic or nonmetallic material. Ensure that stainless steel tie wire is dead soft annealed.

B.2 Fabrication

Before fabrication, supply test results from an independent testing agency certifying that the reinforcement meets the requirements of Annex A1 of ASTM A955.

Bend bars conforming to standard spec 505.3.2 and according to ASTM A955. Bend and cut bars using equipment thoroughly cleaned or otherwise modified to prevent contamination from carbon steel or other contaminants. Use tools dedicated solely to working with stainless steel.

B.3 Control of Material

Identify reinforcement bars delivered to the project site with tags bearing the identification symbols used in the plans. Include the UNS designation, heat treat condition, heat number, grade corresponding to minimum yield strength level, and sufficient documentation to track each bar bundle to a mill test report.

Provide samples for department testing and acceptance according to CMM 8-50 Exhibit 1 requirements for concrete masonry reinforcement for uncoated bar steel.

Provide mill test reports for the project that do the following:

1. Verify that sampling and testing procedures and test results conform to ASTM A955, ASTM A276 table 1, and these contract requirements.
2. Include a chemical analysis with the UNS designation, heat lot identification, and the source of the metal.
3. Include tensile strength, yield strength, and elongation tests results conforming to ASTM A955 for each size furnished.
4. Certify that the bars have been pickled to a bright or uniform light finish.

C Construction

C.1 General

Ship, handle, store, and place the stainless steel reinforcing as follows:

1. Separate from regular reinforcement during shipping. Pad points of contact with steel chains or banding, or secure with non-metallic straps.
2. Store on wooden cribbing separated from regular reinforcement. Cover with tarpaulins if stored outside.
3. Handle with non-metallic slings.
4. Do not flame cut or weld. Protect from contamination when cutting, grinding, or welding other steel products above or near the stainless steel during construction.
5. Place on plastic or stainless steel bar chairs. If placing stainless steel chairs on steel beams, use chairs with plastic-coated feet.
6. Tie with stainless steel wire or an engineer-approved plastic or nonmetallic material.

Do not tie stainless steel reinforcing bars to, or allow contact with, uncoated reinforcing bars or galvanized steel. Maintain at least 1 inch clearance between stainless steel bars or dowels and uncoated or galvanized steel. Where 1 inch clearance is not possible, sleeve bars with a continuous polyethylene or nylon tube at least 1/8 inch thick extending at least 1 inch in each direction and bind with nylon or polypropylene cable ties. Sleeves are not required between stainless steel bars and shear studs. Stainless steel bars can be in direct contact with undamaged epoxy-coated bars.

Cut flush with the top flange or remove uncoated fasteners, anchors, lifting loops, or other protrusions into a bridge deck before casting the deck on prestressed concrete beams.

C.2 Splices

Splice as the plans show. Provide stainless steel couplers conforming to the minimum capacity, certification, proof testing, and written approval requirements of standard spec 550.3.3.4. The contractor may substitute stainless steel couplers for lap slices the plans show if the engineer approves in writing.

If increasing or altering the number or type of bar splices the plans show, provide revised plan sheets to the engineer showing the reinforcement layout, type, length, and location of revised bar splices and revised bar lengths. Obtain engineer approval for the location of new lap splices or substitution of mechanical bar couplers before fabrication. Ensure that new lap splices are at least as long as those the plans show.

D Measurement

The department will measure Bar Steel Reinforcement HS Stainless Structures by the pound, acceptably completed, computed from the nominal weights of corresponding sizes for carbon steel deformed bars in AASHTO M31 regardless of stainless steel alloy provided. The department will not measure extra material used if the contractor alters the reinforcement layout as allowed under C.2, extra material for splices or couplers the plans do not show, or the weight of devices used to support or fasten the steel in position.

The department will measure the Bar Couplers Stainless bid items as each individual coupler, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB

Payment for Bar Steel Reinforcement HS Stainless Structures is full compensation for furnishing and placing stainless steel reinforcing bars, including supports. Where the plans specify bar couplers, the department will pay for the length of bars as detailed with no deduction or increase for installation of the coupler.

stp-505-005 (20190618)

55. Removing Bearings, B-40-116, Item 506.7050.S.0001.

A Description

This special provision describes raising the girders and removing the existing bearings, as the plans show.

B (Vacant)

C Construction

Raise the structure's girders and remove the existing bearings as the plans show.

Obtain prior approval from the engineer for the method of jacking the girders and of supporting them as required.

D Measurement

The department will measure Removing Bearings B-40-116 by the unit for each bearing removed, 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
506.7050.S.0001	Removing Bearings, B-40-116	EACH

Payment is full compensation for raising the bridge girders; and for removing the old bearings.

Cost of furnishing and installing the bearings will be paid for under separate bid items.

stp-506-035 (20130615)

56. Cleaning Decks to Reapply Concrete Masonry Overlay, Item 509.0505.S.

A Description

This special provision describes cleaning the entire bridge deck after the existing concrete masonry overlay is removed, prior to placing a new concrete masonry overlay.

B (Vacant)

C Construction

Blast-clean the entire surface of the deck, the vertical faces of curbs, sidewalks and parapets to the depth of the adjoining concrete overlay. Blast-clean all exposed existing reinforcing steel. Repair damage to existing epoxy-coated reinforcement remaining in place that is either uncovered by or damaged by the contractor's operations. Use engineer-approved patching or repair material compatible with the existing coating and inert in concrete.

Clean the surface on which the new concrete will be placed to remove all loose particles and dust by either brooming and water pressure using a high-pressure nozzle, or by water and air pressure. Use water for cleaning that conforms to specifications for water under standard spec 501.2.4.

D Measurement

The department will measure Cleaning Decks to Reapply Concrete Masonry Overlay by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.0505.S	Cleaning Decks to Reapply Concrete Masonry Overlay	SY

Payment for Cleaning Decks to Reapply Concrete Masonry Overlay is full compensation for cleaning the concrete surfaces.

stp-509-065 (20171130)

57. Removing Concrete Masonry Deck Overlay B-40-116, Item 509.9005.S.0001.

A Description

This special provision describes removing concrete bridge deck overlays by milling the entire bridge deck as the plans show.

Conform to standard spec 204 as modified in this special provision.

B (Vacant)

C Construction

C.1 Milling

Use a self-propelled milling machine that is specially designed and constructed for milling bridge decks. It shall mill without tearing or gouging the concrete masonry underlying the deck overlay. The machine shall consist of a cutting drum with carbide or diamond tip teeth. Space the teeth on the drum to mill a surface finish that is acceptable to the engineer.

Shroud the machine to prevent discharge of any loosened material into adjacent work areas or live traffic lanes. Equip the machine with electronic devices that provide accurate depth, grade and slope control, and an acceptable dust control system.

Perform milling in a manner that precludes damage to the bridge floor and results in a uniform textured finish that:

1. Is free of sharp protrusions;
2. Has uniform transverse grooves that measure up to 1/4 inch vertically and transversely; and
3. If applicable, is acceptable to the manufacturer of the sheet waterproof membrane.

Windrowing and storing of the removed milled concrete masonry on the bridge is only permitted in connection with the continuous removal and pick-up operation. During nonworking hours, clear the bridge of all materials and equipment.

D Measurement

The department will measure Removing Concrete Masonry Deck Overlay B-40-116 in area by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9005.S.0001	Removing Concrete Masonry Deck Overlay B-40-116	SY

Payment is full compensation for removing the concrete masonry; and for properly disposing of all materials.

stp-509-005 (20171130)

58. Cleaning Parapets, Item 509.9050.S.

A Description

This special provision describes cleaning the inside faces and top surface of the concrete parapet as the plans show and as the engineer directs.

B (Vacant)

C Construction

C.1 Blast Cleaning Operation

Blast clean the inside face and top surface of the concrete parapet according to SSPC SP-13 and ASTM D4259 for an abrasive blast cleaning to a surface roughness and finish as the engineer directs. Before abrasive blast cleaning operations are to begin for the entire bridge parapet, prepare a representative trial area on the parapet concrete surface, and have the method of blast cleaning approved by the engineer.

C.2 Water Cleaning Operation

After abrasive blast cleaning operations are completed, clean the prepared parapet surface with water according to ASTM D4258. Remove with this water cleaning all dust and loose material from the parapet inside face and top that is to be coated with pigmented surface sealer. Provide an adequate drying time of the parapet inside face and top surface of at least 24 hours before coating with the pigmented surface sealer. Remove all loose concrete, dirt, dust, or blast material that remains on the bridge deck, as the engineer directs.

D Measurement

The department will measure Cleaning Parapets in length by the linear foot of parapet, acceptably cleaned.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.9050.S	Cleaning Parapets	LF

Payment is full compensation for abrasive blast cleaning; for water cleaning; and for all additional clean up of the concrete surface and surrounding bridge deck area.

stp-509-050 (20151210)

59. Sheet Membrane Waterproofing for Top Slab C-40-111, Item 516.0610.S.4000

A Description

This special provision describes providing a primer, waterproofing membrane, hot rubberized sealer or mastic, or both, on the concrete top slab as the plans show.

B Materials

B.1 Waterproofing System

Provide a material in the waterproofing system that is specifically designed for use with an asphaltic concrete overlay. The membrane shall consist of a cold-applied, self-adhering membrane incorporating a heat resistant woven or non-woven fabric or fiberglass reinforcing laminated in between layers of polymer

modified bitumen or SBS modified rubberized asphalt. The membrane shall have a release film, polyester or polyethylene on the down side and may have a thin spun bonded open weave polyester fabric on the up side that will bond with the asphaltic concrete overlay; yet will permit driving rubber-tired trucks, pavers and other construction vehicles on the membrane covered slab.

Provide a composite sheet membrane with the following properties:

Property	Test Method	Specific Value
Width		36 inch min.
Tensile Strength	ASTM D412	50 lb/inch or 700 psi min.
Thickness		60 mils to 80 mils
Puncture Resistance	ASTM E154	40 lb min.
Permeance	ASTM E96, Method B	0.05 US Perms max.
Low Temperature Pliability	ASTM D146, 1-inch Mandrel @ -25º F	No cracks or splits at 180º bend
Water Absorption	ASTM D570, 72 hours	0.25% max.
Peel Adhesion	ASTM D903	5 lb/in width min.
Compound Softening Point	ASTM D36	210º F ±20º F

Provide rubberized asphalt compound containing not more than 15% inorganic residue or filler material.

Provide primer, mastic and/or hot rubberized asphalt sealer conforming to the specified properties required by the manufacturer of the waterproofing membrane.

B.2 Materials Certification

Before membrane approval for initial submittals and/or upon reformulation of membrane material compounds, submit to the engineer a notarized certification by an independent test laboratory stating that the materials conform to the requirements of these specifications.

The certification shall include or have attached specific results of tests performed on the material supplied. The engineer may at his option require samples of any material for testing. Previously approved membranes will be provisionally accepted by manufacturer's certification on their company letterhead, but may be subject to control or approval, or both by subsequent testing.

C Construction

C.1 Application Methods

Apply materials in strict accordance to the manufacturer's instructions. In order to install the waterproofing membrane, the slab temperature shall be a minimum of 45º F and rising. Before applying the system, become acquainted with the materials specified and their handling characteristics and become thoroughly familiar with the construction procedures recommended by the manufacturer. Furnish a copy of the recommended procedures to the engineer. To establish procedures for maintaining optimum working conditions and to coordinate work related to adjacent construction, hold a pre-installation conference with a manufacturer's representative, the engineer, and other affected contractors before starting construction. To provide quality assurance that the membrane has been properly installed, a manufacturer's representative familiar with membrane installation procedures shall be present during placement of the membrane.

Finish all concrete surfaces that will be in contact with the membrane with a magnesium float finish. Provide a minimum concrete cure time of seven days before placing the primer.

The slab shall be clean, dry, and free from mud, dirt, sand, oil, or grease, and any other contaminants before application of the primer. No vehicles or equipment will be permitted on the concrete slab after surface preparation except those necessary for the installation of the waterproofing membrane. The engineer will inspect the concrete slab before the application of the primer. Do not begin application of either the primer or membrane until after the engineer grants approval.

To coat all surfaces that will be covered with the membrane, apply primer uniformly as recommended by the manufacturer. Use roller, brush, or spray to apply primer to the surfaces. If spraying is used, an approved method of protecting the environment is required.

Allow the primer to dry until tack free, approximately 45 minutes, before applying the membrane. Apply primer only to an area that will be covered with the membrane within the same calendar day. If the surface of the concrete slab becomes contaminated, clean and re-prime the area.

Apply primer to the inside face of any header to the top of the header. Take care to ensure that all inside corners are coated with primer.

After the primer has dried to a tack free condition, apply one layer of membrane to the slab starting on the low side edge.

To form a bond with the primed slab, remove the release film from the membrane on the tacky side while the membrane is rolled face down. Apply the membrane using hand methods or by using mechanical applicators. Overlap a minimum of 2.5 inches at the edges of each strip and overlap the membrane in such a manner to provide a shingling effect toward the low side of the slab cross section. Overlap a minimum of 5 inches at the ends of each strip of membrane and overlap the membrane in such a manner to provide a shingling effect toward the lower side of the slab profile. Roll the entire membrane surface with a rubber tire roller to ensure firm and uniform contact with the primed surface. Use special care to ensure that the membrane is uniformly adhered to the concrete and that the entire membrane is free of wrinkles, air bubbles, and other placement defects. In the event bubbles or blisters do form under the membrane, puncture the bubbles or blisters with a sharp pointed instrument such as an awl and press the membrane firmly into contact with the slab. Repair any membrane punctures, tears, holes, and misaligned or inadequate seams with a patch of waterproofing membrane sized as required to ensure that the membrane is watertight.

Cover the inside corners of any concrete header and all other perimeter edges with narrow strips (flashing strips of approximately 12 inches), hot rubberized sealer, or mastic according to the manufacturer's guidelines. As an additional method of ensuring a watertight bond, all terminating edges, transverse overlaps and longitudinal overlaps may be heated with a propane torch to soften the top mat and fuse the surfaces together.

The applicator foreman or leadworker shall be certified by the manufacturer of the waterproofing membrane as approved applicators and shall be present during all applications.

C.2 Where Overlaying the Membrane Directly with Asphaltic Concrete

Construct the asphaltic concrete overlay according to scheduling requirements elsewhere in the contract. Cover all of the exposed membrane with the specified asphaltic concrete mix within five days after installation. Only rubber-tired construction vehicles shall be permitted on the membrane. Use caution not to turn the tires when a vehicle is stationary. To prevent tearing the membrane, avoid sudden starts, stops, accelerations, or decelerations. Chemical solvents, gasoline, diesel fuel, mineral spirits, etc. or other deleterious substances shall not be spilled or leaked onto the membrane. Before covering the membrane with asphaltic concrete overlay, clean the membrane of mud, dirt, sand, oil, grease, or any other contaminants, and dry the membrane. Patch contaminated areas as required by the engineer. When required to accommodate traffic control staging, the construction of the asphaltic concrete overlay shall stay at least 6 inches away from the terminating edge of the membrane to provide for overlap.

The placement temperature of the asphaltic concrete shall be between 300º F and 350º F. Do not place asphaltic concrete on the membrane outside of this temperature range. The temperature of the uncompacted mat of asphaltic concrete shall not fall below 280º F before rolling. The thickness of the asphaltic concrete layers shall be as the plans show; the initial layer shall have a minimum compacted thickness of 1 1/2 inches. The membrane applicator contractor shall have a minimum of one employee present during all asphaltic concrete paving operations to ensure that all necessary membrane repairs are accomplished.

C.3 Where Not Overlaying the Membrane Directly with Asphaltic Concrete

Place a 6-inch-thick layer of clean granular fill material (sand), free of any aggregate, stones or other angular materials that may puncture the membrane, over the membrane covered slab. Cover all exposed membrane with the clean granular fill within five days after installation. Only rubber-tired construction vehicles shall be permitted on the membrane. Use caution not to turn the tires when a vehicle is stationary. To prevent tearing the membrane, avoid sudden starts, stops, accelerations, or decelerations. Chemical solvents, gasoline, diesel fuel, mineral spirits, or other deleterious substances shall not be spilled or leaked onto the membrane. When required to accommodate traffic control staging, the placement of fill material shall stay at least 12 inches away from the terminating edge of the membrane to provide for overlap. The membrane applicator contractor shall have a minimum of one employee present during the placement of the clean granular fill material to ensure that all necessary membrane repairs are accomplished.

D Measurement

The department will measure Sheet Membrane Waterproofing for Top Slab C-40-111, installed according to the contract and accepted, in area by the square yard. Measurement shall be based on the horizontal distance between the faces of any concrete headers and the horizontal length of membrane installed. Any material specified to be applied up vertical faces of any header or vertically down at the ends of the slab shall be included in the measured quantity.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
516.0610.S.4000	Sheet Membrane Waterproofing for Top Slab C-40-111	SY

Payment is full compensation for furnishing and placing the primer, membrane, mastic, and hot rubberized asphalt sealer; and preparing the surface. Clean granular fill material (sand), where required, will be paid for using the bid item Backfill Structure.

stp-516-061 (20190618)

60. Structure Repainting General.

A General

A.1 Inspection

On all structures in this contract, notify the engineer of any missing or broken bolts or nuts, any missing or broken rivets, or of any cracks or flaws in the steel members while cleaning or painting.

A.2 Date Painted

At the completion of all painting work, stencil in black paint or contrasting color paint the date of painting the bridge. The numbers shall be 3 inches (75 mm) in height and shall show the month and year in which the painting was completed: e.g., 11-95 (November 1995). On each bridge painted, stencil the date at two locations. On truss bridges, stencil the date on the cover plates of end posts near and above the top of the railings at the oncoming traffic end. On steel girder bridges, stencil the date on the inside of the outside stringers at the abutments. The date on grade separation bridges shall be readable when going under the structure or at some equally visible surface near the ends of the bridge, as designated by the engineer.

A.3 Graffiti Removal

Remove any graffiti on concrete abutments, piers, pier caps, parapet railings, slope paving or any other location at the direction of the engineer. Use a brush sandblast to remove graffiti.

The above work will not be measured and paid for separately but will be considered incidental to other items in the contract.

B (Vacant)

C Construction

C.1 Repainting Methods

Do not perform blasting, cleaning and painting on days of high winds. Prevailing winds in excess of 15 mph (25 km/hr) shall be considered high winds.

Place the final field coat of paint on the exterior of the exterior beams as a continuous painting operation. Stop at splices, vertical stiffeners or other appropriate locations so that lap marks are not evident or noticeable.

Completely clean and remove spent abrasive and other waste materials resulting from the contractor's operation from bridge deck surfaces, gutter lines, drains, curbs, bridge seats, pier caps, slope paving, roadway below, and all structural members and assemblies.

C.2 Inspection

Add the following to standard spec 105.9:

Furnish, erect and move scaffolding and other equipment to allow the inspector to closely observe all affected surfaces. The scaffolding, with appropriate safety devices, shall meet the approval of the engineer.

stp-517-005 (20150630)

61. Labeling and Disposal of Waste Material.

The EPA ID number for Structure B-40-116 will be provided by the department.

The state has an exclusive mandatory use contract with a private waste management contractor to transport and dispose of hazardous waste.

The state's waste management contractor shall furnish and deliver appropriate hazardous waste containers and site-specific labels to each bridge site. The provided containers shall be placed at pre-selected drop-off and pick-up points at each bridge site, and these locations shall be determined at the preconstruction conference. The custody of the containers and labels shall be the responsibility of the painting contractor while they are at the job site.

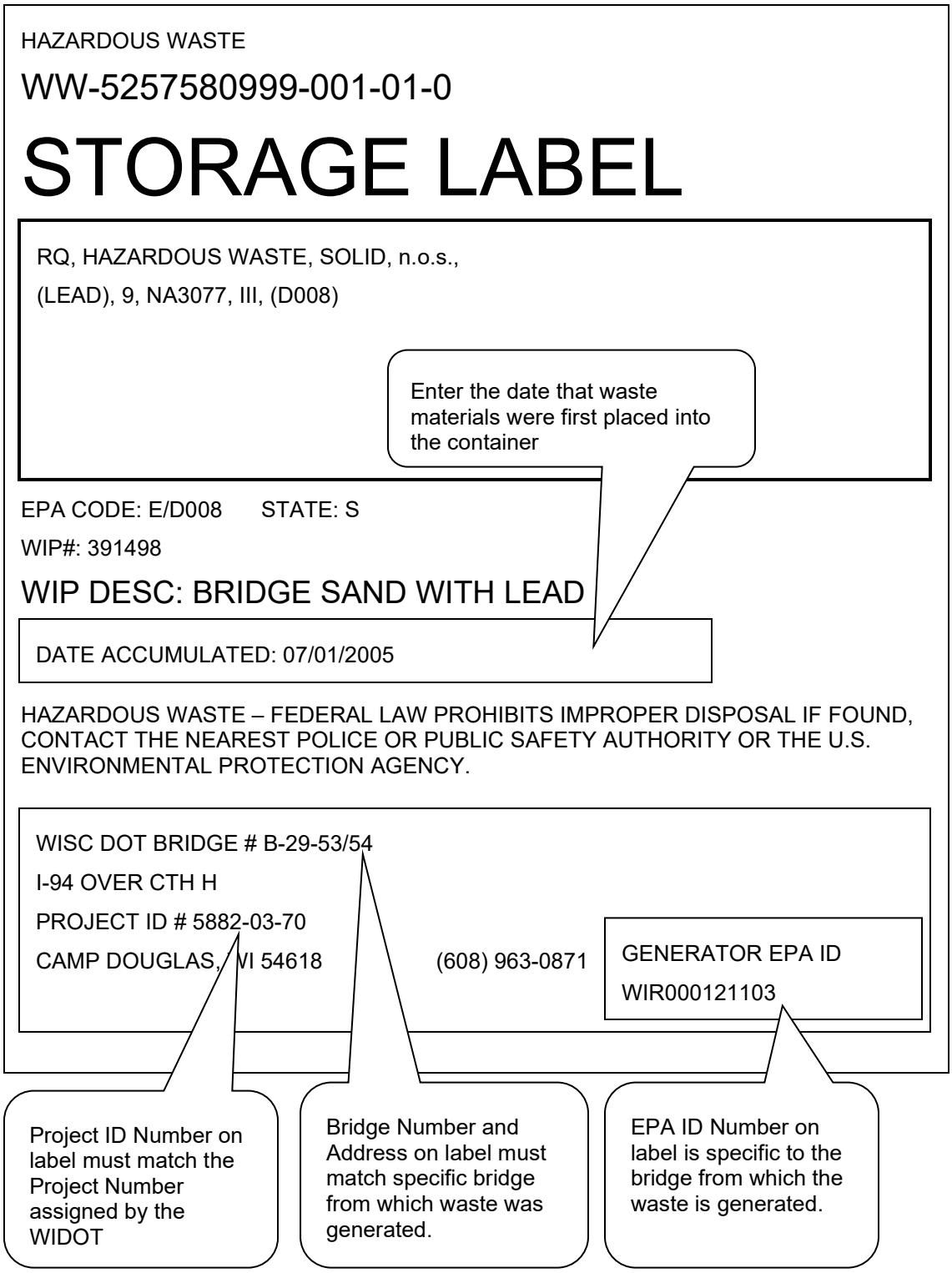
Contact the waste management contractor a minimum of 10 working days in advance to request container drop-off or pickup. Provide the waste management contractor with the project ID, structure number, EPA ID, and the agreed-upon location for container staging. Contact information for the waste management contractor is located on the WisDOT Internet site at https://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrces/environment/hazwaste-contacts.pdf

Report all reportable spills and discharges according to the contingency plan.

Labels are site-specific. Check the labels to ensure that the project ID, structure number, and EPA ID match the structure generating the waste. Apply a label to each drum when it is opened for the first time. Fill in the date on the label the first day material is accumulated in the drum. The following page is an example of a properly filled-in label.

During paint removal operations, continuously monitor and notify the project inspector of the status of waste generation and quantity stored so that timely disposal can be arranged.

stp-517-055 (20190618)



62. Structure Repainting Recycled Abrasive B-40-116, Item 517.1800.S.0001.

A Description

This special provision describes surface preparation and painting of the metal surfaces according to the manufacturer's recommendations as modified in this special provision.

A.1 Areas to be Cleaned and Painted

All structural metal surfaces of:

1. Structure B-40-116 16,314 SF.

Areas are approximate and given for informational purposes only.

B Materials

B.1 Coating System

Furnish a complete coating system from the department's approved list for "Structure Repainting Recycle Abrasive Structure". The color for the finish coating material shall match the color number the plans show according to Federal Standard Number 595. Supply the engineer with the product data sheets for approval before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, and the minimum drying time between coats.

The color of the primer must be such that a definite contrast between it and the color of the blasted steel is readily apparent. There shall be a color contrast between all subsequent coats for the paint system selected. Submit color samples of the primer and all coats to the engineer for approval before any application of paint.

C Construction

C.1 Surface Preparation

Before blast cleaning, solvent clean all surfaces to be coated according to SSPC-SP1.

All metal surfaces must be blast cleaned according to SSPC-SP10 and verified before painting.

Upon completion of surface preparation, test representative surfaces, which were previously rusted (i.e. pitted steel) for the presence of residual chloride. Perform Surface Contamination Tests (SCAT) according to the manufacturer's recommendations. The tests must be witnessed by the engineer. If chlorides are detected at levels greater than $7ug/cm^2$, continue to clean the affected areas until results are below the specified limit. Submit anticipated testing frequencies and chloride remediation methods to the engineer for review and approval.

Apply the prime coat the same day that the metal surfaces receive the No. 10 blast or re-blast before application. Cleaned surfaces shall be of the specified condition immediately before paint application. If rust bloom occurs before applying the primer, stop the painting operation in the area of the rust bloom and re-blast and clean the area to SSPC SP-10 before applying the primer.

The steel grit and any associated equipment brought to the site and used for blast cleaning shall be clean. Remove immediately dirty grit or equipment brought to the site at no expense to the department. Furnish an abrasive that has a gradation such that it will produce a uniform surface profile between 1 to 3 mils on the steel surface, as measured according to ISO 8503-5.

The abrasive blasting and recovery system shall be a completely integrated self-contained system for abrasive blasting and recovery. It shall be an open blast and recovery system that will allow no emissions from the recovery operation. The recovery equipment shall be such that the amount of contaminants in the clean recycled steel grit shall be less than 1 percent by weight as per SSPC AB-2.

Remove by grinding all fins, tears, slivers, and burred or sharp edges that are present on any steel member, or that appear during the blasting operation, and re-blast the area to give a 1 to 3 mils surface profile.

Remove all spent material and paint residue from steel surfaces with a good commercial grade vacuum cleaner equipped with a brush-type cleaning tool, and test cleanliness according to ASTM D4285. The airline used for surface preparation shall have an in-line water trap and the air shall be free of oil and water as it leaves the airline.

Take care to protect freshly coated surfaces from subsequent blast cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool, or if visible rust occurs, re-blast to a near white condition. Clean and re-prime the brushed or blast cleaned surfaces according to this specification.

C.2 Coating Application

Apply paint according to the manufacturer's recommendations in a neat workmanlike manner. Paint application shall normally be by airless spray or inaccessible areas by brush, roller or other methods approved by the engineer.

The engineer may allow the use of conventional spray equipment after satisfactory demonstration by the contractor of the proper application technique and handling of that equipment.

Mix the paint or coatings according to the manufacturer's directions to a smooth lump-free consistency. Keep paint thoroughly mixed during the painting application.

After the inspector approves the entire cleaned surface to be coated, apply a prime coat uniformly to the entire surface. Either before or after applying the prime coat, brush or spray a stripe coat of primer on all plate edges, bolt heads, nuts, and washers. Apply succeeding coats as the product data sheet shows.

Remove all dry spray by vacuuming, wiping, or sanding if necessary.

If the application of the coating at the required thickness in one coat produces runs, bubbles, or sags; apply a "mist-coating" in multiple passes of the spray gun; separate the passes by several minutes. Where excessive coating thickness produces "mud-cracking", remove such coating back to soundly bonded coating and re-coat the area to the required thickness.

The resultant paint film shall be smooth and uniform, without skips or areas of excessive paint according to SSPC PA1.

The coating is supplied for normal use without thinning. If in cool weather it is necessary to thin the coating for proper application, thin according to the manufacturer's recommendations.

During surface preparation and coating application the ambient and steel temperature shall be between 39 degrees F and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature. (This requires the steel to be dry and free of any condensation or ice regardless of the actual temperature of the steel.) The relative humidity shall not exceed 85%. The manufacturer's ambient condition requirements must be followed if they are more stringent.

Paint thickness shall be within the requirements for a three coat paint system listed in the department's approved list for Structure Repainting Recycle Abrasive Structure and the paint system being used.

Time to recoat shall be according to the manufacturer's recommendations.

The dry film thickness will be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement according to SSPC-PA 2. Dry film thickness in each area measured will be based on an average of three gage readings, after calibration of the gage to account for surface profile of the bare steel as a result of surface preparation.

D Measurement

The department will measure Structure Repainting Recycled Abrasive B-40-116 as a single complete lump sum unit of work, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1800.S.0001	Structure Repainting Recycled Abrasive B-40-116	LS

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

stp-517-050 (20190618)

63. Negative Pressure Containment and Collection of Waste Materials, B-40-116, Item 517.4500.S.0001

A Description

This special provision describes providing a dust collector to maintain a negative air pressure in the enclosure; furnishing and erecting enclosures as required to contain, collect and store waste material resulting from the preparation of steel surfaces for painting, and repainting, including collection of such waste material, and labeling and storing waste material in approved hazardous waste containers.

B (Vacant)

C Construction

Erect an enclosure to completely enclose (surround) the blasting operations. The ground, slope paving, or roadway cannot be used as the bottom of the enclosure unless covered by approved containment materials. So that there are no visible emissions to the air or ground or water, design, erect, operate, maintain and disassemble the enclosures in such a manner to effectively contain and collect dust and waste materials resulting from surface preparation and paint over spray. Suspend all enclosures over water from the structure or as approved by the engineer.

Construct the enclosure of flexible materials such as tarpaulins or of rigid materials such as plywood, or of a combination of flexible and rigid materials and meet SSPC Guide 6 requirements with Level 1 emissions. Systems manufactured and provided by Eagle Industries, Detroit Tarps, or equal, are preferred. The tarpaulins shall be a non-permeable material, either as part of the tarp system or have a separate non-permeable lining. Maintain all materials free of tears, cuts or holes. The vertical sides of the enclosure shall extend from the bottom of the deck down to the level of the covered work platform or covered barge where used for structures over water and shall be fastened securely to those levels to prevent the wind from lifting them. Bulkheads are required between beams to enclose the blasting area as approved by the engineer. Where bulkheads are required, construct them of plywood and properly seal them. To prevent spent materials and paint over spray from escaping the enclosed area, overlap and fasten together all seams. Place groundcovers under all equipment before operations or as approved by the engineer.

To allow proper cleaning, inspection of structures or equipment, and painting, provide safe adequate artificial lighting in areas where natural light is inadequate.

Provide a dust collector so that there are no visible emissions outside of the enclosure and so that a negative air pressure inside the enclosure is maintained. The dust collector shall be sized to maintain the minimum air flow based on the cross-sectional area of the enclosure.

A combination of positive air input and negative air pressure may be needed to maintain the minimum airflow within the enclosure.

Filter all air exhausted from the enclosure to create a negative pressure within the enclosure so as to remove all hazardous and other particulate matter.

After all debris has been removed and all painting has been approved in the containment area is complete, remove containment according to SSPC Guide 6.

As a safety factor for structures over water, provide for scum control. Provide a plan for corrective measures to mitigate scum forming and list the procedures, labor and equipment needed to assure compliance. Effectively contain the scum that forms on the water and does not sink in place from moving upstream or downstream by the use of floating boom devices.

If in the use of floating boom devices, the scum tends to collect at the devices, contain, collect, store the scum, and do not allow it to travel upstream or downstream beyond the devices. Remove the scum at least once a day or more often if needed.

Collect and store at the bridge site for disposal all waste material or scum collected by this operation, or any that may have fallen onto the ground tarps. Collect and store all waste material and scum at the end of each workday or more often if needed. Storage shall be in provided hazardous waste containers. Label each container as it is filled, using the labels provided by the Hazardous Waste Disposal contractor. Check the label and ensure that the project ID, bridge number and EPA ID match the structure. Fill in the generation date when the first material is placed in the container. Secure all containers at the end of each workday. Keep the containers covered at all times except to add or remove waste material. Store the containers in an accessible and secured area, not located in a storm water runoff course, flood plain, or exposed to standing water.

In a separate operation, recover the recyclable abrasive for future application, and collect the paint and/or corrosion particles for disposal.

D Measurement

The department will measure Negative Pressure Containment and Collection of Waste Materials B-40-116 as a single complete lump sum unit of work for each structure designated in the contract, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.4500.S.0001	Negative Pressure Containment and Collection of Waste Materials B-40-116	LS

Payment is full compensation for designing, erecting, operating, maintaining, and disassembling the containment devices; providing negative pressure exhaust ventilation; collecting, labeling, and for storing spent materials in provided hazardous waste containers.

stp-517-065 (20140630)

64. Portable Decontamination Facility, Item 517.6001.S.

A Description

This special provision describes furnishing and maintaining weekly, or more often if needed, a single unit portable decontamination facility.

B Materials

Supply and operate all equipment according to OSHA.

Supply adequate heating equipment with the necessary fuel to maintain a minimum temperature of 68° F in the facility.

The portable decontamination facility shall consist of a separate "Dirty Room", "Shower Room" and "Clean Room". The facility shall be constructed so as to permit use by either sex. The facility shall have adequate ventilation.

The "Dirty Room" shall have appropriately marked containers for disposable garments, clothing that requires laundering, worker shoes, and any other related equipment. Each container shall be lined with poly bags for transporting clothing, or for disposal. Benches shall be provided for personnel.

The "Shower Room" shall include self-contained individual showering stalls that are stable and well secured to the facility. Provide showers with a continuous supply of potable hot and cold water. The wastewater must be retained for filtration, treatment, and/or for proper disposal.

The "Clean Room" shall be equipped with secure storage facilities for street clothes and separate storage facilities for protective clothing. The lockers shall be sized to store clothing, valuables and other personal belongings for each worker. Benches shall be provided for personnel.

Supply a separate hand wash facility, either attached to the decontamination facility or outside the containment.

C Construction

Properly contain, store, and dispose of the wastewater.

D Measurement

The department will measure Portable Decontamination Facility by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.6001.S	Portable Decontamination Facility	EACH

Payment is full compensation for furnishing and maintaining a portable decontamination facility.

stp-517-060 (20140630)

65. Noise Barriers Double-Sided Sound Absorptive N-40-94, Item 531.0300.S.0001; Noise Barriers Double-Sided Sound Absorptive N-40-95, Item 531.0300.S.0002; Noise Barriers Double-Sided Sound Absorptive N-40-96, Item 531.0300.S.0003;

A Description

This special provision describes designing, fabricating, transporting, and erecting composite concrete double-sided sound absorptive noise barriers as the plans show and conforming to department-approved installation specifications.

B Noise Wall System

B.1 System Pre-Qualification and Selection

The noise wall system supplied must be pre-qualified by the department. The department maintains a list of pre-qualified systems which can be viewed online at:

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

Systems eligible for use on this project shall be pre-qualified before the award of this contract.

Provide the name of the selected system, and the intended fabricator to the engineer within 25 days after award of the contract. Schedule a pre-design meeting with the engineer subsequent to award of the contract and before beginning design of the noise barrier. A representative of the fabricator of the noise barrier components shall attend this meeting.

B.2 Design

B.2.1 Structural and Foundation Design

The structural and foundation design of the noise barrier system shall conform to the current edition of "AASHTO LRFD Bridge Design Specifications" published by the American Association of State Highway and Transportation Officials (AASHTO), 444 North Capitol Street, NW, Suite 225, Washington, DC 20001, with the following exceptions:

The minimum design wind pressure shall be 35 pounds per square foot (Strength III) for ground mounted noise barriers and 40 pounds per square foot (Strength III) for structure mounted noise barriers, unless specified otherwise on the plans. For ground and structure mounted noise barriers, the minimum Service I design wind pressure shall be 15 pounds per square foot. All wind loads shall be applied perpendicular to the barrier, alternately in each direction.

Design drilled shaft foundations using the Broms Method. Ignore the top 1 foot of supporting soil in the design of ground-mounted barrier foundations.

In addition to wind loads, design the bottom noise barrier panel to support the dead load (weight) of the panels directly above it and its own dead load. Assume this dead load to be distributed uniformly across the bottom panel acting as a simple beam supported at the posts.

Bottom noise barrier panels shall have a minimum amount of perimeter reinforcement of a #4 bar which shall be continuous around the corners. Reinforcing steel in the concrete core of noise barrier panels shall have a minimum clear cover of 1 inch. Clear cover does not include sound absorptive material. Design the reinforced concrete core to resist the loads without considering any composite action from other material in the panel.

Provide a neoprene bearing pad or equivalent material of 1/4 inch minimum thickness between the foundation and the bottom panels. The allowable bearing stress shall not exceed 900 psi. Precast concrete pedestals placed between the foundation and bottom panels shall be reinforced if over 1’-0" high. The bearing pads shall be preformed EPDM rubber conforming to ASTM D-2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80.

B.2.2 Fire Hose Access Openings

Design fire hose access openings, at locations the plans show, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity. Detail drawings shall show the additional reinforcement and method for attaching the Fire Hydrant Location Signs to the barrier panel.

B.2.3 Barrier Profile

Unless the plans show or the engineer approves otherwise, design the top of the noise barrier to be horizontal and at or above the acoustic elevation line the plans show. The bottom elevation of the noise barrier shall be as the plans show. Changes in elevation shall be accomplished by stepping sections at posts. Steps shall not exceed 3-feet in height. All joints shall be horizontal or vertical and shall be aligned with the adjacent panels.

B.2.4 Panel Orientation

Design the panels to prevent entrapment and ponding of water. Avoid inadvertently providing areas for perching, nesting of birds or collecting of dirt and debris in the design of the noise barrier system.

B.2.5 Sound Transmission Loss (TL)

Design the noise barrier panel material to achieve a transmission loss equal to or greater than 20 decibels in all test frequency bands, as referenced in ASTM E90.

B.2.6 Noise Reduction Coefficient (NRC)

Design the noise barrier system so that the highway sides of the noise barrier panels have a minimum NRC of 0.80 and the residential sides have a minimum NRC of 0.70 as referenced in ASTM C423.

B.2.7 Design Coordination

Design the noise barrier post spacing so as not to interfere with the existing utility and drainage facilities.

Design the noise barrier post spacing so as not to interfere with proposed utility and drainage facilities the plans show. This includes proposed roadway lighting and ITS facilities.

For noise barriers mounted behind or near proposed retaining walls, coordinate and design the noise barrier post spacing so as to not interfere with embedded portion of the proposed retaining walls, including MSE wall soil reinforcement and tieback anchors on soldier pile and timber lagging retaining walls.

For noise barriers mounted on proposed bridges and retaining walls, coordinate and design the noise barrier post spacing to coincide with noise barrier post and embedded noise barrier anchor assembly spacing shown on the bridge and retaining wall plans. Coordinate any required changes to the noise barrier post spacing and embedded noise barrier anchor assembly locations shown on the bridge and retaining wall plans, if required for the design of the noise barrier.

B.2.8 Weep Hole Openings

Design panels such that weep hole openings in noise wall to allow water to drain can be field installed per C.3 at locations the plans show.

B.2.9 Maintenance Doors

Design maintenance doors and door portals in noise walls, at locations the plans show, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity per B.2.1.

B.3 Materials

Required material certifications and testing are the responsibility of the contractor. All certifications and test reports shall carry the name and address of the fabrication facility where the specific material was produced.

B.3.1 Concrete Masonry

Provide grade A, A-2, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716 for concrete posts and the core component of composite concrete sound absorbing panels. Provide QMP for class II ancillary concrete as specified in standard spec 716.

B.3.2 Materials Testing General

All test reports shall carry the name and address of the laboratory where testing was performed, and the name of the person in responsible charge of the specific tests for which data is presented. Materials tested shall be representative of materials manufactured for this specific contract. Panels tested or from which samples will be taken will be selected and appropriately marked by the engineer either at the manufacturer’s plant or from panels delivered to the project at the engineer’s option.

Testing as detailed below is required for each lot of material not to exceed 100,000 SF of noise barrier produced. Conduct testing on panels within the first 30,000 SF of production of each lot not exceeding 100,000 SF. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage. The first set of tests conducted for projects that do not exceed 100,000 SF shall be within the first third of the total square footage of the project. Provide the shipping record of the samples to the laboratory within five days of sampling. Begin testing as soon as practicable after sampling.

Test all materials as fabricated, including any specified finishing.

B.3.2.1 Noise Reduction Coefficient (NRC)

Test noise barrier panels according to ASTM C423, and placed according to ASTM E795, mounting type A, to determine the noise reduction coefficient (NRC) of the material. Submit to the engineer an independent laboratory test report that shows that the noise barrier panels achieve an NRC as specified in B.2.6 for the highway side of the barrier.

B.3.2.2 Long-term Durability

Test all sound absorbing composite concrete and composite concrete components for long-term durability according to ASTM C672 and the following modifications and/or requirements:

B.3.2.2.1 Test Specimens

Three specimens of a full cross section of the composite panel at least 144 square inches in face area will be selected at random from the provided composite panel as defined in B.3. Sample specimens shall be representative of the manufacturer's continuous production operation, as selected and marked by the engineer. Specimens shall be 2D-symmetric and shaped according to the testing laboratory's accommodations.

Prepare the surfaces of the sample specimens for testing as follows. Brush the surfaces of the sample to remove any loose particles. Before testing, submerge the test specimens be submerged in water for a period of 24 hours before testing. Immediately following this, cover the specimens with the sodium chloride solution as stated below.

B.3.2.2.2 Test Procedure

Place samples in a 5 sided water tight container, fully submerged in a solution of sodium chloride (concentration 3% by mass). Maintain 1/4 inch of sodium chloride solution above the top surface of the fully submerged specimen within the container.

Subject the submerged specimens to continuous freeze-thaw cycles as follows:

After each five cycles, remove the salt solution and particles of deteriorated concrete from the slab and collect in a watertight container. The operation is best accomplished by tilting the slab in a funnel approximately 20 inches in diameter and washing the surface of the slab with a 3% sodium chloride solution. Continue this washing until all loose particles are removed from the sample. Strain the solution through a filter and dry the residue at 221 degrees Fahrenheit to a constant mass condition. Cumulatively weigh the residue after each five cycles. The dry residue is defined as the loss of mass. Calculate the loss of mass to the nearest 0.01 pounds per square foot, not including the exposed surface of any core material on the cast or cut edges. Visually rate the surfaces according to 10.1.5 of ASTM C672 including any delamination of the sound absorbing material from the concrete core for composite concrete materials. After each washing of each sample, re-establish the initial submerged condition with a new solution of 3% sodium chloride before continuing with freeze-thaw cycling.

Continue the test until 30 freeze-thaw cycles have been completed.

During the test position and support each specimen to allow free circulation of the test solution under, around, and over test pieces. Support the bottom of the specimens on blocks in a manner to facilitate movement of moisture through and around the test specimens.

B.3.2.2.3 Test Report

Submit to the engineer an independent testing laboratory test report which shows that all solid and composite concrete products meet or exceed the following criteria:

1. After 30 freeze-thaw cycles the test specimens shall not exhibit excessive deterioration in the form of cracks, spalls, aggregate disintegration, delamination or other objectionable features.
2. Compliance with the test requirements is based upon a loss of mass of not more than 0.2 pounds per square foot from the surface after 30 cycles of freezing and thawing.
3. The report shall include the following:
    - 3.1. Name of manufacturer.
    - 3.2. Location of production.
    - 3.3. Production description.
    - 3.4. Date product sample was cast.
    - 3.5. Date testing began.
    - 3.6. Specimen identification.
    - 3.7. 5x7-inch color photographs of the test specimens before and after the 30 cycles of freeze-thaw test showing both sound absorbing faces and at least one representative side view of a cut (not cast) face, and any defects.
    - 3.8. A graph of the cumulative mass loss of each specimen plotted against the number of freeze-thaw cycles for 5, 10, 15, 20, 25, and 30 freeze-thaw cycles.
    - 3.9. Visual rating according to ASTM C672 Section 10.1.5, including report of any delamination of the sound absorbing material from the concrete core for composite concrete components.

B.3.3 Materials Certification - General

Provide certification of compliance or sample fabrications as noted below. All material certifications shall reference the specific facility manufacturing the material and this contract. Certification is required for each lot of material not to exceed 100,000 SF of noise barrier produced and shall include dates of fabrication for the lot being certified. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage.

B.3.3.1 Color and Surface Texture

Supply and deliver to the engineer a 3 foot x 5 foot minimum test panel for each panel type with the specified pattern and colors. Obtain the engineer's acceptance of the panel's pattern and color before production of the panels required for the contract. The accepted pattern and color test panels shall remain on the project site in a readily accessible location for the duration of the project. The accepted pattern and color sample panels will be the standard for all noise barriers on the project.

Manufacture noise barrier posts of the same materials throughout the project. Shop apply coating and coloring of the post and panels.

Unless otherwise shown and provided for in the plans, wall pattern shall contain textures with relief features of sufficient depth and quantity to be distinguishable at an observation distance of 500-feet. The colors and textures chosen will be within the following parameters; however, at the discretion of the engineer, a single color and/or a single texture may be selected for either side of the noise barrier.

	FREEWAY SIDE	**RESIDENTIAL SIDE**
Number of colors	2	2
In the proportion of	75:25 (+/- 5%)	75:25 (+/-5%)
Number of textures	2	2
In the proportion of	75:25 (+/- 5%)	75:25 (+/- 5%)

The engineer will visually inspect panels for color consistency upon arrival at the project. The panels shall have no substantial variation in color from the accepted sample panel submitted for the project. All panels with substantial color variation will be rejected and shall be removed from the project.

B.3.3.2 Structural Steel

Submit to the engineer certification of compliance, including mill certifications and heat numbers, that structural steel conforms to the properties required on the plans and shop drawings, and is galvanized after fabrication by the hot-dip process according to ASTM A123. Galvanize all steel hardware and threaded fasteners, bolts, nuts, and washers according to ASTM A153.

Shop coat all steel galvanized surfaces exposed to view with a department-approved paint system. Clean galvanizing surfaces to be painted according to SSPC-SP1 to remove, chlorides, sulfates zinc salts, oil, dirt, organic matter and other contaminants. Brush Blast clean the surfaces according to SSPC-SP7 to create a slight angular surface profile (1.0 – 1.5 mils suggested) for adhesion. Do not fracture the galvanized finish or remove any dry film thickness during these processes.

After cleaning, provide a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface. The tie coat shall etch the galvanized surface and prepare the surface for the top coat. Apply a top coat matching the finished color specified in B.3.2. Use a pre-approved top coat that is resistant to the effects of the sun, and is suitable for use in a marine environment. Exercise care so as not to damage the painted surfaces during shipment and erection of the noise barriers.

Use one of the qualified paint sources and products given below. An equivalent system may be used with the written approval of the engineer. Supply the engineer with the product data sheets before applying any coating. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, the minimum drying time for shop applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

Producer	Coat	Products	Dry Film Minimum Thickness (mils)	Minimum Time Between Coats (hours)
Sherwin Williams Co. (847) 330-1250	Tie	Recoatable Epoxy Primer B67-5 Series/B67V5	2.0 to 4.0	6
	Top	Acrolon 218 HS Polyurethane, B65-650	2.0 to 4.0	NA
Carboline Co. (314) 644-1000	Tie	Rustbond Penetrating Sealer FC	1	36
	Top	Carboline 133 LH	4	NA
Wasser Corp. (253) 850-2967	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	2.0 to 4.0	NA

B.3.3.3 Sound Transmission Loss (TL)

Submit to the engineer certification of compliance that the sound transmission loss of the panel material, when tested according to ASTM Standard E90, achieves a transmission loss as specified in B.2.5.

B.3.3.4 Accelerated Weathering

Submit to the engineer certification of compliance that all coatings on barrier components, with the exception of structural steel and wood components comply with the following requirements when tested according to ASTM Standard G155, G153, or G152 after 2400 hours of exposure on a cement based test specimens:

1. No checking when rated according to ASTM D660.
2. No cracking when rated according to ASTM D661.
3. No blistering when rated according to ASTM D714.
4. No difference in adhesion between the unexposed control sample and an exposed sample when tested according to ASTM D3359, Method A.
5. No chalking less than #7 rating when rated according to ASTM D4214.
6. No color change greater than 5 NBS units when measured according to ASTM D2244, using illuminant D65 and the 1964 10-degree standard observer.

B.3.3.5 Corrosion Resistance (Salt Fog Exposure)

Submit to the engineer certification of compliance that all coated steel components, with the exception of structural steel, has a coating system that has been tested for corrosion resistance according to ASTM B117 and comply with the following requirements:

1. No checking when rated according to ASTM D660.
2. No blistering when rated according to ASTM D714.
3. No loss of adhesion when tested according to ASTM D3359 with no evidence of corrosion along the edges of the samples or along the score lines, or both, or other defects.

B.4 Project Submittal Requirements

Furnish required submittals according to the following:

B.4.1 Pre-Construction Submittals

A minimum of 14 days before beginning any shop or field work, submit the following documents to the engineer conforming to standard spec 105.2 with electronic submittal to the fabrication library under standard spec 105.2.2.

1. Structural and foundation design calculations

   Design calculations shall be on 8 1/2 x 11-inch sheets, neatly bound with a title sheet listing the complete project identification number and sound barrier designation. Structural and foundation calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

2. Detailed design/shop drawings

   Design/shop drawings shall conform to the contract plans and the requirements of these special provisions. The design/shop drawings shall consist of plan and profile sheets, details, explanatory notes, erection diagrams, aesthetic treatments, and other working plans. All dimensions, sizes of material, material information and other information necessary for the complete fabrication and construction of the noise barrier shall be designated on the appropriate sheets. The design/shop drawings shall be drawn to an appropriate scale on reproducible sheets 11 x 17 inches including borders. Each sheet shall carry the complete project identification number and noise barrier designation. Design/shop drawings shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.
3. Specifications regarding installation requirements and sequence of construction, including a detailed bill of materials.
4. Detailed color plan of the aesthetic treatments and finishes for the entire noise barrier.
5. Shipping, handling, and storage plan identifying methods or practices to limit post production damage.

Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings.

B.4.2 Pre-Installation Submittals

Supply and deliver to the engineer the sample panel required under Section B.3.3.1 at least 14 calendar days before beginning production and/or installation of job materials. Acceptance of the sample panel will be by Steven Kuhl, (414) 531-6932. If the panel is not acceptable, a second panel shall be produced and submitted for acceptance. Sample panel to be representative of quality for precast panel work after acceptance. Deliver test panels to be determined by the engineer, for comparison purposes during production of project panels.

B.4.3 Payment Submittals

Submit certifications and test data as required under B.3 for all materials, including trade name of the products along with the name and address of the manufacturers.

B.4.4 Submittal Review

The engineer’s review and acceptance of the drawings, calculations, and related material, submitted by the contractor, is for compliance with design intent only, and does not relieve the contractor from responsibility in regard to errors or omissions on said submittals.

The final accepted design documents and/or shop drawings will become a part of the contract. Any substitution of materials or dimensions contemplated by the contractor’s submitted documents, different from materials or dimensions shown on the contract plans, shall be made only when approved by the engineer, and in such case, additional costs resulting from such substitution shall be borne by the contractor.

Ordering materials before department acceptance of submittals is at the contractor’s risk.

C Construction

C.1 General

Construct the noise barriers at the locations the plans show, according to the contract specifications and design drawings and/or as the engineer directs. Deliver all sound absorbing composite concrete components to the project site as a finished component. A sound absorbing composite concrete system, which has the sound absorbing material glue-laminated or alternately affixed by a secondary adhesion method on the project site, will not be allowed.

Provide a minimum 10 day notice to the engineer of the date that the fabrication of the noise barrier material will begin.

Inspect all materials delivered to the construction site for proper dimensions, honeycombing, cracks, voids, surface defects, consistency in color and texture, and any other damage or imperfections, before installation.

If any part of the noise barrier material fails to comply with any requirements of the contract specification, the component shall either be corrected, permanently marked as unacceptable and be disposed of by the contractor or accepted at a reduced price. The decision will be made by the engineer and is dependent on the severity of the specification deviation.

Erect noise barriers to avoid conflict with any existing facilities or utilities to remain in place. Any damage caused by construction activities shall be repaired by the contractor at no cost to the department.

C.2 Fire Hydrant Location Signs

Attach fire hydrant location signs to the noise barrier at each location the plans show by a method the department's approved drawings show. The signs shall conform and be of the type specified in the department's sign plate book, plate D9-54 and/or D9-54A.

Compensation for furnishing and placing the fire hydrant location signs shall be included in the contract price for Noise Barriers Double-Sided Sound Absorptive and no additional compensation therefore will be allowed.

C.3 Weep Hole Openings

Provide weep hole openings for drainage at the locations and sized as noted on the plan. Install weep holes by drilling through the wall after erection of the noise barrier. Use 6" PVC Schedule 40 pipe sleeve conforming to ASTM D-1785. Epoxy 6" PVC Schedule 40 pipe sleeve into bored weep hole. PVC pipe sleeve shall fit snugly in cored hole through wall. Epoxy PVC pipe sleeve into bored weep hole in noise barrier. Locate and construct weep holes according to the plans and as the engineer directs. Place weep holes at locations the plans show unless the engineer approves adjusting locations to fit field conditions. The engineer will field verify the height and location of the weep hole for positive drainage.

C.4 Name Plates

Provide name plates conforming to the requirements of standard spec 506.2.4. Install one name plate on each noise barrier at the location the plans show. Rigidly attach each plate to the barrier by a means approved by the engineer.

Compensation for furnishing and placing of name plates shall be included in the contract price for Noise Barriers, Double-Sided Sound Absorptive Structure and no additional compensation therefore will be allowed.

C.5 Structure Mounted Noise Barriers

Do not erect noise barriers mounted to bridge or retaining wall structures until after the concrete for bridge decks and parapets or retaining wall moment slabs and parapets have attained their specified 28-day strength.

For noise barriers mounted to moment slabs and parapets on top of MSE retaining walls, erection of the noise barrier is limited to two-thirds the height of the noise barrier acoustical line the plans show before placement of earth fill or pavement over the top of the moment slab as the plans show. Erection of the noise barrier in excess of two-thirds its height to the full height of the noise barrier acoustical line the plans show may not occur until after the earth fill or pavement structure over the top of the moment slab the plans show is complete.

C.6 Construction Tolerances

Install the posts and panels comprising the noise barrier plumb within 1/2 inch in 15-feet. Locate the posts to the line and grades as the plans show to within +/- 3/4 inch. Align horizontal joints of adjacent panels to a vertical tolerance of 1/4 inch. Where vertical adjustments are required for alignment, use a mortar base or steel shims. Galvanize and prime coat steel shims according to B.3.3.2.

D Measurement

The department will measure Noise Barriers Double-Sided Sound Absorptive B-40-94, Noise Barriers Double-Sided Sound Absorptive B-40-95, Noise Barriers Double-Sided Sound Absorptive B-40-96, by the square foot, acceptably completed, as the area the original plans show plus engineer-approved modifications to the plan quantity caused by plan corrections or revisions.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
531.0300.S.0001	Noise Barriers Double-Sided Sound Absorptive N-40-94	SF
531.0300.S.0002	Noise Barriers Double-Sided Sound Absorptive N-40-95	SF
531.0300.S.0003	Noise Barriers Double-Sided Sound Absorptive N-40-96	SF

Payment is full compensation for providing noise barrier including: coloring and aesthetic treatment on panels, preparing the design drawings and calculations, furnishing and delivering sample and test panels, materials testing, furnishing materials test reports and certifications, excavation, preparing the site, constructing foundations, erecting posts and panels, and disposing of waste materials.

stp-531-010 (20200629)

66. Catch Basins, Manholes, and Inlets.

Provide Ductile Iron covers (lids) for Inlet Covers type V conforming to ASTM A536 Grade 80-55-06. If ductile iron frames are not available, provide cast iron frames conforming to AASHTO M105 Class 30.

Supplement standard spec 611.3.1 with the following:

Precast reinforced concrete sections shall be constructed in horizontal courses. The units shall be laid in mortar or sealed with preformed flexible joint sealant or mastic joint sealer. When mastic joint sealer is used, the material shall completely fill the joint after the units have been brought together.

Handling holes may utilize an integral preformed metal insert. If the handling hole is open to both the internal and external wall of the structure, plug the handling hole with either a precast concrete plug mortared in place or with a combination of brick, mortar and/or mastic. The plug shall not project beyond the inside surface after installation. When integral preformed metal lifting inserts are used, their sockets shall be filled with mastic or mortar.

Provide and install manhole steps meeting the requirements of Section 3.5.4 (g) of the Standard Specifications for Sewer and Water Construction in Wisconsin, latest edition.

Inlet and outlet pipes shall extend through walls a sufficient distance to allow for connections on the outside and the collar concrete or mortar carefully placed around them to prevent leakage around their outlet surfaces. Unless otherwise shown, the inside ends shall be flush with the inside walls.

Provide and install either a pre-formed integral or poured-in place bench at the structure invert unless Plans identify a sump below the lowest pipe invert. The surface of the bench shall be free of loose material and smooth trowel finished to avoid surface projections impeding flow. Form the bench at the lowest pipe invert. Bench sides shall rise a minimum of half the diameter of the lowest pipe.

Use a mortar for final adjustment of manhole cover. Provide a butyl rubber gasket or butyl rubber rope for joints of precast reinforced concrete manhole sections. Butyl Rubber gasket joint used for manholes conforms to 8.41.6 of the Standard Specifications for Sewer and Water Construction in Wisconsin, latest Edition. Provide non-rocking covers for all drainage structures subject to traffic loading.

Submit shop drawings for all drainage structures. For structures where WisDOT standard detail drawings are not available, provide shop drawings prepared, verified and stamped by a professional engineer currently registered in the State of Wisconsin. Submit one electronic copy of shop drawings in portable document format for engineer’s review two weeks before fabrication. Show clearly on shop drawings information for all pipe connections to the structure. The contractor is responsible for all errors of detailing and fabrication. The omission from the shop drawings of any pipe connection shall not relieve contractor of the responsibility of providing such materials, even though the shop drawings may have been reviewed and accepted by the engineer.

Fasten existing and proposed storm sewer structure covers subject to traffic loading according to Fastening Sewer Access Covers spec.

Supplement standard spec 611.3.2 with the following:

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

Supplement standard spec 611.3.3 with the following:

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

All associated masonry work, including but not limited to adjustment ring installation, false bottoms, pipe connections, and other structural appurtenances shall be tuckpointed and back plastered with mortar conforming to standard spec 518.2 upon completion and as directed by the engineer. When tuckpointing and back plastering work is performed and completed at temperatures below 32-degrees F, keep the mortar moist at a temperature above 32-degrees F and provide protection from the elements to prevent freezing for a period of not less than 48 hours.

All catch basins, manholes, inlets, and similar structures newly constructed, adjusted or reconstructed under the contract, shall be cleaned of any accumulation of silt, debris, or foreign matter of any kind, and shall be free from such accumulations at the time of final acceptance.

Supplement standard spec 611.3.7 with the following:

Construct height adjustments of 4-inches or more with concrete grade rings. Never use grade rings less than 2-inches thick. *HDPE or rubber rings are not permitted.*

Replace standard spec 611.5.2 (1) with the following:

Payment for Catch Basins, Manholes, and Inlets bid items is full compensation for providing all submittals; materials, including all masonry, for mortar adjustments and monolithic concrete shimming; adjusting rings; conduit and sewer connections, steps, and other fittings; for providing and installing butyl rubber joints; for furnishing backfill, backfilling; all excavating, disposing of surplus material, and for cleaning out and restoring the work site; except that the department will pay for covers, including frames, grates and lids separately.

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

Fastening sewer access covers and removing performed joint sealant as the engineer directs are paid under separate bid items.

67. Adjusting Storm Sewer Structures.

Add the following text to standard spec 611.3.1:

Remove covers and frames prior to milling. Cover openings with a Cover Plates Temporary of sufficient thickness to carry traffic and at a depth to accommodate the milling operations. Backfill excavated areas with an asphalt surface mix to an elevation that will match the adjacent pavement. Cover Plates Temporary will paid as separate contract bid item.

Add the following text to standard spec 611.3.7:

The replacement of Grade A concrete when adjusting manhole covers in areas of bituminous resurfacing shall be to the top of the existing concrete base as shown on the detail for adjusting manhole covers. Use construction methods that conform to the requirements set forth in standard spec 611.3.3.

Add the following text to standard spec 611.5:

Removal and replacement of concrete pavement to accomplish the work shall be incidental to the cost of work. Removal and replacement of concrete curb and gutter will be paid for under items Removing Curb and Gutter and Concrete Curb and Gutter, 24-inch.

SER-611-001 (20161216)

68. 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)

69. Pipe Grates, Item 611.9800.S.

A Description

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

B Materials

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

Furnish pipe grates galvanized according to ASTM A123.

Furnish angles and brackets galvanized according to ASTM A123.

Furnish required hardware galvanized according to ASTM A153.

C Construction

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.9800.S	Pipe Grates	EACH

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

stp-611-010 (20030820)

70. Pond Liner Clay, Item 640.1303.S.

A Description

This special provision describes furnishing and installing clay liner in areas shown on the plans.

B Materials

For each source, prior to excavating and hauling the clay liner to the project, submit the results of the laboratory source screening tests described in Table 1. Laboratory test results of the clay must meet or exceed the requirements before placing material.

Submit source screening test results to the engineer for review, two weeks prior to clay placement.

C Construction

C.1 Clay Liner

C.1.1 Subgrade

Compact the subgrade to the minimum density using standard spec 207.3.6.2 Standard Compaction, or as otherwise specified in the contract requirements.

C.1.2 Erosion Protection

Do not place the clay liner until after all adjacent site grading has been completed and only after silt fence has been installed completely around the area of clay liner placement.

C.1.3 Clay Placement

After the fine grading is complete, place and compact clay liner in compacted 6-inch lifts. Place each lift of clay liner in one continuous lift. See plans for clay liner construction limits. Measure the thickness of the clay, as shown in the plans, perpendicular to the surface.

Notify the engineer at least three days before starting construction of clay liner.

Table 1

Reference	Number	Test Title	Requirements	Testing Frequency	
				Source Screening	Project Testing
AASHTO[1]	T99-01	Moisture –Density Relationships of Soils Using a 2.5-kg (5.5 lb) Rammer a 305 mm (12-in.) Drop (Standard Proctor)	NA	1/source	NA
AASHTO	T-88-00	Particle Size Analysis of Soils	P200[3] $\geq$ 50%	2/source	1/lift
AASHTO	T-89-02	Determining the Liquid Limit of Soils	LL[4] $\geq$ 22%	2/source	1/lift
AASHTO	T-90-00	Determining the Plastic Limit and Plasticity Index of Soils	PI[5] $\geq$ 12%	2/source	1/lift
AASHTO	T310-03	In-Place Density and Moisture Content of Soils and Soil-Aggregates by nuclear Methods (Shallow Depth)	DD[6] $\geq$ 95% of the MDD[7]	NA	100'x100' Grid/lift
ASTM[2]	D5084-03	Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter	K[8] $\leq 1 \times 10^{-7}$ cm/sec	1/source[9]	1/site[10]

Notes:

1. AASHTO = American Association of State Highway and Transportation Officials
2. ASTM = American Society of Testing and Materials
3. P200 = Percent by weight passing the #200 sieve (%)
4. LL = Liquid Limit (%)
5. PI = Plasticity Index (%)
6. DD = Dry Density (pcf)
7. MDD = Maximum Dry Density (pcf) as determined by the Standard Proctor Test
8. K = Hydraulic Conductivity (cm/sec)
9. The sample for the test shall be remolded at a minimum dry density of 95% of the maximum dry density as determined by the Standard Proctor test and at a moisture content required to achieve the required hydraulic conductivity, but with a minimum moisture content at or above the optimum moisture content as determined in the Standard Proctor test.
10. An undisturbed sample from a thinned walled sampler (Shelby tube)

Compact the clay liner to a minimum of 95% Standard Proctor AASHTO T-99 Maximum Dry Density with footed compaction equipment having feet at least as long as the loose lift height. As needed, clay shall be disked or otherwise mechanically processed before compaction to break up clods and allow moisture content adjustment. Clod size shall be no greater than 4 inches. All compaction equipment utilized shall have a minimum static weight of 30,000 pounds.

Provide all equipment necessary to adjust clay liner to the proper moisture content for compaction.

Make sufficient number of passes of the compaction equipment over each lift of clay to ensure complete remolding of the clay.

Do not proceed with placement of additional lifts until all required clay liner testing and documentation has been completed for the previous lift.

During placement of the clay liner the minimum moisture content shall be as defined by the testing performed in the source screening evaluation and with the following limits:

- No drier than the optimum moisture content as determined by the Standard Proctor test.

If the in-place clay liner fails to meet the requirements of Table 1, then remove and replace or rework any portion of the clay liner not meeting the project requirements until project specifications are met. There shall be no compensation for removing, replacing and reworking clay not meeting the requirements in Table 1.

C.1.4 Project Testing and Acceptance

Perform all project testing at the frequency shown in Table 1 except for project testing for ASTM D5084-03 Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter, which will be done by the department. Record clay liner thickness on a 100 foot x 100 foot grid pattern.

Provide the following:

- Access for on-site testing, inspection, and documentation.
- Machinery required to grade/blade density test locations.
- Machinery required to collect undisturbed clay samples (i.e., with Shelby tubes).
- Replace and recompact clay material removed for testing purposes.

Perform sampling, testing, and documentation for project testing in Table 1, required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at each grading site during all clay liner placement, compaction, and sampling/testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

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

Perform all project testing with a department approved laboratory.

C.1.5 Department Testing

The department will perform the project testing for ASTM D5084-03 Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter.

D Measurement

The department will measure Pond Liner Clay in volume by the cubic yards 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
640.1303.S	Pond Liner Clay	CY

Payment is full compensation for dewatering areas of site where the clay liner is to be placed; for furnishing, placing and compacting the clay liner; and for performing all tests.

71. Traffic Control.

Supplement standard spec 643.3.1 with the following:

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

Do not park or store equipment, contractor’s and personal vehicles or construction materials within the clear zone or on any roadway carrying traffic during working and non-working hours except at locations and periods of time approved by the engineer.

Do not permit construction or personnel equipment or vehicles to directly cross the live traffic lanes of the freeway. Yield to all through traffic at all locations. Equip all vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders, except when parked behind barrier wall. Do not park personal vehicles within the access control limits of the freeway. Do not cross live traffic lanes of the freeway with equipment or vehicles.

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

Do not disturb, remove or obliterate any traffic control signs, advisory signs, sand barrel array, shoulder delineators or beam guard in place along the traveled roadways without the approval of the engineer.

Ensure that Flagging operations conform to standard spec 104.6.1.(4) and chapter 6E of the WMUTCD.

Replace standard spec 643.3.1.(7) with the following:

Provide equipment, forces, and materials to promptly restore any traffic control devices or pavement markings damaged or disturbed within 2 hours of being contacted.

SER-643-001 (20170808)

72. Work Zone Ingress - Egress.

Any initial set-up and/or changes to the Work Zone Ingress – Egress construction detail in the plan or location(s) should be submitted a minimum of 10 working days before use and are subject to approval by the engineer and the Southeast Region Work Zone Engineer.

ser-643-005 (20180131)

73. Dynamic Late Merge System, Item 643.1100.S.

A Description

This special provision describes providing, repositioning, operating, maintaining, monitoring, calibrating, testing and removing a dynamic late merge system (DLMS) capable of measuring vehicular speeds at downstream sections of the roadway and activating the system.

B Materials

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

B.1 Portable Changeable Message Signs (PCMS)

Provide PCMS conforming to standard spec 643. Ensure each PCMS is integrated with a modem, and other equipment (e.g., automated system manager) mounted on it, and acts as a single device for communicating with similarly integrated devices and displaying real-time traffic conditions.

B.2 Portable Traffic Sensors (PTS)

Provide PTS that are nonintrusive and capable of capturing vehicle speed in mph. Integrate each sensor with a modem to communicate with the automated system manager (ASM).

B.3 Static Traffic Control Signs with Temporary Flashing Beacons (FBS)

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

B.4 Automated System Manager (ASM)

Provide an ASM that assesses current traffic data captured by the PTS, determines the appropriate merging strategy based upon predetermined speed thresholds, and communicates appropriate messages to the motorists through the PCMS and FBS.

B.5 System Communications

Ensure DLMS communications meet the following requirements:

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

B.6 System Acceptance

Submit vendor verification to the engineer and Bureau of Traffic Operations (DOTBTOworkzone@dot.wi.gov) 14 calendar days before the pre-construction meeting that the system will adequately perform the functions specified in this special provision. Adequate verification includes past successful performance of the system, literature and references from successful use of the system by other agencies, and/or demonstration of the system.

Provide contact information for a designated representative responsible for monitoring the performance of the system and for making modifications to the operational settings as the engineer directs.

Provide all testing and calibration equipment.

C Construction

C.1 General

Install and reposition DLMS per plan or as the engineer directs. Provide plan to the engineer and Bureau of Traffic Operations (DOTBTOworkzone@dot.wi.gov) 14 calendar days before the pre-construction meeting.

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

Install PTS at the following locations:

1. Place first PTS within the lane closure taper.
2. Place second PTS one half mile upstream of the lane closure taper.
3. Place third PTS 5,700 feet upstream of the lane closure taper.
4. Place fourth PTS 2 miles upstream of lane closure taper, if applicable.
5. Place any additional sensors even distances (in miles) upstream of the fourth PTS or as directed by the engineer.

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

1. Place first PCMS (PCMS #3) 200 feet upstream of the lane closure taper, offset to ensure downstream arrow board can be seen.
2. Place second PCMS (PCMS #2) approximately 3,100 feet upstream of the lane closure taper.
3. Place third PCMS (PCMS #1) 1 mile upstream of last FBS.

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

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

3. Place third FBS 3 miles upstream of the lane closure taper.
4. Place any additional FBS even distances (in miles) upstream of the third FBS or as directed by the engineer.

Number the devices in chronological order so they are visible from the shoulder with 6-inch white high reflective sheeting.

Provide technical personnel for all system calibration, operation, maintenance, and timely on-call support services.

Promptly correct the system within 24 hours of becoming aware of a deficiency in the operation or individual part of the system. A minimum of three days before deployment, place the DLMS and demonstrate to the department that the DLMS is operational.

Maintain the DLMS for the duration of the project or as identified in the plans. Ensure the system operates continuously (24 hours, 7 days a week) in the automated mode throughout the duration of the project.

Remove the system upon project completion.

C.2 Reports

Provide an electronic copy of a weekly summary report via email to the engineer. Ensure the report includes, at a minimum, the average speed per sensor, time in congestive state per sensor and number of triggers per day.

C.3 Meetings

Attend mandatory in-person pre-construction meetings with the department. Attend additional meetings as deemed necessary by the department. These meetings may be held in person or via teleconference, as scheduled by the department.

C.4 Programming

C.4.1 General

Program the DLMS to ensure that the following general operations are performed:

1. Provide a password protected login to the ASM, website and all other databases.
2. Automatic setting of the PCMS message sequences and FBS to reflect current traffic flow status updated every 60 seconds for a congestion message. Ensure to remove a congestion message when 180 seconds of average traffic speeds above the current level are observed, or utilize a customized frequency as determined by the engineer.
3. The DLMS operates as a unit where the PCMS activate at the same time for the same scenario.
    - PCMS #1, PCMS #2 and PCMS #3 shall all activate at the same time based on traffic speeds at the PTS one half mile upstream of the lane closure taper and at the PTS within the lane closure taper.
4. The ASM ensures that messages sent to the connected PCMS are synchronized so that all the messages on all the PCMS are for the same traffic conditions.
5. The FBS activate based on pre-determined speed thresholds from the next downstream sensor.
    - FBS #1 shall activate based on traffic speeds at the PTS within the lane closure taper or PTS one half mile upstream of the lane closure.
    - All other FBS in the DLMS shall activate based on traffic speeds at the next downstream PTS (e.g. FBS #2 should use PTS at/near FBS #1, FBS #3 should use PTS at/near FBS #2).
6. Provide real-time data from the ASM to a website with a full color mapping feature and refresh every 60 seconds. Make data on website available to the department at all times for the duration of the work zone activity. Ensure website includes at a minimum:
    - Vehicle speeds
    - PCMS messaging
    - FBS triggers
    - Device locations
7. Archive all traffic data and PCMS messages in a Microsoft Excel format with date and time stamps.
8. Configure the website to quantify system failures, which includes communication disruption between any devices in the system configuration, PCMS malfunctioning, FBS malfunctioning, PTS malfunction, loss of power, low battery, etc.
9. Provide default and advisory messages automatically based on traffic conditions.

10. Ensure the system autonomously restarts in case of any power failure.
11. Provide the department access to manually override PCMS messages for a user-specified duration, after which automatic operation will resume display of messages appropriate to the prevailing traffic conditions. Document all override messages.

C.4.2 System Operation Strategy

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

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

Free Flow:

If the current PTS-measured speed with the lane closure taper or at one half mile from the lane closure taper is at or above 40 mph, display no lane use messages, and therefore allow traffic to resume typical early merge operation. PCMS #1 and PCMS #2 shall display nothing except for lighting the four corners (flashing caution mode) to show that it is on. PCMS #3 shall display a flashing arrow (flashing arrow merge mode) following applicable arrow board standards.

Congestion:

If the current PTS-measured speed near the lane closure tape is at or below 39 mph, the following two-phase messages shall be displayed on the upstream PMCS as shown below:

- Point of merge (PCMS #3):

FRAME 1	FRAME 2
MERGE HERE	TAKE TURNS

- Intermediate PCMS (PCMS #2):

FRAME 1	FRAME 2
STAY IN LANE	DO NOT MERGE

- PCMS located beyond estimated maximum queue length for two-lane configuration (PCMS #1):

FRAME 1	FRAME 2
STOPPED TRAFFIC AHEAD	USE BOTH LANES

- PCMS located beyond estimated maximum queue length for three-lane configuration (PCMS #1):

FRAME 1	FRAME 2
STOPPED TRAFFIC AHEAD	USE ALL LANES

FBS #1 shall flash if the current PTS-measured speed within the lane closure taper or at one half mile upstream of the lane closure taper is at or below 39 mph. All other FBS shall flash if the current PTS-measured speed at/near the next downstream PTS is at or below 39 mph.

C.5 Calibration and Testing

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

Send email of successful calibration and testing to the engineer.

D Measurement

The department will measure Dynamic Late Merge System by the day, acceptably completed, measured as each complete system per roadway.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.1100.S	Dynamic Late Merge System	DAY

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

Failure to correct a deficiency to the PCMS, FBS, PTS, or ASM within 24 hours after notification from the engineer or the department will result in a one-day deduction of the measured quantity for each day in which the deficiency is not corrected.

Failure to correct the website within 24 hours after notification from the engineer will result in a 10% reduction of the day quantity for each day the website is down.

The engineer will have sole discretion to assess the deductions for an improperly working DLMS.

stp-643-040 (20200629)

74. Traffic Control Interim Lane Closure, Item 643.4100.S.

A Description

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

B (Vacant)

C Construction

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

D Measurement

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

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

E Payment

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

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

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

stp-643-030 (20170615)

75. Nighttime Work Lighting-Stationary.

A Description

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

B (Vacant)

C Construction

C.1 General

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

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

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

C.2 Portable Lighting

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

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

C.3 Light Level and Uniformity

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

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

C.4 Glare Control

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

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

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

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

C.5 Continuous Operation

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

D (Vacant)

E Payment

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

stp-643-010 (20100709)

76. Temporary Pavement Marking

Add the following to standard spec 649.3:

(1) On pavements not scheduled for removal under this project, remove markings using air blasting, water blasting, or a combination of thereof. Do not use grinding on these pavements.

77. General Requirements for Electrical Work.

Replace standard spec 651.3.3(3) with the following:

(3) Request a signal inspection of the completed signal installation to the engineer at least five working days prior to the time of the requested inspection. Notify the department's Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The department's Region Electrical personnel will perform the inspection. In the event of deficiencies, request a re-inspection when the work is corrected. The engineer will not authorize continuation to aboveground work or turn-on until the contractor corrects all deficiencies.

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

A Description

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

B Materials

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

C Construction

Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for entering conduits at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement

The department will measure Install Conduit Into Existing System by the unit, acceptably installed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five, or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units of payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	EACH

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.

stp-652-070 (20100709)

79. Electrical Conduit.

Replace standard spec 652.5(2) with the following:

(2) Payment for Conduit Rigid Metallic, Conduit Rigid Nonmetallic, Conduit Reinforced Thermosetting Resin, and Conduit Special bid items is full compensation for providing the conduit, conduit bodies, and fittings; for providing all conduit hangers, clips, attachments, and fittings used to support conduit on structures; for pull wires or ropes; for expansion fittings and caps; for making necessary connections into existing pull box, manhole, junction box or communication vault; for excavating, bedding, and backfilling, including any sand, concrete, or other required materials; for disposing of surplus materials; and for making inspections.

Replace standard spec 652.5(5) with the following:

(5) Payment for Conduit Loop Detector is full compensation for providing all materials, including conduit, compacted backfill, surface sealer if required, pull wire if required, condulets, conduit fittings, and for making necessary connections into existing pull box, manhole, junction box or communication vault.

80. Section 655 Electrical Wiring

Replace standard spec 655.5 (11) with the following:

(11) Payment for Loop Detector Wire is full compensation for furnishing and installing loop detector wire; for making necessary connections to the lead in cable; and for measuring the loop inductance and ground resistance.

81. Loop Detector Wire.

Append standard spec 655.3.9 with the following:

Add the following to standard spec 655.3.9:

(8) Splice loop detector wire to existing loop detector lead-in cables using cast in place splice kits from an approved manufacturer. Make splices as soon as possible after installing loop detector wire.

Replace standard spec 655.5 paragraph (11) with the following:

(11) Payment for Loop Detector Wire is full compensation for furnishing and installing loop detector wire; for furnishing and installing splice kits; and for splicing to the existing loop detector lead-in cable.

82. Pedestrian Push Buttons, Item 658.0500

Append standard spec 658.2.5 with the following:

The contractor shall furnish vandal resistant, pressure activated, pedestrian push buttons, with die cast body type, in unfinished aluminum or yellow. Button constructed shall be constructed of stainless steel, with a Piezo driven solid state switch, display and beeper that sounds simultaneously with button push.

The contractor shall furnish low profile, unfinished cast aluminum, vandal resistant, and flush mounting pole mount.

The contractor shall place a Size 1, Type H reflective (R10-3EL, R, D) sign sticker (per state sign plate), message series – B, directly above each push button. Include a directional arrow or arrows on the sign as the plans show.

83. Signal Housings.

Replace standard spec 658.2.3.2(1) with the following:

(1) Furnish black polycarbonate resin housings, doors and visors. For 16-inch heads, mount a z-crate visor and gasket to the door with stainless steel tabs. Drill the housing for top and bottom pipe mounting with the ability to rotate 270 degrees on the poly mounting brackets.

84. Pedestrian Signal Face 16-Inch.

Append standard spec 658.3.4(3) with the following:

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

85. Traffic Signal Faces.

Append standard spec 658.3.2(3) with the following:

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

86. Intelligent Transportation Systems (ITS) – Control of Materials.

Standard spec 106.2 – Supply Source and Quality

Add the following to standard spec 106.2:

The department will furnish a portion of equipment to be installed by the contractor. This department-furnished equipment includes the following:

Department-Furnished Items
6-Count Fiber Optic Cable
72-Count Fiber Optic Cable
Fiber Optic Splice Enclosures
Fiber Optic Termination Panels
Microwave Vehicle Detectors
50-Foot Camera Poles
CCTV Cameras
Ethernet Switches
Pole Mounted Cabinets

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

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

Transportation of the equipment between the electric shop and the field or interim location(s) shall be the responsibility of the contractor.

Standard spec 106.3 – Approval of Materials

Add the following to standard spec 106.3:

Design/Shop Drawings

Prior to the purchase and/or fabrication of any of the components listed herein, and for any non-catalog item shown on the Material and Equipment List specified above, and no more than 30 days after notice to proceed, submit five copies of design drawings and shop drawings, as required, to the department for

review. The items and the drawings that represent them shall meet the requirements of the standard specifications.

Design drawing submissions shall consist of signed and certified designs, design drawings, calculations, and material specifications for required items.

Shop drawings will be required for, but not limited to the following:

1. Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
2. Mounting LED warning signs to the sign structure.
3. Mounting detail for dynamic message signs.
4. Any contractor-designed structure or foundation.

The department will complete its review of the material within 30 days from the date of receipt of the submission, unless otherwise specified. The department will advise the contractor, in writing, as to the acceptability of the material submitted. The department may determine that if no exceptions were taken for the item, it is approved, and no further action is required by the contractor; or the item may be partially or totally rejected, in which case modify and/or amend the submittal as required by the department and resubmit the item within 14 days. At this time, the review and approval cycle described above will begin again.

670-005 (20150630)

87. Intelligent Transportation Systems – General Requirements.

A Description

A.1 General

This contract includes furnishing and installing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as shown on the plans.

Unusual aspects of this project include:

1. The project includes working on cables and equipment that are carrying data between roadside equipment and the department's Statewide Traffic Operations Center (STOC). Interruption of this service is not expected to perform this work. If an interruption is determined necessary, it must be done on a weekend, and must be done in a way that minimizes communication outages for the existing equipment. Notify the department's STOC at least 48 hours in advance of the planned interruption.
2. The department will furnish some of the equipment to be installed. Make a reasonable effort to discover defects in that equipment prior to installing it.

A.2 Surge Protection

Equip every ungrounded conductor wire entering or leaving any equipment cabinet with a surge protector. For purposes of this section, multiple cabinets on a single pole or foundation are considered a single cabinet.

B Materials

B.1 General

Only furnish equipment and component parts for this work that are new and have high quality workmanship. All controls, indicators, and connectors shall be clearly and permanently labeled in a manner approved by the engineer. All equipment of each type shall be identical.

All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), Underwriter's Laboratory Inc. (UL) or the Electronic Industries Association (EIA), when applicable. All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Rural Electrification Administration (REA), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans these special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply. All system wiring, conduit, grounding hardware and circuit breakers shall be in conformance with the National Electrical Code. Whenever reference is made to any

of the standards mentioned, the reference shall be considered to mean the code, ordinance, or standard that is in effect at the time of the bid advertisement.

B.2 Outdoor Equipment

All conductive connectors, pins (except pins connected by soldering), and socket contacts shall be gold plated. Acrylic conformal coating shall protect each circuit board side that has conductive traces. Except for integrated circuits containing custom firmware, all components shall be soldered to the printed circuit board.

To prevent galvanic corrosion, all connections between dissimilar metals shall incorporate a means of keeping moisture out of the connection. Where the connection need not conduct electricity, interpose a non-absorbing, inert material or washer between the dissimilar metals. Use nonconductive liners and washers to insulate fasteners from dissimilar metals. Where the connection must conduct electricity, use a conductive sealant between the dissimilar metals. Alternatively, use an insulating gasket and a bond wire connecting the two metal parts.

B.3 Custom Equipment

Equipment that is not part of the manufacturer's standard product line, or that is made or modified specifically for this project, shall conform to the following requirements:

Where practical, electronics shall be modular plug-in assemblies to facilitate maintenance. Such assemblies shall be keyed to prevent incorrect insertion of modules into sockets.

All components shall be available from multiple manufacturers as part of the manufacturers' standard product lines. All must be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an exact replacement part.

Lamps used for indicator purposes shall be light-emitting diodes.

The printed circuit boards shall be composed of "two-ounce" copper on 1/16-inch thick fiberglass epoxy or equivalent type construction. Holes that carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer printed circuit boards shall not be used. The name or reference number used for the board in the drawings and maintenance manuals supplied to the department shall be permanently affixed to each board.

All components shall be mounted so that the identifying markings are visible without moving or removing any part, if practical.

B.4 Environmental Conditions

Equipment shall continue to operate as specified under the following ranges of environmental conditions, except as noted in the specifications for individual pieces of equipment.

1. **Vibration and Shock:** Vehicle speed and classification sensors and any other equipment mounted atop poles or on structures shall not be impaired by the continuous vibration caused by winds (up to 90 mph with a 30 percent gust factor) and traffic.
2. Duty Cycle: Continuous
3. **Electromagnetic Radiation:** The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
4. Electrical Power:
    a. **Operating power:** The equipment shall operate on 120-volts, 60-Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies +3 Hz.
    b. **High frequency interference:** The equipment operation shall be unaffected by power supply voltage spikes of up to 150 volts in amplitude and 10 microseconds duration.
    c. **Line voltage transients:** The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-2 when connected to the surge protectors in the cabinets.

5. Temperature and Humidity:
    a. **Field equipment:** Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-2. Liquid crystal displays shall be undamaged by temperatures as high as 165 degrees F, and shall produce a usable display at temperatures up to 120 degrees F.
    b. **Equipment in Controlled Environments** shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity's between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.5 Patch Cables and Wiring

All cables and wiring between devices installed in a single cabinet, or in separate cabinets sharing a single concrete base, will be considered incidental to the installation of the devices and no separate payment will be made for them. It is anticipated that this will include fiber optic patch cables between termination panels and Ethernet switches, 10 / 100 MBPS Ethernet cables, RS-232 cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

B.6 Surge Protection

Low-voltage signal pairs, including twisted pair communication cable(s) entering each cabinet shall be protected by two-stage, plug-in surge protectors and shall be installed on both ends of camera control cables. The protectors shall meet or exceed the following minimum requirements:

1. The protectors shall suppress a peak surge current of up to 10k amps.
2. The protectors shall have a response time less than one nanosecond.
3. The protector shall clamp the voltage between the two wires at a voltage that is no more than twice the peak signal voltage and clamp the voltage between each wire and ground at 50 volts.
4. The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.
5. The protector shall also contain a resettable fuse (PTC) to protect against excessive current.
6. There shall be no more than two pairs per protector.
7. It shall be possible to replace the protector without using tools.

Cables carrying power to curve signs shall be protected at the cabinet by grounded metal oxide varistors of appropriate voltages. The varistors must be at least 0.8 inch in diameter.

C Construction

C.1 Thread Protection

Provide rust, corrosion, and anti-seize protection at all thread assemblies of metallic parts by coating (non-spray) the mating surfaces with an approved compound. Failure to use an approved compound will result in no payment for the items to which coating was to have been applied.

C.2 Cable Installation

When installing new cables into conduits containing existing cables, remove the existing cables and reinstall the existing cables simultaneously with the new cables. Take every precaution necessary to protect the existing cables. In the event of avoidable damage to the existing cables, replace all damaged cables, in-kind, at no additional expense to the department. When cables are pulled into conduit, use a cable pulling lubricant approved by the cable manufacturer. Submit documentation supporting manufacturer approval of the lubricant to the engineer.

C.3 Wiring

Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block. Provide and install the connectors and terminal blocks where needed, without separate payment. Use approved splice kits instead of connectors and terminal blocks for underground power cable splices.

Permanently label and key connectors to preclude improper connection. Obtain prior engineer approval for the labeling method(s) prior to use.

Terminal blocks must be affixed to panels that permanently identify the block and what wire connects to each terminal. This may be accomplished by silk screening or by installing a laminated printed card under the terminal block, with the labels on portions of the card that extend beyond the block. Installation of terminal blocks by drilling holes in the exterior wall of the cabinet is not acceptable.

Use barriers to protect personnel from accidental contact with all dangerous voltages.

Do not install conductors carrying AC power in the same wiring harness as conductors carrying control or communication signals.

Arrange wiring, including fiber optic pigtails, so that any removable assembly can be removed without disturbing wiring that is not associated with the assembly being removed.

Communication and control cables may not be spliced underground, except where indicated on the plans.

Cables in the Statewide Traffic Operations Center or in communication hubs, which are not contained within a single cabinet, shall have at least 10 feet of slack.

C.4 System Operations

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

C.5 Surge Protection

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

D Measurement

No separate measurement will be made for the work described in this article.

E Payment

No separate payment will be made for the work described in this article. All work described in this article shall be included under the ITS items in the contract.

670-010 (20100709)

88. Install Pole Mounted Cabinet, Item 673.0225.S.

A Description

This special provision describes installing department furnished aluminum enclosures on poles for intelligent transportation systems equipment.

B Materials

Use stainless steel bolts, nuts, and washers unless otherwise specified.

All conductors, terminals, and parts that could be hazardous to maintenance personnel shall be protected with suitable insulating material.

The cabinet will be equipped with service panels. Two panels shall be provided and mounted on the cabinet sidewalls. The left side panel shall be designated as "Input/Communications," and the right side panel shall be designated as the "Service Panel."

The service panel will be equipped with a four-outlet handi-box. Wire the handi-box to the series portion of the filtering surge protector.

Use metallic conduit, fittings, and adapters required from the underground conduit transition point to the cabinet as part of this item. A typical installation requires on 2-inch conduit. Use metallic conduit according to standard spec 652.

C Construction

Fasten the field cabinet securely onto a pole. Provide bolted stainless steel connections with lock washers, locking nuts, or other engineer-approved means to prevent the connection nuts from backing off. Isolate dissimilar materials from one another using stainless steel fittings. Make all power connections to the cabinet as specified in standard spec 656.

Drill and tap the cabinet, as necessary, to mount the terminal blocks and other attachments to the service panel, to provide an entrance on the back of the cabinet for cable from the pole mounted intelligent transportation systems equipment, and to mount the service panel to the cabinet as shown in the details. Remove all sharp edges or burrs, or both, caused by the cutting or drilling process. Seal all openings to prevent water from entering the cabinet. Mount the surge protector to the service panel.

Install metallic conduit on the exterior of the pole (for entrance to the cabinet from the ground) as shown in the plans, and according to the applicable requirements of standard spec 652.

D Measurement

The department will measure Install Pole Mounted Cabinet as each individual assembly, 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
673.0225.S	Install Pole Mounted Cabinet	EACH

Payment is full compensation for installing the pole mounted cabinet; for making all connections and conduit/wire entrances; and for all testing.

673-010 (20100630)

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

A Description

This special provision describes removing an existing camera pole.

B (Vacant)

C Construction

Disconnect all cables, wiring and equipment that are mounted on or in the poles, and remove the pole from the concrete footing. The department will pick up any antennae, cameras, or other equipment mounted on the pole; contact maintenance staff at (414) 227-2166 at the department's Statewide Traffic Operations Center, when the material is ready to be picked up. Properly dispose of the pole, conduit, cabling, and wiring away from the project site.

D Measurement

The department will measure Removing (Height) Camera Pole by the unit, acceptably removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
677.9051.S	Removing 50-Foot Camera Pole	EACH

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

677-901 (20100630)

90. Removing CCTV Camera, Item 677.9200.S.

A Description

This special provision describes removing an existing CCTV camera from an existing camera pole as described in the plan.

B (Vacant)

C Construction

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

The contractor may request a meeting with the engineer to assess the condition and operability of the camera prior to beginning work on removing the camera. Any damage or improper operation not noted at the meeting, or prior to the contractor starting work on the removal, will be assumed to be the fault of the contractor; repair or replace the camera at no additional cost to the department. Store the camera until the department picks up the camera.

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
677.9200.S	Removing CCTV Camera	Each

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

91. Optimized Aggregate Gradation Incentive, Item 715.0710.

Description

This special provision describes optional contractor optimized aggregate gradation, optional optimized mixture designs, and associated additional requirements for class 1 concrete used in concrete pavements. Conform to standard specification part 7 and as follows:

Optimized Aggregate Gradation

Replace standard spec 715.2.2 with the following:

A Job Mix Formula (JMF) contains all of the following:

- Proportions for each aggregate fraction conforming to table 1.
- Individual gradations for each aggregate fraction.
- Composite gradation of the combined aggregates including working ranges on each sieve according to table 2.

Submit the target JMF and aggregate production gradation test results to the engineer for review 10 business days before initial concrete placement.

TABLE 1 TARANTULA CURVE GRADATION BAND

SIEVE SIZES	PERCENT RETAINED
2 in.	0
1 1/2 in.	≤ 5
1 in.	≤16
3/4 in.	≤ 20
1/2 in.	4-20
3/8 in.	4-20
No. 4	4-20
No. 8[1]	≤12
No. 16[1]	≤12
No. 30[1] [2]	4-20
No. 50 [2]	4-20
No. 100 [2]	≤10
No. 200 [2]	≤ 5.0

[1] Minimum of 15% retained on the sum of the #8, #16, and #30 sieves.

[2] Conform to 24-34% retained of fine sand on the #30-200 sieves.

TABLE 2 JMF WORKING RANGE

SIEVE SIZES	WORKING RANGE[1] (PERCENT)
2 in.	+/- 5
1 1/2 in.	+/- 5
1 in.	+/- 5
3/4 in.	+/- 5
1/2 in.	+/- 5
3/8 in.	+/- 5
No. 4	+/- 5
No. 8	+/- 4
No. 16	+/- 4
No. 30	+/- 4
No. 50	+/- 3
No. 100	+/- 2
No. 200	+/- 2

[1] Working range limits of composite gradation based on moving average of 4 tests.

Replace standard spec 710.5.6 with the following:

Determine the complete gradation, including P200, using a washed analysis for both fine and coarse aggregates. Test each stockpile for each component aggregate once per 1,500 cubic yards during concrete production.

Take samples by one of the following sampling methods:

1. At the belt leading to the weigh hopper.
2. Working face of the stock piles at the concrete plant if approved by the engineer.

The department will take independent QV samples using the same sampling method the contractor uses for QC sampling. QV samples may be taken by the contractor's QC personnel if witnessed by the department's QV personnel. The department will split each QV sample and retain half for all dispute resolutions. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

If, during concrete production, the moving average of four for any sieve fall outside the allowable JMF working range do the following:

1. Notify the engineer of the test results within 1 business day from the time of sampling.
2. Make immediate adjustments to the JMF, within the limits specified in Table 3;
3. Review JMF adjustments with the engineer. Both the contractor and engineer will sign the adjusted JMF if the adjustments comply with Table 3.
4. If the moving average of four falls outside the adjusted allowable working range, stop production and provide a new mix design including JMF to the engineer.

TABLE 3 ALLOWABLE JMF ADJUSTMENTS

SIEVE SIZES	ALLOWABLE ADJUSTMENT (PERCENT)
≥ No. 4	+/- 5
No. 8 – No. 30	+/- 4
No. 50	+/- 3
No. 100	+/- 2

Dispute Resolution

The department will resolve disputes as specified in standard spec 106.3.4.3.5 using QV split samples.

Sublot and Lot Size

A sublot consists of up to 1,500 cubic yards. A lot consists of two sublots.

Optimized Concrete Mixtures

The contractor may use a reduced cementitious content for concrete pavement placed if the contractor does the following:

1. Use an optimized aggregate gradation as defined in this special provision.
2. Conform to the additional testing requirements for flexural strength as specified in the contract special provisions.
   a. Use Concrete Pavement Flexural Strength Specification if coarse aggregate is composed of gravel or a combination of gravel and limestone
   b. Use Flexural Strength for Concrete Mix Design if coarse aggregate is entirely composed of limestone
3. Submit aggregate gradation result records no more than 2 years old when developing the mix design.
4. Determine the volume of voids in the optimized aggregates using ASTM C29.
5. Download and follow the instructions tab of the Optimized Gradation and Mix Design Spreadsheet located at:

   https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
6. Design an appropriate paste content based upon the Performance-based PCC Mix Design Guide located at:

   https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
7. Provide a minimum Vpaste/Vvoids of 1.25. (Paste/Void ratio equals the volume of paste divided by the volume of voids.).
8. Evaluate workability of trial batches by following section 6.8 of AASHTO Draft Performance Engineered Concrete Pavement Mixtures Specifications located at:

   https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
9. Submit trial batch workability results when submitting the mix design.
10. Submit the CP Tech center computer spreadsheet concrete mix design to the engineer for review at least 3 business days before producing concrete.

11. Provide a minimum cement content of 520 pounds per cubic yard, except if using type I, IL, or III cement in a mix where the geologic composition of the coarse aggregate is primarily igneous or metamorphic materials, provide a minimum cement content of 660 pounds per cubic yard.
12. The contractor may use class C fly ash or grade 100 or 120 slag as a partial replacement for cement. For binary mixes use up to 30% fly ash or slag. For ternary mixes use up to 30% fly ash plus slag in combination. Replacement values are in percent by weight of the total cementitious material in the mix.
13. See CMM 8-70.2.2.3 for additional guidance.

Measurement

The department will measure Optimized Aggregate Gradation Incentive by the dollar, for each combined averaged lot of QC test results meeting Table 1.

Payment

The department will pay incentive of 3 percent of the contract unit price for concrete pavement under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
715.0710	Optimized Aggregate Gradation Incentive	DOL

~~stp-715-005 (20200629)~~

92. Flexural Strength for Concrete Mix Design.

This special provision describes optional testing requirements for flexural strength during the mix design process. Conform to standard spec part 7 as modified in this special provision.

Add the following to standard spec table 701-2:

TEST	TEST STANDARD
Flexural Strength of Concrete	AASHTO T97

Replace standard spec 715.2.3.1(1) with the following:

(1) Provide both compressive and flexural strength information to demonstrate the strength of the proposed mix design. Use either laboratory strength data for new mixes or field strength data for established mixes as follows:

1. Use at least 5 pairs of cylinders for compressive strength. Demonstrate that the 28-day compressive strength will equal or exceed the 85 percent within limits criterion specified in standard spec 715.5.2.
2. Use at least 5 pairs of beams for flexural strength. Demonstrate that the 28-day flexural strength will equal or exceed 650 psi.

stp-715-010 (20170615)

93. Concrete Pavement Flexural Strength.

This special provision describes accepting concrete pavement based on flexural strength. Conform to standard spec part 7 as modified in this special provision.

Add the following to standard spec table 701-2:

TEST	TEST STANDARD
Flexural Strength of Concrete	AASHTO T97

Replace standard spec 710.5.5 with the following:

710.5.5 Strength

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

(2) Provide facilities for initial curing. For up to 48 hours after casting, maintain the temperature adjacent to the specimens in the range of 60 to 80 F and prevent moisture loss. Between 24 and 48 hours after casting, transport the specimens to a department-qualified laboratory for standard curing until testing at 28 days.

(3) Determine the 28-day strength of each specimen in psi. Test each specimen to failure. Use a testing machine that automatically records the date, time, rate of loading, and maximum load of each specimen. Provide a printout of this information for each specimen tested.

Replace standard spec 715.2.1(2) *with the following:*

(2) The contractor need not provide separate laboratory mix designs for high early strength concrete nor provide routine 28-day strength tests during placement for high early strength concrete.

Replace standard spec 715.2.3.1(1) *with the following:*

(1) Use at least 5 pairs of beams to demonstrate the flexural strength of a mix design. Use either laboratory strength data for new mixes or field strength data for established mixes. Demonstrate that the 28-day flexural strength of the proposed mix will equal or exceed the 85 percent within limits criterion specified in 715.5.2.

Replace standard spec 715.3.1.1(1) *with the following:*

(1) Provide slump, air content, concrete temperature, and strength test results as specified in 710.5. Provide a battery of QC tests, consisting of results for each specified property, using a single sample randomly located within each sublot. Cast 3 specimens for strength evaluation.

Replace standard spec 715.3.1.3(1) *with the following:*

(1) The department will perform verification testing for air content, slump, temperature, and strength at a minimum of 1 verification test per lot.

Replace standard spec 715.3.2.1 with the following:

715.3.2.1 General

(1) The department will make pay adjustments for strength on a lot-by-lot basis using the strength of contractor QC specimens. The department will use flexural strength for pavements and compressive strength for structures. The department will assess concrete for removal and replacement based on a sublot-by-sublot analysis of core strength. Perform coring and testing, fill core holes with an engineer approved non-shrink grout, and provide traffic control during coring.

(2) Randomly select 2 QC strength specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day sublot average strength as follows:

- If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
- If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

Replace standard spec 715.3.2.2.1 with the following:

715.3.2.2.1 Pavement

(1) If a sublot strength is less than 500 psi, the department may direct the contractor to core that sublot to determine its structural adequacy and whether to direct removal. Cut and test cores according to AASHTO T24 as and where the engineer directs. Have an HTCP-certified PCC technician I perform or observe the coring.

(2) The sublot pavement is conforming if the compressive strengths of all cores from the sublot are 2500 psi or greater or the engineer does not require coring.

(3) The sublot pavement is nonconforming if the compressive strengths of any core from the sublot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

Replace standard spec 715.5.1 with the following:

715.5.1 General

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

ITEM NUMBER	DESCRIPTION	UNIT
715.0415	Incentive Strength Concrete Pavement	DOL
715.0502	Incentive Strength Concrete Structures	DOL

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

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

(4) The department will adjust pay for each lot using PWL of the 28-day sublot average strengths for that lot. The department will measure PWL relative to the lower specification limit of 650 psi for pavements and 4000 psi for structures. The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under standard spec 715.3.1.2.1.

(5) Submit strength results to the department electronically using the MRS software. The department will validate contractor data before determining pay adjustments.

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

Replace standard spec 715.5.2 with the following:

715.5.2 Pavements

(1) The department will adjust pay for each lot using equation “QMP 6.01” as follows:

Percent within Limits (PWL)	Pay adjustment (dollars per square yard)
≥ 95 to 100	(0.2 x PWL) - 19
≥ 85 to < 95	0
≥ 50 to <85	(2.0/35 x PWL) - 170/35
<50	-2

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

(3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive but the department will assess a disincentive based on the individual sublot average strengths. The department will reduce pay for sublots with an average strength below 600 psi by $2 per square yard.

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

94. Temporary Detectable Warning Field, Item SPV.0045.0001.

A Description

This special provision describes providing, maintaining, and removing temporary detectable warning fields.

B Materials

Furnish yellow detectable warning fields conforming to Americans with Disabilities Act Accessibility Guidelines. Use either an engineer-approved surface-applied type or cast iron from the department's approved products list.

C Construction

Provide and maintain temporary detectable warning fields, throughout the project duration.

Remove and dispose temporary curb detectable warning fields when no longer required. Repair damage done during removal as the engineer directs.

D Measurement

The department will measure temporary detectable warning fields by the calendar day, acceptably completed, measured only on days when not obstructed by construction operations.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.0001	Temporary Detectable Warning Field	DAY

Payment is full compensation for providing, maintaining, and removing temporary detectable warning fields.

95. Concrete Barrier Transition Type G1, Item SPV.0060.0001; Concrete Barrier Transition Type G2, Item SPV.0060.0002.

A Description

Construct Concrete Barrier Transition Type G1, G2 according to standard spec 603, details shown in the plans, and as hereinafter provided.

B Materials

Furnish materials conforming to standard spec 603.2.

C Construction

Use construction methods conforming to standard spec 603.3.

D Measurement

The department will measure Concrete Barrier Transition (Type) by each individual unit, acceptably placed according to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0001	Concrete Barrier Transition Type G1	EACH
SPV.0060.0002	Concrete Barrier Transition Type G2	EACH

Payment is full compensation according to standard spec 603.5.

96. Marking Contrast Epoxy Special Marking Arrow, Item SPV 0060.0003; Marking Contrast Epoxy Special Marking Words, Item SPV.0060.0004.

A Description

This special provision describes furnishing and installing contrast epoxy special pavement marking according to standard spec 646.

B Materials

Furnish epoxy pavement marking materials according to standard spec 646.

C Construction

Contractor shall apply the 1 ½ wide black epoxy around the perimeter of the special marking. Construct epoxy pavement marking according to the pertinent requirements of standard spec 646.3 and 647.

D Measurement

Shall be according to standard spec 647.4 and measured by each arrow or only special marking applied.

E Payment

Payment for this item is full compensation for preparing the surface, for providing all marking, for protecting until cured; and for replacing marking improperly constructed or failures during the proving period.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0003	Marking Contrast Epoxy Special Marking Arrow	EACH
SPV.0060.0004	Marking Contrast Epoxy Special Marking Word	EACH

Payment is full compensation for cleaning and preparing the pavement surface; furnishing and installing the material; furnishing, placing, and removing temporary pavement marking, if necessary.

97. Baseline CPM Progress Schedule, Item SPV.0060.0006; Monthly CPM Progress Schedule Updates, Item SPV.0060.0007.

Replace standard spec 108.4 with the following:

108.4 Critical Path Method Progress Schedule

108.4.1 Definitions

(1) The department defines terms used in 108.4 as follows:

Activity An administrative or construction task performed during the course of the project with a defined duration and scheduled (or actual) start and finish dates.

Critical Path The longest continuous chain of activities through the CPM schedule that establishes the minimum overall project duration.

Construction Activity Construction activities are discrete work activities performed by the contractor, subcontractors, utilities, or third parties within the project limits.

CPM Progress Schedule A Critical Path Method (CPM) Progress Schedule is a network of logically related activities. The CPM schedule calculates when activities can be performed and establishes the critical or longest continuous path or paths of activities through the project.

Float Float, as used in this special provision, is the total float of an activity; i.e., it is the amount of time between the date when an activity can start (the early start), and the date when an activity must start (the late start). In cases where the total float of an activity has a different value when calculated based on the finish dates, the lower (more critical) value will govern.

Forecast Completion Date The completion date predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date, depending on progress.

Fragnet A group of logically-related activities, typically inserted into an existing CPM schedule to model a portion of the project, such as the work associated with a change order.

Initial Work Plan The initial work plan is a time-scaled CPM schedule showing detailed activities for the first 90 calendar days of work and summary level activities for the remainder of the project.

Intermediate Milestone Date	A contractually required date for the completion of a portion of the work, so that a subsequent portion of the work or stage of traffic phasing may proceed.
Master Program Schedule	The department's schedule for the overall 94 N-S Freeway Program, including intermediate milestone dates and contract completion dates, and containing codes for use as a template for the development of the contractor's schedule.
Master Project Schedule	The department's schedule for the contract work, developed during design, and provided to the contractor for informational purposes only.
Work Breakdown Structure (WBS)	A framework for organizing the activities that make up a project by breaking the project into successively greater detail by level. A WBS organizes the project work. It does not address the sequencing and scheduling of project activities.

108.4.2 Department's Master Schedules

108.4.2.1 Master Project Schedule

(1) If requested by a bidder or by the contractor, the department will supply its Master Project Schedule for the contract work, developed during design. The Master Project Schedule is not a direction on how to perform the work. The Master Project Schedule reflects one possible approach to the work, consistent with the phasing requirements.

108.4.2.2 Master Program Schedule

(1) Within five business days after award, the department will provide its current Master Program Schedule, containing intermediate milestone constraints, standard activity codes, and a standard WBS for the contractor to use to develop its schedule.

108.4.2.3 Use of Department's Master Schedules

(1) The department's Master Schedules provide information to assist the contractor in preparing its schedule. The Master Schedules are not contract documents. The logic contained in the Master Schedules is not intended to alter or supplement contract requirements for the phasing of the work, but to reflect those requirements.

108.4.3 Contractor's Scheduling Responsibilities

(1) Prepare and submit a CPM progress schedule that accurately reflects the plan for the performance of the work, based on the physical requirements of the Work, and Traffic Phasing requirements. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines. Full responsibility is assumed for the prosecution of the work as shown. The CPM schedule is not part of the contract. Schedule the Work in the manner required to achieve the completion date and intermediate milestone dates specified in the Prosecution and Progress Special Provision.

(2) Use the department-provided Master Program Schedule as a template to develop the Initial Work Plan and the Baseline CPM Progress Schedule. Use the Master Program Schedule's ID coding structure to categorize activities by Contract, Stage, Location, and Responsibility to ensure compatibility with the Master Program Schedule and with schedules prepared by other contractors. Add additional activity codes as necessary, but do not delete the coding structure provided.

(3) To ensure compatibility with the Master Program Schedule, use the latest version of Primavera P6 Project Management, by Oracle Corporation, Redwood Shores, CA, to prepare the Initial Work Plan, Baseline CPM Progress Schedule, and Monthly CPM Updates.

(4) Designate a Project Scheduler who will be responsible for scheduling the Work and submit a professional resume describing a minimum of three years of scheduling experience on urban, interstate-highway reconstruction work of similar size and complexity, including recent experience with P6.Obtain approval of the submitted resume before scheduling the work.

108.4.4 Submittals

108.4.4.1 Initial Work Plan

(1) Within ten business days after the Initial Work Plan Workshop, as scheduled in standard spec 103.10, submit an Initial Work Plan as follows:

1. Develop the Initial Work Plan using the Master Program Schedule as a template. Identify the contemplated start and completion dates for each activity.
2. Provide a detailed plan of activities to be performed within the first 90 calendar days of the contract. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
3. Provide activities as necessary to depict administrative work, including submittals, reviews, and procurements that will occur within the first 90 calendar days of the contract. Show additional activities that require department review or approval. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
4. Provide summary activities for the balance of the project. Summary activities may have durations greater than 28 calendar days (20 business days).
5. Submit three copies of the Initial Work Plan in a compressed (XER) format on three separate CDs.
6. The engineer will accept the contractor's Initial Work Plan or provide comments within five business days after receipt of the Initial Work Plan. Address comments and resubmit the Initial Work Plan as necessary. Do not begin work until the engineer accepts the Initial Work Plan. The department will use the initial work plan to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.
7. Submit an updated version of the Initial Work Plan monthly until the engineer accepts the Baseline CPM Progress Schedule. With each update, include actual start dates, completion percentages, and remaining durations for activities started but not completed. Include actual finish dates for completed activities.
8. Ensure the Initial Work Plan shows completing the work within the interim completion dates and specified completion date.
9. Include activities that describe essential features of the work and activities that might potentially delay contract completion. Identify activities that are controlling items of work.

108.4.4.2 Baseline CPM Progress Schedule

(1) Within 15 business days after the CPM Scheduling Workshop, as scheduled in standard spec 103.10, submit a Baseline CPM Progress Schedule and written narrative. The department will use the schedule to monitor the progress of the work.

1. Develop the Baseline CPM using the Master Program Schedule as a template. The Baseline CPM is the contractor's committed plan to complete the Work within the time frames required to achieve the contract completion date and intermediate milestone dates.
    1.1. Provide a detailed plan of activities to be performed during the entire contract duration, including all administrative and construction activities required to complete the work as described in the contract documents. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
    1.2. Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
    1.3. Submit a temporary drainage plan showing the interface between various stages of a project as well as the interface with adjacent projects.

1.4. Include activities that describe essential features of the work and activities that might potentially delay contract completion. Identify activities that are controlling items of work.

1.5. Show completing the work within interim completion dates and the specified completion date.

1.6. Provide summary activities for the balance of the project. Summary activities may have durations greater than 28 calendar days (20 business days).

1.7. Provide activities as necessary to depict third party work related to the contract.

1.8. Make allowance for specified work restrictions, non-working days, time constraints, calendars, and weather; and reflect involvement and reviews by the department, and coordination with adjacent contractors, utility owners, and other third parties.

1.9. With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start or Finish-to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag unless the engineer accepts requested exceptions.

1.10. Schedule all intermediate milestones in the proper sequence and input as either a "Start-no-Earlier-Than" or "Finish-no-Later-Than" date. Provide predecessors and successors for each intermediate milestone as necessary to model each Stage of the Work. Unless the engineer accepts a requested exception, the schedule should encompass all the time in the contract period between the starting date and the specified completion date.

1.11. Using the bid quantities and unit prices, develop an anticipated cash-flow curve for the project, based on the Baseline CPM.

2. Provide three hard copies of a hand-drawn or electronically drafted logic diagram depicting the CPM network. Organize the logic diagram by grouping related activities, based on the activity codes in the CPM.

3. Provide a written narrative with the baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:

3.1. The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.

3.2. Use of constraints.

3.3. Use of calendars.

3.4. Estimated number of adverse weather days on a monthly-basis.

3.5. Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.

(1) Submit three copies of the Baseline CPM in a compressed (XER) format on three separate CDs.

(2) Within ten business days of receiving the Baseline CPM, the engineer will provide comments and schedule a meeting for the contractor to present its Baseline CPM and answer questions raised in the engineer's review.

(3) At the meeting scheduled by the engineer, provide a presentation of the Baseline CPM. In the presentation, include a discussion of the staging and sequencing of the work, understanding of traffic phasing, and application of labor and equipment resources to the Work. Address comments raised in the engineer's review.

(4) Within five business days after the meeting, the engineer will accept the contractor's Baseline CPM schedule or provide comments. Address the engineer's comments and resubmit a revised Baseline CPM within ten business days after the engineer's request. If the engineer requests justification for activity durations, provide information that may include estimated labor, equipment, unit quantities, and production rates used to determine the activity duration.

(5) The department will only make progress payments for the value of materials, as specified in 109.6.3.2, until the contractor has submitted the Baseline CPM Schedule. The department will retain 10 percent of each estimate until the department accepts the Baseline CPM Schedule.

(6) The engineer will accept the Baseline CPM based solely on whether the schedule is complete as specified in this section. The engineer's acceptance of the schedule does not modify the contract or validate the schedule.

(7) The department will not consider requests for contract time extensions as specified in 108.10 or additional compensation for delay specified in 109.4.7 until the department accepts the Baseline CPM schedule.

108.4.4.3 Monthly CPM Updates

(1) Submit CPM Updates on a monthly basis after acceptance of the Baseline CPM as follows:

1. Include actual start dates, completion percentages, and remaining durations for activities started but not completed, and actual finish dates for completed activities, through the final acceptance of the project.
2. Include additional activities as necessary to depict additions to the contract by changes and logic revisions as necessary to reflect changes in the contractor's plan for prosecuting the work.
3. Include a narrative report that includes a brief description of monthly progress, changes to the critical path from the previous update, sources of delay, potential problems, work planned for the next 30 calendar days, and changes to the CPM schedule. Changes to the logic of the CPM schedule include the addition or deletion of activities and changes to activity descriptions, original durations, relationships, constraints, calendars, or previously recorded actual dates. Justify changes to the CPM schedule in the narrative by describing associated changes in the planned methods or manner of performing the work or changes in the work itself.
4. Submit three copies of each CPM Update in a compressed (XER) format electronically, as agreed to with the department.
5. If additions or changes were made to the CPM schedule since the previous update, submit an updated hard copy of the revised logic diagram.

(2) Within five business days of receiving each CPM Update, the engineer will provide comments and schedule a meeting as necessary to address comments raised in the engineer's review. Address the engineer's comments and resubmit a revised CPM Update within five business days after the engineer's request.

108.4.4.4 Three-Week Look-Ahead Schedules

(1) Submit Three-Week Look-Ahead Schedules on a weekly basis after the notice to proceed (NTP). The schedule can be hand drawn or generated by computer. With each Three-Week Look-Ahead include:

1. Activities underway and as-built dates for the past week.
2. Actual as-built dates for completed activities through final acceptance of the project.
3. Planned work for the upcoming two-week period.
4. The activities underway and critical RFIs and submittals, based on the CPM schedule.
5. Details on other activities not individually represented in the CPM schedule.

(2) On a weekly basis, the department and the contractor shall agree on the as-built dates depicted in the Three-Week Look-Ahead schedule or document all disagreements. Use the as-built dates from the Three-Week Look-Ahead schedules for the month when updating the CPM schedule.

108.4.4.5 Weekly Production Data

(1) Provide estimated and actual weekly production rates for items of work on a weekly basis as follows:

1. Data on the following items by area or station:
    - 1.1. Retaining Walls
        - 1.1.1. Leveling Pads - LF
        - 1.1.2. Set Panels - SF
        - 1.1.3. Parapets - LF
        - 1.1.4. Wall Face - Bay
        - 1.1.5. Tie Backs – Each
        - 1.1.6. Anchor Slabs – LF
        - 1.1.7. Drilling - Each
        - 1.1.8. Coping – LF
        - 1.1.9. Footing - LF
    - 1.2. Bridge Construction
        - 1.2.1. Footings—Each
        - 1.2.2. Columns—Each
        - 1.2.3. Abutments—Each
        - 1.2.4. Pier Caps—Each
        - 1.2.5. Girder Spans – Each
        - 1.2.6. Decked Spans – Each
        - 1.2.7. Poured Spans – Each
    - 1.3. Roadway Excavation—CY per week
    - 1.4. Roadway Structural Section
        - 1.4.1. Grading/Subgrade Preparation—SY
        - 1.4.2. Base Material Placement—Ton
        - 1.4.3. Base Material Subgrade Preparation—SY
        - 1.4.4. Asphalt Pavement—Ton
        - 1.4.5. Concrete Pavement – SY
    - 1.5. Tunnels
        - 1.5.1. Drilled Shafts – Each
        - 1.5.2. Beam Seat/Cap - LF
        - 1.5.3. Girders - Each
        - 1.5.4. Deck – Percent
    - 1.6. Noise Walls
        - 1.6.1. Drill/Set Ground Mounted Posts - Each
        - 1.6.2. Install Ground Mounted Panels - Each
        - 1.6.3. Anchor/Set Structure Mounted Posts - Each
        - 1.6.4. Install Structure Mounted Panels - Each
2. The actual daily production for the past week and the anticipated weekly production for the next week.

(2) Submit the data in an electronic spreadsheet format at the same time the Three-Week Look-Ahead is submitted. On a weekly basis, the department and the contractor shall agree on the production data or document all disagreements.

108.4.5 Progress Review Meetings

108.4.5.1 Weekly Progress Review Meetings

(1) After completing the weekly submittal of the Three-Week Look-Ahead and production data, attend a weekly meeting to review the submittals with the department. At the meeting, address comments as necessary, and document agreement or disagreement with the department.

108.4.5.2 Monthly Update Review Meetings

(1) After submitting the monthly update and receiving the engineer's comments, attend a job-site meeting, as scheduled by the engineer, to review the progress of the schedule. At that meeting, address comments as necessary, and document agreement or disagreement with the department. The monthly meeting will be coordinated to take place on the same day and immediately before or after a weekly meeting, whenever possible.

108.4.6 CPM Progress Schedule Revisions

(1) Revision by the contractor if necessary due to changes in the Work or project conditions and authorized by the engineer, a CPM Progress Schedule Revision may be submitted, although the next Monthly CPM Update is not yet due. Prepare the CPM Revision in the same format as required for Monthly CPM Updates, including justification for changes to the schedule. The process for comment and acceptance of a CPM Revision will be the same as for Monthly CPM Updates. If the CPM Revision is accepted, prepare the next monthly update based on the revised CPM. If the CPM Revision is rejected, prepare the next monthly update based on the previous month's update.

(2) Engineer's Right to Request Revisions—The engineer will monitor the progress of the work and may request revisions to the CPM schedule. Revise the schedule as requested by the engineer, and submit a CPM Progress Schedule Revision within ten business days of the request. The process for comment and acceptance of a CPM Revision will be the same as for Monthly CPM Updates. The engineer may request that the contractor revise the CPM schedule for one or more of the following reasons:

1. The forecast completion date is scheduled to occur more than 14 calendar days after the contract completion date.
2. An intermediate milestone is scheduled to occur more than 14 calendar days after the date required by the contract.
3. The engineer determines that the progress of the work differs significantly from the current schedule.
4. A contract change order requires the addition, deletion, or revision of activities that causes a change in the contractor's work sequence or the method and manner of performing the work.

108.4.7 Documentation Required for Time Extension Requests

(1) To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative detailing the work added or deleted and the other activities affected, based on the latest accepted CPM Update. For added work, submit a proposed fragnet of activities to be added or revised in the CPM schedule, indicating how the fragnet is to be tied to the CPM schedule.

(2) To request a time extension to an intermediate milestone date or the contract completion date associated with delays to the work, provide a narrative detailing the affected activities and the cause of the delay, based on the latest accepted CPM Update. Requests for time extensions due to delays should meet the following criteria:

1. For requests to extend the contract completion date, include a description of how the delay affected the project's critical path, based on the latest accepted CPM Update.
2. For requests to extend an intermediate milestone date, include a description of how the delay affected the controlling (longest) path to the milestone, based on the latest accepted CPM Update.

3. The department and the contractor agree that the float is not for the exclusive use or financial benefit of either party. Either party has the full use of the float on a first come basis until it is depleted.

108.4.8 Payment for CPM Progress Schedule

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0006	Baseline CPM Progress Schedule	EACH
SPV.0060.0007	Monthly CPM Progress Schedule Updates	EACH

(2) The department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the Baseline CPM schedule has been submitted. The department will retain 10 percent of each estimate until the department accepts the Baseline CPM schedule.

(3) The department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the Monthly CPM schedule updates have been submitted. The department will retain ten percent of each estimate until the department accepts the Monthly CPM schedule update.

(4) Payment is full compensation for all work required under these bid items. The department will pay the contract unit price for the Baseline CPM schedule after the department accepts the schedule. Then, the department will pay the contract unit price for each Monthly CPM Update acceptably completed.

sef-108-005 (20171004)

98. Concrete Barrier Transition Type M1, Item SPV.0060.0008.

A Description

This special provision describes constructing Concrete Barrier Transition (Type) according to standard spec 603, details shown in the plans, and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Concrete Barrier Transition (Type) by each individual unit, acceptably placed according to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0008	Concrete Barrier Transition Type M1	EACH

Payment is full compensation according to standard spec 603.5.2.

99. Mobilization Emergency Pavement Repair, Item SPV.0060.0120.

A Description

This special provision describes furnishing and mobilizing personnel, equipment, traffic control, and materials to the project site to repair the existing pavement for emergencies as the engineer directs. An emergency is a sudden occurrence of a serious and urgent nature, beyond normal maintenance of the existing pavement.

B (Vacant)

C Construction

Mobilize with sufficient personnel, equipment, traffic control, materials, and incidentals on the jobsite within 4 hours of the engineer's written order to repair the existing pavement on an emergency basis.

D Measurement

The department will measure Mobilizations Emergency Pavement Repair as each individual mobilization, acceptably completed. The department will not include delivering and installing pavement repair or maintenance materials provided for in specific contract bid items. All traffic control items used for each Mobilization will be considered incidental to the Mobilization.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0120	Mobilizations Emergency Pavement Repair	EACH

Payment is full compensation for the staged moving of personnel, moving equipment, setting up and removing traffic control, traffic control materials, and moving materials. The department will pay separately for delivery and installation of pavement repair materials under the other bid items in this contract. The department will not pay separately for traffic control items and materials even though they may be included in other bid items in this contract and will consider them incidental to each Mobilization.

sef-999-025 (20170310)

100. Exposing Existing Infrastructure Paved Area, Item SPV.0060.0603.

A Description

This work includes locating and exposing existing infrastructure in paved areas as directed by the engineer. The contractor shall be responsible for compliance with s.182.0175 (2), Stats., with respect to precautions to be taken to avoid and prevent damage to utility facilities. The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. Conform to Wisconsin State Statute 182.0175 (2) and Wisconsin Administrative code Trans 220. The work includes exposing existing infrastructure, including utilities, under paved surfaces and providing both lateral and depth measurements for use in determining potential infrastructure conflict solutions, and backfilling the locate.

B Materials

B.1 Backfill Slurry

Utilize backfill slurry as specified elsewhere in these special provisions.

C Construction

C.1 General

The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. This item will only be used as determined by the department for unique locations as directed by the engineer. It does not remove the contractor’s obligation to locate utilities as specified by Wisconsin Administrative code Trans 220 and Wisconsin State Statute 182.0175. The engineer will direct all exposing existing infrastructure in writing. Coordinate infrastructure exposures with the engineer and notify the infrastructure owner or their agents of this work two working days in advance so that they may be present when the work commences.

C.2 Excavation

Remove all paved surfaces at locations where the existing infrastructure is being exposed. Saw or remove concrete and asphaltic pavements to the nearest joint. Remove all pavement surfaces in such a way that all existing edges consist of a true line having a perpendicular edge with no unraveling. Maintain drainage at all times according to standard spec 205.3.3. Take precautions, including temporary shoring, in order to prevent any undermining of the existing roadway. Perform work according to all applicable laws, ordinances, rules, regulations, and OSHA standards.

Expose all infrastructure locations within a given location to a minimum depth of 18-inches below the bottom of each infrastructure. Excavate in a manner that protects the integrity of the infrastructure and prevents any damage to wrappings or protective coatings such as by any mechanical method or hand digging. Notify the infrastructure owner promptly if damage or interruption of service occurs. Repair all damage caused to such infrastructure resulting from negligence or carelessness at own expense.

Take all lateral and depth measurements in US feet and tenths thereof. Identify horizontal locations of each exposed infrastructure with a coordinate northing and easting referenced to the Wisconsin County Coordinate System (WCCS), Milwaukee County, NAD 83 (97). Provide vertical elevations for each exposed infrastructure and reference to NAVD 88 (91).

The infrastructure location shall remain exposed and available for visual inspection until the completion of all work in a given location. If the infrastructure shall remain exposed overnight or for prolonged periods of time, protect the location with traffic-rated steel plating, safety barriers, and all necessary traffic control devices that may be required under applicable standards or as directed by the engineer.

C.3 Backfilling

Upon completion of the infrastructure exposure, restore the location in kind to its original condition. When exposed infrastructure locations fall within local streets or city right-of-way, use slurry backfill to fill the entire location to the subgrade elevation.

Restore concrete pavement and concrete base course to the depth found in the existing roadway. Replace all locations that fall within live lanes of any roadway or pedestrian traffic with a high early-strength concrete pavement mix design having a depth equivalent to the existing pavement structure unless directed otherwise by the engineer. Locations that are closed to through traffic may use an approved concrete pavement mix conforming to standard spec 501. If directed by the engineer, tie concrete pavement and/or dowel it to the existing pavement according to the standard detail drawing for concrete pavement. All locations requiring asphaltic pavement shall consist of HMA Pavement Type E-3 unless otherwise directed by the engineer. Place the HMA pavement in lifts to a depth as directed by the engineer. Apply tack coat to composite pavement structures and between lifts. Alternate restoration methods may be used upon written approval from the engineer.

Place base aggregate dense between the subgrade surface and the bottom of the pavement.

C.4 Documentation

Provide documentation to the engineer and include the coordinates, elevations, and sketches of the infrastructure locations tied to known features in the plans. Reference each infrastructure to a proposed alignment with a station and offset. Where near a ramp, reference the ramp alignment. Document the size and/or diameter, composition, and a description of each infrastructure and the location of the elevation with respect to each infrastructure noted. Supply digital photographs of the uncovered infrastructure to the engineer in .jpeg format for future reference.

D Measurement

The department will measure Exposing Existing Infrastructure Paved Area as a unit for each location. A location may have multiple infrastructures located within the same exposure area. An exposure area will include all infrastructures within 6 lateral feet of each other and payment will only be made for one unit regardless of the number of infrastructures exposed. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is between 0 and 6 feet, the department will measure each location as a single unit of work. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is greater than 6 feet and less than 12 feet, the department will pay for the item as two units of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0603	Exposing Existing Infrastructure Paved Area	EACH

Payment is full compensation for mobilization; for all excavation; for disposing of all materials; for locating all infrastructure within each respective location; for providing documentation and photographs of infrastructure locations to the engineer; for all surveying associated with exposing existing infrastructure; for all maintenance of the location during construction; for all traffic control, safety barriers, and steel plating required; for temporary shoring; and for all finishing items including, but not limited to, base aggregate dense, slurry backfill, concrete pavement, HMA pavement, curb and gutter, and sidewalk located above the subgrade elevation.

101. Exposing Existing Infrastructure Unpaved Area, Item SPV.0060.0604.

A Description

This work includes locating and exposing existing infrastructure in unpaved areas as directed by the engineer. The contractor shall be responsible for compliance with s.182.0175 (2), Stats., with respect to precautions to be taken to avoid and prevent damage to utility facilities. The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. Conform to Wisconsin State Statute 182.0175 (2) and Wisconsin Administrative code Trans 220. The work includes exposing existing infrastructure, including utilities, under unpaved surfaces and providing both lateral and depth measurements for use in determining potential infrastructure conflict solutions, and backfilling the locate.

B Materials

B.1 Backfill Slurry

Utilize backfill slurry as specified elsewhere in these special provisions.

C Construction

C.1 General

The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. This item will only be used as determined by the department for unique locations as directed by the engineer. It does not remove the contractor’s obligation to locate utilities as specified by Wisconsin Administrative code Trans 220 and Wisconsin State Statute 182.0175. The engineer will direct all exposing existing infrastructure in writing. Coordinate infrastructure exposures with the engineer and notify the infrastructure owner or their agents of this work two working days in advance so that they may be present when the work commences.

C.2 Excavation

Remove all unpaved surfaces at locations where the existing infrastructure is being exposed. Maintain drainage at all times according to standard spec 205.3.3. Take precautions, including temporary shoring, in order to prevent any undermining of the existing roadway. Perform work according to all applicable laws, ordinances, rules, regulations, and OSHA standards.

Expose all infrastructure locations within a given location to a minimum depth of 18-inches below the bottom of each infrastructure. Excavate in a manner that protects the integrity of the infrastructure and prevents any damage to wrappings or protective coatings such as by any mechanical method or hand digging. Notify the infrastructure owner promptly if damage or interruption of service occurs. Repair all damage caused to such infrastructure resulting from negligence or carelessness at own expense.

Take all lateral and depth measurements in US feet and tenths thereof. Identify horizontal locations of each exposed infrastructure with a coordinate northing and easting referenced to the Wisconsin County Coordinate System (WCCS), Milwaukee County, NAD 83 (97). Provide vertical elevations for each exposed infrastructure and reference to NAVD 88 (91).

The infrastructure location shall remain exposed and available for visual inspection until the completion of all work in a given location. If the infrastructure shall remain exposed overnight or for prolonged periods of time, protect the location with traffic-rated steel plating, safety barriers, and all necessary traffic control devices that may be required under applicable standards or as directed by the engineer.

C.3 Backfilling

Upon completion of the infrastructure exposure, restore the location in kind to its original condition. Use slurry backfill, conforming to standard spec 501, to backfill the exposed infrastructure locations to the subgrade elevation except for areas located within local streets. In grassy areas, place 6-inches of topsoil, sod or seed and mulch, and fertilizer. Alternate restoration methods may be used upon written approval from the engineer.

C.4 Documentation

Provide documentation to the engineer and include the coordinates, elevations, and sketches of the infrastructure locations tied to known features in the plans. Reference each infrastructure to a proposed alignment with a station and offset. Where near a ramp, reference the ramp alignment. Document the size and/or diameter, composition, and a description of each infrastructure and the location of the elevation with respect to each infrastructure noted. Supply digital photographs of the uncovered infrastructure to the engineer in .jpeg format for future reference.

D Measurement

The department will measure Exposing Existing Infrastructure Unpaved Area as a unit for each location. A location may have multiple infrastructures located within the same exposure area. An exposure area will include all infrastructures within 6 lateral feet of each other, and payment will only be made for one unit regardless of the number of infrastructures exposed. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is between 0 and 6 feet, the department will measure each location as a single unit of work. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is greater than 6 feet and less than 12 feet, the department will pay for the item as two units of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0604	Exposing Existing Infrastructure Unpaved Area	EACH

Payment is full compensation for mobilization; for all excavation; for disposing of all materials; for locating all infrastructure within each respective location; for providing documentation and photographs of infrastructure locations to the engineer; for all surveying associated with exposing existing infrastructure; for all maintenance of the location during construction; for all traffic control, safety barriers, and steel plating required; for temporary shoring; for furnishing backfill slurry and backfilling the locate.

102. Traffic Control Close-Open Freeway Entrance Ramp, Item SPV.0060.0910.

A Description

This special provision describes closing and later opening a freeway entrance or exit ramp and associated auxiliary lane as the plans show, the engineer directs, and according to standard spec 643.

B (Vacant)

C Construction

Post all ramp closures seven working days in advance of their closure with dates and time of closure. Drums, barricades and signs may remain along the roadway when the ramp is open to traffic pending engineer approval to verify adequate offsets from traffic location are provided. Ensure that all inappropriate signs, dates or times are not visible to traffic when the ramp is open. A deduction of one each will be made from the project total for this item for each day any inappropriate sign is visible to traffic when the ramp is open.

Drums, barricades and signs may remain along the roadway when the freeway entrance is open to traffic. All devices must meet FHWA crashworthiness standards and shall not pose a hazard to the traveling public. Immediately remove or cover signing when the ramp closure is no longer in effect.

D Measurement

The department will measure Traffic Control Close-Open Freeway Ramp as a unit each time a freeway ramp closure is setup and subsequently removed within a 24-hour period that has been authorized by the engineer.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0910	Traffic Control Close-Open Freeway Entrance Ramp	EACH

Payment is full compensation for closing and later opening a freeway entrance ramp.

Closure or partial closure of adjacent auxiliary lanes will be made as necessary at no additional cost to the department. Closure to a ramp not deemed necessary by the engineer will be made at no additional cost to the department. Drums, barricades, Arrow Boards, and signs will be paid for separately under the various traffic control items.

103. Traffic Control Local Road Lane Closures, Item SPV.0060.0916.

A Description

This special provision describes closing and reopening a local road lane or lanes, including full closure conforming to standard spec 643, the plans, and as directed by the engineer.

B (Vacant)

C Construction

Install or reposition traffic control devices required for closing a local road or lanes of a local road. Remove or return traffic control devices to their previous configuration when the closure is no longer required.

D Measurement

The department will measure Traffic Control Local Road Lane Closures by each individual closure, acceptably completed. The department will not measure the closure of a local road not deemed necessary by the engineer.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0916	Traffic Control Local Road Lane Closures	EACH

Payment is full compensation for closing and re-opening a local road lane or lanes.

sef-643-035 (20171004)

104. Emergency Response to Traffic Involving Concrete Barrier Temporary, Item SPV.0060.0940.

A Description

This special provision describes providing prompt response to an emergency repair request for damaged and/or dislodged temporary concrete barrier installed under this project that is damaged or displaced due to a vehicular collision during the time this contract is in effect.

B (Vacant)

C Construction

The contractor shall provide staff, equipment, and materials to the incident site within one hour of receiving a repair request from the responding agency. The contractor shall consult with the department's representative on potential repair or replacement options to restore the temporary concrete barrier to proper working condition. Staff and equipment deployed shall be capable of completing the needed repairs as quickly as possible once repair work is started. Repair work shall be completed off the traveled way to the maximum extent allowable. The contractor shall provide a time log of when the repair request was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating and completing repair efforts) shall be submitted to the engineer at the pre-construction meeting. This person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on-site of an incident with appropriate staff and equipment within one hour of receiving a repair request, the department will assess the contractor $500 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted one-hour response time. Increments of 15 minutes or less will be assessed as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

For contractor owned temporary barrier, repair work shall be completed according to standard spec 603 and 643, and as directed by the engineer. For temporary barrier left in place from a previous project, repair work is covered under article Maintain and Remove Concrete Barrier Temporary Precast of these special provisions.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

D Measurement

The department will measure Emergency Response to Traffic Incident Involving Concrete Barrier Temporary as each individual response, 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.0060.0940	Emergency Response to Traffic Incident Involving Concrete Barrier Temporary	EACH

Payment is full compensation for providing a prompt staff response to an emergency repair request for a damaged and/or dislodged temporary concrete barrier located within the project limits.

The cost of providing the appropriate level of on-call staff for 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

105. Emergency Response to Traffic Involving Crash Cushion, Item SPV.0060.0945.

A Description

This special provision describes providing prompt response to an emergency repair request involving a damaged crash cushion installed under this project that is displaced or damaged due to a vehicular collision during the time this contract is in effect.

B (Vacant)

C Construction

The contractor shall provide appropriate staff to the incident site within one hour of receiving a repair request from the responding agency. Staff deployed shall be capable of immediately assessing the severity of the damage to the device and consult with the department's representative on potential repair or replacement options and the projected timeline to restore the roadside device to its proper working condition. The contractor shall provide a time log of when the repair request was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating repair efforts) shall be submitted to the engineer at the pre-construction meeting. This person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on-site of an incident with appropriate staff within one hour of receiving a repair request, the department will assess the contractor $500 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted one-hour response time. Increments of

15 minutes or less will be assessed as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

Repair work shall be completed according to standard spec 614, and as directed by the engineer. Once repair work has been started, work shall continue until completion. Repair work shall be completed off the traveled way to the maximum extent allowable.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

D Measurement

The department will measure Emergency Response to Traffic Incident Involving Crash Cushion as each individual response, 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.0060.0945	Emergency Response to Traffic Incident Involving Crash Cushion	EACH

Payment is full compensation for providing prompt response to an emergency repair request for damaged crash cushion device located within the project limits.

The cost of providing the appropriate level of on-call staff, equipment, and materials for 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

106. Wood Pole Lighting 60-Foot, Item SPV.0060.1003.

A Description

The work under these items include furnishing and installing 60-foot wood pole, arm(s) and floodlight(s), junction box, grounding system, and lightning protection system, as shown on the plans, according to standard spec 651 and 659, and as hereinafter provided.

B Materials

Furnish wood poles, Class 4 or larger with a 60-foot minimum overall length. The poles shall be western red cedar according to ANSI standards 05.1. Pressure treatment shall be 5% pentachlorophenol with a minimum of 8 pounds per cubic foot net retention of the oil-borne preservative. All poles shall be shaved the entire length.

Luminaire arm and luminaire for wood pole lighting units and temporary wood pole lighting units shall be per standard spec 657.2.4 and 659.2, respectively.

Floodlight mounting bracket arms for wood pole lighting units will be as shown on plan details. The floodlights are provided under separate bid items SPV.0060.1007.

C Construction

This work shall be done according to the pertinent provisions of standard spec 611.3.1.1 and as shown on the plans. Install #4 AWG equipment grounding wire exothermically bonded to a 5/8 inch by 8 foot copper clad grounding electrode. Install cable guard, NEMA 3R junction box near mounting arm, and NEMA 4X junction box at 3 feet above grade for fuses and splice on wood pole units. Install air terminal with #2 AWG grounding wire exothermically bonded to a 5/8-inch by 8-foot copper clad grounding electrode for lightning protection. Install #2 AWG bare copper exothermically bonding between grounding electrodes. Install conduit and wiring between junction boxes, wire racks, and required hardware as necessary and as shown on lighting plans and detail drawings.

Install luminaire arm for wood pole lighting units as shown on the plans and details and as per applicable portion of standard spec 657.3 and 659.3.

D Measurement

The department will measure Wood Pole Lighting 60-Foot as a unit for each individual item, installed completely as described above.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1003	Wood Pole Lighting 60-Foot	EACH

Payment is full compensation for furnishing and installing items as mentioned above; for all excavation and backfill.

107. Wood Pole 60-Foot, Item SPV.0060.1004.

A Description

Furnish and install wood poles and other incidental items as required and as shown on the plans, according to standard spec 651, and as hereinafter provided.

B Materials

Furnish wood poles that are Class 4 or larger with a 60-foot minimum overall length. The poles shall be western red cedar according to ANSI standards 05.1. All poles shall be shaved the entire length.

Wood poles used for freeway lighting shall be pressure treated with a 5 percent pentachlorophenol mixture with a minimum of 8 pounds per cubic foot net retention of the oil-borne preservative.

C Construction

Install the pole according to the pertinent provisions of standard spec 611.3.1.1, and as shown on the plans. As necessary, install #4 AWG grounding wire exothermically bonded to a 5/8-inch by 8-foot copper clad grounding electrode, cable guard, NEMA 3R junction box 3ft above grade level for splice, and incidentals as necessary.

D Measurement

The department will measure Wood Poles 60-Foot as a unit for each pole, installed completely as described above.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1004	Wood Pole 60-Foot	EACH

Payment is full compensation for furnishing and installing a wood pole; all excavation and backfill.

108. Removing 60-Foot Wood Poles And Floodlights, Item SPV.0060.1005.

A Description

Remove 60-foot wood pole lighting units and attached conduit and wiring as shown on the plans and according to standard spec 204, remove mast arm or bracket arm, luminaire, air terminal, and junction box, backfill openings or holes to the elevation of the surrounding ground, and landscape all disturbed areas from these removals. Separate payment will be made for lamp disposal.

B (Vacant)

C Construction

Dispose of all materials except lamps off site. Deliver the lamps to the department under a separate bid item, Lamp Disposal High Intensity Discharge, SPV.0060.1002.

The department will allow, at the contractor’s discretion, to reuse removed wood pole lighting units at new location, if possible. The bid price is to reflect the salvage value of the removed wood pole lighting unit. The department will allow, at the contractor’s discretion, to reuse removed temporary wood pole lighting units at new location, if possible.

D Measurement

The department will measure Removing 60-Foot Wood Poles and Floodlights by the unit removed and disposed of, or returned to the department, as directed by the engineer.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1005	Removing 60-Foot Wood Poles and Floodlights	EACH

Payment is full compensation for removing wood pole lighting units; all excavation and backfill; removal and disposal of material.

109. Removing 60-Foot Wood Pole, Item SPV.0060.1006.

A Description

Remove 60-foot wood poles as shown on the plans.

B (Vacant)

C Construction

In addition to removing the attached conduit and wiring according to standard spec 204, backfill all openings or holes to the elevation of the surrounding ground, and landscape all disturbed areas from these removals. Dispose of all materials off site.

D Measurement

The department will measure Removing Wood Pole 60-Foot as a unit for each pole, acceptably removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1006	Removing 60-Foot Wood Pole	EACH

Payment is full compensation for removing wood pole; all excavation and backfill; removal and disposal of material.

110. Luminaires Floodlight 400W HPS, Item SPV.0060.1007.

A Description

The work under this item shall consist of furnishing and installing 400 Watt HPS floodlight luminaires, with photoelectric control, in a 480 Volt configuration and according to standard spec 659.

B Materials

Appropriate Floodlight Models include or approved equal:

GE Turnpike, General Elec. Product Number: RPF-S40S240V-M2GL-N3-GRK.

GE Turnpike, General Elec. Product Number: RPF-S40S480V-M2GL-N3-GRK.

Holophane Predator, Holophane Product Number: PF-400HP-240V-BN1KR

Holophane Predator, Holophane Product Number: PF-400HP-480V-BN1KR

Lithonia Lighting, Lithonia Product Number: 170S 400S HPN 240V TS PER

Lithonia Lighting, Lithonia Product Number: 170S 400S HPN 480V TS PER

Units shall have a 6x6 or 7x7 light distribution. Units shall have a photoelectric cell for control of the fixture operation.

C Construction

Install the luminaire on the light poles at locations specified in lighting plan according to standard spec 659.2.1, and 659.3.1, and wired and fused according to standard spec 659.3.2 and plan details. Luminaires shall be orientated (0 deg = North) as shown and at an angle of 45-degrees from the vertical. Units shall be suitable for mounting on the poles provided under bid item Poles Type A With Bullhorn Bracket.

D Measurement

The department will measure Luminaires Floodlight 400W HPS by each individual luminaire, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1007	Luminaires Floodlight 400W HPS	EACH

Payment is full compensation for all the work and materials required under this bid item.

111. Luminaires Replace Existing HPS, Item SPV.0060.1008.

A Description

The work under this item shall consist of removing the existing pole mounted luminaire or underdeck luminaire and replacing it with a new luminaire as shown according to the applicable provisions of standard spec 655 and 659, and as hereinafter provided. The existing wiring and fusing in the pole shall be removed and replaced. Separate payment will be made for proper disposal of lamp high intensity discharge under bid item 204.9060.S.1001 Removing Lighting Units.

B Materials

New luminaires shall be in conformance with standard spec 659.2.1. New wiring shall be according to standard spec 655.2.6. The existing grounding electrode and grounding conductor are to remain in use. The new wiring shall only bond the grounding system and neutral conductor at the service entrance and NOT at the lighting poles or boxes.

Ballasts shall be of the magnetic-regulator type suitable for operation with 240VAC or 480VAC, 1 phase power. Furnish and install new wiring in the pole and arm according to standard spec 655.3.1 and 655.3.7.

C Construction

Coordinate this work with the installation of the new 240 volt or 480 volt electrical service to each lighting unit, in order to minimize the time lighting unit is out of service. Permanently disconnect 480 Volt service to the lighting unit before replacing the wiring and luminaire. Do not connect existing lighting unit to 240 volt electrical service until this work has been completed. All work is to comply with standard spec 655 and 659, manufacturer's recommendations, and sound electrical practice. Lamps removed from lighting units shall be disposed of as per bid item SPV.0060.1001.

D Measurement

The department will measure Luminaires Replace HPS by each individual lighting 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.0060.1008	Luminaires Replace Existing HPS	EACH

Payment is full compensation for furnishing and installing all materials including the new luminaire, lamp, wiring and fusing; and disposal of old luminaire. Separate payment will be made for proper disposal of high intensity discharge lamps under bid item 204.9060.S.1001 Removing Lighting.

112. Remove Electrical Service Meter Breaker Pedestal Lighting, Item SPV.0060.1009.

A Description

This special provision describes removing an existing electrical service meter breaker pedestal, supports and any additional electrical equipment associated with the service including disconnect switches and overall enclosure, disconnecting all connected power wires, and disposing of the equipment appropriately.

B (Vacant)

C Construction

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

Disconnect all connected power wires, remove the pedestal, include existing electrical service meter breaker, supports and disconnect switches if present and dispose of all materials properly away from the project area.

D Measurement

The department will measure Remove Electrical Service Meter Breaker Pedestal Lighting by the unit, acceptably removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1009	Remove Electrical Service Meter Breaker Pedestal Lighting	EACH

Payment is full compensation for coordination with WE Energies; for disconnection of wires; and for removal of the pedestal and any additional material of the service..

113. Concrete Bases Type B, Item SPV.0060.1010.

A Description

The work under this item consists of furnishing and installing Concrete Base Type B at locations specified in plans, according to plan details, the applicable portions of standard spec 654, and as hereinafter provided. Concrete base design shall fall within the parameters shown in the plans and as enumerated below; and certified by vendor to support the required loads.

B (Vacant)

C Construction

The detail of construction with the exceptions of height above grade and conduit size shall be as defined in standard detail for Type B base.

D Measurement

The department will measure Concrete Bases Type B by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1010	Concrete Bases Type B	EACH

Payment is full compensation according to standard spec 654.5.

114. Luminaire Sign LED, Item SPV.0060.1011.

A Description

The work under this item consists of installing Wayfinding Sign LED luminaires at locations specified in plans, according to plan details, the applicable portions of standard spec 659, and as hereinafter provided. Grounding electrode conductor will be paid as quantified under a separate bid item 655.0625. Equipment grounding electrode and associated terminal bus bar cost is incidental to grounding electrode conductor.

B.1 Materials

Wayfinding Sign, LED luminaires shall be outdoor sign lighting suitable for wet locations up to 40°C ambient temperature. The Optical Housing shall be IP66 rated and the Electrical Housing shall be IP65 rated. All hardware shall be stainless steel. Units shall be UL listed for WET LOCATIONS. Reflectors shall be hydroformed to ensure consistency of photometric performance and long term durability. The reflector shall have a glass liner and an activated charcoal filter or the unit shall allow access to the lamp while keeping the reflector area sealed with a shutter type mechanism for the lamp. Units shall have a heat and shock resistant tempered glass lens or a heat and shock resistant borosilicate glass lens with an optional lens "defrost" feature for climates with heavy snow and ice. Units shall be gray in color.

Example luminaire shall be available for evaluation for up to two weeks' time. Furnish the following list of specific documentation detailing the characteristics of the LED luminaire:

- Fixture IES files (.ies format) for illumination modeling
- Cut sheets, warranty information and parts list for all equipment.
- Luminaire heat dissipation techniques.
- Energy usage information.
- Color spectrum with HID lamp comparison.
- Optical design features.

Do not order materials until the engineer approves the list.

B.2 Luminaire

Furnish LED luminaires with a slim, low profile design that minimizes wind loading. Luminaires shall be constructed of rugged cast and extruded aluminum with integral, weather-tight LED driver components with high performance aluminum heat-sinks. Each luminaire shall use a terminal block for power input suitable for #2 to #14 AWG wire. The luminaire shall designed to mount on a 2" IP (2.375" O.D.) horizontal tenon and shall be adjustable +/- 5 degrees to allow for leveling. Luminaire shall include a leveling bubble visible from the underside of the unit.

B.2.1 Electronic Components

Luminaire shall accommodate varied lighting output from high brightness, 5000K (+/- 500K per full unit), minimum 70 CRI, long life LED sources. Drivers shall operate across 120-277V, 50/60 Hertz as standard. LED drivers shall have a power factor greater than 90% and THD less than 20% of full load. All luminaires shall come equipped with an integral 9kV surge suppression protection standard and a quick disconnect harness suitable for mate and break under load provided on power feed to driver for ease of maintenance. Units shall have current driver set to 700 Ma. Driver is removable through access door.

B.2.2 Optical / Illumination Performance

Luminaire shall conform to the following:

- Luminaire tested and certified by an independent test laboratory to meet the photometric performance criteria established by IESNA LM-79.
- Luminaire shall deliver approximately 6,600 lumens and be rated to consume no more than 175 watts (+/- 15%) while operating for a minimum of 70,000 hours (+/- 10%).
- Luminaire shall perform a minimum range of 60 - 90 foot-candle at the face of the sign with average-minimum ratio equal or better than 3.5.

B.2.3 Finish

The luminaire fixture finish shall feature an epoxy primer with an ultra-durable silver powder topcoat, providing resistance to corrosion, ultraviolet degradation and abrasion. Alternative equivalent finishes shall be approved by the engineer.

B.2.4 Ratings / Certifications

Luminaires shall be rated and/or certified as follows:

- U.L. listed for wet locations
- RoHS compliant for lead and mercury standards
- IP-65 minimum weather fastness rating

C Construction

Mount unit square, true and properly aim to the wayfinding sign board. Unit shall be installed per manufacturer's recommendations (LED sign lights to be mounted 1' below and 4' out from the sign face) attached and bolted on 1 1/2" square channel as provided and shown in the wayfinding sign structural plans. Provide 3#12 AWG (Phase, Neutral, Ground) wiring from the fixture to junction box via fuse to comprise a complete and functional lighting unit. Luminaire sign LED individual fuse (5 Amp type FNQ) to be installed/located in the lower structure junction box. Provide grounding bus/lug and neutral terminal bus bar accessible through handhole junction box. One equipment grounding electrode per location is incidental to # 6 AWG ground wiring.

D Measurement

The department will measure Luminaire Sign LED by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1011	Luminaire Sign LED	EACH

Payment is full compensation for furnishing and installing all materials including the luminaires, wiring, and fusing.

115. Luminaires Tunnel Lighting LED, Item SPV.0060.1012.

A Description

The work under this item consists of installing tunnel LED luminaires at the location specified in plans for C-40-0111, according to plan detail, the applicable portion or standard spec 651 and 659 of standard specifications, and as hereinafter provided.

B.1 Materials

Tunnel lighting LED luminaires shall be vandal-resistant and tampered-resistant.

KENALL MIGHTY MAC CC Series: CC-2-4/4-25L35K-DCC-DV-2/N-1-WL

Units shall be UL listed for WET LOCATIONS.

B.2 Material Qualifications

Furnish a complete list of documentation according to standard spec 651.2.

One example luminaire matching what is proposed for use on the project. Example luminaire shall be available for evaluation for up to two weeks' time. Furnish the following list of specific documentation detailing the characteristics of the LED luminaire:

- Fixture IES files (.ies format) for illumination modeling
- Cut sheets, warranty information and parts list for all equipment.
- Luminaire heat dissipation techniques.
- Energy usage information.
- Color spectrum with HID lamp comparison.
- Optical design features.
- Two references from municipalities currently using the same luminaires.

Do not order materials until the engineer approves the list.

B.3 Luminaire

Luminaire shall be specifically manufactured and tested for tunnel type applications. Luminaire housing shall one-piece die-formed prime grade material. Corners continuously seam welded and smooth with no post grinding. Clamshell housing resistant to penetration and contraband concealment.

Baseplate shall be die-formed blade trap (1/4" minimum.) prevents contraband concealment and access. Embossed standoffs prevent distortion. Luminaire inner lens shall be 0.125" Prismatic Polycarbonate and outer lens shall be 0.750" Clear Tempered Glass. Lens retention shall be vertically adjustable continuous "Z" bracket of prime grade material, secure to housing via through-studs (6" maximum spacing). 2' continuous heavy gauge internal piano hinge (1/2" knuckle/1/8" diameter pin) standard. Pin secured to knuckle. Hinge welded to housing and mounts to baseplate via keyholes.

Complete assembly shall be tested to withstand 3G vibration per ANSI C136.31-2001 and shall be rated IP66 per IEC60529. Additionally, luminaire shall pass a High Pressure Water Spray Test where the spray apparatus consists of four spraying nozzles each providing a minimum of 12 gallons per minute at 100 PSI at the nozzle, in a 90-degree cone. Spray shall be applied for 30-minute intervals on surface containing photometric nadir and directly at electrical entry or access points. The test data and results shall be completed in writing and shall be submitted to the engineer for review and acceptance.

B.4 Electronic Components

Class 1 Drivers shall be rated for 100,000 hours life and shall be dimming type for 0-10v control signal. Dimming output shall be controllable between 10-100% of nominal. Low voltage terminal block shall provide for landing incoming as well as outgoing signal cable. Driver power factor shall be minimum 90% and maximum total harmonic distortion shall be 20%. Supply power voltage will be 120V.

Surge Protection shall meet 10KV\5KA per ANSI IEEE\C62.41

The luminaire shall have an approximate physical size of 9" W X 9" D X26" L. Other sizes would be allowed if it can be demonstrated that all luminaires can be mounted per the above physical constraints.

B.5 Optical / Illumination Performance

Luminaire shall conform to the following:

- Luminaire tested and certified by an independent test laboratory to meet the photometric performance criteria established by IESNA LM-79-08.
- Luminaire shall deliver approximately 2,267 lumens minimum and be rated to consume no more than 28 watts maximum while operating for a minimum (L70) of 80,000 hours (+/- 10%).
- Maximum nominal drive current of 117 Ma

B.6 Finish

Luminaire housing shall be anodized and then finish coated with Super durable TGIC thermo set powder in white color. Finish shall exceed 5000-hour salt fog test per ASTM B117 and D1654. Alternative equivalent finishes shall be approved by the engineer.

B.7 Ratings / Certifications

Luminaires shall be rated and/or certified as follows:

- IP-65 minimum weather fastness rating
- IDA dark sky full cutoff compliant
- IEC 61000 - Electromagnetic Compatibility Test (EMC)
- FCC Title 47 CFR Part 18 – Federal Communication Commission
- ANSI\IEEE\C62.41
- IEEE 519 – Harmonic Control in Electrical Power Systems
- ANSI C82.77:2002 Harmonic Distortion
- ANSI C136.31:2001 – Luminaire Vibration
- ASTM B 117:2003 – Salt Spray Test
- IEC 60529 – Degrees of protection provided by enclosure
- UL 1598 – UL Wet Location @ 40C
- ROHS compliance for key components

C Construction

Install Luminaires Tunnel Lighting LED according to the pertinent provisions of standard spec 659 and as the manufacturer directs. Mount unit to the upper corner or the tunnel wall. Provide 3#12 AWG (Phase, Neutral, Ground) wiring from the fixture to junction box via fuse to comprise a complete and functional lighting unit.

D Measurement

The department will measure Luminaires Tunnel Lighting LED 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.0060.1012	Luminaires Tunnel Lighting LED	EACH

Payment is full compensation for furnishing all materials; installing a complete luminaire; and for furnishing all documentation.

116. Junction Boxes 4x4x4-Inch, Item SPV.0060.1014.

A Description

This work shall be according to the requirements of standard spec 653, the plans, standard detail drawings, and as hereinafter provided.

B Materials

According to the plans and standard spec 653.2.2, Junction Boxes.

C Construction

According to the plans and standard spec 653.3.

D Measurement

The department will measure Junction Boxes 4 x 4 x 4-Inch 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.0060.1014	Junction Boxes 4 x 4 x 4-Inch	EACH

Payment is full compensation according to standard spec 653.5.

117. Removing Electrical Service Meter Breaker Pedestal, Item SPV.0060.2000.

A Description

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

B Materials

Existing electrical service meter breaker pedestal.

C Construction

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

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

D Measurement

The department will measure Removing Electrical Service Meter Breaker Pedestal by the unit, acceptably removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2000	Removing Electrical Service Meter Breaker Pedestal	EACH

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

118. Removing Controller Cabinet, Item SPV.0060.2001.

A Description

This special provision describes removing an existing controller cabinet.

B (Vacant)

C Construction

Remove controller cabinets at the locations shown on the plans, or as directed by the engineer. Salvage and store the cabinets and all contents for pick up by the department.

Do not remove the existing ITS control cabinets, or any other associated equipment until necessary, or as directed by the engineer. Carefully remove the existing cabinets from the concrete bases, together with all components in such a manner as to safeguard all parts and wiring from damage or loss. Salvage and store the cabinet and contents for pick up by the department.

Prior to removing the existing ITS control cabinets, remove all cables being terminated in the cabinet. Cut existing cables flush with cabinet base and cap existing conduits. Dispose of the cables properly away from the project area.

D Measurement

The department will measure Removing Controller Cabinet by the unit, acceptably removed, salvaged, and stored.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2001	Removing Controller Cabinet	EACH

Payment is full compensation for removal and storage of the controller cabinet; disconnecting all associated wires and cables; for capping existing conduits.

119. Removing Controller Cabinet Base, Item SPV.0060.2002.

A Description

This special provision describes removing an existing controller cabinet concrete base.

B Materials

Existing controller cabinet base, including concrete masonry, ground rods, masonry anchors, and restoration materials such as topsoil, seeding, mulch, and fertilizer according to the pertinent provisions of standard spec 201, 625, 627, 629, 630, 636, and 640.

C Construction

Remove and dispose of the concrete foundation and all other pertinent materials and restore the disturbed area by placing 4-inches of topsoil, and fertilize, seed, and mulch all disturbed areas according to the pertinent requirements of the standard specifications.

D Measurement

The department will measure Removing Controller Cabinet Base by the unit, removed from the ground, removed from the project site, and the disturbed area restored according to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2002	Removing Controller Cabinet Base	Each

Payment is full compensation for removing and disposing of a concrete controller cabinet base, including masonry anchors, ground rods, and concrete masonry; for topsoil, fertilizer, seed and mulch.

120. Removing Ramp Control Signal Assembly Sidemount, Item SPV.0060.2004.

A Description

This special provision describes removing an existing sidemount ramp control signal assembly.

B Materials

Materials included in sidemount ramp control signal assemblies are:

1. Traffic signal standards.
2. Pedestal bases for traffic signal use.
3. Vehicular traffic signal heads.
4. Signal mounting brackets.
5. Sign mounting brackets.
6. Enforcement signal displays.

C Construction

Remove sidemount ramp control signal assemblies at the locations shown in the plans, or as directed by the engineer. Salvage the signal assemblies for the department to pick up, or dispose of them properly as directed by the engineer.

All work shall be according to the applicable requirements of standard spec 655, 656, 657, and 658, the Wisconsin Electrical Code, these special provisions, and the details shown in the plans.

Salvage and store all removed materials for pickup by the department. Coordinate with the engineer on a schedule to have the removed items picked up. Maintain all materials in a condition suitable for reutilization. Replace all items damaged during construction operations.

Electrical work under this item shall be completed by a journeyman electrician or be completed under the supervision of a journeyman electrician. Legal status or standing as a journeyman electrician shall be certified or otherwise documented to the engineer before any electrical work may begin.

D Measurement

The department will measure Removing Ramp Control Signal Assembly Sidemount by the unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2004	Removing Ramp Control Signal Assembly Sidemount	EACH

Payment is full compensation for removal, salvaging, and storage of the ramp control signal assembly; disconnecting all wiring connections; removing all conduit connections; for any necessary restoration, including backfill, topsoil, and seeding.

121. Removing Communication Vault, Item SPV.0060.2005.

A Description

This special provision describes removing an existing communication vault.

B Materials

Materials include existing communication vault and restoration materials such as backfill, topsoil, seeding, mulch, and fertilizer according to the pertinent provisions of standard spec 201, 625, 627, 629, 630, 636, and 640.

C Construction

Disconnect and cap conduit entering the communication vault. Remove and dispose of the communication vault. Backfill with material similar to the material surrounding the removal and restore the disturbed area by placing 4-inches of topsoil, and fertilize, seed, and mulch all disturbed areas according to the pertinent requirements of the standard specifications.

It is acceptable to re-use the vault lid in instances where new communications vaults are being installed in the project and the existing lid is undamaged. It is the contractor’s responsibility to determine if the existing vault lids fit on the proposed vaults.

D Measurement

The department will measure removing communication vault by the unit, removed from the ground, removed from the project site, and the disturbed area restored according to the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2005	Removing Communication Vault	EACH

Payment is full compensation for removing and disposing of a communication vault; for backfill, topsoil, fertilizer, seed and mulch.

122. Removing Electrical Service Breaker Disconnect Box, Item SPV.0060.2006.

A Description

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

B Materials

Existing electrical breaker disconnect box.

C Construction

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

Use the existing holes from where the existing breaker disconnect box was mounted to mount the new breaker disconnect box. If that is not possible, seal all remaining holes with waterproof pre-fabricated conduit hole plugs.

D Measurement

The department will measure Removing Electrical Service Breaker Disconnect Box by the unit, acceptably removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2006	Removing Electrical Service Breaker Disconnect Box	EACH

Payment is full compensation for disconnection of wires; for removal and disposal of the box; and for sealing all unused holes.

123. Ground Rod, Item SPV.0060.2013.

A Description

This special provision describes installing a ground rod and ground wire.

B Materials

Ground rod shall be copper clad steel with cladding 13 mils thick. The minimum diameter is 5/8-inch and the minimum length is eight feet. Ground wire shall be AWG # 6 bare, solid copper.

C Construction

Use exothermic welding to connect the ground wire to the rod. Install the rod vertically, or as close to vertical as conditions permit. Select locations with moist soil, if available. Place the rod at least six feet from all other ground rods.

D Measurement

The department will measure Ground Rod by the unit, acceptably installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2013	Ground Rod	EACH

Payment is full compensation for installation of the ground rod and ground wire; and welding and connections at both ends of the ground wire.

124. Signal Assembly Ramp Control Sidemount, Item SPV.0060.2020.

A Description

This special provision describes providing and installing sidemount traffic signal assemblies for use with ramp meters, including the pedestal base, traffic signal standard, traffic signal heads, traffic signal mounting brackets, sign mounting brackets, and wiring within the assembly.

B Materials

Provide pedestal bases that meet the requirements of standard spec 657.2.6.

Provide traffic signal standards that meet the requirements of standard spec 657.2.5.

Provide one three-section 12-inch face traffic signal head and one two-section 12-inch face traffic signal head that meet the requirements of standard spec 658.

Provide traffic signal mounting hardware that meets the requirements of standard spec 658.

Provide sign mounting brackets that meet the requirements of standard spec 637.2.4.

Provide wiring within the assembly and from the signal heads to the pedestal base that meets the requirements of standard spec 655.2.2.

C Construction

Perform work conforming to standard spec 637, 657, and 658 and the WSEC, and as the plans show.

Ensure that the positioning, mounting height, and lateral placement of signal heads are according to the MUTCD. The contractor may be required to revisit locations to re-adjust the signal heads once the engineer observes the metering operation of the ramp.

For traffic signal cable that extends from the signal base to the terminal strips in the signal heads, provide the number of conductors as the plans show. Match the color of the conductor to the lens color.

Install conductors in continuous lengths without splices from terminal to terminal. Splice only at hand holes at the bases of the standards or poles. Do not splice in underground pull boxes or conduit.

Group and identify sets of conductors in signal cables, 3 each per signal phase, whether insulated with red, yellow, green, or other colors, at each pertinent termination. Use conductors colored to match lens colors first. The engineer shall approve the method of identification. Furnish 2 as-built cable layout drawings with labeling to the engineer upon completion of the work. Place one of those copies in the cabinet.

Connect the white 14 AWG wires to a 10 AWG current carrying neutral. Make the connection with a wire-nut. Extend the 10 AWG wire from the current carrying neutral grounding strip in the ramp meter processor assembly cabinet, being installed from base to base to the far end of each signal conduit run.

Furnish the 10 AWG USE XLP current carrying grounded conductor in white colored insulation.

Furnish the 10 AWG USE XLP equipment-grounding wire in green colored insulation.

Furnish equipment and appliances necessary to test the complete installation of the ramp meter control signal assembly, including electrical conductors.

D Measurement

The department will measure Signal Assembly Ramp Control Sidemount as each individual assembly, 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.0060.2020	Signal Assembly Ramp Control Sidemount	EACH

Payment is full compensation for providing and installing traffic signal standards, pedestal bases, signal heads, signal mounting brackets, cabling within the assembly, and the sign support system; for providing electrical connections and grounding; and for testing.

125. Signal Assembly Advance Flasher Type 1, Item SPV.0060.2022.

A Description

This special provision describes providing and installing type 1 advance flasher traffic signal assemblies for use with ramp meters, including the pedestal base, traffic signal standard, traffic signal heads, traffic signal mounting brackets, sign mounting brackets, and wiring within the assembly.

B Materials

Provide pedestal bases that meet the requirements of standard spec 657.2.6.

Provide traffic signal standards that meet the requirements of standard spec 657.2.5.

Provide two single-section 12-inch yellow face traffic signal heads meet the requirements of standard spec 658.

Provide traffic signal mounting hardware that meets the requirements of standard spec 658.

Provide sign mounting brackets that meet the requirements of standard spec 637.2.4.

Provide wiring within the assembly and from the signal heads to the pedestal base that meets the requirements of standard spec 655.2.2.

C Construction

Perform work conforming to standard spec 637, 657, and 658 and the WSEC, and as the plans show.

Ensure that the positioning, mounting height, and lateral placement of signal heads are according to the MUTCD. The contractor may be required to revisit locations to re-adjust the signal heads once the engineer observes the metering operation of the ramp.

For traffic signal cable that extends from the signal base to the terminal strips in the signal heads, provide the number of conductors as the plans show. Match the color of the conductor to the lens color.

Install conductors in continuous lengths without splices from terminal to terminal. Splice only at hand holes at the bases of the standards or poles. Do not splice in underground pull boxes or conduit.

Group and identify sets of conductors in signal cables, 3 each per signal phase, whether insulated with red, yellow, green, or other colors, at each pertinent termination. Use conductors colored to match lens colors first. The engineer shall approve the method of identification. Furnish 2 as-built cable layout drawings with labeling to the engineer upon completion of the work. Place one of those copies in the cabinet.

Connect the white 14 AWG wires to a 10 AWG current carrying neutral. Make the connection with a wire-nut. Extend the 10 AWG wire from the current carrying neutral grounding strip in the ramp meter processor assembly cabinet, being installed from base to base to the far end of each signal conduit run.

Furnish the 10 AWG USE XLP current carrying grounded conductor in white colored insulation.

Furnish the 10 AWG USE XLP equipment-grounding wire in green colored insulation.

Furnish equipment and appliances necessary to test the complete installation of the ramp meter control signal assembly, including electrical conductors.

D Measurement

The department will measure Signal Assembly Advance Flasher Type 1 as each individual assembly, 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.0060.2022	Signal Assembly Advance Flasher Type 1	EACH

Payment is full compensation for providing and installing traffic signal standards, pedestal bases, signal heads, signal mounting brackets, cabling within the assembly, and the sign support system; for providing electrical connections and grounding; and for testing.

126. Communications Vault Adjustment, Item SPV.0060.2023.

A Description

This special provision describes adjusting the elevation of an existing communications vault to match the proposed final graded elevation. The special provision describes the work required at each vault location and multiple adjustments at a single vault location must be approved by the engineer. The adjustment will consist of excavating the area adjacent to the existing communications vault to enable adjusting the elevation of the existing conduit with the vault.

B Materials

Materials will consist of an existing communications vault and existing HDPE ducts or multi-cell conduit.

The exact length of the conduit adjustment will be determined by field conditions but will not exceed 20-feet.

C Construction

Prior to beginning work on the communications vault adjustment inspect the existing vault for damage and confirm that the conduits entering the vault are empty (aside from a single conductor locate wire).

In coordination with other construction operations, excavate a sufficient area around the communications vault to allow for adjusting the final elevation of the vault to match the final elevation of the adjacent grading.

The existing conduit is at a nominal depth of 3-feet but may vary by a foot or more. Adjust the depth of the existing conduit so that it its final depth is at approximately the same depth as it was prior to beginning work.

Place the relocated communications vault at its new elevation and backfill with new crushed aggregate as described in the standard specifications.

At locations that will be re-graded or otherwise improved, restore the site to a condition conducive to those other operations included in this project.

D Measurement

The department will measure Communications Vault Adjustment as a unit at each location, acceptably completed, and shall include up to 20 feet of conduit adjustments.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2023	Communications Vault Adjustment	EACH

Payment is full compensation for excavating the necessary area; for adjusting the existing communications vault; for adjusting the conduit entrance points in the vault; conduit adjustments; and restoration of the site.

127. Installing Portable Video Surveillance System, Item SPV.0060.2024.

A Description

This special provision describes deploying a portable trailer-mounted video surveillance system as shown in the plans to provide continuous video surveillance of the project area during permanent CCTV sites downtime.

B Materials

Materials will be state-furnished and will be an all inclusive unit consisting of a cable erected pole with a direct IP CCTV camera, a solar power system, a wireless Ethernet bridge, and stability outriggers, all mounted on a trailer.

C Construction

Pick up the state-furnished video surveillance system at the department facility at 2401 St Paul Avenue, Milwaukee, WI.

Deploy the surveillance system in the initial location as shown on the plans and as directed by the engineer following all recommended procedures by the manufacturer.

Integrate the surveillance system with the new and existing communications system through the wireless Ethernet bridge. Installation of the backhaul end of the wireless Ethernet bridge will be compensated for with other pay items in this contract.

When the system is no longer needed by the project, take the system out of service and return the portable video surveillance system to the department facility where it was picked up, or to a location directed by the engineer that is not a further distance.

D Measurement

The department will measure Installing State-Furnished Portable Video Surveillance System as a unit, acceptably installed and tested.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2024	Installing Portable Video Surveillance System	EACH

Payment is full compensation for picking up the surveillance system in Waukesha; for deploying it in the project area; for making functional; and returning the system.

128. Temporary 5.8 GHz Ethernet Bridge, Item SPV.0060.2025.

A Description

This special provision describes installing a state-furnished, or salvaged, 5.8 GHz Ethernet bridge access point or subscriber unit at a new or existing cabinet or new or existing pole in a temporary condition.

B Materials

Materials will include state-furnished materials and contractor furnished materials.

State-furnished or salvaged, materials include the following:

- One 5.8 GHz Ethernet bridge with integral antenna.
- One 5.8 GHz Ethernet bridge power converter.
- One 5.8 GHz Ethernet bridge mounting bracket.

Contractor-furnished materials include the following:

- Mounting hardware.
- Outdoor rated Category 6 communications cable (see plans for whether the cable is a crossover cable).
- Inline network cable surge suppressor.

C Construction

Bond the surge suppressor to the cabinet grounding system.

Install the 5.8 GHz Ethernet bridge in a point-to-point or point-to-multipoint configuration as shown on the plans and as directed by the engineer.

Use the manufacturer's set-up software to configure the Ethernet bridge radio for its intended use. Use the signal strength indicator on the radio to find the optimum position. Also perform a frequency analysis to determine the optimal hop pattern of the radios and test the continuity of the link by polling the radios using the software provided. The position of the radio and the hop pattern shall be adjusted until the polls show at least 200 consecutive polling intervals have been successfully transmitted and received. Demonstrate to the engineer that the hop pattern selected corresponds to the optimal noise free frequencies identified in the frequency analysis. Deliver 3 copies of the final test results for signal strength, frequency analysis, and test polling.

When the project need for the ethernet bridge is complete, remove the radio and return to the department at the same location where it is was picked up.

D Measurement

Install 5.8 GHz Ethernet Bridge will be measured as a unit, completely installed and operational and then removed and returned.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2025	Temporary 5.8 GHz Ethernet Bridge	EACH

Payment is full compensation for installing, setting up, configuring, testing the 5.8 GHz Ethernet bridge radio, and removing the surge suppressor, cables, and connections; and necessary transportation.

129. Refocus Vehicle Detector Assembly, Item SPV.0060.2026.

A Description

This special provision describes refocusing an existing microwave detector, or detectors, on a temporary or permanent pole or other structure, for operation with a new lane configuration.

B Materials

Materials include one or more Image Sensing Systems (ISS) Remote Traffic Microwave Sensors (RTMS) and the respective pole or other structure the sensor or sensors are mounted on.

C Construction

Coordinate all planned down-time of vehicle detector assemblies with the STOC at (414) 227-2166. Notify the STOC an amount of time ahead of planned down-time equal to the planned down-time. Examples would be that a 4-hour temporary down-time of the system would require notification 4-hours ahead of time while an 8-hour planned down-time would require 8-hours of advance notification.

Inspect the vehicle detector assembly for damage. Report any pre-existing damage to the engineer.

Refocus and recalibrate each detector on the respective pole each time the adjacent traffic pattern is changed due to a change in traffic control or construction staging.

Verify to the satisfaction of the engineer that the detectors at the pole are working properly.

D Measurement

The department will measure Refocus Side-Fire Vehicle Detector Site by the site, including one or more detectors, acceptably refocused and operational.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.2026	Refocus Vehicle Detector Assembly	EACH

Payment is full compensation for refocusing the detector, or detectors, for making the site, including one or more detectors, fully operational with a new lane configuration..

130. Install Poles Type 9, Item SPV.0060.3001; Install Poles Type 9 Special, Item SPV.0060.3002; Install Monotube Arms 30-FT, Item SPV.0060.3003; Install Monotube Arms 40-FT Special, Item SPV.0060.3004.

A Description

This special provision describes installing state furnished materials conforming to standard spec 657, details shown in the plans, and as modified in this special provision.

B Materials

The department will furnish the monotube poles, monotube arms and luminaire arms. Provide any other necessary material required to complete the installation as the plans show.

C Construction

Install equipment according to standard spec 657.3.

D Measurement

The department will measure Install [Equipment] at the contract unit price, 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.0060.3001	Install Poles Type 9	EACH
SPV.0060.3002	Install Poles Type 9 Special	EACH
SPV.0060.3003	Install Monotube Arms 30-FT	EACH
SPV.0060.3004	Install Monotube Arms 40-FT Special	EACH

Payment for the Install Poles bid items is full compensation for installing department furnished poles and for providing grounding lugs, fittings, shims, hardware, and other required components the department does not furnish.

Payment for the Install Monotube Arms and Install Luminaire Arms bid items is full compensation for installing department furnished arms; for providing high-strength bolt/nut/washer assemblies and DTIs including those required for testing; and for providing related mounting hardware, leveling shims, and other required components the department does not furnish.

131. Embedded Galvanic Anodes, Item SPV.0060.4000.

A Description

This special provision describes furnishing and installing embedded galvanic anodes in concrete.

B Materials

Furnish pre-manufactured galvanic anodes designed for cathodic protection when embedded in concrete and tied to steel reinforcing. The core of the anode shall consist of a minimum of 1.3 ounces of electrolytic zinc in compliance with ASTM B418 Type II, cast around a pair of steel tie wires and encased in a cementitious shell with a minimum pH of 14. The anodes shall have one side that is less than 1-1/2 inches in height.

Submit the product information to the engineer for approval. Supply a certification of compliance to the engineer a minimum of two weeks before starting work. Deliver, store, and handle all materials according to the manufacturer's instructions.

C Construction

C.1 Concrete Repair

Repair the concrete and prepare the exposed reinforcing steel conforming to standard spec 509.

C.2 Galvanic Anode Installation

C.2.1 Install embedded galvanic anodes conforming to the manufacturer's recommendations.

C.2.2 Attach galvanic anodes to existing reinforcement along the perimeter of the repair at spacing as specified on the plans. Space anodes no further than 24 inches apart.

C.2.3 Provide 3/4-inch clearance between anodes and substrate.

C.2.4 Secure the galvanic anodes as close as possible to the patch edge using the anode tie wires. Tighten the tie wires to allow no free movement.

If the anode is to be tied onto a single bar, or if less than 1-1/2 inch of concrete cover is expected, place anode beneath the uncoated bar and secure to reinforcing steel.

If 1-1/2 inch concrete cover will exist over the anode, the anode may be placed at the intersection between two bars and secured to each bar.

C.3 Electrical Continuity

Confirm electrical connection between anode tie wire and uncoated reinforcing steel with a multi-meter. The maximum DC resistance shall be 1 Ohm. Confirm electrical continuity of the exposed uncoated reinforcing steel within the repair area. Steel reinforcement shall be considered continuous when the DC resistance is 1 Ohm or less. If necessary, establish the electrical continuity with uncoated steel tie wire.

C.4 Inspection

Obtain engineer's verification of proper installation of the galvanic anodes prior to placement of the concrete.

D Measurement

The department will measure Embedded Galvanic Anodes as each individual anode, acceptably installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.4000	Embedded Galvanic Anodes	EACH

Payment for Embedded Galvanic Anodes is full compensation for furnishing and for properly installing anodes.

Concrete repair work, and concrete for that work, will be paid for separately.

132. Ultrasonic Impact Treatment Procedure, Item SPV.0060.4001.

A Description

Ultrasonic Impact Treatment (UIT) Procedure is used to introduce compressive residual stresses in the existing weld at the ends of the cover plates. This procedure improves the fatigue life of the weld.

B (Vacant)

C Construction

UIT shall be accomplished according to the equipment manufacturer's recommendations, except as specifically described in the contract documents.

Provide UIT equipment with a frequency of either 27 kHz or 36 kHz and a power rating of at least 800 Watts.

All areas of the bridge that will be tested and treated shall be prepared by a blast cleaning and /or hand tooled clean.

The contractor shall supply access and electrical power to accomplish the work.

The use of UIT shall be limited to base metal with a specified minimum yield strength of 100 ksi (690 MPa) or less.

Prior to UIT, the weld toe to receive UIT shall be visually inspected and magnetic particle tested for conformance to the quality standards specified in the contract documents. The instrument shall be calibrated against the maximum flaw size allowed. All discontinuities greater that 1/32” (0.79 mm) shall be satisfactorily repaired prior to initiating the work. All discontinuities that shall be repaired shall be documented in a written report. Contact Kristin Revello at the Bureau of Structures at (608) 266-5090 to determine the appropriate repair.

UIT shall be done along the toe of the weld in a manner that will cause the center of the resultant treatment groove to be at the weld toe, with equal treatment and smooth transition to the adjacent weld and base metal.

UIT shall be performed so as to result in a uniform groove with a distinct and uniform bright metallic surface, as verified by visual inspection by a Certified Weld Inspector immediately after completion. When viewed under a 10x magnifying glass, the groove shall be free from any visible indications of the untreated base metal or weld metal. If such untreated indications exist within the treated area, such area shall be retreated to obtain a uniform, bright metallic surface across the entire surface of the UIT groove.

Other weld or base metal treatments after UIT, including grinding, weld toe remelting (GTAW dressing or plasma arc dressing, hammer peening, shot peening, or heat treatment of the treated UIT, shall not be allowed.

Treatment is necessary only at the weld toe. The weld toe is defined as the interface of the weld metal and base metal attached to the cover plate. Due to the finite size of the UIT needles and the recommended treatment procedure, some base metal adjacent to the weld toe will get treated.

The following procedure shall be used, unless otherwise recommended by the UIT equipment manufacturer:

1. Position the UIT tool tip at the weld toe in a manner that both the weld metal and base metal are equally treated. This will normally be achieved by holding the tool needles in contact with and centered about the weld toe and gently rocking the tool back and forth normal to the longitudinal weld axis up to 10 degrees from the mean position. The inclination of the tool will depend on the condition of the as-welded toe, and in most cases, the tool axis should lie between 40 and 80 degrees with respect to the base metal surface in the plane of the cross section to satisfy this requirement.
2. Sufficient force must be applied to keep the hand held tool in position and to prevent jumping or unsteady movement when the vibrating needles come in contact with the weld toe. The self-weight of the tool is sufficient for this purpose and it is not necessary for the operator to exert undue force to achieve the required treatment.
3. The treatment shall progress at a travel speed of 1.0 to 5.0 ft/min (0.3 to 1.5 m/min) in multiple short passes. At least five passes shall be made to ensure completeness of the treatment. In addition, the tool axis must be maintained at 90 degrees with the direction of travel.
4. The diameter of the indenters influences the resulting appearance of the treated surface. In general, the smaller the diameter, the greater is the likelihood of eliminating the original weld toe. Thus, the treatment at the weld toe shall be carried out using 0.12 in. (3 mm) diameter pins. Pin holders accommodating four pins at various inclinations are generally used, except at narrow re-entrant corners, where a special pin holder having only one 0.2 in. (5 mm) diameter pin must be used.
5. The treatment shall result in a uniform groove appearance without a trace of the original weld toe and shall be free from indentation marks produced by individual needle to toe impact. All sharp transitions, undercuts, and reentrant corners along the weld toe shall be removed. The groove shall have a bright metallic surface and ideally have a notch radius of 0.12 in. (3 mm) or greater. Dimensional limits have been recommended by the manufacturer on the width and depth of the groove cross section, which are essentially related to the groove radius. Since it is difficult to make any accurate measurement of the treated toe, a visual determination of the depth of indentation below the plate surface of 0.010 to 0.020 in. (0.25 to 0.5 mm) is recommended as a guide, but not as a requirement of sufficient treatment.

6. The extent of treatment and general uniformity of appearance must be checked visually with the aid of a 10X magnifying glass.

If there are any intersecting welds between the weld for an existing shear lug angle iron, on the top flange, and the cover plate weld, within the area of the UIT work, the shear lug shall be removed and the intersection weld shall be ground smooth according to the engineer's instructions.

As part of this work, a written document shall be included describing the inspection, testing, location of the discontinuities and UIT work. The document shall include all irregularities found, the equipment used, the locations of each test, and the testing procedure.

D Measurement

The department will measure the Ultrasonic Impact Treatment Procedure as each individual unit, acceptably completed.

Each individual unit shall be comprised of the treatment to all the welds on one end of one cover plate as shown in the plan details.

Any required repairs to weld discontinuities shall be brought to the attention of the Bureau of Structures as mentioned in Section C. Any required repairs for weld discontinuities will be paid for separately.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.4001	Ultransonic Impact Treatment Procedure	EACH

Payment for the Ultrasonic Impact Treatment Procedure bid item is full compensation for the visual inspection and magnetic particle testing of the welds, removal of shear lugs with intersecting welds, preparation for any of the work, equipment, materials, labor, access, protection of the work area and clean up.

133. Anchor Assemblies Noise Barrier Structures R-40-712, Item SPV.0060.4002; Anchor Assemblies Noise Barrier Structures R-40-713, Item SPV.0060.4003; Anchor Assemblies Noise Barrier Structures B-40-1020, Item SPV.0060.4004.

A Description

Furnish and install anchor bolt assemblies for noise barriers that will be installed on bridges and retaining walls as shown on the plans.

B Materials

Anchor bolts shall be of size, spacing, and grade as given on the plans and conform to ASTM F1554 and Supplementary Specification S4. Provide ASTM A563 heavy hex nuts and ASTM F436 washers, all hot-dip galvanized according to ASTM A153, class C, supplemented by ASTM F2329. Provide four nuts and washers per anchor bolt for Anchor Assemblies Noise Barriers Structures. Provide embedded anchor plates and/or anchor plate-templates for anchor assemblies as shown on the plans.

Hot-dip galvanize the entire anchor assembly. Galvanize embedded anchor plates conforming to ASTM A123 and galvanize anchor bolts, nuts and washers conforming to ASTM A153, class C, supplemented by ASTM F2329. Provide enlarged threads on nuts for proper fit after galvanizing.

C Construction

Install embedded anchor assemblies in concrete structures at locations as shown on the plans. Mount anchor assemblies to formwork or otherwise provide positive support of anchor assembly within formwork as necessary to prevent movement, shifting or misalignment of the anchor assembly during subsequent concrete placement. Protect or clean exposed anchor bolt threads from concrete splatter.

Coordinate location and spacing of anchor assemblies embedded in bridges and retaining walls for mounting noise barriers on bridges and retaining walls with approved noise barrier shop drawings.

D Measurement

The department will measure Anchor Assemblies Noise Barriers Structures by each individual anchor assembly, 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.0060.4002	Anchor Assemblies Noise Barrier Structures R-40-712	EACH
SPV.0060.4003	Anchor Assemblies Noise Barrier Structures R-40-713	EACH
SPV.0060.4004	Anchor Assemblies Noise Barrier Structures B-40-1020	EACH

Payment is full compensation for furnishing and installing the anchorages.

134. Sign Support Special Mounting, Item SPV.0060.6001.

A Description

Work under this item shall consist of moving the blinker wrong way sign and type I pole and providing a new type 1 footing and removing old footing.

B (Vacant)

C Construction

Move blinker wrong way sign and type I pole and solar panel. Remove footing and backfill the resulting holes and dispose of all materials outside of the right-of-way according to standard spec 204.3 and 638.3. Concrete footing shall be removed to 2' below the existing ground. The reinforcement shall be cut off flush with the top of the concrete. The footing shall be then covered with topsoil and seeded. This is all incidental to sign support special mounting. Install new type I footing per SDD 9C 2-8, Concrete Bases type I. This is incidental to moving the solar device and pole.

D Measurement

The department will measure Sign Support Special Mounting by each, 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.0060.6001	Sign support special mounting	EACH

Payment in full compensation for disassembling, moving, including concrete footings, backfilling, and disposal of all materials.

135. Adjusting Water Boxes, Item SPV.0060.7001; Adjusting Water Manholes, Item SPV.0060.7002.

A Description

This special provision describes adjusting, protecting, and maintaining accessibility, for the duration of the paving project, to all City of Milwaukee water service boxes, water valve boxes and water manhole frames & lids located within the project limits.

B Materials

All material for the adjustment of these facilities shall meet City of Milwaukee specifications and will be provided by the City of Milwaukee by contacting Andray DeCordova, Milwaukee Water Works, at (414) 708-3209 (or Dave Goldapp, Milwaukee Water Works at (414) 286-6301).

If there is contractor damage, the materials must still be provided by the City of Milwaukee, however, in this case, the contractor will be charged for all materials. Materials furnished by the City of Milwaukee and not used on the project shall be delivered back to DPW Field Headquarters – Infrastructure, Operations, Water Works at 3850 N. 35th St.

C Construction

The contractor, or authorized project representative, shall contact Milwaukee Water Works prior to the start of construction. The city will locate, mark, inspect and repair all water service boxes, water valve

boxes and water manhole frames & lids within the limits of the project prior to commencement of work on the project.

All water service boxes, water valve boxes and water manhole frames & lids within the project limits shall be adjusted to proposed elevations by the contractor using materials meeting city specifications.

Throughout the duration of the project, the contractor must ensure that all water service boxes, water valve boxes and water manholes are adequately located and identified by blue paint, and that at all times, all water appurtenances remain accessible for operation by city forces. Exercise caution working adjacent to water facilities to avoid damage and ensure accessibility.

Upon completion of the contract, the city will inspect all water facilities to ensure the water boxes and manholes are clean, properly aligned, and accessible. The contractor shall be responsible to make identified repairs and adjustments, and if any repairs or adjustments are made by the city, the cost will be charged to the contractor.

D Measurement

The department will measure Adjusting Water Boxes and Adjusting Water Manholes 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.0060.7001	Adjusting Water Boxes	EACH
SPV.0060.7002	Adjusting Water Manholes	EACH

Payment is full compensation for all excavation, backfilling, disposal of surplus materials, water box or manhole adjustments, water box or manhole clean-out, and restoration of the work site; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

136. Manhole 9-Foot Special, Item SPV.0060.8002; Manhole 10-Foot Special, Item SPV.0060.8003.

A Description

This work shall consist of design and construction of either a cast-in-place or precast storm sewer structure made of concrete with necessary reinforcement, metal frames, grates and lids, including required excavating and backfilling.

B Materials

Conform to standard spec 611.2.

C Construction

Conform to standard spec 611.3.

D Measurement

The department will measure Manhole (Size) Special by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.8002	Manhole 9-Foot Special	EACH
SPV.0060.8003	Manhole 10-Foot Special	EACH

Payment is full compensation for structure design; providing all materials, including all masonry, for Grade “A” concrete adjustments and monolithic concrete shimming; conduit and sewer connections, steps and other fittings; for furnishing all excavating and backfill; disposing of surplus material; and for cleaning out and restoring the work site. The department will pay for covers, including frames, grates, and lids separately.

The department will apply contract unit prices without adjustments to the quantities of manholes constructed to depths not greater than one foot above or below the elevations shown on the plans. Manholes that the engineer orders constructed to a depth greater than one foot above or below elevations shown on the plans will be specified for extra work and paid for according to standard spec 109.4.

137. Pipe Connection to Existing Structure, Item SPV.0060.8004.

A Description

This special provision describes connecting new storm sewer pipe to existing structure.

B Materials

Conform to standard spec 608.2 and standard spec 611.2

C Construction

Conform to standard spec 607.3 and standard spec 611.3

D Measurement

The department will measure Pipe Connection to Existing Structure by each pipe connected, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.8004	Pipe Connection to Existing Structure	EACH

Payment is full compensation for performing all work; excavation, backfilling, furnishing, masonry and fittings; disposing of surplus material, coring holes in existing structure to connect new pipe; and installing all materials, couplings, concrete collars, and pipe.

138. Removing Bulkhead, Item SPV.0060.8005.

A Description

This special provision describes removing existing bulkhead as shown in the plans, and as hereinafter provided.

B (Vacant)

C Construction

Carefully remove the bulkhead without damaging the pipe. Replace portion of damaged pipe with similar size and material.

D Measurement

The department will measure Removing Bulkhead by each bulkhead removed, 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.0060.8005	Removing Bulkhead	EACH

Payment is full compensation for furnishing all materials; removing bulkhead, replacing damaged pipe material including concrete collar around the pipe; and excavating and backfilling where necessary.

139. Lake Tower Pond Outlet Storm Sewer Structure, Item SPV.0060.8006; Oak Leaf Pond Outlet Storm Sewer Structure, Item SPV.0060.8007.

A Description

Furnish and install pond outlet storm sewer structure according to the pertinent provisions of standard spec 611, as shown on the plans and as hereinafter provided.

B Materials

Furnish manhole materials according to standard spec 611.

Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel galvanized according to ASTM A123 and ASTM 1153 as applicable.

Trash racks shall be fabricated from structural steel shapes, flat bar and plates and shall be galvanized after fabrication. Shop drawings for the trash racks shall be submitted to the engineer for approval prior to fabricating the trash racks.

Furnish bolts, nuts and washers for the installation of the trash racks onto the Outlet Storm Sewer Structures. Bolts, nuts and washers according to standard spec 513.2.2.5.

C Construction

Furnish and install trash racks on the outlet structure according to the pertinent provisions of standard spec 506 and 513, as shown on the plans and as hereinafter provided. Provide orifice holes and anti-seep collar as shown on the plan.

D Measurement

The department will measure Pond Outlet (name) Storm Sewer Structure 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.0060.8006	Lake Tower Pond Outlet Storm Sewer Structure	EACH
SPV.0060.8007	Oak Leaf Pond Outlet Storm Sewer Structure	EACH

Payment is full compensation for providing and placing all materials, including all masonry, steel and pipe connections, and other fittings; furnishing and installing trash racks; for providing orifice holes and anti-seep collars; for furnishing all excavating, backfilling, disposing of surplus material, and for cleaning out and restoring the work site.

140. Slip-In Check Valve for 36-Inch Inside Diameter Pipe, Item SPV.0060.8008; Slip-In Check Valve for 48-Inch Inside Diameter Pipe, Item SPV.0060.8009.

A Description

The specification covers furnishing and installing Slip-In Check Valves (Check Valves) at locations as shown on the plans and according to manufacturer’s instructions.

B Materials

Contractor shall provide an in-line elastomeric type check valve with compression clamps and a slip-in cuff connection. Check Valve shall slip into downstream end of RCCP pond outlets and be attached with 316 stainless steel expansion clamps which shall expand outward to seal the valve against the RCCP pipe wall without use of a separate valve body or pipe.

Check Valve shall be one-piece pure gum rubber construction with reinforcement throughout the body, disc, and bill and resilient to freezing and UV exposure.

Check Valve shall open to allow passage of flow in one direction when line pressure exceeds the backpressure. When backpressure exceeds line pressure the bill and disc are forced closed preventing reverse flow. Valves shall be designed to crack open with less than 2-inch water depth above the valve invert and the following parameters:

The (size) Check Valve into structure at location as shown on the plan shall be designed to open with less than 2-inches of line pressure and rated for a maximum of 20 feet of backpressure. Check Valve shall have less than 0.2-feet of head loss for the 2-year design flow rate of 5 cubic feet per second.

Manufacturer shall have designed, fabricated and have at least three current installation of this style of check valves within a size range of 24” to 72” diameters within the United States. Manufacturer shall provide documentation, including project name, location, and references.

Manufacturer shall have conducted hydraulic testing to determine head loss, jet velocity and vertical opening height characteristics on a minimum of three sizes of valves. The testing must have been conducted for free discharge (pressurized and open channel flow discharging to atmosphere) and submerged conditions.

C Construction

Furnish and install Check Valve at the locations identified on the plans.

Check Valves will be placed Inside the diameter pipes. Due to small variations in RCCP fabrication depending on manufacturer, the contractor is responsible for providing the proper size Check Valve for the actual inside diameter of the RCCP being used. Check Valve shall be sized to fit such that the upstream and downstream sections of the valve shall be circumferentially in tight contact with the inside diameter of the outlet pipe. After installation, the Check Valve shall not protrude beyond the end of the outlet pipe.

Contractor to provide any clamps or hardware required for installation of Check Valve. Such items are considered incidental to this work.

The contractor will be responsible for installing the Check Valve as shown in the plans and details and per the manufacturer’s instructions. Contractor shall make manufacturer’s authorized representative available to assist during valve installation.

D Measurement

The department will measure Slip-In Check Valve (size) Inside Diameter Pipe by each unit installed in place, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.8008	Slip–In Check Valve for 36-Inch Inside Diameter Pipe	EACH
SPV.0060.8009	Slip–In Check Valve for 48-Inch Inside Diameter Pipe	EACH

Payment is full compensation for providing all labor, materials, incidentals, and hardware necessary for installing the valves. All clamps and hardware necessary for installing Check Valve are considered incidental to this work.

141. Pavement Cleanup Project 1228-22-71, Item SPV.0075.0001.

A Description

This special provision describes cleanup of dust and debris from pavements within and adjacent to the job site. Pavement Cleanup includes surveillance and reporting of all active haul routes.

B Materials

B.1 Pavement Cleanup

Furnish a vacuum-type street sweeper equipped with a power broom, water spray system, and a vacuum collection system.

Use vacuum equipment with a self-contained particulate collector capable of preventing discharge from the collection bin into the atmosphere.

Use a vacuum-type sweeper as the primary sweeper, except as specified in this special provision or approved by the engineer.

C Construction

C.1 Surveillance

Provide daily surveillance of active haul routes to identify if material is being tracked from the jobsite. Document the condition of the roads and all sweeping recommendations in a daily report. Submit reports to the engineer daily, including hourly metered tickets for that day's sweeping activities.

C.2 Pavement Cleanup

Keep all pavements, sidewalks, driveways, curb lanes and gutters within the project boundaries, free of dust and debris generated from all activity under the contract. Keep all pavements, sidewalks, driveways, curb lanes, and gutters adjacent to the project free of dust and debris that are caused by land disturbing, dust generating activities, as defined in the contractor's Dust Control Implementation Plan (DCIP). Provide routine sweeping of all pavements, sidewalks, driveways, curb lanes and gutters on local-street active haul routes as defined in the DCIP or as directed by the engineer. Include the following roadways for routine sweeping:

- Capitol Drive
- Port Washington Road
- Glendale Avenue
- Hampton Avenue
- Fiebrantz Drive
- And all other roadways approved by the department

In addition to routine sweeping, conduct sweepings as the engineer directs or approves, to eliminate dust problems that might arise during off-work hours or emergencies. Provide the engineer with a contact person available at all times to respond to requests for emergency sweeping. Coordinate with engineer to determine deadlines for responding to emergency sweeping requests and cleaning up spillage and material tracked to/from the project.

Skid steers with mechanical power brooms may only be used on sidewalks and driveways whose pavements will not support the weight of a street sweeper, unless otherwise approved by the engineer. Do not dry sweep. Ensure all broomed equipment used for sweeping has a functioning water bar.

D Measurement

The department will measure Pavement Cleanup (Project 1060-33-84, 1060-34-77) by the hour acceptably completed.

Tickets shall include:

- Date
- Company
- Operator name
- Equipment make/model
- Routes swept
- Total hours.

Total hours shall be to the nearest 0.25 hour that work under this item was performed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.0001	Pavement Cleanup Project 1228-22-71	HR

Payment is full compensation for daily surveillance; preparing and submitting the daily surveillance report with hourly metered tickets; mobilization; sweeping; and disposing of materials.

sef-104-006 (20170323)

142. Concrete Curb and Gutter 4-Inch Sloped 60-Inch Type A, Item SPV.0090.0001.

Construct the concrete curb and gutter according to standard spec 601.

Add the following to standard spec 601.5:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0001	Concrete Curb and Gutter 4-Inch Sloped 60-Inch Type A	LF

143. Concrete Barrier Type S42C Special, Item SPV.0090.0002.

A Description

This special provision describes constructing Concrete Barrier Type S42C Special according to pertinent requirements of standard spec 603, construction details, and plan details.

B Materials

Use materials as described in the construction detail shown in the plans and as described in standard spec 603.2.

C Construction

Perform work as specified in standard spec 603.3.

D Measurement

The department will measure Concrete Barrier Type S42C Special by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0002	Concrete Barrier Type S42C Special	LF

Payment is full compensation conforming to standard spec 603.5.2.

144. Cable Aerial Aluminum 6 AWG Quadruplex, Item SPV.0090.1001; Cable Aerial Aluminum 6 AWG Triplex, Item SPV.0090.1002.

A Description

Furnish, install, and connect temporary overhead cable complete with all splicing, identifications, terminations and guy wires at wood poles. Remove the overhead cable after the temporary lighting is approved for removal.

B Materials

Overhead cable shall be aluminum conductors according to ASTM B 230 and shall be Class B stranded according to ASTM B 231, and shall conform to the values listed in the table below:

Phase Conductor				**Messenger Wire**	
Size AWG	**Stranding**	**Avg. Insulation Thickness**		**Min. Size AWG**	**Stranding**
		mm	mils		
6	7	1.1	45	6	6/1
4	7	1.1	45	4	6/1

The aerial cable shall be an assembly of insulated aluminum conductors and a steel messenger wire according to ANSI/ICEA S-76-474. The cable assembly may have the messenger wire intertwined with the insulated cables or lashed to the insulated cables by a factory wrap. The cable shall be assembled according to ANSI/ICEA S-76-474.

All cable shall be rated 600-V. The cable shall be rated 105º C dry and 90º C wet and shall be suitable for installation in wet and dry locations, and shall be resistant to oils and chemicals, and UV rated. The UL listing mark, cable voltage, insulation type and ratings, as well as the cable size, shall all be clearly printed on the cable in a color contrasting with the insulation color. When specified, each cable installed

shall be identified with its complete circuit number at each termination, splice, junction box or other location where the wire is accessible.

All electric cables installed shall be color coded. Neutral wires shall be color-coded white. Single phase three wire runs of cable shall be color-coded one black, one red, and one white. Insulated ground wires, where applicable, shall be green. Color striping of cables will not be acceptable in lieu of the specified color-coding means.

Make the luminaire connections to the aerial cable with listed parallel tap insulation piercing connectors. The connector shall be rated for 600-V, and be listed under UL Standard 486B.

C Construction

Overhead cable as shown on temporary lighting plans will not be needed for final lighting. Remove temporary overhead cable. Removal of temporary overhead cable will be incidental to this pay item and it will become property of the contractor. The bid price shall reflect the salvage value of the temporary overhead cable.

Upon written request of the contractor, the engineer may permit to reuse removed temporary overhead cable of ampacity equivalent to the specified cable and of a type and condition approved by the engineer, if possible.

Install guy wires as necessary per WisDOT standard details for Span Wire Temporary Traffic Signal.

Conform to standard spec 655.3.5(9) for ground resistance testing.

D Measurement

The department will measure Cable Aerial Aluminum 6 AWG Quadruplex; Cable Aerial Aluminum 6 AWG Triplex by the linear foot in place and will be taken as the length of the messenger wire. Measurement will be made in a straight line between changes in direction and to the centers of light standards and control cabinets. Sag of the aerial cable or vertical cable will not be measured for payment. The rewiring to facilitate relocation of the cable due to staging or other construction requirements will be incidental to the work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.1001	Cable Aerial Aluminum 6 AWG Quadruplex	LF
SPV.0090.1002	Cable Aerial Aluminum 6 AWG Triplex	LF

Payment is full compensation for providing electrical wire; for making all connections; for providing all connectors, including wire nuts, fuses, fuse holders, splices, tape, and insulators; for providing messenger wire, and guy wires; and for removing temporary overhead cable.

145. Fiber Optic Warning Tape, Item SPV.0090.3000.

A Description

This special provision describes furnishing and installing fiber optic warning tape above all conduit containing fiber optic cable.

B Materials

Provide underground warning mesh that is constructed of polypropylene and is fluorescent orange in color. Provide 6-inch detectable marking tape that has the words “Buried Fiber Optic Cable” and is orange in color.

C Construction

Lay underground warning mesh above all underground conduits, 12-inches below grade. The width of the warning mesh shall be the same as the width of the trench. Lay directly above the underground warning mesh, a 6-inch detectable marking tape that has the words “Buried Fiber Optic Cable” and is orange in color.

D Measurement

The department will measure Fiber Optic Warning Tape in length by the linear foot of tape, measured along the centerline of the conduit.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.3000	Fiber Optic Warning Tape	LF

Payment is full compensation for furnishing and installing the marking tape; and properly disposing of surplus materials.

146. Removing Existing Steel Piling, Item SPV.0090.4000.

A Description

The work includes removing the existing steel piles that are in conflict with proposed new piling for piers. The purpose of this work is to clear the location of an intended new pile so the pile may be driven and installed without interference from an existing steel pile.

B (Vacant)

C Construction

Remove any existing steel piling that is in conflict with proposed piling locations and as shown on the contract plans. An existing steel pile is in conflict with a proposed pile if the timber pile is within 2.5 proposed-pile diameters (center-center spacing) of a proposed pile. One of the following methods of removing shall be used:

Direct Pull: Wrap piling with a choker cable or chain that is attached at the top to a crane. The crane then pulled the piling directly upward, removing the piling from the soil.

Vibratory Excavation: A vibratory hammer that is attached at the top to a crane and to the existing piling will vibrate the piling loose. The crane will then pull the piling directly upward, removing the piling from the soil.

Contractor Proposed: If the contractor chooses to use an alternate method to remove the existing steel piling the contractor shall provide the engineer with a written methodology for his approval.

When an existing steel piling is found to be in conflict with the proposed location of a new piling the contractor shall notify the engineer, and receive his approval on the method of removal that was chosen, prior to beginning any work to remove the steel piling.

D Measurement

The department will measure Removing Existing Steel Piling by the linear foot, acceptably completed. Measurement will be made along the vertical length of the steel piling removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.4000	Removing Existing Steel Piling	LF

Payment is full compensation for removing existing steel piling; for providing and placing necessary backfill.

147. Removing Existing Timber Piling, Item SPV.0090.4010.

A Description

This special provision describes removing existing timber piling and includes removing, drilling, or coring through existing timber piles in conflict with proposed new piling for abutments and piers at structure B-40-1014. The work also includes backfilling the void left after removal with structure backfill. The purpose of this work is to clear the location so the proposed pile may be driven and installed without interference from an existing timber pile.

B (Vacant)

C Construction

Remove any existing timber piling that is in conflict with proposed piling locations. An existing timber pile is in conflict with a proposed pile if the timber pile is within 2.5 proposed-pile diameters (center-center spacing) of a proposed pile. One of the following methods of removal shall be used:

Direct Pull: Wrap piling with a choker cable, chain, or other device attached to a crane. Pull the piling vertically, removing the piling from the soil.

Vibratory Excavation: Attach a vibratory hammer to a crane and to the existing piling. Vibrate the piling loose. Pull the piling vertically and remove the piling from the soil.

Coring: Core through existing timber piles to an elevation that will permit the installation of the proposed pile without interference. Unless directed otherwise, make the diameter of the core hole only as large as required to eliminate the pile conflict.

Contractor Proposed: The contractor may propose, in writing, an alternate method of pile removal.

When an existing pile is found to be in conflict with the proposed piling, the contractor shall notify the engineer, and receive approval on the selected removal method prior to beginning any work to remove the timber piling.

Fill any void remaining after pile removal with structure backfill.

D Measurement

The department will measure Removing Existing Timber Piling in length by the linear foot, acceptably completed. Measurement will be made along the vertical length of the timber piling removed regardless of the method used. If the coring method is used, the contractor and engineer will agree to a cored depth.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.4010	Removing Existing Timber Piling	LF

Payment is full compensation for removing existing timber piling; for providing and placing necessary structure backfill material; for disposing of all material excavated; and for furnishing all labor, equipment, tools, and incidentals necessary to complete the contract work.

148. Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 38x60-Inch, Item SPV.0090.8001.

A Description

Furnish and install Storm Sewer pipe reinforced concrete.

B Materials

Conform to materials as per standard spec 522.2.

Provide storm sewer pipe reinforced concrete pipe conforming to Concrete D-Load Pipe ASTM C 507 specifications. The design strength of the pipe shall be the D-load to produce the 0.01-inch crack carrying HL 93 truck load and maximum fill height over the pipe as shown on the plan.

The storm sewer pipe reinforced concrete pipe design shall be responsibility of the contractor and shall be designed by a professional engineer, registered in the State of Wisconsin, with knowledge of the specific site conditions and requirements. Submit one copy of the culvert pipe design, signed and sealed, to the engineer for incorporation into the permanent project record.

C Construction

Construct according to the plans and standard spec 522.3.

D Measurement

The department will measure Storm Sewer Pipe Reinforced Concrete (Class) (Size) by the linear foot, acceptably completed. The measured quantity equals the number of linear feet of pipe measured along the centerline of the pipe.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.8001	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 38x60-Inch	LF

Payment will conform to standard spec 522.5 and submitting one copy of storm sewer pipe design, signed and sealed by a professional engineer registered in the State of Wisconsin.

149. Pipe Underdrain Exploration, Item SPV.0090.8025; Storm Sewer Lateral Exploration, Item SPV.0090.8026.

A General

This special provision describes performing the exploratory trenching in sufficient advance of the grading and storm sewer construction operations to allow uninterrupted progress of these operations.

B (Vacant)

C Construction

Construct the trench a minimum 12 inches wide and deep enough to intercept all existing pipes (underdrain pipes and storm sewer laterals). Do not backfill trench until approved by the engineer. Backfill with suitable fill material conforming to standard spec 209.

D Measurement

The department will measure Pipe Underdrain Exploration and Storm Sewer Lateral Exploration by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.8025	Pipe Underdrain Exploration	LF
SPV.0090.8026	Storm Sewer Lateral Exploration	LF

Payment is full compensation for furnishing all excavating, for placing and compacting backfill material, for restoring the work site.

150. Precast Trench Drain, Item SPV.0090.8027.

A Description

This special provision describes providing a precast trench drain system as the plans show. Conform to standard spec 415 and 611 and as follows.

B Materials

B.1 Documentation

Submit manufacturer's specifications, certifications, and installation instructions for grates, frames, connections, and precast drain channel two weeks before placement for engineer approval.

B.2 Frames and Grates

Furnish frames and grates manufactured of ductile iron conforming to ASTM A536 and meets AASHTO HS-25 load ratings for heavy duty high speed traffic. Ensure that frames and grates are one piece anchored into the body of the line drain, except where the plans show removable grates.

For removable grates, provide a repetitive minimum pullout resistance of 340 pounds per foot of length after completion of 1,000 hours of salt spray testing according to ASTM B117. Match removable grates to their frames in pairs before delivery to the worksite. Ensure that grates fit into frames without rocking. Furnish corrosion resistant locking devices for removable grates.

Secure the trench drain system in concrete according to the manufacturers specifications. Use concrete conforming to standard spec 415.2.1.

Furnish concrete curing compounds conforming to standard spec 415.2.4.

B.3 Precast Drain Channel

Furnish precast drain channel sections constructed of monolithic polymer concrete. Ensure that the interior surface of the channel is smooth below the level of the frame, grate, and associated connections. Use polymer concrete consisting of aggregate with either polyester resin or vinylester resin. Ensure that the polymer concrete conforms to the following:

Property	ASTM Test Method	VALUE
Compressive Strength	C-579	12,000 psi minimum
Tensile Strength	C-307	1,500 psi minimum
Flexural Strength	C-580	3,000 psi minimum
Moisture Absorption	C-140	5% max
Chemical Resistance	C-267	Pass
Freeze Thaw	C-666	1,600 minimum cycles without weight loss

C Construction

Excavate trench channel to the lines and grades the plan show. Grade and compact the bottom of the trench to provide firm and uniform bearing throughout.

Install the trench drain channel, trench drain joints, and connections according to manufacturers' instructions. Install trench drains to the lines and grades the plans show. Securely join sections of the precast drain channel to prevent separation during backfilling. Connect to existing drainage facilities as the plans show before placing concrete backfill.

Place concrete in channel without floating or shifting the line drain and without concrete segregation. Secure the frames or the line drain wall into the concrete with steel anchoring rods. Ensure that concrete backfill is flush with the adjacent surfaces and with the drain's frame. Texture the surface of the concrete with a broom or burlap to produce a durable, skid-resistant surface.

D Measurement

The department will measure Precast Trench Drain by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.8027	Precast Trench Drain	LF

Payment is full compensation for providing precast trench drain; for excavation; aggregate base materials; for concrete backfill; and for disposing of waste materials and restoring the site.

SER-611-002 (20180327)

151. Survey Project 1228-22-71, Item SPV.0105.0001.

A Description

This special provision describes modifying standard spec 105.6 and 650 to define the requirements for construction staking for this contract. Conform to standard spec 105.6 and 650 and as follows.

The department will not perform any construction staking for this contract. Obtain engineer's approval before performing all survey required to lay out and construct the work under this contract.

Replace standard spec 650.1 with the following:

This section describes the contractor-performed construction staking required under individual contract bid items to establish the horizontal and vertical position for all aspects of construction including:

- storm sewer
- subgrade
- base
- curb
- gutter
- curb and gutter
- curb ramps
- pipe culverts
- drainage structures
- structure layout
- bridges
- noise barriers
- all retaining wall layout
- pavement
- pavement markings (temporary and permanent)
- barriers (temporary and permanent)
- overhead signs
- freeway and local street lighting
- electrical installations
- supplemental control
- slope stakes
- ponds
- traffic signals
- ITS
- FTMS
- parking lots
- paths
- utilities
- conduit
- water main
- sanitary sewer
- traffic control items
- fencing

B (Vacant)

C Construction

Add the following to standard spec 650.3.1 (5):

Confirm with engineer before using global positioning methods to establish the following:

1. Structure layout horizontal or vertical locations.
2. Concrete pavement vertical locations.
3. Curb, gutter, and curb and gutter vertical locations.
4. Concrete barrier vertical locations.
5. Storm Sewer layout horizontal or vertical locations, including structure centers, offsets, access openings, rim and invert elevations.
6. Sanitary sewer construction or other gravity–based drainage system, including structure centers, offsets, access openings, rim and invert elevations.

Replace standard spec 650.3.1.1(2) with the following:

(6) Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. This includes:

- Raw data files
- Digital stakeout reports
- Control check reports
- Supplemental control files (along with method used to establish coordinates and elevation)
- Calibration report

Make the survey notes and computations available to the engineer within 24 hours as the work progresses unless a longer period is approved by the engineer.

Replace standard spec 650.3.3.1 with the following:

Under the Survey Project bid item, global positioning system (GPS) machine guidance for conventional subgrade staking on all or part of the work may be substituted. The engineer may require reverting to conventional subgrade staking methods for all or part of the work at any point during construction if the GPS machine guidance is producing unacceptable results.

Replace standard spec 650.3.3.3.4.1 with the following:

The department will provide the contractor staking packet as described in the Construction and Materials Manual (CMM) 7.10. At any time after the contract is awarded, the available survey and design information may be requested. The department will provide that information within 5 business days of receiving the contractor's request. The department incurs no additional liability beyond that specified in standard spec 105.6 or standard spec 650 by having provided this additional information.

Add the following to standard spec 650.3.3.3.6.2 as paragraph four:

Record all subgrade elevation checks and submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Add the following to standard spec 650.3 as standard spec 650.3.15 and 650.3.16:

650.3.15 Water Main

Record all elevation data for the casing, grade breaks, water main pipe, bends, fittings, and all information necessary to accurately record the construction document. Submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe, valves and bends to within 0.10 feet horizontal and establish the elevations to within 0.10 feet vertical.

Set construction stakes at all water main valves, fittings and bends and at maximum interval of 50 feet for water main piping.

Provide the as-built xyz coordinates and elevations, in the project horizontal and vertical datum, of all bends, fittings, valves and tie in locations for the as-built plan. Also provide the locations of the casing ends, the elevation of the top of casing.

650.3.16 Sanitary Sewer

Record all elevation data for pipe inverts, outside drops, bends, fittings, casings and other information necessary to accurately record the construction document. Submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe inverts, drops to within 0.02 feet horizontally and to within 0.01 feet vertically. Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe inverts, drops to within 0.02 feet horizontally and to within 0.01 feet vertically.

Provide the as-built xyz coordinates and elevations, in the project horizontal and vertical datum, of all tie in locations for the as-built plan. Also provide the locations of the casing ends, the elevation of the top of casing and the size and material of all pipes.

D Measurement

Replace standard spec 650.4 with the following:

(1) The department will measure Survey Project 1060-33-84 and Survey Project 1060-34-77 as a separate single lump sum unit, acceptably completed.

E Payment

Replace standard spec 650.5 with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.0604	Survey Project 1228-22-71	LS

Payment is full compensation for performing all survey work required to lay out and construct all work under this contract and for adjusting stakes to ensure compatibility with existing field conditions. The department will not make final payment for this item until the contractor submits all survey notes and computations used to establish the required lines and grades to the engineer within 24 hours of completing this work. Re-staking due to construction disturbance and knock-outs will be performed at no additional cost to the department.

sef-650-005 (20181219)

152. Temporary Causeway, Item SPV.0105.0002.

A Description

This special provision describes furnishing, placing and removing a temporary causeway into the Milwaukee River as shown on the plans and as hereinafter provided. The purpose of the temporary causeway is to provide construction access between shoreline haul roads and the site of the existing and proposed piers. This special provision also includes restoring the sites after the temporary causeways are no longer needed.

B Materials

Obtain approval of the engineer for all materials and conform to the pertinent requirements of the standard specifications.

Provide riprap material that is clean and relatively free of fine material, meeting the requirements of heavy riprap in standard spec 606.2, modified as follows: 100 percent of material utilized for the causeway construction shall be retained on the 6-inch sieve. Salvaged or recycled materials will not be permitted.

Provide a layer of geotextile fabric type ‘HR’ over the heavy riprap material. Place a layer of smaller rock over the geotextile fabric for a driving surface. Screen the smaller rock to remove all fine materials.

C Construction

Do not place materials within the limits of the Milwaukee River between March 1 and May 21.

Operations, including constructed features, and storage of equipment and materials shall occur only in permitted areas covered by the Section 404 permit, as shown in the plans.

Submit a plan showing proposed dimensions, materials, construction method and timetable for construction and removal of the temporary causeways as part of the erosion control implementation plan (ECIP).

The U.S. Army Corps of Engineers (USACE) permit includes construction of the temporary causeways. Construct temporary causeways in conformance with the parameters and requirements of the permit.

Construct the temporary causeways to obtain a usable travel way for delivery of equipment and materials. Temporary causeway construction shall not result in backwater increase greater than 0.5’ (relative to existing condition) during a Q100 flow event.

Though not expected to be necessary, if dredging is desired to facilitate means and methods of construction, obtain all necessary regulatory agency approvals.

Construction activities shall allow sufficient clearances for the navigation of boat traffic along the Milwaukee River.

Remove the temporary causeways as soon as practical after they are no longer needed for construction and as directed by the engineer. When removing the causeways, restore The Milwaukee River as closely as possible to its natural state. Measure and record river bottom elevations before and after placement of causeway material. Remove causeway materials from The Milwaukee River such that the river bottom elevation is the same as before the causeway was constructed.

D Measurement

The department will measure Temporary Causeways 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
SPV.0105.0002	Temporary Causeway	LS

Payment is full compensation for any additional agency coordination and/or permitting; for furnishing all materials; for construction and maintaining the temporary causeways; for removal of all causeway materials from the Milwaukee River; and for installation and removal of erosion control.

153. Maintenance of Lighting Systems, Item SPV.0105.1001.

A Description

This special provision describes maintaining existing and proposed lighting system beginning on the date that the contractor's activities, including electrical, begin at the job site. Properly operate and maintain all existing and proposed lighting systems which are part of, or which may be affected by, the work until final acceptance or as otherwise determined by the engineer.

Before performing any excavation, removal, or installation work, including electrical, for the project, initiate a request for maintenance transfer and preconstruction inspection, as specified in this special provision. Conduct the transfer and inspection in the engineer’s presence and a representative of the party or parties responsible for maintenance of any lighting systems which may be affected by the work. Request the maintenance preconstruction inspection at least seven calendar days before the desired inspection date.

Existing lighting systems, when shown on the plans, are intended only to indicate the general equipment installation of the systems involved, possibly not exactly representing the field conditions. A site visit will confirm the exact condition of the electrical equipment and systems to be maintained.

Issues found during contractor assessment can be discussed and addressed by contacting the SE Region Lighting Engineer (Eric Perea) before transferring maintenance responsibility to the contractor.

Maintenance of the lighting system includes lighting control cabinet(s):

HL-40-CA, HL-40-GL, and HL-40-CT

The following lighting control cabinet(s) will be used long enough to allow the installation of temporary lighting:

HL-40CA, HL-40-GL, HL-40-TA1, and HL-40-CT

B (Vacant)

C Construction

C.1 Existing Lighting Systems

Existing lighting systems are defined as any lighting system or part of a lighting system in service before this contract. The contract drawings indicate the general extent of any existing lighting. Understand the effort required for compliance with these specifications; Clear and replace any knockdowns or damage caused to the existing lighting system, regardless of who causes the damage. Maintain existing lighting system as follows:

Partial Maintenance: Only maintain the affected circuits if the number of circuits affected by the contract is equal to or less than 40% of the total number of circuits in a given controller and the controller is not part of the contract work unless otherwise indicated. Obtain engineer approval to isolate the affected circuits by in-line waterproof fuse holders as specified elsewhere

Full Maintenance: Maintain the entire controller and all associated circuits if the number of circuits affected by the contract is greater than 40% of the total number of circuits in a given controller, or if the controller is modified in any way under the contract work.

C.2 Proposed Lighting Systems

Proposed lighting systems are any temporary or final lighting systems or part of a lighting system to be constructed under this contract.

Maintain all items installed under this contract, including all equipment failures or malfunctions as well as equipment damage by the motoring public, contractor operations, or other sources.

C.3 Maintenance Operations

Maintain lighting units (including sign lighting), cable runs, and lighting controls. If a pole is knocked down or sign light damage is caused by normal vehicular traffic, promptly clear the lighting unit and circuit discontinuity, and restore the system to service. Reinstall the lighting unit (if salvageable), or install a new one.

Provide weekly night-time patrol of the lighting system, with patrol reports filed on standard forms as designated by the engineer. Send a copy to the region lighting coordinator.

Correct the deficiencies within a time frame acceptable to the engineer. Remaining deficiencies may require corrective action on specific lighting system equipment as described in the chart or based on material availability.

Incident or Problem	Service Response Time	Service Restoration Time	Permanent Repair Time
Control cabinet out	12 hours	24 hours	7 Calendar days
Hanging mast arm	**Emergency** - As Soon As Possible	na	7 Calendar days
Motorist caused damage or leaning light pole 10 degrees or more	**Emergency** - As Soon As Possible	7 Calendar days	14 Calendar days
Circuit out – Needs to reset breaker	12 hours	12 hours	na
Circuit out – Cable trouble	12 hours	7 Calendar days	21 Calendar days
Outage of 3 or more successive lights	12 hours	7 Calendar days	na
Outage of 75% of lights on one tower	12 hours	7 Calendar days	na
Outage of light nearest RR crossing approach, Islands and gores	12 hours	7 Calendar days	na
Outage (single or multiple non successive lights) found on night outage survey	na	na	7 Calendar days

C.4 Lighting

1. **Serve Response Time:** The amount of time from the initial contractor notification to the patrolman physically arriving.
2. **Service Restoration Time**: The amount of time from the initial contractor notification to a fully operational system again. (In cases of motorist-caused damage, the undamaged portions of the system are operational.)
3. **Permanent Repair Time**: The amount of time from initial contractor notification until permanent repairs are made unless the contractor was required to make temporary repairs to meet the service restoration requirement. Temporary repairs that do not meet the service restoration requirements require engineer's approval.

C.5 Operation of Lighting

Maintain operational lighting every night, from dusk until dawn. Do not operate duplicate lighting systems (such as temporary lighting and proposed new lighting) simultaneously. Do not keep lighting systems in operation during long daytime periods. Ensure that the lighting system is fully operational and approved by the engineer before submitting a pay request.

D Measurement

The department will measure Maintenance of Lighting Systems as a single lump sum unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.1001	Maintenance of Lighting Systems	LS

Payment is full compensation for Maintenance of Lighting Systems, both existing and proposed, weekly night-time patrol of the lighting system, mobilization, and filed patrol reports.

The contractor will be reimbursed for replaced equipment, materials only, if the invoice paid for the individual piece of equipment is greater than $500.

Non-compliance with designated response, restoration, and permanent repair times will result in liquidated damages of $500 per day per occurrence. In addition, the department reserves the right to assign any work not completed within this timeframe to the State Electrical Engineering and Electronics Unit. Reimburse all costs associated to repair this uncompleted work within one month after the incident or additional liquidated damages of $500 per month per occurrence will be assessed. Unpaid bills will be deducted from the cost of the contract. Repeated non-response or a negligent maintenance shall result in the State's Electrical Engineering and Electronics Unit being directed to correct all deficiencies and the resulting costs deducted from all monies owed the contractor.

Not understanding the effort required for compliance with these specifications will not be justification for extra payment or reduced responsibilities. No payment will be considered for damage or repairs due to contractor operations.

Not ensuring that the lighting system is fully operational and approved by the engineer before submitting a pay request will be grounds for denying the pay request.

154. Lighting System Integrator, Item SPV.0105.1002.

A Description

These special provisions describe coordinating lighting with various parties; record keeping, and documentation. Where the department is responsible for freeway lighting operation, maintenance, or utility locates on existing systems or systems overlapping project boundaries, the contractor's freeway lighting integrator will serve as the contractor's liaison to the department's electrical operations unit.

B Personnel Qualifications

Assign personnel experienced in underground utility construction and department lighting specifications and practices.

C Construction

At any one time during the project, the contractor shall assign one individual person as the freeway lighting integrator.

The freeway lighting integrator shall:

1. Familiarize himself with the location and nature of existing lighting circuits. This familiarity shall include the extent of any lighting system that overlaps project limits.
2. Maintain a file of applicable permits or licenses issued to the contractor, and convey copies to the engineer.
3. Keep with him at all times a contact list of affected lighting personnel.
4. Maintain a record of tagouts and the clearance of tagouts.
5. Interface with department electrical personnel to determine how contract limits might affect maintenance or operation of existing systems.
6. Maintain ongoing contact with the department's Diggers' Hotline Coordinator to ensure that each of the two persons knows that all requested utility locates are marked in the field by the appropriate party. The intent here is to assure coordination. This special provision does not transfer additional utility locating responsibilities to the contractor, beyond those responsibilities already assigned to him by other provisions of the contract.
7. Inform the department of any lighting outages, including outside the project limits where a lighting system crosses the project boundary.
8. Maintain in any format real-time records of existing, removed and new lighting facilities. Include utility service extensions. Additional required records will include temporary connections and their ultimate removal.
9. Maintain records of tests, including: "meg" tests, amperage draw per circuit leg, voltage reading at the disconnect, and voltage reading at the furthest pole per circuit leg. Convey these records at time of acceptance or partial acceptance.
10. At the time of acceptance or partial acceptance, convey as-built drawings in both the following formats: plan redlines and .dgn electronic. Include utility service extensions.
11. Secure copies of operators manuals, tear sheets, etc. as may be provided by manufacturers of some lighting materials, and convey a minimum of three sets to the department.
12. Work with the engineer to notify department electrical personnel of acceptance or partial acceptance.
13. Perform related duties as may be needed to ensure continuity of freeway lighting during construction, and orderly transfer upon completion.
14. Contractor must use GPS to provide coordinates of each light pole and control cabinet. The data must be entered into a Microsoft Excel 2007 spreadsheet along with other required fields as specified by WisDOT.

D Measurement

The department will measure Lighting System Integrator as a complete lump sum for all required coordination, record-keeping, and documentation.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.1002	Lighting System Integrator	LS

Payment will be full compensation for personnel costs.

155. Transport and Install State Furnished Traffic Signal Cabinet IH-43 NB Off Ramp & Port Washington Road, Item SPV.0105.3000.

A Description

This special provision describes the transporting and installing of department furnished materials for traffic signals.

B Materials

Use materials furnished by the department including: the traffic signal controller and the traffic signal cabinet.

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials five working days prior to picking the materials up.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

Request a signal inspection of the completed signal installation to the engineer at least five (5) working days prior to the time of the requested inspection. The departments' Region Electrical personnel will perform the inspection.

Coordinate directly with the department's traffic signal cabinet vendor {TAPCO at (262) 814-7327 or rickk@tapconet.com / TCC at (651) 439-1737 or mallwood@trafficcontrolcorp} to schedule the cabinet acceptance testing. Coordinate with the department's Electrical Field Unit at (414) 266-1170 to participate in the acceptance testing. The department has final determination of the cabinet acceptance testing date and time.

D Measurement

The department will measure Transport and Install Traffic Signal Cabinet [Location] as a single lump sum unit of work, in place and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3000	Transporting and Installing State Furnished Traffic Signal Cabinet, IH-43 NB Off Ramp & Port Washington Road	LS

Payment is full compensation for transporting and installing the traffic signal controller and the traffic signal cabinet; for furnishing and installing all other items necessary (such as, wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, etc.) to make the proposed system complete from the source of supply to the most remote unit and for clean-up and waste disposal.

156. Transporting Traffic Signal and Intersection Lighting Materials IH-43 Off Ramp & Port Washington Road, Item SPV.0105.3002.

A Description

This special provision describes the transporting of department furnished materials for traffic signals and intersection lighting.

B Materials

Transport materials furnished by the department including: Monotube arms/poles and luminaire arms (to be installed on monotube assemblies).

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials five (5) working days prior to picking the materials up.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

D Measurement

The department will measure Transporting Traffic Signal and Intersection Lighting Materials IH-43 NB OFF RAMP & PORT WASHINGTON RD as a single lump sum unit of work, in place and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3002	Transporting Traffic Signal and Intersection Lighting Materials, IH-43 NB Off Ramp & Port Washington Road	LS

Payment is full compensation for transporting the monotube poles/arms and luminaire arms (to be installed on monotubes). Installation of these materials is included under a separate pay item.

157. Transport and Install State Furnished Radar Detection System IH-43 NB Off Ramp & Port Washington Road, Item SPV.0105.3001.

A Description

This special provision describes the transporting and installing of department furnished Radar Detection System on monotube poles or arms.

B Materials

Pick up the department furnished Radar System at the department's electrical shop located at 935 South 60th Street, West Allis. Notify the department's electrical field unit (EFU) at (414) 266-1170 to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

C Construction

Install the department furnished pole/arm mounting brackets, extension arms (if required), and radar units per manufacturer recommendations in the locations determined by the department.

Install the power and communication cable to run continuously (without splices) from the traffic signal cabinet to the pole handhole plus an additional 16-feet in each pull box and an extra 10-feet in the pole handhole. Install the detector unit cable whip from the detector unit to the pole handhole. Splice the detector unit cable whip to the power and communication cable in the pole handhole using the provided junction box.

Mark each end of the lead in the traffic signal cabinet and each cable in the pole handhole to indicate the equipment label (i.e. RA1, RA2, etc.) on the plans. For a cabinet that is not operating the signal, the contractor will terminate the ends. If the cabinet is operating the signal, the cabinet wiring will be done by the department.

Notify department's Electrical Shop at (414) 266-1170 upon completion of the installation and aiming of the radar units.

The department will provide the vendor's contact information. Coordinate directly with the department's radar detection system vendor to arrange for the vendor to program the radar detection system on site. Notify the department and vendor at least five working days prior to the date of programming. Assist the department and vendor with fine adjusting of the radar units during the radar system programming, if necessary.

D Measurement

The department will measure Transporting and Installing State Furnished Radar Detection System as a single lump sum unit of work for each intersection acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3001	Transport and Install State Furnished Radar Detection System, IH-43 NB Off Ramp & Port Washington Road	LS

Payment is full compensation for transporting and installing the radar detection system, cable, mounting hardware, and radar units; and assisting the department and vendor during the radar system programming.

158. Transport and Install State Furnished EVP Heads, IH-43 NB Off Ramp & Port Washington Rd, Item SPV.0105.3003.

A Description

This special provision describes the transporting and installing of department furnished Emergency Vehicle Preemption (EVP) Detector Heads and detector head mounting brackets at the IH-43 NB Exit Ramp at Port Washington Road.

B Materials

Use materials furnished by the department, including EVP detector heads and EVP mounting brackets.

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials three working days prior to picking the materials up.

C Construction

Install the EVP detector heads and EVP detector head mounting brackets as shown on the plans. The department will determine the exact location to ensure that the installation does not create a sight obstruction. The department will terminate the EVP cable ends and install the discriminators and card rack in the cabinet.

Notify the department's Electrical shop at (414) 266-1170 upon completion of the installation of the EVP detector heads and mounting brackets.

D Measurement

The department will measure Transport and Install State Furnished EVP Heads (location) as a single lump sum unit of work in place and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3003	Transport and Install State Furnished EVP Heads, IH-43 NB Off Ramp & Port Washington Rd	LS

Payment is full compensation for transporting and installing department-furnished EVP detector heads and mounting brackets.

159. Install Fiber Optic Communications in Cabinet S40-1207, Item SPV.0105.3004.

A Description

This special provision describes installing fiber optic communications equipment in traffic signal cabinets.

B Materials

The department will furnish pre-terminated fiber optic patch panels and managed Ethernet switches. The materials will be provided with the traffic signal cabinet. The patch panels will have pre-terminated fiber optic cable pigtails. Provide two each 1-meter lengths of ST-ST single mode fiber jumper (2 fibers per jumper) from the patch panel to the Ethernet switch. Provide a 1-meter length of CAT-5e cable from the Ethernet switch to the controller. Provide a 1-meter length of CAT-5e cable from the Ethernet switch to the Interface Panel. CAT-5e patch cords shall have factory pre-terminated RJ45 / 8P8C connectors on both ends per TIA/EIA T568B. Provide all patch panel, Ethernet switch, and Interface Panel attachment hardware.

Provide a 14 AWG XLP insulated, stranded, copper, 600 volt AC locate wire through the conduit run from the communication vault to the traffic signal cabinet. Connect the locate wire by using a silicone filled wire nut at each pull box, vault or other access point. Alternatively, use a single wire through the access points, leaving a 6 foot coil in each pull box, vault or other access point for splicing. All material under this item shall meet the requirements of standard spec 655.

C Construction

Install the patch panel and Ethernet switch on the side of the traffic signal cabinet opposite the electrical service at a location as approved by the engineer. With approval by the engineer, the Ethernet switch may be placed on a shelf near the patch panel. Install the pre-terminated fiber optic cable in conduit from the patch panel to the communication vault as specified in standard spec 678.3.1. Fiber optic cable ends shall be covered securely to protect open ends during installation in raceways. Leave the remainder of the fiber optic cable coiled in the communication vault.

Install the fiber jumpers and CAT-5e cable and provide a communications link from the communication vault to the controller. Install the CAT5-e cable from the Interface Panel to the Ethernet switch.

Connect the locate wire by using a wire nut at each access point. Alternatively, use a single wire through the access points.

D Measurement

The department will measure Install Fiber Optic Communications in Cabinet (Location) as a single lump sum unit of work, in place and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.3004	Install Fiber Optic Communications in Cabinet S40-1207	LS

Payment is full compensation for installing pre-terminated patch panels, Ethernet switches, and fiber optic cable in conduit; furnishing and installing attachment hardware, fiber jumpers, CAT-5e cable, and locate wire.

160. Removing Sign Bridge S-40-381, Item SPV.0105.4000; Removing Sign Bridge S-40-383, Item SPV.0105.4001; Removing Sign Bridge S-40-803, Item SPV.0105.4002; Removing Sign Bridge S-40-848, Item SPV.0105.4003; Removing Sign Bridge S-40-849, Item SPV.0105.4004; Removing Sign Bridge S-40-981, Item SPV.0105.4005; Removing Sign Bridge S-40-228, Item SPV.0105.4006; Removing Sign Bridge S-40-229, Item SPV.0105.4007.

A Description

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

B (Vacant)

C Construction

Remove sign bridge, including truss, towers, catwalk, concrete footings and drilled shafts and backfill the resulting holes and properly dispose of all materials according to standard spec 204.

D Measurement

The department will measure Removing Sign Bridge (Structure) as a single lump sum unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.4000	Removing Sign Bridge S-40-381	LS
SPV.0105.4001	Removing Sign Bridge S-40-383	LS
SPV.0105.4002	Removing Sign Bridge S-40-803	LS
SPV.0105.4003	Removing Sign Bridge S-40-848	LS
SPV.0105.4004	Removing Sign Bridge S-40-849	LS
SPV.0105.4005	Removing Sign Bridge S-40-981	LS
SPV.0105.4006	Removing Sign Bridge S-40-228	LS
SPV.0105.4007	Removing Sign Bridge S-40-229	LS

Payment is full compensation for disassembling and removing the sign bridge and all attached components, removing the concrete footing and drilled shafts, for properly disposing of all materials, and incidentals necessary to complete the contract work.

161. Control of Water Storm Sewer, Item SPV.0105.8001.

A Description

This section addresses the provision for designing, furnishing all labor and material needed to control, handle, dispose and treat groundwater and surface water that may be encountered in all excavations as required for performance of the work as shown in the plans.

This special provision does not cover temporary drainage. Conform to standard specification standard spec 205 for temporary drainage.

Refer to the dewatering guidelines of WisDNR Storm Water Management Technical Standards, Code #1061, “Dewatering”. This document can be found at the WisDNR website: dnr.wi.gov/runoff/stormwater/techstds.htm.

B Materials

The contractor is responsible to determine materials required to meet this special provision.

C Construction

C.1 Submittals

C.1.1 General

The discharge permits and water control plan shall be submitted to the engineer at least 30 days prior to start of excavation, unless otherwise noted.

C.1.2 Subsurface Conditions

Shaft Station 438NS+00 to Shaft Station 455NS+00: The contractor shall review pertinent geotechnical reports for groundwater information and soil types.

C.1.3 Submittals

Discharge Permit: Submit discharge and well permit applications to Wisconsin Department of Natural Resources (WDNR) if dewatering wells are to be used. Also submit design and calculations for the sedimentation tank or clarifier system to be utilized to reduce sediment levels to minimum levels required by WDNR prior to discharging.

Water Control Plan: Water control plan shall be coordinated with requirements of special provisions, articles Shaft Excavation Support System, Tunnel Excavation, and Geotechnical Instrumentation. The following items shall be included in the water control plan, as a minimum.

a. Descriptions of proposed groundwater and surface water control facilities including, but not limited to, equipment, methods, installation, standby equipment and power supply, pollution control facilities including silt removal facilities, discharge locations to be utilized, removal of water control systems, and provisions for immediate temporary water supply as required by this section.
b. The contractor shall submit shop drawings showing locations, dimensions, and relationships of elements of each water control system.

c. Design calculations demonstrating dewatering zone of influence, and adequacy of proposed water control systems and components. The contractor may be required to demonstrate the systems proposed in the water control plan and to verify that adequate equipment, personnel, and materials are provided to dewater the excavations at all locations and times required. The contractor shall provide manufacturer's literature describing installation, operation, and maintenance procedures for all components of the water control system.
d. Monitoring plans including measurement of: pumping rates at excavated locations and wells, reading of piezometers, and water quality sampling of discharge.
e. Method(s) to measure discharge quantities.
f. If system is modified during installation or operation, revise or amend and resubmit Water Control Plan.

Quality Control: During construction, submit rate of discharge, pumping rate measurements, water level readings taken at piezometers, groundwater quality data, and sediment content test results. Contractor's readings shall be performed in addition to any readings taken by the engineer. Submit the data and test results within 24 hours of readings.

C.1.4 Acceptance

All Information Submittals should be submitted to the engineer. The engineer can reject the submittals which do not contain adequate detail, as required herein. The contractor shall resubmit the rejected submittals within 7 days upon the receipt of the engineer's rejection notice.

C.2 General Requirements

The contractor shall continuously control, handle, treat and dispose water at all times during the course of construction, and provide adequate backup systems to accomplish control of water in conformance with this special provision to obtain satisfactory working conditions and to maintain the progress of the work. Water to be controlled includes groundwater, contaminated groundwater; and surface water (precipitation and run-off).

All required drainage, pumping, treatment, and disposal shall be done without damage to adjacent property or structures and without interference with the operations of other contractors, or the rights of public and private owners, or pedestrian and vehicular traffic.

The contractor shall modify the water control system at their own expense if, after installation and while in operation, it causes or threatens to cause damage to adjacent property or to existing buildings, structures, or utilities.

C.3 Regulatory Requirements

Storm water discharge to storm sewers, watercourses, lakes, and wetlands shall conform to the requirements of local, state, and Federal regulations. Water from excavations shall be kept separate from storm water discharge associated with surface construction.

In the event that contaminated waters are encountered, the contractor is required to notify the department prior to discharging contaminated water. Comply with WDNR regulations regarding disposal of contaminated groundwater. Obtain additional permits, if required. Notify the Milwaukee Metropolitan Sewerage District for any discharge of contaminated water into the sewer system, and provide laboratory test results documenting contaminant concentrations.

C.4. Surface Water Control

Intercept and divert surface drainage away from the work sites by the use of dikes, curbwalls, ditches, sumps, or other means. Design surface drainage systems to prevent erosion either on or off the site. Control surface runoff to prevent entry of surface water into excavations and to prevent erosion either on or off the site. Remove drainage systems when no longer needed.

C.5 Water Control in Excavations

Use water control methods that are appropriate, as determined by the contractor, to permit conditions, ground conditions, construction operations, and requirements of these plans and special provisions. The methods shall involve removal of water accumulating within excavations from precipitation and groundwater infiltration and may involve removal of water outside excavations by means such as the use of dewatering or pressure relief wells.

Water control methods shall minimize adverse effects of elevated or reduced water pressure on the work, the surrounding ground and adjacent facilities and structures. Design and operate the water control

measures to prevent removal of in-situ materials (development of lost ground) or loosening or softening of subgrade soils within excavations.

Water control methods shall be capable of lowering and maintaining the free water and piezometric levels to an elevation at least 2 feet below excavation bottoms regardless of the water volume. The methods shall have sufficient capacity to accomplish this desired result allowing for normal variations in precipitation and soil and aquifer properties.

Control groundwater and surface water such that the construction of tunnels and shafts excavations, trenches and other structures can be performed without adverse effects of water on the facilities being constructed, including prevention of hydrostatic uplift pressures on the new facilities until construction has been adequately completed. If the water level cannot be maintained at the specified levels, contractor shall, at no additional cost to the department, control seepage of groundwater by whatever means are necessary to assure that there is no loss of ground by erosion or piping of fines with seepage through shoring or lagging into excavated areas and no instability of slopes due to seepage. Control water during periods when excavating, installing ground support systems, installing subgrade protection measures, placing concrete (except tremie concrete), placing pipe, and at such other times as is necessary for efficient and safe execution of the work.

If water enters the excavation in volumes that could adversely affect the performance of the work or has the potential to cause loss or damage to adjacent property or structures, take immediate steps to reduce or mitigate the water inflow.

Provide standby pumps and standby power supply where disruption of water control systems could allow water inflows to threaten the work or the safety of personnel.

C.6 Monitoring of Groundwater Levels

Monitor groundwater levels as necessary to evaluate the sufficiency of the water control system. A system of construction piezometers is required to evaluate the effectiveness of the water control system in fulfilling the requirements specified herein. Piezometers shall be of adequate numbers and in suitable arrangements and depths for determining the free water surface elevations and piezometric elevation over the area. A minimum of one piezometer per four dewatering wells or one piezometer per excavation location shall be installed with the dewatering system at locations and depths proposed by the contractor.

Piezometers shall be installed using direct rotary drilling methods with drilling fluid that does not impact the development of the piezometer and conforms to ASTM D5783. During drilling, soil samples shall be obtained at intervals of 2.5 feet or less using standard penetration tests according to ASTM D1586. Piezometers shall be constructed and developed according to ASTM D5092, with development a minimum of 24 hours after completion. The contractor’s engineer shall determine the depth of the sensing zone for each piezometer based on observations of retained soil samples.

Make a minimum of one reading at each piezometer, per 24-hour period, 5 days per week during the period of dewatering activities (including dewatering by pumping seepage from sumps within shafts or other excavation areas) and one reading at each piezometer per week until the end of construction during periods of no dewatering.

C.7 Dewatering Wells

Obtain a site-specific dewatering discharge or construction site storm water discharge permit if the WDNR has specific concerns that are not addressed by other permits that might otherwise apply.

Obtain a WDNR permit for operation of any well or well system that has a combined pumping capacity of 70 gallons per minute or more (a high capacity extraction system). For purposes of permitting, a well is defined as any opening made in the ground where the depth of the opening is greater than its largest surface dimension and extends more than 10 feet below ground surface. The permit will require that wells be constructed, operated, and abandoned according to Chapter NR 812, Wisconsin Administrative Code.

Keep dewatering influence zone to the minimum necessary for execution of the work. Obtain any additional geotechnical information necessary for design of a dewatering well system, including performing pump tests, grain size analyses, groundwater chemical analyses, and subsurface investigations. Design and operate wells so as to prevent removal of fine soils with seepage through backpack material and screens. Provide means by which water discharge from each well can be measured and flow rates adjusted. Construct and operate wells according to WDNR requirements. Monitor the rate of discharge from each well on a daily basis with an accuracy of at least 2 percent of the flow.

Wells shall be designed, installed and operated in a manner that will preclude removal of materials by the pumping operation (hereafter referred to as "piping of fines"). After installation, each well shall be individually pump-tested at maximum design flow to verify acceptability with respect to piping of fines (sediment mostly consisting of silt and sand) as measured using a centrifugal tester. Any well or wellpoint segment found to be causing piping of fines at a rate exceeding 2 parts per million (ppm) by volume during the individual pump-test at the maximum design flow shall be replaced in a manner acceptable to the engineer, and at no additional cost to the department. Each well shall be checked for sediment piping using a centrifugal tester immediately after installation and at least once per month during operation. Measure the sediment content of the total dewatering effluent using a centrifugal tester at least once every 30 days. If the sediment content of the total effluent is greater than 1 ppm, contractor shall identify and abandon wells that are producing excessive sediments and replace them. All sediment content tests shall be performed in the presence of the engineer.

C.8 Ground Loss from Dewatering Operations

Support any structure including, but not limited to, buildings, bridges, freeway surfaces, streets, and utilities, or portions of such structure, including footings, foundations, basements, walls or concrete driveways that become unstable or vulnerable to settlement due to removal or disturbance of groundwater. Cease excavation and other construction operations that result or have the potential to result in further settlement until corrective measures are implemented. Support shall include but not be limited to shoring; sheeting; bracing; underpinning; compaction grouting; driving piles; excavating, backfilling, and placing new structural concrete beneath or adjacent to the unstable structure; or other means necessary to rectify the particular problem involved.

The contractor shall bear the costs of all loss or damage arising from removal or disturbance of groundwater including, but not limited to claims for subsidence and loss of structure support that may occur in the prosecution of the work. If the contractor fails to correct the damage resulting from his operations, the engineer may deem the work to be unacceptable work as defined in standard spec 105.3.2.2.

C.9 Treatment and Disposal of Water

Discharge all water removed from the construction site through pipes or hoses. Do not convey water in open ditches or trenches. Discharge water in a manner that will not cause soil erosion at the discharge point. Discharge shall not cause sediment accumulation or flooding in any stream, storm sewer, or on adjacent properties.

Treat all water to remove suspended solids, oils, cement, bentonite, and other contaminants by use of settling basins, on-site treatment plant, or other means selected by the contractor. Design the treatment systems for the maximum discharge rates. Treatment systems shall be capable of expansion if greater capacity becomes necessary during the course of the work. The contractor shall provide copies of all records required by the WDNR.

Obtain permission to use storm sewers or drains for water disposal purposes from the authority having jurisdiction. Protection of storm sewers and drains shall be in conformance with the Wisconsin Construction Site Best Management Practices Handbook, latest revision and the requirements by authority having jurisdiction. Any requirements and costs for such use shall be the responsibility of the contractor. Do not cause flooding by overloading or blocking the flow in the drainage facilities,and leave the facilities unrestricted and as clean as originally found. Document the condition of the drainage facilities prior to and subsequent to their use. The engineer may independently verify the condition of such facilities. Repair or restore any damage to facilities as a result of the contractor's operations as directed by the authority having jurisdiction, at the contractor's expense.

Should requirements of any permit be different than requirements herein, the more stringent requirements shall control.

Ventilate enclosures around wells and water discharge points to prevent the accumulation of combustible gas that may escape from solution in groundwater.

On completing the work, clean out and dispose of all sediments and residues in settling basins, treatment facilities, and the like. Dispose of sediments and residues according to applicable regulations.

The contractor is responsible for removing all surface and ground water regardless of the quantity during construction to accomplish the work.

C.10 Abandonment of Piezometers and Dewatering Wells

Abandon the design phase piezometers and all piezometers and dewatering wells installed during construction according to standard spec 204.3.3.3 and according to NR 812 Wisconsin Administrative Code, whichever is more stringent.

D Measurement

The department will measure Control of Water Storm Sewer by a 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
SPV.0105.8001	Control of Water Storm Sewer	LS

Payment for Control of Water Storm Sewer shall be full compensation for, but not limited to complete dewatering system design, installation, monitoring, discharge, and all necessary incidental work as specified in this special provision.

162. Dewatering for Detention Basin Construction, Item SPV.0105.8002.

A General

This special provision describes dewatering of detention basin including control of water during excavation and clay lining construction.

A.1 Submittals

Discharge Permits

Submit discharge and well permit applications to Wisconsin Department of Natural Resources (WDNR) if dewatering wells are to be used. Also submit design and calculations for the sedimentation tank or clarifier system to be utilized to reduce sediment levels to minimum levels as required by WDNR prior to discharging.

Water Control Plan

Submit to the department for approval the water control plan at least 30 days prior to installation of water control systems. Resubmit as appropriate if the system or any part thereof is modified during installation or operation.

Should requirements of any permit be different than requirements herein, the more stringent requirements shall control.

Water control plan shall as a minimum, include:

1. Descriptions of proposed groundwater and surface water control facilities including, but not limited to, equipment; methods; installation; standby equipment and power supply, pollution control facilities including silt removal facilities, discharge locations to be utilized; removal of water control systems; provisions for immediate temporary water supply as required by this section.
2. The contractor shall submit shop drawings showing locations, dimensions, and relationships of elements of each water control system. The submittal shall include design calculations demonstrating adequacy of proposed water control or isolation systems and their components. The contractor shall provide manufacturer's literature describing installation, operation, and maintenance procedures for all components of the water control system.
3. Design calculations demonstrating adequacy of proposed water control systems and components. The contractor may be required to demonstrate the systems proposed in the water control plan and to verify that adequate equipment, personnel, and materials are provided to dewater the excavations at all locations and times required.

If system is modified during installation or operation, revise or amend and resubmit Water Control Plan.

Quality Control Submittals

During construction, submit pumping rate measurements, water level readings taken at construction phase piezometers and groundwater quality data as needed.

A.2 Control of Water

General

This section addresses the provisions for controlling, handling, disposing and treating groundwater and surface water, including contaminated groundwater that may be encountered in detention basin excavations, as required for performance of the work; maintaining the control of water facilities, including maintenance items such as the disposal of sludge from settling detention basins and treatment plants; and work necessary to repair or replace property damaged due to groundwater disturbance.

General dewatering and lowering of the groundwater table for the purpose of stabilization of the detention basin excavation surface will be permitted for detention basin construction.

Dewater existing detention pond water to construct the expansion of the existing pond as shown on the plan.

The contractor is responsible for designing, furnishing, installing and maintaining dewatering system that accomplishes continuous control of water at all times during the course of construction, and shall provide adequate backup systems to accomplish control of water. The method of control, handling, and disposal of groundwater and surface water shall be by whatever means are necessary and in conformance with this section to obtain satisfactory working conditions and to maintain the progress of the work.

All required drainage, pumping, treatment, and disposal shall be done without damage to adjacent property or structures and without interference with the operations of other contractors, or the rights of public and private owners, or pedestrian and vehicular traffic.

The contractor shall modify the water control system at his own expense if, after installation and while in operation, it causes or threatens to cause damage to adjacent property or to existing buildings, structures, or utilities.

A.3 Regulatory Requirements

Storm water discharge to storm sewers, watercourses, lakes, and wetlands shall conform to the requirements of local, state, and Federal regulations.

Water from excavations shall be kept separate from storm water discharge associated with surface construction. Ground water from excavations shall be discharged into the nearest sanitary sewer, in compliance with all applicable codes and regulations. Discharge of ground water into storm sewers, open waterways, or on open ground is prohibited.

In the event that contaminated waters are encountered, the contractor is required to notify the department prior to discharging contaminated water into the sanitary sewer system. The contractor may be required to provide laboratory test results documenting contaminant concentrations.

B Materials

The contractor is responsible to determine materials required to meet these dewatering specifications. The piezometer and observation well materials are listed below.

B.1 Filter Pack

Filter pack shall be clean natural silica sand; graded such that all of the material passes the No. 4 sieve and is retained on the No. 30 sieve.

B.2 Filter Pack Seal

Filter pack seal shall be clean natural silica sand; graded such that all of the material passes the No. 10 sieve and is retained on the No. 40 sieve.

B.3 Bentonite Seal

Bentonite pellets used to form bentonite seals shall be 3/8-inch diameter compressed pellets made from high swelling montmorillonite.

B.4 Piezometers (PZ)

Riser pipe for piezometers shall consist of schedule 40 or thicker PVC pipe with flush threaded couplings. All PVC pipe shall have a nominal diameter of 2 inches. A PVC cap for the riser shall be provided. Sensing tips shall consist of 2-inch ID factory-slotted PVC threaded pipe, with 0.02-inch size openings, 60 inches in length.

C Construction

C.1 General

Continuously control, handle, treat and dispose water at all times during the course of construction, and provide adequate backup systems to accomplish control of water in conformance with this section to obtain satisfactory working conditions and to maintain the progress of the work. Water to be controlled includes groundwater, contaminated groundwater; surface water (precipitation and run-off); and wastewater from combined or separated sewers or related facilities.

Obtain all permits required from Wisconsin Department of Natural Resources, local municipality and any other agencies for installation and operation of water control systems and discharging of collected water into water courses, water bodies, sewers or the ground.

Perform the work without damage to adjacent property or structures and without interference with the operations of other contractors, or the rights of public and private owners, or pedestrian and vehicular traffic. Modify the water control system at your own expense if, after installation and while in operation, it causes or threatens to cause damage to adjacent property or to existing buildings, structures, or utilities.

C.2 Surface Water Control

Intercept and divert surface drainage away from the work sites by the use of dikes, curbwalls, ditches, sumps, or other means. Design surface drainage systems so that they do not cause erosion on or off the site. Control surface runoff to prevent entry of surface water into excavations and to prevent erosion on or off the site. Remove drainage systems when no longer needed.

C.3 Water Control in Excavations

Use water control methods that are appropriate, as determined by the contractor, to permit conditions, ground conditions, construction operations, and requirements of these plans and specifications. The methods shall involve removal of water accumulating within excavations from precipitation and groundwater infiltration and may involve removal of water outside excavations by means such as the use of dewatering or pressure relief wells.

Water control measures shall minimize adverse effects of elevated or reduced water pressure on the work, the surrounding ground and adjacent facilities and structures. Design and operate the water control measures to prevent removal of in-site materials (development of lost ground), or loosening or softening of subgrade soils within excavations.

The water control methods shall be of such capacity that they will lower and maintain the free water and piezometric levels, to an elevation at least 2 feet below all earth slopes, detention basin bottoms and excavation surfaces including the base of excavation required for placement of the clay liner thickness. The methods shall have sufficient capacity to accomplish this desired result allowing for normal variations in precipitation and soil and aquifer properties.

Control groundwater and surface water such that the detention basin construction can be performed without adverse effects of water on the facility being constructed, including hydrostatic uplift pressures. If soil stratification is such that the water level cannot be maintained at the specified levels, contractor shall, at no additional cost to the department, control seepage of groundwater by whatever means are necessary to assure there is no loss of ground by erosion or piping of fines with seepage and no instability of slopes due to seepage. Control water during periods when excavation and installing slope underdrains, clay patches and as such other times as is necessary for efficient and safe execution of the work.

Should water enter the excavation in amounts that could adversely affect the performance of the work or that has the potential to cause loss or damage to adjacent property or structures, take immediate steps to control the water inflow.

Provide standby pumps and standby power supply where disruption of water control systems could allow water inflows to threaten the work or the safety of personnel.

C.4 Monitoring of Groundwater Levels

Monitor groundwater levels as necessary to evaluate the sufficiency of the control of water system. Monitor groundwater levels in piezometers. A system of construction piezometers is required to monitor free water surface elevations and piezometric elevations to evaluate the effectiveness of the water control system in fulfilling the requirements specified herein. Piezometers shall be of adequate numbers and in suitable arrangements and depths for determining the free water surface elevations and piezometric elevation over the area. A minimum of one piezometer per four dewatering wells or two per pond excavation location shall be installed with the dewatering system at locations and depths proposed by the contractor and approved by the department's representative. At least one piezometer shall be placed at the edge of the planned pond between the pond and the closest building/structure.

Piezometer materials and installation shall conform to the requirements herein. Determination of baseline water levels and monitoring of water levels by the engineer and contractor shall be according to this article.

C.5 Installing Piezometers

Drill, sample and log borings in soil drilled for the purpose of installing piezometers as specified herein. Use 2 ½ foot soil sampling intervals with an SPT sampler. Drill borings using 4-inch minimum inside diameter casing and water. Drill the borings so as not to damage adjacent utilities. If use of drilling fluid is necessary to stabilize the borehole, use a biodegradable organic polymeric drilling fluid. Perform a standard penetration test at 2.5-foot depth intervals.

Install the sensing tip, riser pipe, filter pack, filter pack seal, and annular space seal as determined by contractor’s engineer. The engineer will determine the depth of the sensing zone for each piezometer installed based upon observations of retained soil samples. Make pipe joints secure and watertight. Withdraw the drill casing in small increments as the backfill materials are placed, so that collapse of the borehole does not occur. Do not rotate casing during withdrawal.

Place filter pack material slowly so that bridging does not occur in the boring and to prevent the instrument from being lifted as the casing is withdrawn. Use a

measuring rod or similar device to measure the height of the filter pack to ensure that the filter pack is installed over the proper depth interval. Carefully raise and lower the measuring rod while the filter pack is installed, to prevent bridging and to tamp the filter pack in place.

Place a filter pack seal above the filter pack. Place the filter pack seal in a similar manner as for filter pack material. Place a bentonite seal above the filter pack seal.

Place the annular space seal by tremie grouting. Place the grout in such a manner as to not disturb the integrity of the filter pack and seal.

Grout for the annular space seal for piezometers shall consist of a bentonite to cement ratio of 0.15/1 by weight, with sufficient water to allow pumping. Mix bentonite and water first.

Provide the top of each riser pipe with a cap in which an air vent hole 1/8 inch in diameter has been drilled. The cap shall be easy to remove.

Develop each installation a minimum of 24 hours after completion. Airlift water from the riser pipe by injecting compressed air through a small tube inserted 3 to 5 feet above the top of the sensing tip. Take care not to inject air directly into the sensing tip. Continue development until the water becomes clear and, in the opinion of the engineer, the material soil filter has been developed. Perform a rising head sensitivity test.

The contractor shall make a minimum of one reading at each piezometer, per 24-hour period, 5 days per week during the period of dewatering activities (including dewatering by pumping seepage from sumps) These piezometer readings shall be recorded on an approved form and reported to the engineer within 24 hours after they are obtained.

C.6 Dewatering Wells

Obtain a site-specific dewatering discharge or construction site storm water discharge permit if the WDNR has specific concerns that are not addressed by other permits that might otherwise apply.

Obtain a WDNR permit for operation of any well or well system that has a combined pumping capacity of 70 gallons per minute or more (a high capacity extraction system). For purposes of permitting, a well is defined as any opening made in the ground where the depth of the opening is greater than its largest surface dimension and extends more than 10 feet below ground surface. The permit will require that wells be constructed, operated, and abandoned according to Chapter NR 812, Wis. Adm. Code.

Comply with WDNR regulations regarding disposal of contaminated groundwater in the event that contaminated waters are encountered. Obtain additional permits, if required.

Keep dewatering from wells to the minimum necessary for execution of the work. Obtain any additional geotechnical information necessary for design of a dewatering well system, including performing pump tests, grain size analyses, groundwater chemical analyses, and subsurface investigations. Design and operate wells so as to prevent removal of fine soils with seepage through backpack material and screens. Provide means by which water discharge from each well can be measured and flow rates adjusted. Construct and operate wells according to WDNR requirements, including obtaining permits, as required.

The wells shall be designed, installed and operated in a manner that will preclude removal of materials from the foundation by the pumping operation (hereafter referred to as "piping of fines"). After installation, each well shall be individually pump-tested at maximum design flow to verify acceptability with respect to piping of fines (sediment mostly consisting of silt and sand) as measured using a centrifugal tester. Any well or wellpoint segment found to be causing piping of fines at a rate exceeding 2 parts per million (ppm) by volume during the individual pump-test at the maximum design flow shall be replaced in a manner acceptable to the engineer, and at no additional cost to the department. Each well shall be checked for sediment piping using a centrifugal tester immediately after installation and at least once per month during operation. Measure the sediment content of the total dewatering effluent using a centrifugal tester at least every 30 days. If the sediment content of the total effluent is greater than 1 ppm, contractor shall identify and abandon wells that are producing excessive sand and replace them if necessary. All sediment content tests shall be performed in the presence of the engineer. Sediment content test results shall be furnished to the department within 24 hours.

Monitor the rate of discharge from each well on a daily basis with an accuracy of at least 2 percent of the flow and make records available to the engineer on a weekly basis or as requested. Abandon dewatering wells as specified in standard spec 204.3.3.3 and according to NR 812 Wis. Adm. Code, whichever is more stringent.

C.7 Ground Loss From Removal or Disturbance of Groundwater

Immediately support any structure including, but not limited to, buildings, bridges, freeway surfaces, streets, and utilities, or portions of such structure, including footings, foundations, basements, walls or concrete and asphalt driveways that become unstable or vulnerable to settlement due to removal or disturbance of groundwater. Cease excavation and other construction operations that result or have the potential to result in further settlement until corrective measures are implemented. Support shall include but not be limited to shoring; sheeting; bracing; underpinning; compaction grouting; driving piles; excavating, backfilling, and placing new structural concrete beneath or adjacent to the unstable structure; or other means necessary to rectify the particular problem involved.

Bear the costs of all loss or damage arising from removal or disturbance of groundwater including, but not limited to claims for subsidence and loss of structure support that may occur in the prosecution of the work. If the contractor fails to correct the damage resulting from his operations, the engineer may deem the work to be unacceptable work as defined in standard spec 105.3.2.2.

C.8 Treatment and Disposal of Water

Discharge all water removed from the construction site through pipes or hoses. Do not convey water in open ditches or trenches. Discharge water in a manner that will not cause soil erosion at the discharge point. Discharge shall not cause sediment accumulation or flooding in any stream, storm sewer, or on adjacent properties.

Treat all water to remove suspended solids, oils, cement, bentonite, and other contaminants by use of settling detention basins, on-site treatment plant, or other means selected by the contractor. Design the treatment systems for the maximum discharge rates consistent with the means and methods selected by the contractor. Treatment systems shall be capable of expansion if greater capacity becomes necessary during the course of the work. Provide to the engineer copies of all records required by the WDNR.

Protection of storm sewers and drains shall be in conformance with the local municipality Erosion Control Ordinance and the Wisconsin Construction Site Best Management Practices Handbook, latest revision. Any requirements and costs for such use shall be the responsibility of the contractor. Do not cause flooding by overloading or blocking the flow in the drainage facilities and leave the facilities unrestricted and as clean as originally found. Document the condition of the drainage facilities prior to and subsequent to their use. The engineer may independently verify the condition of such facilities. Repair or restore any damage to facilities as a result of the contractor's operations as directed by the authority having jurisdiction, at the contractor's expense.

Should requirements of any permit be different than requirements herein, the more stringent requirements shall control.

Remove suspended solids from water discharged from excavations, sufficient to preclude sediment deposition in the receiving sewer.

Ventilate enclosures around wells and water discharge points to prevent the accumulation of combustible gas that may escape from solution in groundwater.

On completing the work, clean out and dispose of all sediments and residues in settling detention basins, treatment facilities, and the like. Dispose of sediments and residues according to applicable regulations.

C.9 Abandonment of Piezometers

At the conclusion of detention basin construction, abandon the piezometers installed during construction according to NR 812 Wis. Adm. Code.

D Measurement

The department will measure Dewatering for Detention Basin Construction as lump sum unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.8002	Dewatering for Detention Basin Construction	LS

Payment is full compensation for providing submittals, obtaining permits, furnishing materials, installation, all dewatering, testing, protection, maintenance, replacement or repair of damaged instruments, installations or adjacent structures, obtaining data readings, abandonment, and for all labor, tools, equipment and incidentals necessary to complete the work as specified herein.

163. Field Office Special, Item SPV.0135.0100.

A Description

This special provision describes furnishing, equipping, and maintaining field office facilities.

B Materials

Obtain engineer approval before providing an existing office building, or an existing building converted to office-type use. Ensure that the building meets all applicable health, fire, and building codes and standards. Provide first aid kits, fire extinguishers, and all other supplies required to meet all applicable health, fire, and building codes and standards. The field office must be located less than one mile from the project limits with all floor space located on the first floor.

Provide; maintain in clean good working condition; and stock lavatory with sanitary supplies, including a sufficient supply of soap; hand sanitizer; toilet paper; and paper towels. The on-site sanitary facilities must meet Federal, State, and local health department requirements at all times.

Equip these facilities with suitable natural and light emitting diode (LED)DSL lighting. Also provide adequate heating and air conditioning equipment and fuel necessary to maintain a temperature range from 68 F to 80 F during the hours occupied.

Equip:

- Doors and windows with locks.
- Exterior doors with dead bolt locks.
- Windows with exterior screens to allow adequate ventilation.

Provide at least 1,200 square feet interior useable floor space, including shared spaces, such as plan review areas, conference rooms, storage areas, meeting areas, hallways, and restrooms. Provide a minimum 150 square feet storage room with a lockable door. Obtain engineer's approval of a suitably sized, open meeting area, including tables and folding chairs to accommodate regularly scheduled meetings of 20 people. Include a wireless ceiling mounted 1080-pixel liquid crystal display projector with a minimum of 3,000 lumens, 6' x 8' projector screen, a 4' x 8' white board with dry erase markers and erasers, and phone jack with phone service.

Provide 7 workstations with a lockable desk and drawers. Workstations shall be a minimum 36 SF. Provide 3 private rooms, additionally equipped with a four-shelf bookcase, a large lockable metal storage cabinet, and a 48" x 36" whiteboard with dry-erase markers and erasers. Supply the interior doors to these rooms with locksets. Rooms must be a minimum of 100 SF.

Provide one ergonomically correct office chair in working condition, with, at a minimum, the following features, for each workstation:

- Five-legged base with casters.
- High backrest.
- Seat adjustable from 15 inches to 22 inches from the floor with a "seamless waterfall, rounded front edge.

For all work stations, provide unlimited high-speed internet service for exclusive department use via cable or DSL connection with a modem/router and capable of supporting cloud enabled file sharing, voice over internet protocol (VoIP), video conferencing, and web-based applications. Ensure that system meets the following:

- Includes a wireless network for the field office.
- Can accommodate IPSec based VPN products.
- Has a broadband bandwidth range with minimum connection speed of 100 Mbps + 1/2 Mbps per user download and 20 Mbps upload. Coordinate network setup at the leased office with the WisDOT network team.

Provide and install into the field office telephone exchanges with local and long-distance service or VoIP phone network. The voice exchanges are to be configured so that the incoming calls for any voice exchange utilize an open exchange. The telephones and the communication services are for the sole use of the department staff.

Provide one new Windows 10 compliant, high-capacity color printer/photocopier/scanners capable of printing and copying up to 11" x 17" paper, with the ability to perform duplexing, sorting, stapling, and multiple sheet auto feeding, with a built-in scanner with the capability to scan black and white and color up to 11" x 17" at a minimum of 1200dpi, and with a direct or field office wireless network connection, as approved by the engineer.

Provide and maintain an adequate supply of bottled drinking water. Provide one refrigerator with a minimum 18 cubic foot capacity, including a freezer. Provide one microwave oven with a minimum 1.1 cubic foot capacity, a minimum of 1000 watts, and a removable glass turntable.

Maintain the field office equipment and provide supplies for the photocopiers as requested by the engineer.

Provide for the professional cleaning of the field office during regular business hours once per week.

Provide carpet runners at all entrances. Clean weekly and replace as necessary or as directed by the engineer.

Provide clearly marked recycling and waste receptacles within the field office, and separate recycling and waste dumpsters near the field office. Cover outdoor containers to keep out rain, and snow. Provide regularly scheduled recycling and waste pick-up.

Include an adjacent, no-fee, lighted parking lot large enough to accommodate 15 vehicles, as approved by the engineer. Maintain the parking lot and egress, including snow removal.

C Construction

Do not combine field offices, or combine them with, or attach them to, any buildings used by the contractor, unless the engineer allows in writing. The contractor may furnish, if the contract allows, the field offices jointly in cooperation with other contractors on designated projects.

Do not begin construction operations requiring the use of the field offices by the department until the required field offices are approved by the engineer, furnished, fully equipped, and made ready for use as the engineer directs.

The field office shall remain available for department until the engineer approves its closure. These field facilities are for the sole use of the department and upon contract completion remain the contractor’s property.

D Measurement

The department will measure Field Office Special by the month, or partial month where applicable, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0135.0100	Field Office Special	MON

Payment is full compensation for providing, equipping, securing, cleaning and maintaining the facility and associated parking lot; for telecommunications equipment, installation, and service fees; and for providing all incidentals, including bottled water, refrigerator/freezers, microwaves, utilities, fuel, safety, ventilation, toilet facilities, and office supplies as required, either independently or jointly, for the time specified in section C.

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164. Vibration Monitoring, Item SPV.0135.0601.

A Description

This special provision describes developing a vibration monitoring plan, deploying seismographs for continuous monitoring and recording, and submittal of required documentation.

The contractor shall conduct and document a crack and damage survey of any buildings or structures identified in the crack and damage survey special provision of this contract prior to performing any vibration monitoring. The contractor is responsible for arranging with the property owner the right of entry to their property, to install, maintain, and remove vibration monitoring equipment.

Any damage resulting from excessive vibration due to the contractor’s operations or claims of damage during construction is the responsibility of the contractor to resolve.

B Equipment

Use seismographs meeting the requirements of Wisconsin Department of Safety and Professional Services (SPS)307.43, Wisconsin Administrative Code, that are continuous data recorders supplied with all accessories for making vibration observations.

C Construction

C.1 General

Vibration Monitoring shall be performed if a building/structure is located within 200 feet of a vibration-inducing construction operation. Establish recordings at the closest location affected by the vibration-inducing construction operation by placing seismograph(s) on a stable surface within 3 feet of the building/structure.

C.2 Monitoring Plan

Submit a monitoring plan that includes the following:

- Location of each vibration-inducing construction operation to be monitored.
- Locations at which the approved seismographs will be placed.
- Anticipated vibration levels at the closest building(s) or other sensitive facility during the various activities.
- Anticipated monitoring duration for each monitoring location.
- A recommended maximum safe peak particle velocity threshold.
- Mitigation plan to reduce potentially excessive vibration levels to acceptable limits.

Obtain the engineer's acceptance of the monitoring plan prior to performing any vibration-inducing construction operation on the project.

C.3 Monitoring and Recording

Conduct monitoring procedures conforming to SPS 307.44 and as follows: Take seismograph readings before construction operations to establish an ambient or background index. Place seismographs to monitor all vibration-inducing construction operations per the accepted monitoring plan.

Monitor the following construction operations for their entire duration:

- Bridge demolition
- Bridge and sign bridge pile driving
- Sheet pile installation and removal
- Drilled Shaft installation
- MSE wall compaction
- All compaction activities utilizing large vibratory rollers
- Any other activities that may cause vibration damage to adjacent buildings, structures, or utilities.

If construction operations exceed the maximum peak particle velocity limits as established in the contractor's monitoring plan, according to SPS 304.7, stop the construction operation in progress and notify the engineer. Implement alternate construction methods to produce results within the allowable peak particle velocity limits.

C.4 Reporting

Furnish a monthly report of data recorded to the engineer.

Include the following in the report:

- Date vibration monitoring operations began for each location with an associated compilation of total days currently monitored at each site.
- Identification of vibration inducing construction operations monitored each day at each location.
- Serial number of vibration monitoring instrument used and record of latest calibration.
- Description of contractor's equipment.
- Name of observer and interpreter.
- Distance and direction of recording station from vibration source.
- Surficial material type at recording station.
- Principal frequency and particle velocity in each component direction.
- Copy of records of seismograph readings.
- Contractor documentation of any operational changes necessary to reduce vibration below nuisance levels.

D Measurement

The department will measure Vibration Monitoring acceptably completed by calendar month when an active seismograph is recording in a given month, or a portion thereof, according to the accepted monitoring plan or as approved by the engineer.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0135.0601	Vibration Monitoring	MON

Payment of the item Vibration Monitoring is full compensation for coordination with property owners, for providing, setting up and removal of all seismographs according to the accepted monitoring plan, providing the vibration monitoring plan including any monthly updates, performing continuous monitoring and recording of vibrations, and for providing the monthly reports and all other required documentation.

165. Removing Loose Concrete, Item SPV.0165.4000.

A Description

This special provision describes removing vertical, horizontal and overhead deteriorated concrete on structures as shown on the plans and applying a migrating corrosion inhibitor to areas of exposed steel reinforcing and concrete. This work shall be according to the pertinent parts of standard spec 517 and the details as shown in the plans.

B Materials

B.1 General

Furnish a migrating corrosion inhibitor for vertical, horizontal and overhead applications that is according to the pertinent requirements of standard spec 517, and with the following typical physical properties:

- Color appearance: clear yellow viscous liquid
- pH: 9.0 - 9.7 (neat)
- Density: 8.6 – 8.8 lb./gal. (1.03 – 1.05 kg/liter)
- Viscosity (or flow) similar to syrup and higher than water
- Odor: slight ammonia smell
- Non-volatile content: 20 – 27%

Migrating corrosion inhibitor provided in this section shall conform to the requirements for each type and class of concrete required, with the following typical physical properties and requirements:

a. Organic liquid.

b. Water-based.

c. Non-flammable.

d. Non-vapor barrier.

e. Non-toxic, oral LD 50 2000 g/kg maximum, or lower.

f. Protects both anodic and cathodic areas.

g. Does not contain calcium nitrate.

h. Non-polluting after flushing or dilution.

i. Non-harmful to plant life after flushing or dilution.

j. Approved for potable water applications by NSF Standard 61.

k. Certified for potable water applications by Underwriters laboratories.

l. Not carcinogenic under occupational Safety and Health Agency, NTP, or IARC.

m. Seven-year minimum usage experience as a migrating corrosion inhibitor.

n. Confirmed effective by ASTM G – 109.

o. Proven effective as reported by the Strategic Highway Research Program funded by the United States of America, Department of Transportation (DOT), federal government and state DOT's.

C Construction

C.1 Preparation

Remove all deteriorated concrete. Sawcutting of edges is not needed. Concrete and adjacent surfaces should be dry, clean, and free of all dirt, oil, grease, efflorescence, sealers, coatings, curing compounds, membranes, rubber tire marks, and asphalt. Clean surface by stream cleaning, water blasting, sandblasting, or shot blasting. Use an air compressor with water and oil trap to ensure the cleaning method does not apply materials intended for removal. Use brush, broom, sweeper, or air compressor on surfaces as final cleaning before application. Use brush, broom, sweeper, or air compressor to chase cracks as final cleaning before application. Do not apply if the ambient temperature near the applied concrete surface is expected to be below freezing water temperature within 12 hours of application.

C.2 Surface Application

Use the corrosion inhibitor for vertical, horizontal or overhead surface applications. Apply the solution by spray (conventional airless or hand pressure spray equipment), roller, squeegee, or paintbrush. Apply a rate of 150 square feet per gallon (3.7 square meters per liter). Minimal dry time is required and is usually minutes after treatment. Use of concrete substrate, such as for traffic, may resume when treatment is dry to touch.

D Measurement

The department will measure Removing Loose Concrete by the square foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.4000	Removing Loose Concrete	SF

Payment is full compensation for concrete removal and disposal, cleaning preparation, furnishing, and for applying the product.

166. Temporary Wall Wire Faced Mechanically Stabilized Earth, Item SPV.0165.4001.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to the lines, dimension, elevations and details as shown on the plans and provided in the contract.

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

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

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

B Materials

B.1 Proprietary Wall Systems

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

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures in Madison by calling (608) 266-8494.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit electronically to the engineer and Bureau of Structures for review and acceptance. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All

plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided in the wall plans.

The design of the wall by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

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

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

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

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

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

B.3 Wall System Components

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

B.3.1 Steel Components

Provide steel reinforcement that meets the following requirements:

- Welded Wire Fabric Soil Reinforcement

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

- Steel Reinforcing Strips and Tie Strips

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

- Welded Wire Fabric Facing Panels

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

- Fasteners

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

- Connector Pins and Mat Bars

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

- Metallic Screen

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

B.3.2 Geotextile

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

B.3.3 Backfill

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

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

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

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

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

In addition, backfill material shall meet the following requirements.

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

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

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

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

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall shall be according to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the bottom of the wall unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store any materials or large equipment within 10 feet of the back of the wall.

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

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

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

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

C.2 Compaction

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

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

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the wall face. Do not use sheepsfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect welded wire facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place remaining courses in vertical or battered positions as shown on the contract plans.

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

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

C.3.2 Tolerances

- The overall vertical tolerance of the wall and the horizontal alignment tolerance shall not exceed 3 inches per 10 feet for permanent installations.
- For battered wire facing, the final deviation from the design batter shall be within ±1 inch for each 10 feet of battered wall height.

C.4 Quality Management Program

C.4.1 Quality Control Plan

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

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

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

C.4.2 Quality Control Personnel

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

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

C.4.3 Equipment

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

Furnish nuclear gauges from the department’s approved product list at:

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

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

Conform to AASHTO T310 and CMM 8-15 for density testing and gauge monitoring methods.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department’s split samples to the department.

C.4.4 Documentation

(1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

(2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.

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

C.4.5 Quality Control (QC) Testing

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

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

C.4.6 Department Testing

C.4.6.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project and provide test results to the contractor within two business days after the department obtains the sample.

C.4.6.2 Quality Verification (QV) Testing

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.3.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

(3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

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

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

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

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

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

C.4.6.4 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E178 to evaluate potential statistically outlying data.

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

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C.5 Geotechnical Information

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.4001	Temporary Wall Wire Faced Mechanically Stabilized Earth	SF

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

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

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

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

167. Wall Concrete Panel Mechanically Stabilized Earth R-40-706, Item SPV.0165.4002; Wall Concrete Panel Mechanically Stabilized Earth R-40-707, Item SPV.0165.4003; Wall Concrete Panel Mechanically Stabilized Earth R-40-709, Item SPV.0165.4004; Wall Concrete Panel Mechanically Stabilized Earth R-40-710, Item SPV.0165.4005; Wall Concrete Panel Mechanically Stabilized Earth R-40-711, Item SPV.0165.4006; Wall Concrete Panel Mechanically Stabilized Earth R-40-712, Item SPV.0165.4007; Wall Concrete Panel Mechanically Stabilized Earth R-40-713, Item SPV.0165.4008;

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 75 years minimum.

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

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

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

B Materials

B.1 Proprietary Wall Systems

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

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid opening date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: DOTDLStructuresFabrication@dot.wi.gov.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to 105.2 with electronic submittal to the fabrication library under 105.2.2. Certify that shop drawings conform to quality control standards by submitting department form DT2329 with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. Where walls or wall sections intersect with an included angle of 130 degrees or less, a vertical corner element separate from the standard panel face shall abut and interact with the opposing standard panels. The corner element shall have ground reinforcement connected specifically to that panel and shall be designed to preclude lateral spread of the intersecting panels. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided on the wall plans.

The design of the wall by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facing shall be designed according to AASHTO LRFD 11.10.2.3. The facing panels shall also be designed to resist compaction stresses that occur during the wall erection. The minimum thickness of the facing panel shall be 5.5 inches. The surface area of a standard single panel cannot exceed 60 square feet. The maximum height of a standard panel shall be 5 feet. The top and bottom panels may exceed 5 feet in height based on site topography subject to the approval by the Structures Design Section. The design of the steel reinforcement within the panels shall be based on one-way bending action. Design the wall panels and joints between panels to accommodate a maximum differential settlement of 1 foot over a 100-foot length, unless the plans indicate other.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 31 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 18 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

All soil reinforcement required for the reinforced soil zone shall be connected to the face panels. The reinforcement and the reinforcement/facing connection strength shall be designed to resist maximum factored reinforcement loads according to AASHTO LRFD Section 11.10.6. Facing connection strength shall be defined as the resistance factor times the failure load, or the load at 0.5 inch deformation times 0.9, whichever is less. The nominal long term design strength in steel reinforcement and connections shall be based upon assumed conditions at the end of the design life.

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

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a leveling pad.

B.3 Wall System Components

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

B.3.1 Wall Facing

Wall facing shall consist of modular precast concrete face panels produced by a wet cast process. The concrete panels shall have a minimum strength of 4000 psi at 28 days. The concrete for the panels shall be air entrained, with an air content of 6% +/- 1.5%. All materials for the concrete mixture for the panels shall meet the requirements of standard spec 501. The panel edges shall be configured so as to conceal the joints. The detail shall be a shiplap, tongue and groove or other detail adequate to prevent vandalism or ultraviolet light damage to the backside of the wall joint covering. Joints between panels shall be no more than 0.75 inch. Use full wall height slip joints at points of differential settlement when detailed on the plan. Horizontal joints must be provided with a compressible bearing material to prevent concrete to concrete contact. Panels shall be reinforced using coated high-strength bar steel or welded steel wire fabric conforming to standard spec 505. Welded steel wire fabric shall be epoxy-coated according to ASTM A884 or galvanized according to AASHTO M 111 or ASTM A641. Panel dowels for cast-in-place copings shall be coated high-strength bar steel conforming to standard spec 505. Unless approved by the Bureau of Structures, adhesive anchors are prohibited.

For reinforced cast-in-place concrete cap or coping, use poured concrete Grade A, A-FA, A-S, A-T, A-IS, A-IP or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast-in-place cap and coping concrete as specified in standard spec 716, Class II Concrete. Use coated high-strength bar steel conforming to standard spec 505.

A minimum of two bearing pads shall be used per panel. The allowable bearing stress shall not exceed 900 psi. The bearing pads shall be preformed EPDM rubber conforming to ASTM D2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80, or high- density polyethylene pads with a minimum density of 0.034 lb/in^3 according to ASTM D1505.

An 18-inch wide geotextile shall be used on the backface of the wall panels to cover all panel joints. The geotextile shall meet the physical requirements stated in standard spec 645.2.4 for Geotextile, Type DF, Schedule B, except that the grab tensile strength shall be a minimum of 180 pounds in both the machine and cross-machine directions. The geotextile shall be attached with a standard construction adhesive suitable for use on concrete surfaces and cold temperatures. The adhesive shall be applied to the panels, not to the geotextile.

B.3.2 Leveling Pad

Provide an unreinforced cast-in-place concrete leveling pad. Use Grade A, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

The minimum width of the leveling pad shall be 12-inches. The minimum thickness of the leveling pad shall be 6-inches.

B.3.3 Backfill

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

Place backfill in a zone extending horizontally from the back face of the wall facing to 1 foot minimum beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer.

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

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

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

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

In addition, backfill material shall meet the following requirements.

Test	Method	Value	
		(Galvanized)	(Aluminized Type 2)
pH	AASHTO T-289	5.0-10.0	5.0 – 9.0
Sulfate content	AASHTO T-290	200 ppm max.	
Chloride content	AASHTO T-291	100 ppm max.	
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.	1500 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.	
Angle of Internal Friction	AASHTO T-236[1]	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2.)	

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

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM D5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1” material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. For the additional required testing for every 2000 cubic yards of backfill placement, if the characteristic of the backfill and/or the source has not changed then Angle of Internal Friction tests are not included in the additional required testing. All certified reports of test results shall be less than 6 months old and performed by a certified independent laboratory.

B.3.4 Soil Reinforcement

All steel portions of the wall system exposed to earth shall be galvanized. All soil reinforcement and attachment devices shall be carefully inspected to ensure they are true size and free from defects that may impair the strength and durability. Soil reinforcement shall be galvanized or aluminized Type 2. Galvanized soil reinforcement shall be according to AASHTO M 111 or ASTM A641. Aluminized soil reinforcement shall be according to ASTM A463 Aluminized Type 2-100, SS, Grade 50, Class 2. Design of galvanized soil reinforcement shall be according to Section 11.10.6.4.2 of the current AASHTO LRFD Specifications. The design life of steel soil reinforcements shall comply with AASHTO LRFD. Aluminized soil reinforcement shall be limited 16 years of steel protection. Aluminized steel shall only be used on soil reinforcement elements and shall not be used on facing connections or any other steel portion of the wall system. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall and the leveling pad shall be according to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

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

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

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

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

C.2 Compaction

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

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

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the panels. Do not use sheepsfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect panel facing and other associated elements according to the wall manufacturer’s construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing.

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

C.3.2 Leveling Pad

Provide an unreinforced cast-in-place concrete leveling pad as shown on the plans. Vertical tolerances shall not exceed 3/4-inch when measured along a 10-foot straight edge. Allow concrete to set at least 12 hours prior to placing wall facing units.

The bottom row of wall facing units shall be horizontal and 100% of the unit surface shall bear on the leveling pad. Rubber or plastic shims may be used to level the wall facing units at the leveling pad. No more than 2 shims (each 3/16-inch thick) shall be used to level the wall facing.

C.3.3 Steel Layers

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

C3.4 Panel Tolerances

As backfill material is placed behind a panel, maintain the panel in its proper inclined position according to the supplier specifications and as approved by the engineer. The supplier shall specify the back batter so that the final position of the wall is vertical. Vertical tolerances and horizontal alignment tolerances shall not exceed ¾-inch when measured along a 10-foot straight edge. The maximum allowable offset in any panel joint shall be ¾-inch. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed ½-inch per 10 feet of wall height. Erect the precast face panels to ensure that they are located within 1 inch from the contract plan offset at any location to ensure proper wall location at the top of the wall. Provide a ¾-inch joint separation between all adjacent face panels to prevent direct concrete-to-concrete contact. Maintain this gap by the use of bearing pads and/or alignment pins. Failure to meet this tolerance shall cause the engineer to require the contractor to disassemble and re-erect the affected portions of the wall. In addition, imperfect molding, honeycombing, cracking or severe chipping of panels shall be cause of panel rejection.

C.4 Quality Management Program

C.4.1 Quality Control Plan

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

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

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

C.4.2 Quality Control Personnel

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

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

C.4.3 Equipment

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

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

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

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

Conform to AASHTO T310 and CMM 8-15 for density testing and gauge monitoring methods.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department.

C.4.4 Documentation

(1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

(2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.

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

C.4.5 Quality Control (QC) Testing

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

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

C.4.6 Department Testing

C.4.6.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project and provide test results to the contractor within 2 business days after the department obtains the sample.

C.4.6.2 Quality Verification (QV) Testing

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

(3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

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

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

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

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

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

C.4.6.4 Dispute Resolution

(1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

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

(3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C.5 Geotechnical Information

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

D Measurement

The department will measure Wall Concrete Panel Mechanically Stabilized Earth by the square foot, acceptably completed. The department will compute the measured quantity from the theoretical pay limits the contract plans show. The department will make no allowance for wall area constructed above or below the theoretical pay limits. All work beyond the theoretical pay limits is incidental to the cost of work. The department will make no allowance for as-built quantities.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.4002	Wall Concrete Panel Mechanically Stabilized Earth R-40-706	SF
SPV.0165.4003	Wall Concrete Panel Mechanically Stabilized Earth R-40-707	SF
SPV.0165.4004	Wall Concrete Panel Mechanically Stabilized Earth R-40-709	SF
SPV.0165.4005	Wall Concrete Panel Mechanically Stabilized Earth R-40-710	SF
SPV.0165.4006	Wall Concrete Panel Mechanically Stabilized Earth R-40-711	SF
SPV.0165.4007	Wall Concrete Panel Mechanically Stabilized Earth R-40-712	SF
SPV.0165.4008	Wall Concrete Panel Mechanically Stabilized Earth R-40-713	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings, leveling pads, leveling pad steps, and shims; constructing the retaining system and providing temporary drainage; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

The department will pay separately for parapets, traffic barriers, railings, and other items above the wall cap or coping.

168. Topsoil Special, Item SPV.0180.0301.

A Description

This special provision section describes furnishing, placing, spreading, and finishing humus-bearing soil, adapted to sustain plant life, commonly known as topsoil, from locations the contractor furnishes beyond the limits of the right-of-way.

This special provision also describes removing topsoil from the sites of proposed roadway excavations and embankments in quantities and depths available and necessary to cover the work slopes. This work also includes reclamation, placing, spreading, and finishing of this topsoil.

B Materials

Furnish material that is relatively free from large roots, sticks, weeds, brush, stones, litter, and waste products.

Furnish material, either obtained offsite, or material obtained within project limits, consisting of loam, sandy loam, silt loam, silty clay loam, or clay loam humus-bearing soils adapted to sustain plant life. Do not use surface soils from ditch bottoms, drained ponds, and eroded areas, or soils which are supporting growth of NR 40 listed plants and noxious weeds or other undesirable vegetation. Ensure that the material conforms to the following:

Topsoil Requirements	Minimum Range	Maximum Range
Material Passing 2.00 mm (#10) Sieve[1]	90%	100%
PH Range	6.0	8.0
Organic Matter[2]	5%	20%
Clay	5%	30%
Silt	10%	70%
Sand & Gravel	10%	70%

[1] See standard spec 625.3.3 for sieve requirements when using either sod or seed mixture 40.

[2] Organic matter determined by loss on ignition test of samples oven dried to constant weight at 212 F (100 C).

C Construction

C.1 Preparing the Roadway for Topsoil

Undercut or underfill all areas designated to receive topsoil to a degree that if covered to the required depth with topsoil the finished work conforms to the required lines, grades, slopes and cross sections the plans and drawings show.

C.2 Processing Topsoil

Mow topsoil procurement areas to a height of approximately 6 inches. Remove litter such as brush, rock, and other materials that will interfere with subsequent vegetation establishment.

Strip off the humus-bearing soil. Take care to minimize removing the underlying sterile soil. Then stockpile the topsoil on the right-of-way or place it directly on the designated areas.

Obtain topsoil from embankment areas outside the roadway foundation only if that additional material is required to cover the slopes and conforms to the requirements of section B in this special provision. Use excess topsoil on the project or dispose of as specified in standard spec 205.3.12.

C.3 Placing Topsoil

After preparing and finishing the areas designated for topsoil to the required lines, grades, slopes and cross section, place and spread the topsoil to a uniform depth as the plans show or the contract requires. If no depth is shown, place and spread the topsoil to a minimum depth of 4 inches in rural areas and a minimum depth of 6 inches in urban areas, or as the engineer designates.

Break down all clods and lumps using appropriate equipment to provide a uniformly textured soil.

Where using either sod or seed mixture 40 ensure that, for the upper 2 inches, 100 percent of the material passes a one-inch sieve and at least 90 percent passes the No. 10 sieve.

Remove rocks, twigs, foreign material, and clods that cannot be broken down. Dress the entire surface to present a uniform appearance. The engineer will not require rolling.

If light sandy soils are covered with heavier clay bearing loam topsoil, then mix or blend the 2 types of soils to a more or less homogeneous mixture by using the appropriate equipment.

D Measurement

The department will measure Topsoil Special by the square yard, acceptably completed. The measured quantities shall equal the actual number of square yards of topsoiled area to the depth specified within the limits of construction designated on the plans, or in the contract, or as the engineer directs.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.0301	Topsoil Special	SY

Payment for Topsoil Special is full compensation for removing, stockpiling, reclaiming, providing, processing, excavating, loading, hauling, and placing this material; and for undercutting excavations, or underfilling embankments necessary to receive this material. The department will make no allowance, adjustment, or measurement for payment under the Excavation bid items for undercutting cut sections, underfilling embankments, or deductions for materials obtained from areas of cut sections.

If an area is damaged by erosion after partial acceptance, the department will pay for restoring topsoil in these areas at a unit price determined by multiplying the contract unit price bid for Topsoil multiplied by 3, the department will pay for restoration under the Restoration Post Acceptance Topsoil administrative item.

The department will not pay for removing topsoil from outside the roadway foundation in embankment areas unless that material is necessary to cover the slopes.

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169. Management of Contaminated Soil and Contaminated Sediment, Item SPV.0195.0001.

A General

A.1 Description

This work will conform with the requirements of standard spec 205 of the Standard Specifications; to pertinent parts of the Wisconsin Administrative Code, Chapters NR 700-736 Environmental Investigation and Remediation of Environmental Contamination; Wisconsin Administration Code, Chapters NR 500-538, Solid Waste; and as shown on the plans and as supplemented herein.

Soil and sediment considered to be solid waste due to metal, polychlorinated biphenyl (PCB), and polycyclic aromatic hydrocarbon (PAH) contamination will be encountered within the construction limits. The solid waste may contain NR 500 non-exempt industrial wastes. Impacted waste material excavated during construction which cannot in the opinion of the environmental consultant be managed as common excavation or as contaminated soil will be managed as solid waste.

This work consists of excavating, segregating, temporary stockpiling, loading, hauling, and disposing of solid waste material at a WDNR-approved disposal facility. The nearest WDNR-approved disposal facilities are:

Waste Management Orchard Ridge Landfill
W124 N9355 Boundary Rd.
Menomonee Falls, WI 53051
(866) 909-4458

Advanced Disposal Emerald Park Landfill
W124 S10629 S. 124th St.
Muskego, WI 53150
(414) 529-1360

Provide information to the environmental consultant and engineer that indicates the WDNR-approved disposal facility that the contractor will use.

A.2 Notice to the Contractor–Solid Waste Location

The department and others completed hazardous materials assessments for locations within this project where excavation is required. Investigation for soil and sediment contamination was conducted at select locations. Results indicate that solid waste (metals-, PCB-, and PAH-contaminated soil and sediment) is present at the following locations as shown on the plans:

Contaminated Soil:

- Station 944+80 to 953+80, from construction limits left to construction limits right. Depths of contamination range from ground surface to 20 foot bgs. The estimated volume of PAH-contaminated soil to be excavated at this location is 685 cubic yards (approximately 1165 tons).
- Station 953+80 to 955+00, from construction limits left to the reference line. Depths of contamination range from ground surface to 12 foot bgs. The estimated volume of metal-contaminated soil to be disposed at this location is 5539 cubic yards (approximately 9416 tons).

- Station 980+75 to 982+00, from construction limits left to construction limits right. Depths of contamination range from ground surface to 4 foot bgs. The estimated volume of PAH-, PCB-, and metal-contaminated soil to be excavated at this location is 334 cubic yards (approximately 568 tons).

Contaminated Sediment:

- Station 978+50 to 980+75, from construction limits left to construction limits right. Depths of contamination range from the sediment surface to bedrock (0-2' below the sediment surface). The estimated volume of PAH-, PCB-, and metal-contaminated sediment to be excavated at this location is 201 cubic yards (approximately 342 tons).

Directly load solid waste soil and sediment excavated by the project at the above locations into trucks that will transport the material to a WDNR-licensed landfill facility for landfill disposal.

If obviously contaminated soils or sediment or signs of NR 500 non-exempt solid waste and hazardous materials are unexpectedly encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. Examples of these unexpected conditions may include, but are not limited to, buried containers or tanks, noxious odors and fumes, stained soils, sheen on ground water, other industrial wastes, and significant volumes of municipal or domestic garbage.

Active groundwater monitoring wells were not observed within the construction limits. If active groundwater monitoring wells are encountered elsewhere during construction, notify the engineer and protect the wells to maintain their integrity. The environmental consultant will determine if monitoring wells need to be maintained. For monitoring wells that do need to be maintained, adjust the wells that do not conflict with structures or curb and gutter to be flush with the final grade. For wells that conflict with the previously mentioned items or if monitoring wells are not required to be maintained, they will be abandoned by others.

If dewatering is required at the above locations, conduct the dewatering according to Section C below.

A.3 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated waste. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities in these areas contact:

Name:	Andrew Malsom
Address:	141 NW Barstow Street, Waukesha, WI 53187-0798
Phone:	(262) 548-6705
Fax:	(262) 548-6891
E-mail:	andrew.malsom@dot.state.wi.us

A.4 Coordination

Coordinate work under this contract with the environment consultant:

Consultant:	TRC Environmental Corporation
Address:	150 N. Patrick Blvd. Ste. 180, Brookfield, WI 53045
Contact:	Bryan Bergmann
Phone:	(262) 901-2126 office, (262) 227-9210 cell
Fax:	(262) 879-1220
E-mail:	bbergmann@trccompanies.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of solid waste to be excavated based on soil and sediment analytical results from previous investigations, visual observations, and field screening of soil and sediment that is excavated;
2. Identifying soil and sediment to be hauled to the landfill facility;
3. Documenting that activities associated with management of solid waste are in conformance with the solid waste management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of solid waste from the landfill facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the area of solid waste described in A.2 to the environmental consultant. Identify the WDNR licensed landfill facility that will be used for disposal of solid waste and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation in the impacted area or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals from the landfill facility for disposal of the solid waste.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation in the impacted areas. Notify the environmental consultant at least three calendar days prior to commencement of excavation in the impacted areas. Perform excavation in the impacted areas on a continuous basis until excavation work is completed. Do not transport soil containing solid waste offsite without prior approval from the environmental consultant.

A.5 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter metal-, PCB-, and PAH-contaminated soil and sediment. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each impacted area as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

B (Vacant)

C Construction

Supplement standard spec 205.3 with the following:

Control operations in the impacted areas to minimize the quantity of soil and sediment excavated.

Assist the environmental consultant in determining the extent of contaminated soil (if any), by performing a backhoe test pit investigation, as directed by the environmental consultant, in the following area:

- Station 953+80 to 955+00, from construction limits left to the reference line.

Perform the backhoe test pit investigation as soon as practical and prior to significant excavations (if any) beginning in this area. The backhoe test pit investigations shall include up to 6 test pits, to a maximum depth of 12 feet bgs. The test pit investigations shall be incidental to this pay item.

The environmental consultant will periodically monitor soil and sediment excavated from the areas identified in A.2 above. The environmental consultant will evaluate excavated soil and sediment based on field screening results, visual observations, and soil and sediment analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil and sediment samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

On the basis of the results of such field-screening and existing laboratory analytical results, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, bituminous pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material (PID readings less than 10 ppm and no observation of staining or petroleum odor, or based on existing analytical data) for reuse as fill within the construction limits as allowed, or
- Contaminated soil (based on the presence of industrial fill or existing analytical data) for off-site disposal at the WDNR-licensed disposal facility, or

- Contaminated sediment for off-site treatment and disposal at the WDNR-licensed landfill facility, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal.

Directly load and haul solid waste soil and sediment designated by the environmental consultant for offsite disposal to the WDNR approved landfill facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of the material. Prior to transport, sufficiently dewater soils and sediment designated for off-site disposal so as not to contain free liquids. Sediment dewatering will be conducted according to best management practices and will comply with the requirements of all applicable state and federal permits. Filtered water from dewatered sediments can be discharged back into the body of water from which it was removed.

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 100 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material according to NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration of precipitation. The department's environmental consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 10 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at the WDNR-licensed disposal facility by the contractor or, if characterized as hazardous waste, by the department. As an alternative to temporarily stockpiling contaminated soil/fill material that requires additional characterization, the contractor has the option of suspending excavation in those areas where such soil is encountered until such time as characterization is completed.

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum or chemical products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer.

Verify that the vehicles used to transport material are licensed for such activity according to applicable state and federal regulations. Obtain the necessary disposal facility approvals and WDNR approvals for disposal. Do not transport regulated solid waste off-site without obtaining the approval of the environmental consultant and engineer and notifying the disposal facility.

During excavations in the areas of known contamination, larger chunks of clean concrete (~2 cubic feet), asphalt and bricks shall be segregated from the fill, to the extent practical and managed as common excavation. Under NR 500.08 this material is exempt from licensing and requirements of Wisconsin Administrative Code NR 500-538 of the solid waste regulations, and will be reused as designated by the engineer as fill on the project, or it will be disposed of off-site at the contractor's disposal site(s).

If dewatering is required in an area of known contamination, water generated from dewatering activities may contain contaminants and require testing, special handling, temporary storage, and disposal. Disposal of contaminated water may require use of a licensed hazardous waste hauler to transport contaminated groundwater to a treatment and disposal facility. Contaminated water could possibly be discharged to the sanitary sewer with prior approval from the Milwaukee Metropolitan Sewerage District (MMSD) and the City of Glendale.

Notify the engineer of any dewatering activities. The contractor shall obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for laboratory testing, obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

Costs associated with excavation dewatering in contaminated areas are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

D Measurement

The department will measure solid waste by the ton of waste accepted by the disposal facility and as documented by weight tickets.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.0001	Management of Contaminated Soil and Contaminated Sediment	TON

Payment is full compensation for excavating, segregating, loading, hauling, and landfill disposal of solid waste; obtaining solid waste collection and transportation service operating licenses; and assisting in the collection of soil samples for field evaluation; dewatering of soils prior to transport, if necessary.

170. Select Crushed Material for Travel Corridor, Item SPV.0195.4000.

A Description

This special provision describes furnishing and placing select crushed material to fill voids to create a wildlife travel corridor.

B Materials

Furnish select crushed material according to the pertinent requirements of standard spec 312. Material shall be clean and substantially free from material passing the No. 4 (4.75mm) sieve.

C Construction

Place the material after the heavy riprap has been completed. Place material such that voids in the finished surface are three inches or less in any dimension.

D Measurement

The department will measure Select Crushed Material for Travel Corridor by the ton, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.4000	Select Crushed Material for Travel Corridor	TON

Payment for Select Crushed Material for Travel Corridor is full compensation for providing, placing, and shaping the material.

ADDITIONAL SPECIAL PROVISION 1 (ASP 1)
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including "pipeline" activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

TrANS is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor's needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of $5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

   Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

   Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __18__ *(number)* TrANS Graduate(s) be utilized on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that __7__ *(number)* TrANS Apprentice(s) be utilized on this contract.

3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.

4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

II. RATIONALE AND SPECIAL NOTE

The $5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

III. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. *TRANS TRAINING*

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. *APPRENTICESHIP TRAINING*

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.
(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b*)* (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a*)* (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM IMPLEMENTATION

Authority

Wisconsin Department of Transportation (WisDOT) is a recipient of funds from the US Department of Transportation's Federal Highway Administration. The DBE program is a federal program applicable on all contracts administered by WisDOT that include federal-aid highway funds. The authority for the DBE program is the Transportation Bill as approved by Congress periodically. DBE program guidance and requirements are outlined in the Code of Federal Regulations at 49 CFR Part 26. This contract is subject to DBE provisions because it is financed with federal-aid-highway funds. Additionally, this contract is subject to the *State of Wisconsin Standard Specifications for Highway and Structure Construction* and all applicable contract documents.

Requirements

Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE program regulatory provisions will be considered a material breach of contract. This is nonnegotiable.

If a contractor fails to carry out the DBE program requirements and/or the Required Contract Provisions for Federal Aid Contracts (FHWA 1273) referenced in this document, sanctions will be assessed depending upon the facts, reasoning, severity, and remedial efforts of the contractor that may include: termination of contract, withholding payment, assessment of monetary sanctions, and/or suspension/debarment proceedings that could result in the disqualification of the contractor from bidding for a designated period of time.

(1) At time of bid, ALL prime contractors must submit Form DT1506 (Commitment to Subcontract to DBE), and quotes from all DBEs included on the Commitment. Signed Attachments A from DBEs included on the Commitment must be submitted to the DBE Alert email box within 24-hours of the bid closing. If the assigned DBE contract goal is not met, Form DT1202 (Documentation of Good Faith Effort) is due at time of bid. Supplemental DT1202 documentation is due within 24-hours of bid closing submitted to the DBE Alert email box. Any change to DBE commitments thereafter must follow Modification of DBE Subcontracting Commitment (Section 9).

(2) The Department requires this list of DBE subcontractors from all bidders at time of bid to ensure the lowest possible cost to taxpayers and fairness to other bidders and subcontractors. Bid Shopping is prohibited.

(3) The contractor must utilize the specific DBE firms listed on the approved Form, DT1506, to perform the work and/or supply the materials for which the DBE firm is listed unless the contractor obtains written consent from WisDOT. The contractor will not be entitled to payment for any work or materials on the approved DT1506 that is not performed or supplied by the listed DBE without WisDOT's written consent.

Description

The Wisconsin Department of Transportation is committed to the compliant administration of the DBE Program. The DBE provisions work in tandem with FHWA 1273 and WisDOT's Standard Specifications and Construction Materials Manual. The WisDOT Secretary is signatory to assurances of department-wide compliance.

The Department assigns the contract DBE goal as a percentage of work items that could be performed by certified DBE firms on the contract. The assigned DBE goal is expressed on the bid proposal as a percentage applicable to the total contract bid amount.

(1) WisDOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned contract DBE goal by subcontracting work to a DBE firm or by procuring services or materials from a DBE firm.

(2) Under the contract, the prime contractor should inform, advise, and develop participating DBE firms to be more knowledgeable contractors who are prepared to successfully complete their contractual agreement through the proactive provision of assistance in the following areas:
- § Produce accurate and complete quotes
- § Understand highway plans applicable to their work
- § Understand specifications and contract requirements applicable to their work
- § Understand contracting reporting requirements

(3) The Department encourages contractors to assist DBE subcontractors more formally by participating in WisDOT's Business Development program as a mentor, coach, or resource. For comprehensive information on the Disadvantaged Business Enterprise Program, visit the Department's Civil Rights and Compliance Section website at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx

1. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

a. **Assigned DBE Contract Goal:** The percentage shown on the cover of the Highway Work Proposal that represents the feasible level of DBE participation for each contract. The goal is calculated using the Engineer's Estimate and DBE Interest Report. Goal assignment includes review of FHWA funds, analyzes bid items for subcontract opportunity and compatibility with DBE certified firm work codes. Additional factors considered include proximity, proportion, and regulations.

b. **Bid Shopping:** In construction law, bid shopping is the practice of divulging a subcontractor's bid to another prospective contractor(s) before or after the award of a contract to secure a lower bid.

c. **DBE:** Disadvantaged Business Enterprise- for-profit small business concern where socially and economically disadvantaged individuals own at least a 51% interest and control management and daily business operations.

d. **DBE Commitment:** The DBE Commitment is identified in the Commitment to Subcontract to DBE (Form DT1506) and is expressed as the amount of DBE participation the prime contractor has secured. The DT1506, a contract document completed by the bidder, is required to be considered a responsive bidder on an FHWA-funded contract that has an assigned DBE goal.

e. **DBE Utilization:** The actual participation of a DBE subcontractor on a project. WisDOT verifies DBE utilization through review of Form DT1506, payments to subcontractors, and contract documentation. The Prime Contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved Form DT1506, and those submitted after approved commitment with Attachment A.

f. **Good Faith Effort:** Legal term describing a diligent and honest effort taken by a reasonable person under the same set of facts or circumstances. For DBE subcontracting, the bidder must show that it took all necessary and reasonable steps to achieve the assigned DBE goal by the scope, intensity, and appropriateness of effort that could reasonably be expected for a contractor to obtain sufficient DBE participation.

g. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.

h. **Reasonable Price:** Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price.

i. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.

j. **Tied quote:** Subcontractor quote that groups multiple bid/line items at a bundled/package price with a notation that the items within the quote will not be separated.

2. WisDOT DBE Program Compliance

a. Documentation Submittal

The Commitment to Subcontract to DBE (Form DT1506) and quotes from all DBEs included on the Commitment will be submitted at bid by ALL prime contractors. If the assigned DBE contract goal is not met, Documentation of Good Faith Effort (Form DT1202) is due at time of bid. Supplemental DT1202 documentation and signed Attachments A from DBEs included on Form DT1506 are due within 24-hours of bid closing, submitted to the DBE Alert email box.

Naming conventions: When emailing files, use the following language to identify your submission- “Project #, Proposal #, Let date, Business Name, GFE” and “Project #, Proposal #, Let date, Business Name, Attachment A” Email: DBE_Alert@dot.wi.gov

The DBE Office will not certify Good Faith Effort and the Bureau of Project Development will consider the bid nonresponsive if the contractor fails to furnish the Form DT1506, Attachments A, and Form DT1202 if applicable, as required. See sample forms in the Appendix.

b. Verification of DBE Commitment

The documentation related to DBE subcontract commitment submitted prior to contract award is evaluated as follows:

(1) DBE Goal Met

If the bidder indicates that the contract DBE goal is met, the Department will evaluate Form DT1506 and Attachments A to verify the actual DBE percentage calculation. If the DBE commitment is verified, the contract is eligible for award with respect to the DBE commitment.

(2) DBE Goal Not Met

a) If the bidder indicates a bid percentage on Form DT1506 that does not meet the assigned DBE contract goal, the bidder must request alternative evaluation of good faith effort through submission of Form DT1202 (Documentation of Good Faith Effort) at the time of bid including narrative description. Supplementary documentation of good faith effort that supports the DT1202 submission is due within 24-hours of bid submission and prior to bid posting. The Department will review the bidder's DBE commitment and evaluate the bidder's good faith efforts submission.

b) Following evaluation of the bidder's Good Faith Effort documentation the bidder will be notified that the Department intends to:

1. *Approve* the request (adequate documentation of GFE has been submitted)- no conditions placed on the contract with respect to the DBE commitment;

2. *Deny* the request (inadequate documentation of GFE has been submitted)- the contract is viewed as non-responsive per Wisconsin Standard Specifications for Highway and Structure Construction and will not be executed.

c) If the Department denies the bidder's request, the contract is ineligible for award. The Department will provide a written explanation for denying the request to the bidder. The bidder may appeal the Department's denial (see Section 4).

Supplemental good faith effort documentation must be submitted to the DBE Office by email at: DBE_Alert@dot.wi.gov. Email naming convention: "Project #, Proposal #, Let date, Business Name, GFE"

3. Department's Criteria for Good Faith Effort Documentation

The Federal-aid Construction Contract Provision, referenced as FHWA-1273, explicitly states that the prime contractor shall be responsible for all work performed on the contract by piecework, station work, or subcontract. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of the contract including assurances of equal employment opportunity laws, DBE regulations, and affirmative action. Compliance encompasses responsible and responsive action, documentation, and good faith effort.

Contractually, all contractors, subcontractors, and service providers on the contract are bound by FHWA 1273 and DBE program provisions. **Prime contractors should encourage subcontractors to utilize DBE firms whenever possible to contribute to the assigned DBE contract goal.**

Bidders are required to document good faith effort. Per 49 CFR Part 26.53, good faith effort is demonstrated in one of two ways. The bidder:

(1) Documents that it has obtained enough DBE participation to meet the goal; OR
(2) Documents that it made adequate good faith efforts to meet the goal, even though it did not succeed

Appendix A of 49 CFR Part 26 provides guidance concerning good faith efforts. WisDOT evaluates good faith effort on a contract basis just as each contract award is evaluated individually.

The efforts employed by the bidder should be those that WisDOT can reasonably expect a bidder to take to actively and aggressively obtain DBE participation sufficient to meet the DBE contract goal. The Department will only approve demonstration of good faith effort if the bidder documents the quality, quantity, and intensity of the variety of activities undertaken that are commensurate with expected efforts to meet the stated goal.

The Department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort activity. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

a. Solicitation guidance for Prime Contractors:
   (1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use WisDOT-approved DBE outreach tools, including the UCP DBE Directory and the Bid Express Small Business Network to foster DBE participation on all applicable contracts.
   (2) As needed, request assistance with DBE outreach and follow-up by contacting the Department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Phone numbers are (414) 438-4584 and/or (608) 267-3849; Fax: (414) 438-5392; E-mail: DBE_Alert@dot.wi.gov
   (3) Participate in and document a substantive conversation with at least one DBE firm per Let, to discuss questions, concerns, and any other contract related matters that may be applicable to the DBE firm. Guidelines for this conversation are provided in Appendix A of ASP-3.

(4) Request quotes by identifying potential items to subcontract and solicit. In their initial contacts, contractors are strongly encouraged to include a single page, detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in* Appendix B. Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE firms to do work in a prime contractor's area of specialization.

i. Solicit quotes from certified DBE firms who match possible items to subcontract using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which quotes are being sought to DBE_Alert@dot.wi.gov

ii. Acceptable outreach tools include SBN (Small Business Network, see Appendix C): https://www.bidx.com/wi/main, postal mail, email, fax, and phone.

a. Contractors must ask DBE firms for a response in their solicitations. See *Sample Contractor Solicitation Letter,* Appendix B. This letter may be included as an attachment to the sub-quote request.

b. Solicit quotes at least 10 calendar days prior to the letting date to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.

c. A follow up solicitation should take place within 5 calendar days of the letting date. Email and/or SBN are the preferred method for the solicitation.

iii. Upon request, provide interested DBE firms with adequate information about plans, specifications, and the requirements of the contract by letter, information session, email, phone call, and/or referral.

iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit, or insurance if requested.

v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:

a. Email to all prospective DBE firms in relevant work areas
b. Phone call log to DBE firms who express interest via written response or call
c. Fax/letter confirmation
d. Signed copy of record of subcontractor outreach effort

b. Guidance for Evaluating DBE quotes

(1) Quote evaluation practices required to evaluate DBE quotes:

i. Reasonable Price**:** Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price. See 49 CFR Part 26, Appendix A. IV.D(2).

(2) Documentation submitted by the prime of the following evaluation is required to evaluate DBE quotes by contractors:

i. Evaluation of DBE firm's ability to perform "possible items to subcontract" using legitimate reasons, including but not limited to, ***a discussion*** between the prime and DBE firm regarding its capabilities prior to the bid letting. If lack of capacity is the reason for not utilizing the DBE firm's quote, the prime is required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area indicated by the NAICS code(s) listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.

a In striving to meet an assigned DBE contract goal, contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

b Additional evaluation - Evaluation of DBE quotes with tied bid items. Typically, this type of quoting represents a cost saving but is not clearly stated as a discount. Tied quotes

are usually presented as an 'all or none' quote. When non-DBE subcontractors submit tied bid items in their quotes, the DBE firm's quote may not appear competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples:

i Compare bid items common to both quotes, noting the reasonableness in the price comparison.

ii Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

See Appendix D – *Good Faith Effort Evaluation Measures* and Appendix E - *Good Faith Effort Best Practices.*

c. Requesting Good Faith Effort Evaluation: At the time of bid- if the DBE goal is not met in full, the prime contractor must request alternative Good Faith Effort Evaluation using form DT1202- Documentation of Good Faith Effort. Supplementary documentation of good faith effort that supports the DT1202 submission is due within 24-hours of bid submission and prior to bid posting. Supporting documentation for the DT1202 is to include the following:

(1) Solicitation Documentation: The names, addresses, email addresses, and telephone numbers of DBE firms contacted along with the dates of both initial and follow-up contact; electronic copies of all written solicitations to DBE firms. A printed copy of SBN solicitation is acceptable.

(2) Selected Work Items Documentation: Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.

(3) Documentation of Project Information provided to interested DBEs: A description of information provided to the DBE firms regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE firm.

(4) Documentation of Negotiation with Interested DBEs: Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts.

(5) Documentation of Sound Reasoning for Rejecting DBEs and copies of each quote received from a DBE firm and, if rejected, copies of quotes from non-DBEs for same items.

(6) Documentation of Assistance to Interested DBEs- Bonding, Credit, Insurance, Equipment, Supplies/Materials

(7) Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support: Contact organizations and agencies for assistance in contacting, recruiting, and providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

Naming conventions: When emailing files, use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, GFE" Email: DBE_Alert@dot.wi.gov

If the Good Faith Effort documentation is deemed adequate, the request will be approved and the DBE office will promptly notify the Prime Contractor and Bureau of Project Development.

If the DBE Office denies the request, the Prime Contractor will receive written correspondence outlining the reasons. The Department encourages the Prime Contractor to communicate with DBE staff to clarify any questions related to meeting goals and/or contractor demonstration of good faith efforts.

If the contract is awarded, the Prime Contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved Form DT1506. No contractor, prime or subsequent tier, shall be

paid for completing work assigned to a DBE subcontractor on an approved DT1506 unless WisDOT has granted permission for the reduction, replacement, or termination of the assigned DBE in writing. If a prime contractor or a subcontractor on any tier uses its own forces to perform work assigned to a DBE on an approved DBE commitment, **they will not be paid for the work**. Any changes to DBE commitment after the approval of Form DT1506 must be reviewed and approved by the DBE Office prior to the change (see Section 9).

4. Bidder's Documentation of Good Faith Effort Evaluation Request Appeal Process

A bidder can appeal the Department's decision to deny the bidder's demonstration of Good Faith Effort through Administrative Reconsideration. The bidder must provide a written justification refuting the specific reasons for denial as stated in the Department's denial notice. The bidder may meet in person with the Department if so requested. Failure to appeal within 5 business days after receiving the Department's written notice denying the request constitutes a forfeiture of the bidder's right of appeal. Receipt of appeal is confirmed by email date stamp or certified mail signed by WisDOT staff. A contract will not be executed without documentation that the DBE provisions have been fulfilled.

The Department will appoint a representative who did not participate in the original good faith effort determination, to assess the bidder's appeal. The Department will issue a written decision within 5 business days after the bidder presents all written and oral information. In that written decision, the Department will explain the basis for finding that the bidder did or did not demonstrate an adequate good faith effort to meet the contract DBE goal. The Department's decision is final.

5. Determining DBE Eligibility

Directory of DBE firms

a. The only resource for DBE firms certified in the State of Wisconsin is the Wisconsin Unified Certification Program (UCP) DBE Directory. WisDOT maintains a current list of certified DBE firms at: http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx

b. The DBE Program office is available to assist with contracting DBE firms:(608) 267-3849.

c. DBE firms are certified based on various factors including the federal standards from the Small Business Administration that assigns a North American Industrial Classification (NAICS) Codes. DBE firms are only eligible for credit when performing work in their assigned NAICS code(s). If a DBE subcontractor performs work that is not with its assigned NAICS code, the prime contractor should contact the DBE Office to inquire about compatibility with the Business Development Program.

6. Counting DBE Participation

Assessing DBE Work

The Department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the UCP agencies. The Department only counts the value of the work a DBE actually performs towards the DBE goal. The Department assesses the DBE work as follows:

a. The Department counts work performed by the DBE firm's own resources. The Department includes the cost of materials and supplies the DBE firm obtains for the work. The Department also includes the cost of equipment the DBE firm leases for the work. The Department will not include the cost of materials, supplies, or equipment the DBE firm purchases or leases from the prime contractor or its affiliate, with the exception of non-project specific leases the DBE has in place before the work is advertised.

b. The Department counts fees and commissions the DBE subcontractor charges for providing bona fide professional, technical, consultant, or managerial services. The Department also counts fees and commissions the DBE charges for providing bonds or insurance. The Department will only count costs the program engineer deems reasonable based on experience or prevailing market rates.

c. If a DBE firm subcontracts work, the Department counts the value of the work subcontracted to a DBE subcontractor.

d. The contractor will maintain records and may be required to furnish periodic reports documenting its performance under this item.

e. It is the Prime Contractor's responsibility to determine whether the work that is committed and/or contracted to a DBE firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.

f. It is the Prime Contractor's responsibility to assess the DBE firm's ability to perform the work for which it is committing/contracting the DBE to do. Note that the Department encourages the Prime Contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

g. The Prime Contractor will inform the DBE office via email of all DBE subcontractors added to the project following execution of the contract. The Prime Contractor may omit submission of another form DT1506, but must submit signed Attachment A forms for additional DBE firms.

h. See Section 7 for DBE credit evaluation for Trucking and Section 8 for DBE credit evaluation for Manufacturers, Suppliers, and Brokers

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, Attachment A" Email: DBE_Alert@dot.wi.gov

*Note: A sublet request is required for DBE work, regardless of subcontract tier, and also for reporting materials or supplies furnished by a DBE.

- Sublet Requests via form DT1925 or WS1925 are required for 1st Tier DBEs
- For all 2nd Tier and below notification of DBE sublet is indicated by the contractor entering them in CRCS

7. Credit Evaluation for Trucking

All bidders are expected to adhere to the Department's current trucking policy posted on the HCCI website at: http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf

The prime contractor is responsible for ensuring that all subcontractors including trucking firms, receive Form FHWA 1273: https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf

See Section 8 for Broker credit.

8. Credit Evaluation for Manufacturers, Suppliers, Brokers

The Department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The Department will count the material and supplies that a DBE firm provides under the contract for DBE credit based on whether the DBE firm is a manufacturer,

supplier, or broker. Generally, DBE credit is determined through evaluation of the DBE owner's role, responsibility, and contribution to the transaction. Maximum DBE credit is awarded when the DBE firm manufactures materials or supplies. DBE credit decreases when the DBE firm solely supplies materials, and minimal credit is allotted when the DBE firm's role is administrative or transactional. It is the bidder's responsibility to confirm that the DBE firm is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506.

a. Manufacturers
   (1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
   (2) If the materials or supplies are obtained from a DBE manufacturer, **100%** percent of the cost of the materials or supplies counts toward DBE goals.

b. Regular Dealers of Material and/or Supplies
   (1) Supplies purchased in bulk from DBE firms at the beginning of the season may be credited to current contracts if submitted with appropriate documentation to the DBE office.
   (2) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.
   (3) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
   (4) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
      i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
      ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.
   (5) When DBE suppliers are contracted, additional documentation must accompany form DT1506 and Attachment A forms. An invoice or bill-of-sale that includes names of the bidder and the DBE supplier, along with documentation of the calculations used as the basis for the purchase agreement, subcontract, or invoice. WisDOT recognizes that the amount on the Attachment A form may be more or less than the amount on the invoice per b.(1) above.
      i. The bidder should respond to the following questions and include with submission of form DT1506:
         a. What is the product or material?
         b. Is this item in the prime's inventory or was the item purchased when contract was awarded?
         c. Which contract line items were referenced to develop this quote?
         d. What is the amount of material or product used on the project?

c. Brokers, Transaction Expediters, Packagers, Manufacturers' Representatives
   (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit. However, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies, or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions.
   (2) Brokerage fees are calculated as **10%** of the purchase amount.
   (3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, fees, or transportation charges for the delivery of materials or supplies required on a job site.

(4) Evaluation of DBE credit includes review of the contract need for the item/service, the sub-contract or invoice for the item/service, and a comparison of the fees customarily allowed for similar services to determine whether they are reasonable.

9. DBE Commitment Modification Policy (Formerly "DBE Replacement Policy")

A. Issuing a Contract Change Order

Any changes or modifications to the contract once executed are considered contract modifications and as such require a change order. In addition, the DBE office must provide consent for reduction, termination, or replacement of subcontractors approved on the DT1506 *in advance* of the modification for the prime contractor to receive payment for work or supplies. Additions to the DBE commitment do not require advance notification of the DBE office. (see D below)

Contractor Considerations

1. A prime contractor cannot modify the DBE commitment through reduction in participation, termination, or replacement of a DBE subcontractor listed on the approved DT1506 without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

2. If a prime contractor reduces participation, replaces, or terminates a DBE subcontractor who has been approved for DBE credit toward its contract, the prime is required to provide documentation supporting its inability to fulfill the contractual commitment made to the Department regarding the DBE utilization.

3. The Prime Contractor is required to demonstrate efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE subcontractor that was terminated, to the extent needed to meet the assigned DBE contract goal.

4. When additional opportunity is available by contract modifications, the Prime Contractor must utilize DBE subcontractors that were committed to equal work items, in the original contract.

5. In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason, or is terminated from a contract, the Prime Contractor must undertake efforts to maintain its commitment to the assigned DBE goal.

6. The DBE subcontractor should communicate with the Prime Contractor regarding its schedule and capacity in the context of the contract. If the DBE firm anticipates that it cannot fulfill its subcontract, they will advise the Prime Contractor and suggest a DBE subcontractor that may replace their services and provide written consent to be released from its subcontract.

   (a) Before the Prime Contractor can request modification to the approved DT1506, the Prime Contractor must:
   - i. Make every effort to fulfill the DBE commitment by working with the listed DBE subcontractor to ensure that the firm is fully knowledgeable of the Prime Contractor's expectations for successful performance on the contract. Document these efforts in writing.
   - ii. If those efforts fail, provide written notice to the DBE subcontractor of the Prime Contractor's intent to request to modify the commitment through reduction in participation, termination, and/or replacement of the subcontractor including the reason(s) for pursuing this action.
   - iii. Copy the DBE Office on all correspondence related to changing a DBE subcontractor who has been approved for DBE credit on a contract, including preparation and coordination efforts.

iv. Clearly state the amount of time the DBE firm has to remedy and/or respond to the notice of intent to replace/terminate. The DBE must be allowed five days from the date notice was received as indicated by email time stamp or signed certified mail, to respond, in writing. **EXCEPTION:** The Prime Contractor must provide a verifiable reason for a response period shorter than five days. For example, a WisDOT project engineer or project manager confirms that WisDOT has eliminated an item the DBE subcontractor was contracted for.

v. The DBE subcontractor must acknowledge the contract modification with written response to the Prime Contractor and the DBE Office. If objecting to the subcontract modification, the DBE subcontractor must outline the basis for objection to the proposed modification, providing sound reasoning for WisDOT to reject the prime's request.

B. Request to Modify DBE Subcontracting Commitment

The written request referenced above may be delivered by email or fax. The request must contain the following:

1. Project ID number
2. WisDOT Contract Project Engineer's name and contact information
3. DBE subcontractor name and work type and/or NAICS code
4. Contract's progress schedule
5. Reason(s) for requesting that the DBE subcontractor be replaced or terminated
6. Attach/include all communication with the DBE subcontractor to deploy/address/resolve work completion

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, MODIFICATION" Email: DBE_Alert@dot.wi.gov + Project Engineer

WisDOT will review the request and any supporting documentation submitted to evaluate if the circumstance and the reasons constitute good cause for replacing or terminating the approved DBE subcontractor.

Good Causes to Replace a DBE subcontractor according to the federal DBE program guidelines {49 CFR part 26.53}

- The listed DBE subcontractor fails or refuses to execute a written contract
- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215, and 1,200 or applicable state law
- The prime has determined that the listed DBE subcontractor is not a responsible contractor
- The listed DBE subcontractor voluntarily withdraws from the project and provides written notice of its withdrawal
- The listed DBE subcontractor is ineligible to receive DBE credit for the type of work required
- A DBE firm owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract

C. Evaluation and Response to the Request

WisDOT's timely response to the Prime Contractor's request for modification of the approved DBE subcontracting commitment will be provided to the prime and the WisDOT project engineer via email.

If WisDOT determines that the Prime Contractor's basis for reduction in participation, replacement, or termination of the DBE subcontractor is not consistent with the good cause guidelines, the DBE office will provide a response via email within 48-hours of receipt of request from the Prime Contractor as indicated by email time stamp. The communication will include: the requirement to utilize the committed DBE, actions to support the completion of the contractual commitment, a list of available WisDOT support services, and administrative remedies, including withholding payment to the prime, that may be invoked for failure to comply with federal DBE guidelines for DBE replacement.

The WisDOT contact for all actions related to modification of the approved Form DT1506 is the DBE Program Engineer who can be reached at DBE_Alert@dot.wi.gov or (608) 264-9528.

D. DBE Utilization beyond the approved DBE Commitment (Form DT1506)

When the prime or a subcontractor increases the scope of work for an approved DBE subcontractor or adds a DBE subcontractor who was not on the approved form DT1506 at any time after contract execution, this is referred to as voluntary DBE contract goal achievement. The contractor must follow these steps to ensure that the participation is accurately credited toward the DBE goal:

a. Forward a complete, signed Attachment A form to the DBE Office. A complete Attachment A includes DBE subcontractor contact information, signatures, subcontract value, and description of the work areas to be performed by the DBE. The DBE Office will verify the DBE participation and revise the DT1506 based on the email/discussion and the new Attachment A.

b. When adding to an existing DBE commitment, submit a new Attachment A to the DBE Alert mailbox

c. OR Submit a final Attachment A to DBE Alert during the Finals Process when Compliance receives notice of "Substantially Complete"

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, *New* Attachment A" Email: DBE_Alert@dot.wi.gov

Special note on trucking

- DBE truckers added to the sublets in CRCS *will* be approved without DBE credit (You will see a "N" in CRCS instead of "Y")
- Prime Contractors may enter a "place holder" e.g. $1000.00, for DBE Trucking in CRCS if the full amount of trucking is unknown for sublet purposes only
- The hiring contractor may obtain the Attachment A with DBE signature included but the **Prime Contractor** must sign the Attachment A before submitting

10. Commercially Useful Function

a. Commercially Useful Function (CUF) is evaluated after the contract has been executed, while the DBE certified firm is performing contracted work items.

b. The Department uses Form DT1011, DBE Commercially Useful Function Review and Certification to evaluate if the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

c. A DBE firm is performing a commercially useful function if the following conditions are met:

(1) For contract work, the DBE is responsible for executing a distinct portion of the work and is carrying out its responsibilities by actually performing, managing, and supervising that work.

(2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

11. Credit Evaluation for DBE Primes

WisDOT calculates DBE credit based on the amount and type of work performed by DBE certified firms for work submitted with required documentation. If the prime contractor is a DBE certified firm, the Department will only count the work that the DBE prime performs with its own forces for DBE neutral credit. The Department will also calculate DBE credit for work performed by any other DBE certified subcontractor, DBE certified supplier, and DBE certified manufacturer on the contract in each firm's approved NAICS code/work areas that are submitted with required documentation. Crediting for manufacturers and suppliers is calculated consistent with Section 8 of this document and 49 CFR Part 26.

12. Joint Venture

If a DBE performs as a participant in a joint venture, the Department will only count the portion of the total dollar value of the contract equal to the portion of the work that the DBE performs with its own forces, for DBE credit.

13. Mentor-Protégé

a. If a DBE performs as a participant in a mentor-protégé agreement, the Department will credit the portion of the work performed by the DBE protégé firm.

b. DBE credit is evaluated and confirmed by the DBE Office for any contracts on which the mentor-protégé team identifies itself to the DBE Office as a current participant of the Mentor-Protégé Program.

c. Refer to WisDOT's Mentor-Protégé guidelines for guidance on the number of contracts and amount of DBE credit allowed on WisDOT projects.

14. Use of Joint Checks

The use of joint checks is allowable if it is a commonly recognized business practice in the material industry. A joint check is defined as a two-party check between a DBE subcontractor, a prime contractor, and the regular dealer or materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE firm in cases where the DBE subcontractor and materials have been approved for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE firm is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE firm must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

a. The Prime Contractor must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.

(1) Request should be made when Form DT1506 or when the Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
(2) Approval/Permission must be granted prior to the issuance of any joint checks.
(3) The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
(4) The joint check for supplies must be strictly for the cost of approved supplies.

b. The DBE subcontractor is responsible for furnishing and/or installing the material/work item and is not an 'extra participant' in the transaction. The DBE firm's role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor's tasks should include the following:
   (1) The DBE subcontractor (not the prime/payor) negotiates the quantities, price, and delivery of materials.
   (2) The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.

c. The Prime contractor/payor acts solely as a guarantor.
   (1) The Prime Contractor agrees to furnish the check used for the payment of materials/supplies under the contract.
   (2) The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractor's negotiated unit price.

15. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

Appendix A
Substantive Conversation Guidelines

The substantive conversation is critical to all bidders' demonstration of good faith effort to meet the DBE goal prior to bid opening. Relationship building between primes and subcontractors is crucial to DBE goal attainment. Responsible bidders seek to build rapport with potential DBE subcontractors to understand capacity, areas of expertise, and assess contracting feasibility. Bidders who compete for WisDOT contracts are specialty contractors responding to a growing and changing contract environment. Just as these specialists are responsible for care of the roads, they are likewise responsible for contributing to the health of the industry. The substantive conversation drives collaboration that will build industry health and capacity. The following is intended to provide guidance for such discussions but is not an exhaustive list. Contractors are encouraged to incorporate their existing strategies for cultivating business relationships as well.

<u>Prior to Bid Opening- this discussion should happen as early as possible (WisDOT advertisements are released 5 weeks prior to each Let)</u>

- Determine DBE subcontractor's interest in quoting
- If response indicates inexperience with quoting- offer support/assistance to the DBE in understanding the industry including fundamentals a subcontractor needs to know, required reading and/or resources.
- Assess their interest and experience in the road construction industry by asking questions such as:
  1. Have you competed for other WisDOT contracts? Ratio of competed/to wins
  2. Have you performed on any transportation industry contracts (locally or with other states)?
  3. What the largest contract you've completed?
  4. Have you worked in the industry: apprentice, journeyman, safety, inspection etc.?
  5. Does this project fit into your schedule? Are you working on any contracts now?
  6. Have you reviewed a copy of the plans? Are you comfortable performing within the scope and quantity considerations of this contract?
  7. What region do you work in? Home base?
  8. Which line items are you considering?
  9. Have you read/are you familiar with WisDOT Standard Specifications? Construction Material Manual?
  10. Do you understand where your work fits in the project schedule, project phases?

<u>Following Bid Opening- this discussion can happen at any time</u>

1. After reviewing their quote, note the following in your discussion:
   - Does the quote look complete? Irregular?
   - Are there errors in the quote? Are items very high or very low?
   - In general, does the quote look competitive?
2. Questions and Advice for the bidder to share with the potential DBE subcontractor:
   - What line items would typically be in a competitive quote for a subcontractor of their specialty?
   - How many employees and what is their role/experience/expertise in your firm?
   - Do you have resources for labor (union member, family-based, community-resourced) and capital (banking relationship, bond agent, CPA)?
   - Where have you worked: cities, states, government, commercial, residential/private sector, etc. Explain similarities or differences.
   - Refer them to reliable, trusted, industry resources that can educate or connect them to relevant resources, education/certification resources, more appropriate contract opportunities.
   - Discussion about prime contract and subcontract liability, critical path items, contract quantities, schedule risks, and potential profit/loss (for upcoming known projects or in general).
   - Discussion of bonding, insurance, and overall business risk considerations.

APPENDIX B
Sample Contractor Solicitation Letter Page 1
This sample is provided as a guide not a requirement

GFESAMPLE MEMORANDUM

TO:	DBE FIRMS
FROM:	POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR
SUBJECT:	**REQUEST FOR DBE QUOTES** **LET DATE & TIME**
DATE:	MONTH DAY YEAR
CC:	DBE OFFICE ENGINEER

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation Month- date -year Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at http://roadwaystandards.dot.wi.gov/hcci/

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. ***Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.*** We prefer quotes be sent via SBN but prime's alternatives are acceptable. Our office hours are include hours and days.

Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at contact number.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at http://roadwaystandards.dot.wi.gov/hcci/
All questions should be directed to:

Project Manager, John Doe, Phone:
(000) 123-4567
Email: Joe@joetheplumber.com
Fax: (000) 123- 4657

Sample Contractor Solicitation Letter Page 2

This sample is provided as a guide not a requirement

REQUEST FOR QUOTE

Prime's Name: _____

Letting Date: _____

Project ID: _____

Please check all that apply

- ¨ Yes, we will be quoting on the projects and items listed below
- ¨ No, we are not interested in quoting on the letting or its items referenced below
- ¨ Please take our name off your monthly DBE contact list
- ¨ We have questions about quoting this letting. Please have someone contact me at this number

Prime Contractor 's Contact Person:	DBE Contractor Contact Person:
Phone:	Phone:
Fax:	Fax:
Email:	Email:

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clearing and Grubbing	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternatives are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

Appendix C
Small Business Network (SBN) Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription. Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
    a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for later completion.
2. Create sub-quotes for the subcontracting community:
    a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
    b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
    c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE preferred request.
    d. Add attachments to sub-quotes.
3. View sub-quote requests & responses:
    a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
    b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.
4. View Record of Subcontractor Outreach Effort:
    a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
    b. Easily locate pre-qualified and certified small and disadvantaged businesses.
    c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
    d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs. **DBE firms can:**

1. View and reply to sub-quote requests from primes:
    a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
    a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
    b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes. c. Add attachments to a sub-quote.
3. Create and send unsolicited sub-quotes to specific contractors:
    a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
    a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
    b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
    c. Add attachments to a sub-quote.
    d. Add unsolicited work items to sub-quotes that you are responding to.
5. Easy Access to Valuable Information
    a. Receive a confirmation that your sub-quote was opened by a prime.
    b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
    c. View important notices and publications from DOT targeted to small and disadvantaged businesses.
6. Accessing Small Business Network for WisDOT contracting opportunities
    a. If you are a contractor not yet subscribing to the Bid Express service, go to **www.bidx.com** and select “Order Bid Express.” The Small Business Network is a part of the Bid Express Basic Service.
    b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-458

APPENDIX D

Good Faith Effort Evaluation Measures *by categories referenced in DBE regulations*

Bidders must demonstrate that they took all necessary and reasonable steps to achieve the assigned DBE contract goal. For each contract, all bidders must submit documentation indicating the goal has been met or if falling short of meeting the assigned goal, must request a DBE Goal Waiver and document all efforts employed to secure DBE subcontractor participation on Form DT1202.

DBE staff analyze the bidder's documented good faith efforts to determine if action taken was sufficient to meet the goal. Sufficiency is measured contract-by-contract. WisDOT evaluates active and aggressive efforts, quality, quantity, scope, intensity, and appropriateness of the bidder's efforts as a scale of the principles of Good Faith outlined in 49 CFR Part 26, Appendix A. Additional emphasis is placed on the bidder's demonstration of timely submission of documentation and communication with DBE subcontractors, and business development initiatives undertaken to support DBE firm growth.

The following is a sample of good faith effort activities that are rated according to the accompanying rubric. Contractors are encouraged to identify additional activities that align with their business type(s).

- Personal, tailored solicitation to firms that specialize in work types planned or desired for subcontracting
- Follow up to initial solicitation via email or phone
- Substantive conversation including topics such as contract liability, critical path work items, schedule risks, and potential profit/loss
- SBN utilization including posting quotes
- Review and response to DBE quotes including provision of information about plans, specifications,and requirements as applicable
- Documentation requesting subcontractors support DBE goal by solicitation and inclusion of DBE subcontractor quotes
- Responsive and timely submission of organized documentation
- Analysis of number of DBE firms who do work types that you typically subcontract
- Analysis of number of DBE firms who reside in geographical areas where prime seeks work
- Analysis of firms who express interest in bidding/quoting including the number of firms who declined your solicitation
- Reference check of DBE subcontractor work or training (documentation of questions and response required)
- Number of different efforts undertaken to meet the assigned DBE goal as documented in accompanying Form DT1202
- Submission of all DBE quotes received matched with a variety of work to be performed by DBEs
- Number and names of DBE firms provided written advice, or referral to industry-specific business development resources
- Overall pattern of DBE utilization on all WisDOT contracts which may include contracting with municipalities
- Documentation of resources expended to meet assigned DBE goal (#of hours, staff titles, average pay rate, actions taken)
- Analysis of subcontractable work items to be completed by prime beyond prime contractor's 30%
- Risk analysis of work items that are typically in tied quotes that could be unbundled
- List of contract work items in smallest economically feasible units, identifying schedule impact
- Submission of a Gap Analysis identifying DBE skillset and/or industry needs
- Staff training in EEO and Civil Rights laws as documented in training logs
- Written Capacity Assessment completed with DBE firm documenting its ability to perform the work quoted
- DBE engagement efforts beyond simple solicitation that include a substantive discussion, initiated as early in the acquisition process as possible (*points added for each day prior to letting*)
- Outreach and marketing efforts with minority, women, and veteran-focused organizations at least 10 days prior to bid opening
- Active involvement in WisDOT's Business Development Program, TrANS training, facilitated networking efforts, workshops
- Customized teaching/training efforts for future opportunities with DBE subcontractor, contract specific and/or annually
- Introduction and reference provided for DBE subcontractor to a prime who has not previously contracted with the DBE firm
- Prime utilization of a DBE subcontractor the prime has not contracted with previously
- Written referral/recommendation to bond/insurance agents, manufacturer, supplier
- Documented efforts fostering DBE participation through administrative and/or technical assistance
- Evidence of negotiation with the DBE firm about current and future Let opportunities
- Recommendation of local and state services that support small business and access to opportunity: DOA, SBA, WEDC, WPI, etc.
- Advice on bonding, lines of credit, or insurance as required to complete the items quoted and contract requirements

GFE EVALUATION RUBRIC – PHASE 1

	Active & Aggressive Category	Quality Category	Quantity Category	Scope & Intensity Category	Timing Category	Business Develop't Efforts	Total=
Solicitation Documentation							
Selected Work Items Documentation							
Documentation of Project Information provided to Interested DBEs							
Documentation of Negotiation with Interested DBEs							
Documentation of Sound Reason for Rejecting DBEs							
Documentation of Assistance to Interested DBEs- bonding, credit, insurance, equipment, supplies/materials							
Documentation of Outreach to Minority, Women, and Community organizations and other DBE Business Development Support							
Documentation of other GFE activities							
Overall Total=							

GFE EVALUATION RATING LEGEND – PHASE 1

ACTIVE & AGGRESSIVE: Demonstrated through engaged and assertive activity
QUALITY: Demonstrated through essential character of conscientious and serious activity
QUANTITY: Demonstrated through a measurable number of activities
SCOPE & INTENSITY: Demonstrated through a rigorous approach to an appropriate and purposeful range of activities
TIMING: Demonstrated through engagement efforts beyond simple solicitation, initiated early in the process
BUSINESS DEVELOPMENT INITIATIVES: Demonstrated by efforts to support business growth and health of DBEs

Rating Scale

- **Each qualifying activity is worth 5 points per Category**
- **Documented efforts must receive 55 points or more to qualify for Phase 2 GFE evaluation**
  - **Pro Forma efforts= 0-50 points**
    Perfunctory effort characterized by routine or superficial activities
  - **Bona Fide= 55+ points**
    Genuine effort characterized by sincere and earnest activities

GFE EVALUATION – PHASE 2

DBE Office completes:

- Review of quote comparisons submitted by Prime
- Bid analysis to confirm if any bid submitted met the DBE goal
- Review average of other bidders DBE goal achievement
- Team review of combined efforts documented in Phase 1 and 2 by apparent low bidder

Excerpt from Appendix A to 49 CFR Part 26:

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)((vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

APPENDIX E
Good Faith Effort Best Practices

This list is not a set of requirements; it is a list of potential strategies

Primes

- Ø Prime contractor open houses inviting DBE firms to see the bid "war room" or providing technical assistance.
- Ø Participate in speed networking and mosaic exercises as arranged by DBE office.
- Ø Host information sessions not directly associated with a bid letting.
- Ø Participate in a formal mentor protégé or joint venture with a DBE firm.
- Ø Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Ø Facilitate a small group DBE 'training session' clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications, and communication methods.
- Ø Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Ø Quality of communication, not quantity creates the best results. Contractors should be thorough in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- Ø DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Ø Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Ø Review the status of contracts on the HCCI website reviewing the 'apparent low bidder' list and bid tabs at a minimum.
- Ø Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation related projects of similar size and scope, firm expertise and staffing.
- Ø Participate in DBE office assessment programs.
- Ø Participate on advisory and mega-project committees.
- Ø Sign up to receive the DBE Contracting Update.
- Ø Consider membership in relevant industry or contractor organizations.
- Ø Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the Department are the only ways to get work.

APPENDIX F
Good Faith Effort Evaluation Guidance
Appendix A of 49 CFR Part 26

I. When, as a recipient, you establish a contract goal on a DOT-assisted contract for procuring construction, equipment, services, or any other purpose, a bidder must, in order to be responsible and/or responsive, make sufficient good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, Part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, you have the responsibility to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made, based on the regulations and the guidance in this Appendix.

The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call. Determinations should not be made using quantitative formulas.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. (1) Conducing market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of transportation firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

(2) The bidder should solicit this interest as early in the acquisition process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. (1) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

(2) A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)((vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

VI. A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

[79 FR 59600, Oct. 2, 2014]

APPENDIX G
(SAMPLE) Forms DT1506 and DT1202

COMMITMENT TO SUBCONTRACT TO DBE

Wisconsin Department of Transportation

DT1506 6/2020 s.84.06(2) Wis. Stats.

Project(s):

Prime Contractor:

County:

Letting Date:

This contract requires that a specified percentage of the work be subcontracted to a disadvantaged business enterprise and that this information be submitted as described in ASP-3. Completion of the following information indicates your intent in the fulfillment of these contract requirements.

Total Value of Prime Contract:

DBE Contract Goal %:

DBE Contract Goal $: $ -

Goal met

This form must be completed and returned for THIS contract. See reverse side for instructions.

A	V	NAME OF DBE SUBCONTRACTOR	TYPE OF WORK	SUBCONTRACT $ VALUE	Government Use Only Adjusted Amounts

SUBTOTAL DBE $ VALUE	A ($)	$ -	TOTAL %	#DIV/0!	
	V ($)	$ -	TOTAL %	#DIV/0!	

A	V	NAME OF DBE SUPPLIER AND/OR MANUFACTURER (see #3 on Instructions)	TYPE OF MATERIAL	SUBCONTRACT $ VALUE	Government Use Only Adjusted Amounts

SUBTOTAL DBE $ VALUE	A ($)	$ -	TOTAL %	#DIV/0!	
	V ($)	$ -	TOTAL %	#DIV/0!	

A	V	NAME OF DBE TRUCKING FIRM	MATERIAL HAULED	EST. # OF TON/C.Y.	EST. # OF TRUCKS REQ'D	$ VALUE	Government Use Only Adjusted Amounts
					O= L=		
					O= L=		
					O= L=		
					O= L=		
					O= L=		

	A ($)	$ -	TOTAL %	#DIV/0!	
SUBTOTAL DBE $ VALUE	V ($)	$ -	TOTAL %	#DIV/0!	
	A ($)	$ -	TOTAL %	#DIV/0!	
GRAND TOTAL DBE $ VALUE	V ($)	$ -	TOTAL %	#DIV/0!	
	T =	$ -	TOTAL %	#DIV/0!	

I certify that arrangements have been made for the foregoing work with the listed DBE Contractors. I further understand that any willful falsification, fraudulent statement or misrepresentation will result in appropriate sanctions, which may include debarment and/or prosecution under applicable State (Trans 504) and Federal laws.

O = Owned Trucks Used on Project
L = Leased Trucks Used on Project

A = Assigned (DBE Conscious)
V = Voluntary (DBE Neutral)

Government Use Only Approved Amounts			
A	$		%
V	$		%
Total	$		%
Signature:			
Date:			
DBE goal waiver granted: Yes		No	

X

(Authorized Agent)

Date

Preferred submission method: DBE_Alert@dot.wi.gov
Or:
Mail to: Wisconsin Department of Transportation
DBE Programs Office, 5th Floor
PO Box 7986
Madison,WI 53707-7986

Proposal Number :

Instructions For Completing Commitment To Subcontract To DBE Form:

1. In accordance with the DBE Regulations (49 CFR part 26), WisDOT is tracking Assigned Goals for DBE's (DBE Conscious) and Voluntary Usage of DBE Firms (DBE Neutral). DBE participation reported on this form will be used to periodically adjust (DBE Conscious and DBE Neutral) components of WisDOT's overall annual DBE goal.

2. For each DBE firm listed on this form, place an "x" in the appropriate column to indicate whether it will be used to meet the Assigned Goal (A) and/or whether it is used on a Voluntary basis (V). Any achievement above assigned goals should be reported as a voluntary achievement. If you indicate that a firm will be used to meet both assigned and voluntary goals, indicate the dollar amount attributable to assigned goals and the amount attributable to the voluntary goal. Our objective is to capture all DBE achievement you generate. The following is an example:
   a. The total contract amount is $100,000 and the DBE goal is 10% or $10,000 in DBE participation
   b. If $10,000 is the subcontract dollar value to ADBE Landscaping Co. then $10,000 would be Assigned (DBE Conscious) and you would place an "x" in the "A" column
   c. If $15,000 is the subcontract dollar value to ADBE Landscaping Co. then $10,000 would be Assigned (DBE Conscious) and you would place an "x" in the "A" column and ADBE Landscaping Co. would be listed on the next line for $5,000 which would be Voluntary (DBE Neutral) and an "x" would be placed in the "V" column

3. The department will give full credit toward the DBE goal if the DBE is a manufacturer of their materials or supplies. The department will give 60 percent credit or brokerage fee set by industry's standard toward the DBE goal if the DBE is merely a supplier of these materials or supplies. Drop shipment by a supplier will earn a 10 percent DBE credit. It is the Prime Contractor's responsibility to use the Bidder's List or UCP Directory to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form. WisDOT will apply the appropriate credit when approving the form.

4. After completing the form, if it does not indicate that the DBE goal has been met or exceeded, please complete and supply the necessary documentation on the Documentation of Good Faith Effort form (DT1202)

Instructions For Completing Attachment A Form:

5. Section 26.53 (49 CFR part 26) requires written confirmation of participation from each DBE firm to be used on the contract. Please submit one copy of a completed Attachment A, Confirmation of Participation form, for each DBE firm to be used on this contract. Each form must be signed by the Prime Contractor, the hiring contractor (if applicable) and the DBE Firm specified on the form.

6. DBE crediting for the trucking industry is achieved in the following manner:
   a. A minimum of one truck owned by the DBE must be used on the contract.
   b. Full DBE credit is given for owned trucks and trucks leased from another DBE.
   c. Trucks leased from non-DBE firms will be given DBE credit of 10% of the subcontract value.
   d. All trucks used for credit must be listed and approved on the DBE firm's Schedule of Owned/Leased Vehicles for DBE Credit and/or a WisDOT approved trucking utilization plan.

   It is the Prime Contractor's and the DBE firm's responsibility to ensure that utilization of trucks and the DBE credit earned is in accordance with the above and will yield the subcontract dollar value listed on the Commitment to Subcontract to DBE form.

Please submit documents to: DBE_Alert@dot.wi.gov

Identify Project#, Proposal#, Let date, Business Name, DT1506 and/or Attachment A in the **email subject line.**

If you have questions about filling out these forms, please contact the Civil Rights and Compliance Office at (608) 266-0503.

COMMITMENT TO SUBCONTRACT TO DBE
ATTACHMENT A

CONFIRMATION OF PARTICIPATION

Project I.D.:		Proposal Number:	
Letting Date:		Total $ Value of Prime Contract:	

Name of DBE Firm Participating in this Contract:
Name of the Prime/Subcontractor who hired the DBE Firm: *(list all names of tiers if more than one)*
Type of Work or Type of Material Supplied:
Total Subcontract Value:

FOR PRIME CONTRACTORS ONLY: I certify that I made arrangements with the participating DBE firm to perform the type of work listed or supply the material indicated above for the subcontract value listed above.	Prime Contractor Representative's Signature
	Prime Contractor Representative's Name (Print Name)
	Prime Contractor (Print Company Name)
	Date

FOR PARTICIPATING DBE FIRMS ONLY: I certify that I made arrangements with the Prime Contractor or the Hiring Contractor to perform the type of work or supply the material indicated above for the subcontract value listed above. **FOR DBE TRUCKING FIRMS ONLY:** I certify that I will utilize, for DBE credit, only trucks listed on my WisDOT approved Schedule of Owned/Leased Vehicles for DBE Credit form and I will be utilizing the number of trucks and material hauled as listed below.	Participating DBE Firm Representative's Signature
	Participating DBE Firm Representative's Name (Print Name)
	Participating DBE Firm (Print Company Name)
	Date

# Owned Trucks	# Leased Trucks	# Estimated Tons/C.Y.	Material(s) Hauled

Official Form DT1506 can be found here: www.wisconsindot.gov/DBEcontracting

DOCUMENTATION OF GOOD FAITH EFFORT

Wisconsin Department of Transportation
DT1202 3/2020

Project ID	Proposal No.	Letting
* * * * *	* * * * *	* * * * *
Prime Contractor		County
* * * * *		* * * * *
Person Submitting Document		Telephone Number
* * * * *		* * * * *
Address		Email Address
* * * * *		* * * * *

All bidders must undertake necessary and reasonable steps to achieve the assigned DBE contract goal per federal regulatory guidance at 49 CFR Part 26. Bidders use this form to document all efforts employed to meet the assigned goal as a record of contractor good faith efforts (GFE). Refer to ASP3 or 49 CFR Part 26 for guidance on actions that demonstrate good faith effort.

It is critical to list all efforts, attach documentation, and follow the instructions to complete this submission. Documentation of good faith effort includes copies of each DBE and non-DBE subcontractor quote submitted to the bidder for the same line items. Utilize the sample documentation logs to document and organize efforts.

Submit good faith effort documentation per ASP-3 guidelines.

Instructions: Provide a narrative description of all activities pursued to demonstrate good faith efforts, any corresponding documentation, and applicable explanation on separate pages. Include the following items, organized in the order listed below.

1. **Solicitation Documentation:**
   - a. **Purpose:** To identify all reasonable and available activities the bidder performed to solicit the interest of all certified DBEs who have the capacity and ability to perform work on the project. All solicitation efforts should begin as early as possible to ensure DBEs have ample time to respond and ask questions.
   - b. **Action:** Identify and list all activities engaged in to solicit DBEs using all reasonable and available means such as written notice and follow-up communications; substantive conversations; pre-bid meetings; networking events; market research; advertising.
2. **Selected Work Items Documentation:**
   - a. **Purpose:** To ensure that all work items are broken out into economically feasible units to facilitate DBE participation. This must occur even when you prefer to perform the work yourself.
   - b. **Action:** Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.
3. **Documentation of Project Information provided to Interested DBEs:**
   - a. **Purpose:** To provide interested DBEs with adequate information about the plans, specifications, and any other contractual requirements in a timely manner to assist DBEs in response to solicitation.
   - b. **Action:** Provide DBEs access to plans, specifications, and other contract requirements. Early solicitation allows ample opportunity to provide project information, links to Let advertisements, and substantive engagement with DBEs.

4. **Documentation of Negotiation with Interested DBEs:**
   a. **Purpose:** To ensure that negotiations with interested DBEs were made in good faith providing evidence as to why agreements could not be reached for DBEs to perform work.

   b. **Action:** Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts. A bidder using good business judgment considers a number of factors in negotiating with all subcontractors, and the firm's price and capabilities in addition to contract goals are taken into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for failing to meet the DBE goal as long as costs are reasonable. (see 49 CFR Part 26 Appendix A)

5. **Documentation of Sound Reason for Rejecting DBEs:**
   a. **Purpose:** To ensure that bidders avoid rejecting DBEs as unqualified without sound reasons. Reasons for rejection must be based on thorough investigation of DBE capabilities.

   b. **Action:** Provide sufficient evidence to demonstrate that DBE was rejected for sound reasons such as past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, other tangible factors.

6. **Documentation of Assistance to Interested DBEs - Bonding, Credit, Insurance, Equipment, Supplies/Materials:**
   a. **Purpose:** To assist interested DBEs in obtaining bonds, lines of credit, insurance, equipment, supplies, materials, and other assistance or services.

   b. **Action:** Assist interested DBEs in obtaining bonding, lines of credit or insurance, and provide technical assistance or information related to plans, specifications, and project requirements. Assist DBEs in obtaining equipment, supplies, materials or other services related to meeting project requirements (excluding supplies or equipment the DBE purchases from the prime).

7. **Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support:**
   a. **Purpose:** To effectively use the services of minority, women, and community organizations as well as contractors' groups, local, state, and federal business assistance offices and organization that provide assistance in recruiting and supporting DBEs, as well as participation in activities that support DBE business development.

   b. **Action:** Contact organizations and agencies for assistance in contacting, recruiting, and providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

Return to:
Wisconsin Department of Transportation
DBE Program Office
PO Box 7965
Madison, WI 53707-7965
DBE_Alert@dot.wi.gov

I certify that I have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, as demonstrated by my responses and as specified in Additional Special Provision 3 (ASP-3).

I certify that the information given in the Documentation of Good Faith Efforts is true and correct to the best of my knowledge and belief.

I further understand that any willful falsification, fraudulent statement, or misrepresentation will result in appropriate sanctions, which may involve debarment and/or prosecution under applicable state (Trans 504) and Federal laws.

		(Bidder/Authorized Representative Signature)
		*****
		(Print Name)
		*****
		(Title)

Good Faith Effort -- Sample Documentation Logs

The sample logs below are provided as guides rather than exhaustive list. See ASP3, Appendix A for additional examples of demonstrable good faith efforts. Attach documentation for each activity listed.

Acceptable forms of documentation include copies of solicitations sent to DBEs, notes from substantive conversations and negotiations with DBEs, copies of advertisements placed, email communications, all quotes received from DBEs and from all subcontractors who were considered alongside DBE quotes, proof of attendance at applicable networking events; flyers for events or workshops for DBEs offered by the prime, and other physical records of good faith efforts activities.

SOLICITATION LOG

Date	Activity	Name of DBE Solicited	Follow-up
4/1/2020	Sent May Let solicitation	Winterland Electric	Spoke with Mark Winterland on 4/15/20 to ask if he would quote

SELECTED WORK ITEMS SOLICITED LOG

Work Type	DBE Firm	Contact Person	Date	Contact Mode
Pavement Marking	ABC Marking	Leslie Lynch	4/1/2020	Email; phone
	#1 Marking Co.	Mark Smart	4/1/2020	Email; left VM
Electrical	Winterland Electric	Tabitha Tinker	4/3/2020	Email, left VM
	Superstar Wiring	Jose Huascar	4/3/2020	Email; phone

INFORMATION PROVIDED LOG

Request Date	DBE Firm	Information Requested & Provided	Response Date
4/1/2020	Winterland Electric	Requested info on electrical requirements; provided plan and link to specs	4/3/2020
4/21/2020	Absolute Construction	Wanted to know how and when supplies are paid for by WisDOT; referred to spec that covers stockpiling	4/21/2020

NEGOTIATIONS LOG

Date	DBE Firm	Contact Name	Work Type	Quotes Rec'd?	Considered for project?	If not selected, why?
4/12/2020	ABC Landscape	John Dean	Erosion Control	Yes	No	Cannot perform all items
4/17/2020	Wild Ferns	Sandy Lynn	Erosion Control	Yes	Yes	
4/20/2020	#1 Marking	Mark Smart	Electrical	Yes	Yes	

ASSISTANCE LOG

Date	DBE Firm	Contact Person	Assistance Provided
4/1/2020	ABC Sawing	Jackie Swiggle	Informed DBE on how to obtain bonding
4/17/2020	Supreme Construction	Winston Walters	Provided contact for wholesale supply purchase

OUTREACH & BUSINESS DEVELOPMENT LOG

Date	Agency/Organization Contacted	Contact Person	Assistance Requested
4/1/2020	Women in Construction	LaTonya Klein	Contact information for woman-owned suppliers
4/28/2020	WBIC	Sam Smith	Asked for information to provide to DBE regarding financing programs through WBIC

Official Form DT1202 can be found here: www.wisconsindot.gov/DBEcontracting

ADDITIONAL SPECIAL PROVISION 4

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

Payment to First-Tier Subcontractors

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

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

Payment to Lower-Tier Subcontractors

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

ADDITIONAL SPECIAL PROVISIONS 5
FUEL COST ADJUSTMENT

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $2.20 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

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

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

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

Make the following revisions to the standard specifications:

102.1 Prequalifying Bidders

Replace paragraph two with the following effective with the October 2020 letting:

(2) Furnish a dated prequalification statement on the department's form at least 10 business days before the time set for the letting to close.

102.6 Preparing the Proposal

Replace the entire text with the following effective with the October 2020 letting:

102.6.1 General

(1) Submit completed proposals on the department's bidding proposal described in 102.2. Submit legible information only. Write everything in ink, by typewriter, or by computer-controlled printer. Provide all dollar amounts in dollars and cents, in numerals. Attach all addenda to the submitted proposal.

(2) Properly execute the proposal. Place the required signatures, in ink, in the space provided on the bidding proposal as indicated below:

ENTITY SUBMITTING PROPOSAL	REQUIRED SIGNATURE
Individual	The individual or a duly authorized agent.
Partnership	A partner or a duly authorized agent.
Joint venture	A member or a duly authorized agent of at least one of the joint venture firms.
Corporation	An authorized officer or duly authorized agent of the corporation. Also show the name of the state chartering that corporation and affix the corporate seal.
Limited liability company	A manager, a member, or a duly authorized agent.

(3) Instead of using the schedule of items provided on the department's bidding proposal, the bidder may submit a substitute schedule with the proposal. Use a format for the substitute schedule conforming to the department’s guidelines for approval of a bidder-generated schedule of items. Obtain the department’s written approval before using a substitute schedule.

(4) Provide a unit price for each bid item listed in the schedule of items. Calculate and show, in the bid amount column, the products of the respective unit prices and quantities. For a lump sum bid item, show the same price in the unit price column and in the bid amount column pertaining to that bid item. Show the total bid obtained by adding the values entered in the bid amount column for the listed bid items.

(5) If a unit price or lump sum bid already entered in the proposal needs to be altered, cross out the entered unit price or lump sum bid with ink or typewriter and enter the new price above or below and initial it in ink.

(6) A change that the bidder makes in the proposal is not an alteration if the bidder makes that change as directed in a specific instruction contained in an addendum.

102.6.2 Disadvantaged Business Enterprise (DBE) Commitment

(1) Before the letting is closed, submit the following documentation for proposals with a DBE goal:

1. Commitment to subcontract to DBE on department form DT1506.
2. Attachment A for each subcontractor listed on the DT1506.
3. If the DBE goal is not attained, certificate of good faith efforts on department form DT1202.

(2) Within 24 hours after the letting is closed, email all supplemental documentation for the DT1202 verifying efforts made to attain the DBE goal to DBE_Alert@dot.wi.gov.

102.7.3 Department Will Reject

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

(1) Proposals are irregular and the department will reject and will not post them if the bidder:

1. Does not furnish the required proposal guaranty in the proper form and amount as specified in 102.8.
2. Does not submit a unit price for each bid item listed, except for lump sum bid items where the bidder may show the price in the bid amount column for that bid item.
3. Includes conditions or qualifications not provided for in the department-supplied bidding proposal.
4. Submits a bid on a bidding proposal issued to a different bidder without obtaining departmental authorization to do so.
5. Submits a bid that contains unauthorized revisions in the name of the party to whom the bidding proposal was issued.
6. Submits a schedule of items with illegibly printed bid item numbers, descriptions, or unit prices.
7. Submits a schedule of items for the wrong contract.
8. Submits a bidder-generated schedule of items with an incorrect bid item number and incorrect description for a single bid item.
9. Omits a bid item or bid items on a bidder-generated schedule of items.
10. Submits a materially unbalanced bid.
11. Does not sign the proposal.
12. Does not submit the DBE forms and required supplemental documentation of the good faith efforts as specified in 102.6.2.

102.12 Public Opening of Proposals

Replace paragraph one with the following effective with the October 2020 letting:

(1) The letting will close at the time and place indicated in the notice to contractors. The department will publicly open and post the total bid for each proposal on the Bid Express web site beginning at noon on the day after the letting is closed except as specified in 102.7.3 and 102.8. If a proposal has no total bid shown, the department will not post the bid. After verification for accuracy under 103.1, the department will post bid totals on the HCCI web site.

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

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103.1 Consideration of Proposals

Replace paragraph one with the following effective with the October 2020 letting:

(1) Following the public opening of the proposals received, the department will compare them based on the summation of the products of the quantities of work listed and the contract unit prices offered. In case of discrepancies, errors, or omissions, the department will make corrections as specified in 102.7.1. In awarding contracts, the department, in addition to considering the amounts stated in the proposals, may consider one or more of the following:

1. The responsibility of the various bidders as determined from a study of the data required under 102.1.
2. The responsiveness of the bid as determined under 102.6.
3. Information from other investigations that the department may make.

107.17.1 General

Replace paragraph four with the following effective with the November 2020 letting:

(4) Comply with the railroad's rules and regulations regarding operations on or near the railroad right-of-way as follows:

- When working on the railroad right-of-way.
- When working within 25 feet of the track centerline or adjacent facilities, including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities.

If the railroad's chief engineering officer requires, arrange with the railroad to obtain the services of qualified railroad employees to protect railroad traffic through the work area. Bear the cost of these services and pay the railroad directly. Notify the railroad's representative, specified in the project special provisions, in writing at least 40 business days before starting work near a track. Provide the specific time planned to start the operations.

109.6.3.3 Retainage

Delete paragraph two effective with the December 2020 letting:

450.2.1 Acronyms and Definitions

Add the following definitions to 450.2.1(2) effective with the November 2020 letting:

Butt Joint	A transverse joint between existing and newly paved surfaces, formed by milling or sawing a vertical notch into the existing surface and then paving against the notch.
Echelon Paving	Paving two or more adjacent lanes with adjacent pavers offset from each other by 200 feet or less.
Notched Wedge Joint	A longitudinal joint consisting of a wedge placed at the edge of the initially paved lane with an overlapping wedge placed on the subsequent lane.
Tandem Paving	Paving two or more adjacent lanes with adjacent pavers offset from each other by more than 200 feet.
Vertical Joint	A longitudinal joint between 2 paved lanes with a vertical or nearly vertical interface between the adjacent mats.

450.3.2.8 Jointing

Replace paragraph two with the following with the November 2020 letting:

(2) Where placing against existing HMA pavement, saw or mill the existing mat to form a full-depth joint.

Replace paragraphs five and six with the following effective with the November 2020 letting:

(5) At the prepave meeting, submit documentation to the engineer that includes the brand name and model of each extruding and compacting device proposed for notched wedge joint construction. Alternatively, submit pictures of fabricated wedging and compacting devices. Do not use devices before engineer approval.

(6) For notched wedge joints, construct and shape the wedge for each layer using the engineer-approved extruding device and compacting device that will provide a uniform slope and will not restrict the main screed. Compact the wedge with a weighted roller wheel or vibratory plate compactor the same width as the wedge. Clean and apply tack coat to the wedge surface and both notches before placing the adjacent lane.

(7) For butt and vertical joints, clean and apply tack coat to promote bonding and seal the joint.

(8) If paving in echelon, the contractor may use a vertical or notched wedge joint. Joints paved in echelon need not be tack coated.

460.2.2.3 Aggregate Gradation Master Range

Replace table 460-1 with the following effective with the November 2020 letting:

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

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

[1] 14.5 for LT and MT mixes.

[2] 15.5 for LT and MT mixes.

522.2 Materials

Replace paragraph three with the following effective with the January 2021 letting:

(3) Manufacture precast reinforced concrete pipe, cattle pass, and apron endwalls in a plant listed under precast concrete fabricators on the APL. Conform to the specified AASHTO standard materials requirements except as follows:

- The contractor may use cement conforming to 501.2.1 or may substitute for portland cement at the time of batching conforming to 501.2.6 for fly ash, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30 percent of the total cementitious content by weight.

532.2.1 General

Replace paragraph one with the following effective with the November 2020 letting:

(1) Furnish structural steel conforming to ASTM as follows:

<= 1/2 inch thick structural tube and pipe ..... ASTM A500 grade C

> 1/2 inch thick structural tube and pipe ..... API 5L PSL 2 grade 46 or ASTM 1085

Tapered vertical supports ..... ASTM A595 grade A or ASTM A572 grade 55

Multi-sided or greater than 26-inch diameter round tapered poles ..... ASTM A572 grade 65

Structural angles and plates ..... ASTM A709 grade 36

532.3.8 Acceptance and Inspection

Add the following new subsection effective with the November 2020 letting:

532.3.8 Acceptance and Inspection

(1) Demonstrate to the engineer that electrical and mechanical systems for each high mast tower installation are fully operational. The department will not accept an installation until the engineer is satisfied that it functions properly.

(2) Inspect completed "S" or "L" designated structures before opening to public traffic conforming to the BOS structure inspection manual part 4 for sign, signal, and high mast towers available at:

https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/strct/inspection-manual.aspx

Ensure that a department-certified active team leader for sign/signal inspections, listed on the department's highway structures information system (HSIS) website, performs inspections. Conform to the following:

- Notify the engineer at least 5 business days before inspection.
- Ensure that the team leader performing inspections submits the signed inspection reports and provides punch list items as maintenance items in the inspection report to the engineer within one business day after completing each inspection. Submit that signed final inspection report to the engineer and HSIS at:

  https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/strct/hsi.aspx
- Notify the engineer and region ancillary structure project manager upon completion of the punch list items.

550.2.1 Steel Piles and Pile Shells

Replace paragraph three with the following effective with the November 2020 letting:

(3) For steel pipe sections and steel pile shells for cast-in-place concrete piles, use ASTM A252 grade 3 steel.

608.2.1 Pipe

Replace paragraph three with the following effective with the January 2021 letting:

(3) Manufacture precast reinforced concrete pipe for storm sewer in a plant listed under precast concrete fabricators on the APL. Conform to the specified AASHTO materials requirements for the class of precast concrete pipe specified except as follows:

- The contractor may use cement conforming to 501.2.1 or may substitute for portland cement at the time of batching conforming to 501.2.6 for fly ash, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30 percent of the total cementitious content by weight.

611.2 Materials

Replace paragraph three with the following effective with the January 2021 letting:

(3) For precast structures conform to AASHTO M199 for circular structures and ASTM C913 for square and rectangular structures. Manufacture in a plant listed under precast concrete fabricators on the APL. Conform to the specified AASHTO materials requirements for the structure specified except as follows:

- Use concrete with 470 pounds or more cementitious material per cubic yard.
- The contractor may use cement conforming to 501.2.1 or may substitute for portland cement at the time of batching conforming to 501.2.6 for fly ash, 501.2.7 for slag, or 501.2.8 for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30 percent of the total cementitious content by weight.
- For wet cast use air-entrained concrete with 7.0 percent +/- 1.5 percent air content.

614.3.2.1 Installing Posts

Replace paragraphs four and five with the following effective with the December 2020 letting:

(4) For bid items 614.0220, 0230, and 2500; do not trim posts before installation and mark one face of each post as follows:

- Draw an embedment depth line.
- Above the embedment line, write the post length.
- Posts 3 through 8 of bid item 614.0220 do not require marking.

Install posts with the markings on the roadway side. Ensure the markings remain on the posts until guardrail final acceptance.

(5) Ensure that posts are at least the minimum length and minimum embedment the plans show before cutting post tops to the finished elevation. After installation, the engineer may direct the contractor to remove and re-install up to 5% of the posts to verify they were placed to the required plan depth. If a post is embedded less than the required plan depth, the engineer may direct additional sampling. Re-install sampled posts at the locations and to the depths the plans show. Replace posts and other components that are damaged during sampling.

(6) Provide offset block-mounted reflectors as the plans show.

650.3.7 Structure Layout Staking

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

(1) Set construction stakes or marks on a line offset from the structure centerline or on a reference line, whichever is appropriate, for both roadway and substructure units. Establish the plan horizontal and vertical positions to the required accuracy. Also, set and maintain stakes and marks as necessary to support the method of operations. Locate stakes and marks to within 0.02 feet of the true horizontal position, and establish the grade elevation to within 0.01 feet of true vertical position.

(2) For girder bridges, the department will compute deck grades with contractor-supplied girder elevation data.

(3) For slab span bridges, the department will compute slab grades using contractor-supplied falsework settlement and deflection data at tenth points along slab edges, the crown, and reference line locations. Before releasing falsework, survey top-of-slab elevations at the centerline of the abutments and at the 5/10th point along slab edges, the crown, and reference line locations to verify the camber.

710.2 Small Quantities

Replace paragraph one with the following effective with the November 2020 letting:

(1) For contracts with only small quantities of material subject to testing, as defined under specific contract QMP provisions, modify the requirements of 710 as follows:

1. The contractor may submit an abbreviated quality control plan as allowed in 701.1.2.3.
2. The engineer may accept aggregate based on documented previous testing and non-random start-up gradation testing as allowed in 710.5.6.1.

710.4 Concrete Mixes

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

(2) At least 3 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:

1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, and air content.
2. For cementitious materials and admixtures: type, brand, and source.
3. For aggregates: absorption, SSD bulk specific gravity, wear, soundness, freeze thaw test results if required, and air correction factor. Also include proposed combined gradation limits and target individual gradations, including P200 limits..

710.5.6 Aggregate Testing

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

710.5.6.1 General

(1) Test aggregate gradations during concrete production. The department will accept non-random start-up testing during concrete production for the following:

- Small quantities, as defined in 715.1.1.2, of class I concrete placed under 715.
- Less than 400 cubic yards of class II ancillary concrete placed under the contract.

710.5.6.2 Gradation Testing During Concrete Production

(1) Test aggregate gradation during concrete production batching either at a central mix batch plant or at a ready mix plant. The contractor's concrete production QC tests can be used for the same mix design on multiple contracts.

(2) Conform to combined gradation limits either calculated using department form WS3012 or custom limits approved as a part of the contractor's quality control plan. For class II concrete, also conform to the additional combined gradation requirements specified for class I concrete in 715.2.2.

(3) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.

(4) Contractor QC testing frequency is based on the cumulative plant production for each mix design across multiple WisDOT contracts.

TABLE 710-1 PLANT PRODUCTION QC GRADATION TESTING FREQUENCY

Daily Plant Production Rate for WisDOT Work	Minimum QC Frequency per Stockpile
250 cubic yards or less	one test per cumulative total of 250 cubic yards
more than 250 through 1000 cubic yards	one test per day
more than 1000 cubic yards	two tests per day

(5) Department QV testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract.

TABLE 710-2 CONTRACT PLACEMENT QV GRADATION TESTING FREQUENCY

Anticipated Daily Placement Rate Each WisDOT Contract	Minimum QV Frequency per Stockpile
less than or equal to 1000 cubic yards	one test per 5 days of placement
more than 1000 cubic yards	two tests per 5 days of placement

715.2.2 Combined Aggregate Gradation

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

(1) Ensure that the combined aggregate gradation conforms to the following, expressed as weight percentages of the total aggregate:

1. One hundred percent passes the 2-inch sieve.
2. For mixes containing size No. 2 stone, the percent passing the 1-inch sieve is less than or equal to 89. The engineer may waive this requirement if the clear spacing between reinforcing bars is less than 2 inches.
3. The percent passing the No. 4 sieve is less than or equal to 42, except if the coarse aggregate is completely composed of crushed stone, up to 47 percent may pass the No. 4 sieve. For pavement, coarse aggregate may be completely composed of crushed concrete, in which case up to 47 percent may pass the No. 4 sieve.
4. The percent passing the No. 200 sieve is less than or equal to 2.3 percent.

716.2.1 Class II Concrete

Replace paragraphs four through six with the following effective with the November 2020 letting:

(4) Provide concrete with a 28-day compressive strength that equals or exceeds the following:

- If the contract specifies f'c, then f'c.
- If the contract does not specify f'c, then 3000 psi.

ERRATA

101.3 Definitions

Adopt AASHTO change order definition.

Change order A written order to the contractor detailing changes to the specified work quantities or modifications within the scope of the original contract..

Delete existing contract change order, contract modification, and contract revision definitions.

460.2.7(1) HMA Mixture Design

Correct table 460-2 errata by eliminating plasticity index requirements for LT, MT, and HT mixes.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	LT	MT	HT	SMA
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	50	45	45	35
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12
Freeze/Thaw (AASHTO T103 as modified in CMM 860.2.7) (specified counties, max % loss)	18	18	18	18
Fractured Faces (ASTM D5821 as modified in CMM 860.7.2) (one face/2 face, % by count)	65/___	75 / 60	98 / 90	100/90
Flat & Elongated (ASTM D4791) (max %, by weight)	5 (5:1 ratio)	5 (5:1 ratio)	5 (5:1 ratio)	20 (3:1 ratio)
Fine Aggregate Angularity (AASHTO T304, method A, min)	40[1]	43[1]	45	45
Sand Equivalency (AASHTO T176, min)	40	40[2]	45	50
Clay Lumps and Friable Particle in Aggregate (AASHTO T112)	<= 1%	<= 1%	<= 1%	<= 1%
Plasticity Index of Material Added to Mix Design as Mineral Filler (AASHTO T89/90)				<= 4
Gyratory Compaction				
Gyrations for Nini	6	7	8	7
Gyrations for Ndes	40	75	100	65
Gyrations for Nmax	60	115	160	100
Air Voids, %Va (%Gmm Ndes)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.5 (95.5)
% Gmm Nini	<= 91.5[3]	<= 89.0[3]	<= 89.0	___
% Gmm Nmax	<= 98.0	<= 98.0	<= 98.0	<= 98.0
Dust to Binder Ratio[4] (% passing 0.075/Pbe)	0.6 - 1.2[5]	0.6 - 1.2[5]	0.6 - 1.2[5]	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80[6] [8]	65 - 75[6] [7] [9]	65 - 75[6] [7] [9]	70 - 80
Tensile Strength Ratio (TSR) (AASHTO T283)[10] [11]				
no antistripping additive	0.75 min	0.75 min	0.75 min	0.80 min
with antistripping additive	0.80 min	0.80 min	0.80 min	0.80 min
Draindown (AASHTO T305) (%)	___	___	___	<= 0.30
Minimum Effective Asphalt Content, Pbe (%)	___	___	___	5.5

[1] For No 6 (4.75 mm) nominal maximum size mixes, the specified fine aggregate angularity is 43 for LT and 45 MT mixes.

[2] For No 6 (4.75 mm) nominal maximum size mixes, the specified sand equivalency is 43 for MT mixes.

[3] The percent maximum density at initial compaction is only a guideline.

[4] For a gradation that passes below the boundaries of the caution zone (ref. AASHTO M323), the dust to binder ratio limits are 0.6 - 1.6.

[5] For No 6 (4.75 mm) nominal maximum size mixes, the specified dust to binder ratio limits are 1.0 - 2.0 for LT mixes and 1.5 - 2.0 for MT and HT mixes.

[6] For No. 6 (4.75mm) nominal maximum size mixes, the specified VFB is 67 - 79 percent for LT mixes and 66 - 77 percent for MT and HT mixes.

[7] For No. 5 (9.5mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 70 - 76 percent.

[8] For No. 2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[9] For No. 1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[10] WisDOT eliminates freeze-thaw conditioning cycles from the TSR test procedure.

[11] Run TSR at asphalt content corresponding to 3.0% air void regressed design, or 4.5% air void design for SMA, using distilled water for testing.

513.2.1(2) General

Correct errata by changing the CMM reference from 875.2 to 875.4.

(2) Conform to the department's certification method of acceptance, as defined in CMM 875.4, for railing and railing components. Furnish a certificate of compliance for miscellaneous hardware.

531.1(1) Description

Correct errata by adding structural steel sign supports constructed under 635.

(1) This section describes constructing drilled shaft foundations for the following:

- Overhead sign structures constructed under 532.
- High mast light towers constructed under 532.
- Structural steel sign supports constructed under 635.
- Camera poles constructed under 677.

635.3.1(1) Structural Steel Sign Supports

Correct errata by adding "type NS" concrete footings.

(1) Locate and erect the supports as specified for placement and orientation in 637.3.3.2. Construct Type NS concrete footings conforming to 531.

654.5(2) Payment

Correct errata by changing excavating to drilling.

(2) Payment for the Bases bid items is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor templates, rods, nuts, and washers; for bar steel reinforcement; and for drilling and backfilling.

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

Effective January 2019 Letting ASP 9

ADDITIONAL SPECIAL PROVISION 9

Electronic Certified Payroll or Labor Data Submittal

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

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

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

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

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

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

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

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Nonsegregated Facilities
IV. Davis-Bacon and Related Act Provisions
V. Contract Work Hours and Safety Standards Act Provisions
VI. Subletting or Assigning the Contract
VII. Safety: Accident Prevention
VIII. False Statements Concerning Highway Projects
IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
X. Compliance with Governmentwide Suspension and Debarment Requirements
XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding $10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of $10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH–1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b.(1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g. , the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division Web site at http://www.dol.gov/esa/whd/forms/wh347instr.htm or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contacting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.
2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

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

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

(2) 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;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

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

2. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (https://www.epls.gov/), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

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

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Non-discrimination Provisions

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

SEPTEMBER 2002

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.

2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2013

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

Effective November 2020 letting

BUY AMERICA PROVISION

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

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

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

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

Effective February 2016 letting

Cargo Preference Act Requirement

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses.* "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

Effective with December 2017 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS
FOR PROJECTS WITH FEDERAL AID

I. PREVAILING WAGE RATES

The attached U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) furnishes the minimum prevailing wage rates pursuant to the Davis-Bacon and Related Acts. The wage rates shown are the minimum rates required by the contract to be paid during its life, however this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

II. COVERAGE OF TRUCK DRIVERS

Truck drivers are covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Drivers of a contractor or subcontractor for time spent working on the site of the work.
- Drivers of a contractor or subcontractor for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimis. https://www.dol.gov/whd/FOH/FOH_Ch15.pdf
- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract where a significant portion of such building or work is constructed and the physical place where the building or work called for in the contract will remain.

Truck drivers are not covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Material delivery truck drivers while off the site of the work.
- Drivers of a contractor or subcontractor traveling between a Davis-Bacon job and a commercial supply facility while they are off the site of the work."
- Truck drivers whose time spent on the site of the work is de minimis, such as only a few minutes at a time merely to pick up or drop off materials or supplies.

Details are available online at:
https://www.dol.gov/whd/recovery/pwrb/Tab9.pdf
https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/trckng.aspx

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

a. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. RESOURCES

Required information regarding compliance with federal provisions is found in the following resources:

- FHWA-1273 included in this contract
- U.S. Department of Labor Prevailing Wage Resource Book
- U.S. Department of Labor Field Operations Handbook
- U.S. Code of Federal Regulations
- Any applicable law, Act, or Executive Order enacted by the federal government at the time of the letting of this contract

"General Decision Number: WI20210010 01/01/2021

Superseded General Decision Number: WI20200010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/01/2021

BRWI0001-002 06/03/2019

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.80	24.28

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* BRWI0002-002 06/01/2020

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 42.77	23.47

BRWI0002-005 06/01/2019

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 35.51	23.37

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* BRWI0003-002 06/01/2020

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.68	24.40

BRWI0004-002 06/01/2019

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.43	25.10

BRWI0006-002 06/01/2019

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.06	23.02

BRWI0007-002 06/03/2019

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.57	24.22

BRWI0008-002 06/01/2019

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.93	24.22

* BRWI0011-002 06/01/2020

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.68	24.40

* BRWI0019-002 06/01/2020

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 34.86	25.22

BRWI0034-002 06/03/2019

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.56	24.23

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 36.85	18.39

CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVER	$ 34.12	18.00

CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter	$ 33.56	18.00
Millwright	$ 35.08	18.35
Pile Driver	$ 34.12	18.00

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

ELEC0014-002 06/14/2020

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 35.98	20.98

ELEC0014-007 07/05/2020

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 27.75	15.14

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT,

bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2020

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 41.62	30%+12.70

ELEC0158-002 06/01/2020

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 34.77	29.75%+10.26

ELEC0159-003 08/02/2020

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 41.86	22.67

ELEC0219-004 06/01/2019

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 33.94	21.80

Electrical contracts under $180,000	$ 31.75	21.73

ELEC0242-005 05/31/2020

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 39.77	28.11

ELEC0388-002 06/01/2020

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:	$ 34.85	26%+11.20

ELEC0430-002 06/01/2020

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 41.86	22.66

ELEC0494-005 06/01/2020

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 42.84	25.54

ELEC0494-006 06/01/2020

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes

Electricians:.....$ 36.32 22.51

ELEC0494-013 06/07/2020

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	$ 21.46	18.52
Technician.....	$ 31.34	20.00

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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* ELEC0577-003 06/01/2020

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:.....	$ 34.23	29.50%+10.00

ELEC0890-003 06/01/2020

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE,
RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 37.41	25.95%+11.11

ELEC0953-001 06/02/2019

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 47.53	21.43
(2) Heavy Equipment Operator	$ 42.78	19.80
(3) Equipment Operator	$ 38.02	18.40
(4) Heavy Groundman Driver	$ 33.27	16.88
(5) Light Groundman Driver	$ 30.89	16.11
(6) Groundsman	$ 26.14	14.60

ENGI0139-005 06/01/2020

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 41.62	23.80
Group 2	$ 41.12	23.80
Group 3	$ 40.62	23.80
Group 4	$ 40.36	23.80
Group 5	$ 40.07	23.80
Group 6	$ 34.17	23.80

HAZARDOUS WASTE PREMIUMS:
EPA Level ""A"" protection - $3.00 per hour
EPA Level ""B"" protection - $2.00 per hour
EPA Level ""C"" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs;

pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminious paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 37.31	27.62

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2020

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 39.11	27.87

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/01/2020

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER	$ 37.10	27.06

IRON0498-005 06/01/2019

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 40.25	40.53

IRON0512-008 06/03/2019

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 37.60	29.40

IRON0512-021 06/03/2019

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.19	29.40

LABO0113-002 06/01/2020

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 30.05	22.26
Group 2	$ 30.20	22.26
Group 3	$ 30.40	22.26
Group 4	$ 30.55	22.26
Group 5	$ 30.70	22.26
Group 6	$ 26.54	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/01/2020

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 29.30	22.26
Group 2	$ 29.40	22.26
Group 3	$ 29.45	22.26
Group 4	$ 29.65	22.26
Group 5	$ 29.50	22.26
Group 6	$ 26.39	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/01/2020

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 29.11	22.26
Group 2	$ 29.26	22.26
Group 3	$ 29.46	22.26
Group 4	$ 29.43	22.26
Group 5	$ 29.76	22.26
Group 6	$ 26.25	22.26

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LABO0140-002 06/01/2020

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 33.72	17.95
Group 2	$ 33.82	17.95
Group 3	$ 33.87	17.95
Group 4	$ 34.07	17.95
Group 5	$ 33.92	17.95
Group 6	$ 30.35	17.95

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2020

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 34.00	17.95
Group 2	$ 34.10	17.95
Group 3	$ 34.15	17.95
Group 4	$ 34.35	17.95
Group 5	$ 34.20	17.95
Group 6	$ 30.35	17.95

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/01/2017

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 30.33	17.27
Spray, Sandblast, Steel	$ 30.93	17.27
Repaint:		
Brush, Roller	$ 28.83	17.27
Spray, Sandblast, Steel	$ 29.43	17.27

PAIN0108-002 06/01/2019

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 36.08	20.36
Spray & Sandblast	$ 37.08	20.36

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2019

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 33.30	23.86
Brush	$ 32.95	23.86
Spray & Sandblast	$ 33.70	23.86

PAIN0802-002 06/01/2019

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 30.93	18.44

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2019

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN

LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER	$ 30.93	18.58

PAIN0934-001 06/01/2017

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 33.74	18.95
Spray	$ 34.74	18.95
Structural Steel	$ 33.89	18.95

PAIN1011-002 06/02/2019

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 25.76	13.33

PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 39.46	17.17
Area 2 (BAC)	$ 35.07	19.75
Area 3	$ 35.61	19.40
Area 4	$ 34.70	20.51
Area 5	$ 36.27	18.73
Area 6	$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,

MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2020

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 31.07	22.94
3 or more Axles; Euclids, Dumptor & Articulated, Truck Mechanic	$ 31.22	22.94
WELL DRILLER	$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic

violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and

non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.)

and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION
"

August 2018

NOTICE TO BIDDERS
WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

If a project includes multiple types of construction, different wage rate determinations may be inserted into the contract (WI10/Highway = in all WisDOT highway contracts, WI15/Heavy = bridge over navigable water per USDOL and US Coast Guard designation, WI8/Heavy (Sewer & Water Line & Tunnel) = sanitary sewer and water main if the cost is more than 20% of the contract and/or at least $1,000,000, and Building). If multiple wage rate determinations are inserted into the contract, use the classification in the wage determination for the work being done. Use WI15 wage rates when working on the bridge and/or structure from bank to bank. Use WI8 wage rates when working on any sanitary sewer or water main work. Use Building wage rates for all work done within the footprint of the building. Use WI10 wage rates for all other highway work in the contract and approaches to structures. For example, if a laborer is working within the footprint of a building, use the Laborer rate in the Building wage determination inserted in the contract. If a laborer is working on a bridge/structure within the banks, use the Laborer rate in the WI15/Heavy wage determination if inserted in the contract. If the laborer is working on the highway, use the Laborer rate in the WI10/Highway wage determination.

Proposal ID: 20210413026 **Project(s):** 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	110.000 STA	_____.____	_____.____
0004	201.0120 Clearing	356.000 ID	_____.____	_____.____
0006	201.0205 Grubbing	110.000 STA	_____.____	_____.____
0008	201.0220 Grubbing	356.000 ID	_____.____	_____.____
0010	203.0200 Removing Old Structure (station) 0001. 936+43.30	LS	LUMP SUM	_____.____
0012	203.0200 Removing Old Structure (station) 0002. 966+88	LS	LUMP SUM	_____.____
0014	203.0200 Removing Old Structure (station) 0003. 946+50	LS	LUMP SUM	_____.____
0016	203.0200 Removing Old Structure (station) 0004. 977+00HAB	LS	LUMP SUM	_____.____
0018	203.0200 Removing Old Structure (station) 0005. 936+51	LS	LUMP SUM	_____.____
0020	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 0001. 977+50	LS	LUMP SUM	_____.____
0022	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 0002. 980+00	LS	LUMP SUM	_____.____
0024	204.0100 Removing Concrete Pavement	68,966.000 SY	_____.____	_____.____
0026	204.0109.S Removing Concrete Surface Partial Depth	386.000 SF	_____.____	_____.____
0028	204.0110 Removing Asphaltic Surface	12,691.000 SY	_____.____	_____.____

Proposal ID: 20210413026 **Project(s):** 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0030	204.0120 Removing Asphaltic Surface Milling	15,072.000 SY	_____.____	_____.____
0032	204.0150 Removing Curb & Gutter	943.000 LF	_____.____	_____.____
0034	204.0155 Removing Concrete Sidewalk	1,066.000 SY	_____.____	_____.____
0036	204.0157 Removing Concrete Barrier	16,692.000 LF	_____.____	_____.____
0038	204.0165 Removing Guardrail	681.000 LF	_____.____	_____.____
0040	204.0170 Removing Fence	11,449.000 LF	_____.____	_____.____
0042	204.0195 Removing Concrete Bases	66.000 EACH	_____.____	_____.____
0044	204.0210 Removing Manholes	14.000 EACH	_____.____	_____.____
0046	204.0220 Removing Inlets	123.000 EACH	_____.____	_____.____
0048	204.0245 Removing Storm Sewer (size) 0001. 12-Inch	3,060.000 LF	_____.____	_____.____
0050	204.0245 Removing Storm Sewer (size) 0002. 15-Inch	1,508.000 LF	_____.____	_____.____
0052	204.0245 Removing Storm Sewer (size) 0003. 18-Inch	1,636.000 LF	_____.____	_____.____
0054	204.0245 Removing Storm Sewer (size) 0004. 21-Inch	59.000 LF	_____.____	_____.____
0056	204.0245 Removing Storm Sewer (size) 0005. 24-Inch	1,968.000 LF	_____.____	_____.____
0058	204.0245 Removing Storm Sewer (size) 0007. 30-Inch	204.000 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	204.0250 Abandoning Manholes	4.000 EACH	_____.____	_____.____
0062	204.0280 Sealing Pipes	16.000 EACH	_____.____	_____.____
0064	204.0291.S Abandoning Sewer	149.000 CY	_____.____	_____.____
0066	204.9001.S Removing Advance Flasher Assemblies Type 1	1.000 EACH	_____.____	_____.____
0068	204.9060.S Removing (item description) 0002. Apron Endwall	2.000 EACH	_____.____	_____.____
0070	204.9060.S Removing (item description) 1001. Lighting Units	169.000 EACH	_____.____	_____.____
0072	204.9105.S Removing (item description) 0001. Traffic Signals IH-43 NB Off Ramp & Port Washington Rd	LS	LUMP SUM	_____.____
0074	204.9105.S Removing (item description) 0002. Loop Detector Wire and Lead-in Cable IH-43 NB Off Ramp&Port Washington Rd	LS	LUMP SUM	_____.____
0076	204.9105.S Removing (item description) 0003. Traffic Signals, IH-43 SB On Ramp & W. Hampton Ave.	LS	LUMP SUM	_____.____
0078	205.0100 Excavation Common	183,854.000 CY	_____.____	_____.____
0080	206.1000 Excavation for Structures Bridges (structure) 0001. B-40-1014	LS	LUMP SUM	_____.____
0082	206.1000 Excavation for Structures Bridges (structure) 0002. B-40-1016	LS	LUMP SUM	_____.____
0084	206.1000 Excavation for Structures Bridges (structure) 0003. B-40-1018	LS	LUMP SUM	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0086	206.1000 Excavation for Structures Bridges (structure) 0004. B-40-1019	LS	LUMP SUM	_____.____
0088	206.1000 Excavation for Structures Bridges (structure) 0005. B-40-1020	LS	LUMP SUM	_____.____
0090	206.1000 Excavation for Structures Bridges (structure) 0006. B-40-1021	LS	LUMP SUM	_____.____
0092	206.2000 Excavation for Structures Culverts (structure) 0001. C-40-111	LS	LUMP SUM	_____.____
0094	206.5000 Cofferdams (structure) 0001. B-40-1016	LS	LUMP SUM	_____.____
0096	206.5000 Cofferdams (structure) 0002. B-40-1018	LS	LUMP SUM	_____.____
0098	208.0100 Borrow	70,968.000 CY	_____.____	_____.____
0100	209.2500 Backfill Granular Grade 2	2,374.000 TON	_____.____	_____.____
0102	210.1500 Backfill Structure Type A	3,859.000 TON	_____.____	_____.____
0104	210.2500 Backfill Structure Type B	3,240.000 TON	_____.____	_____.____
0106	211.0200 Prepare Foundation for Concrete Pavement (project) 0001. 1228-22-71	LS	LUMP SUM	_____.____
0108	213.0100 Finishing Roadway (project) 0001. 1228-22-71	1.000 EACH	_____.____	_____.____
0110	305.0120 Base Aggregate Dense 1 1/4-Inch	54,744.000 TON	_____.____	_____.____
0112	312.0110 Select Crushed Material	97,793.000 TON	_____.____	_____.____
0114	312.0115 Select Crushed Material	16,710.000 CY	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0116	390.0403 Base Patching Concrete Shes	1,394.000 SY	_____.____	_____.____
0118	415.0090 Concrete Pavement 9-Inch	1,094.000 SY	_____.____	_____.____
0120	415.0100 Concrete Pavement 10-Inch	9,448.000 SY	_____.____	_____.____
0122	415.0125 Concrete Pavement 12 1/2-Inch	89,567.000 SY	_____.____	_____.____
0124	415.0410 Concrete Pavement Approach Slab	2,207.000 SY	_____.____	_____.____
0126	415.1080 Concrete Pavement HES 8-Inch	66.000 SY	_____.____	_____.____
0128	415.5110.S Concrete Pavement Joint Layout	1.000 LS	_____.____	_____.____
0130	416.0610 Drilled Tie Bars	2,698.000 EACH	_____.____	_____.____
0132	416.0620 Drilled Dowel Bars	2,609.000 EACH	_____.____	_____.____
0134	455.0605 Tack Coat	2,424.000 GAL	_____.____	_____.____
0136	460.2000 Incentive Density HMA Pavement	2,910.000 DOL	1.00000	2,910.00
0138	460.6224 HMA Pavement 4 MT 58-28 S	1,083.000 TON	_____.____	_____.____
0140	460.7223 HMA Pavement 3 HT 58-28 S	1,757.000 TON	_____.____	_____.____
0142	460.7424 HMA Pavement 4 HT 58-28 H	144.000 TON	_____.____	_____.____
0144	460.8424 HMA Pavement 4 SMA 58-28 H	1,366.000 TON	_____.____	_____.____
0146	465.0105 Asphaltic Surface	202.000 TON	_____.____	_____.____
0148	465.0125 Asphaltic Surface Temporary	5,264.000 TON	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0150	495.1000.S Cold patch	10.000 TON	_____.____	_____.____
0152	501.1000.S Ice Hot Weather Concreting	90,305.000 LB	_____.____	_____.____
0154	502.0100 Concrete Masonry Bridges	8,211.000 CY	_____.____	_____.____
0156	502.3101 Expansion Device	513.000 LF	_____.____	_____.____
0158	502.3200 Protective Surface Treatment	15,306.000 SY	_____.____	_____.____
0160	502.3210 Pigmented Surface Sealer	5,217.000 SY	_____.____	_____.____
0162	502.4205 Adhesive Anchors No. 5 Bar	260.000 EACH	_____.____	_____.____
0164	502.4206 Adhesive Anchors No. 6 Bar	476.000 EACH	_____.____	_____.____
0166	503.0137 Prestressed Girder Type I 36W-Inch	6,218.000 LF	_____.____	_____.____
0168	503.0172 Prestressed Girder Type I 72W-Inch	5,420.000 LF	_____.____	_____.____
0170	504.0100 Concrete Masonry Culverts	341.000 CY	_____.____	_____.____
0172	504.0500 Concrete Masonry Retaining Walls	3,858.000 CY	_____.____	_____.____
0174	505.0400 Bar Steel Reinforcement HS Structures	377,340.000 LB	_____.____	_____.____
0176	505.0600 Bar Steel Reinforcement HS Coated Structures	1,600,745.000 LB	_____.____	_____.____
0178	505.0800.S Bar Steel Reinforcement HS Stainless Structures	12,710.000 LB	_____.____	_____.____
0180	505.0904 Bar Couplers No. 4	16.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0182	505.0905 Bar Couplers No. 5	48.000 EACH	_____.____	_____.____
0184	505.0906 Bar Couplers No. 6	20.000 EACH	_____.____	_____.____
0186	506.0105 Structural Steel Carbon	55.000 LB	_____.____	_____.____
0188	506.2605 Bearing Pads Elastomeric Non-Laminated	196.000 EACH	_____.____	_____.____
0190	506.2610 Bearing Pads Elastomeric Laminated	28.000 EACH	_____.____	_____.____
0192	506.4000 Steel Diaphragms (structure) 0001. B-40-1014	3.000 EACH	_____.____	_____.____
0194	506.4000 Steel Diaphragms (structure) 0002. B-40-1016	72.000 EACH	_____.____	_____.____
0196	506.4000 Steel Diaphragms (structure) 0003. B-40-1018	72.000 EACH	_____.____	_____.____
0198	506.4000 Steel Diaphragms (structure) 0004. B-40-1019	18.000 EACH	_____.____	_____.____
0200	506.4000 Steel Diaphragms (structure) 0005. B-40-1020	22.000 EACH	_____.____	_____.____
0202	506.4000 Steel Diaphragms (structure) 0006. B-40-1021	6.000 EACH	_____.____	_____.____
0204	506.5000 Bearing Assemblies Fixed (structure) 0001. B-40-116	14.000 EACH	_____.____	_____.____
0206	506.6000 Bearing Assemblies Expansion (structure) 0001. B-40-116	42.000 EACH	_____.____	_____.____
0208	506.7050.S Removing Bearings (structure) 0001. B-40-116	56.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0210	509.0301 Preparation Decks Type 1	40.000 SY	_____.____	_____.____
0212	509.0302 Preparation Decks Type 2	25.000 SY	_____.____	_____.____
0214	509.0505.S Cleaning Decks to Reapply Concrete Masonry Overlay	1,384.000 SY	_____.____	_____.____
0216	509.1000 Joint Repair	106.000 SY	_____.____	_____.____
0218	509.1500 Concrete Surface Repair	105.000 SF	_____.____	_____.____
0220	509.2000 Full-Depth Deck Repair	15.000 SY	_____.____	_____.____
0222	509.2500 Concrete Masonry Overlay Decks	79.000 CY	_____.____	_____.____
0224	509.9005.S Removing Concrete Masonry Deck Overlay (structure) 0001. B-40-116	1,384.000 SY	_____.____	_____.____
0226	509.9050.S Cleaning Parapets	260.000 LF	_____.____	_____.____
0228	511.1100 Temporary Shoring	15,730.000 SF	_____.____	_____.____
0230	511.1200 Temporary Shoring (structure) 0001. B-40-1016	1,180.000 SF	_____.____	_____.____
0232	511.1200 Temporary Shoring (structure) 0002. B-40-1018	1,325.000 SF	_____.____	_____.____
0234	511.1200 Temporary Shoring (structure) 0003. B-40-1020	1,925.000 SF	_____.____	_____.____
0236	516.0500 Rubberized Membrane Waterproofing	590.000 SY	_____.____	_____.____
0238	516.0610.S Sheet Membrane Waterproofing for Top Slab (structure) 4000. C-40-111	400.000 SY	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0240	517.1800.S Structure Repainting Recycled Abrasive (structure) 0001. B-40-116	LS	LUMP SUM	_____.____
0242	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 0001. B-40-116	LS	LUMP SUM	_____.____
0244	517.6001.S Portable Decontamination Facility	1.000 EACH	_____.____	_____.____
0246	520.8000 Concrete Collars for Pipe	29.000 EACH	_____.____	_____.____
0248	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	1.000 EACH	_____.____	_____.____
0250	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	3.000 EACH	_____.____	_____.____
0252	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	3.000 EACH	_____.____	_____.____
0254	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	1.000 EACH	_____.____	_____.____
0256	531.1100 Concrete Masonry Ancillary Structures Type NS	148.000 CY	_____.____	_____.____
0258	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	11,844.000 LB	_____.____	_____.____
0260	531.1160 Steel Reinforcement HS Coated Ancillary Structures Type NS	14,250.000 LB	_____.____	_____.____
0262	531.2024 Drilling Shaft 24-Inch	18.000 LF	_____.____	_____.____
0264	531.2030 Drilling Shaft 30-Inch	24.000 LF	_____.____	_____.____
0266	531.2036 Drilling Shaft 36-Inch	186.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0268	531.4050 Foundation Camera Pole 50-FT	1.000 EACH	_____.____	_____.____
0270	531.8990 Anchor Assemblies Poles on Structures	30.000 EACH	_____.____	_____.____
0272	532.5020 Butterfly 2-Chord NS (structure) 0001. S-40-3022	1.000 EACH	_____.____	_____.____
0274	532.5020 Butterfly 2-Chord NS (structure) 0002. S-40-3023	1.000 EACH	_____.____	_____.____
0276	532.6010 Truss Cantilever 4-Chord Type I (structure) 0001. S-40-3018	1.000 EACH	_____.____	_____.____
0278	532.6010 Truss Cantilever 4-Chord Type I (structure) 0002. S-40-3019	1.000 EACH	_____.____	_____.____
0280	532.6020 Truss Cantilever 4-Chord Type II (structure) 0003. S-40-3020	1.000 EACH	_____.____	_____.____
0282	532.6020 Truss Cantilever 4-Chord Type II (structure) 0004. S-40-3021	1.000 EACH	_____.____	_____.____
0284	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0001. N-40-94	10,172.000 SF	_____.____	_____.____
0286	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0002. N-40-95	15,382.000 SF	_____.____	_____.____
0288	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0003. N-40-96	6,359.000 SF	_____.____	_____.____
0290	550.0500 Pile Points	234.000 EACH	_____.____	_____.____
0292	550.1100 Piling Steel HP 10-Inch X 42 Lb	4,035.000 LF	_____.____	_____.____
0294	550.1120 Piling Steel HP 12-Inch X 53 Lb	3,750.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0296	601.0322 Concrete Curb & Gutter 22-Inch	169.000 LF	_____.____	_____.____
0298	601.0331 Concrete Curb & Gutter 31-Inch	361.000 LF	_____.____	_____.____
0300	601.0409 Concrete Curb & Gutter 30-Inch Type A	2,372.000 LF	_____.____	_____.____
0302	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	2,133.000 LF	_____.____	_____.____
0304	601.0600 Concrete Curb Pedestrian	461.000 LF	_____.____	_____.____
0306	602.0410 Concrete Sidewalk 5-Inch	11,690.000 SF	_____.____	_____.____
0308	602.0415 Concrete Sidewalk 6-Inch	3,851.000 SF	_____.____	_____.____
0310	602.0505 Curb Ramp Detectable Warning Field Yellow	338.000 SF	_____.____	_____.____
0312	603.0105 Concrete Barrier Single-Faced 32-Inch	2,894.000 LF	_____.____	_____.____
0314	603.1142 Concrete Barrier Type S42	14,198.000 LF	_____.____	_____.____
0316	603.1156 Concrete Barrier Type S56	775.000 LF	_____.____	_____.____
0318	603.1342 Concrete Barrier Type S42B	50.000 LF	_____.____	_____.____
0320	603.1442 Concrete Barrier Type S42C	1,304.000 LF	_____.____	_____.____
0322	603.1456 Concrete Barrier Type S56C	482.000 LF	_____.____	_____.____
0324	603.3113 Concrete Barrier Transition Type NJ32SF to S36	3.000 EACH	_____.____	_____.____
0326	603.3535 Concrete Barrier Transition Type S36 to S42	3.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0328	603.3559 Concrete Barrier Transition Type S42 to S56	7.000 EACH	_____.____	_____.____
0330	603.8000 Concrete Barrier Temporary Precast Delivered	38,751.000 LF	_____.____	_____.____
0332	603.8125 Concrete Barrier Temporary Precast Installed	43,327.000 LF	_____.____	_____.____
0334	604.0400 Slope Paving Concrete	839.000 SY	_____.____	_____.____
0336	604.0500 Slope Paving Crushed Aggregate	2,130.000 SY	_____.____	_____.____
0338	606.0200 Riprap Medium	65.000 CY	_____.____	_____.____
0340	606.0300 Riprap Heavy	1,390.000 CY	_____.____	_____.____
0342	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	28.000 LF	_____.____	_____.____
0344	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	1,161.000 LF	_____.____	_____.____
0346	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	2,366.000 LF	_____.____	_____.____
0348	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	5,692.000 LF	_____.____	_____.____
0350	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	1,806.000 LF	_____.____	_____.____
0352	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	516.000 LF	_____.____	_____.____
0354	608.0348 Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	203.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0356	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	131.000 LF	_____.____	_____.____
0358	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	985.000 LF	_____.____	_____.____
0360	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	127.000 LF	_____.____	_____.____
0362	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	2,034.000 LF	_____.____	_____.____
0364	608.0430 Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	78.000 LF	_____.____	_____.____
0366	608.0448 Storm Sewer Pipe Reinforced Concrete Class IV 48-Inch	47.000 LF	_____.____	_____.____
0368	608.0518 Storm Sewer Pipe Reinforced Concrete Class V 18-Inch	261.000 LF	_____.____	_____.____
0370	608.0524 Storm Sewer Pipe Reinforced Concrete Class V 24-Inch	1,267.000 LF	_____.____	_____.____
0372	608.2424 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	204.000 LF	_____.____	_____.____
0374	608.2429 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	599.000 LF	_____.____	_____.____
0376	608.2434 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	243.000 LF	_____.____	_____.____
0378	611.0430 Reconstructing Inlets	7.000 EACH	_____.____	_____.____
0380	611.0535 Manhole Covers Type J-Special	34.000 EACH	_____.____	_____.____

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0382	611.0606 Inlet Covers Type B	25.000 EACH	_____.____	_____.____
0384	611.0610 Inlet Covers Type BW	4.000 EACH	_____.____	_____.____
0386	611.0612 Inlet Covers Type C	4.000 EACH	_____.____	_____.____
0388	611.0624 Inlet Covers Type H	13.000 EACH	_____.____	_____.____
0390	611.0627 Inlet Covers Type HM	21.000 EACH	_____.____	_____.____
0392	611.0636 Inlet Covers Type HM-S	3.000 EACH	_____.____	_____.____
0394	611.0639 Inlet Covers Type H-S	4.000 EACH	_____.____	_____.____
0396	611.0642 Inlet Covers Type MS	15.000 EACH	_____.____	_____.____
0398	611.0651 Inlet Covers Type S	10.000 EACH	_____.____	_____.____
0400	611.0654 Inlet Covers Type V	75.000 EACH	_____.____	_____.____
0402	611.2004 Manholes 4-FT Diameter	16.000 EACH	_____.____	_____.____
0404	611.2005 Manholes 5-FT Diameter	36.000 EACH	_____.____	_____.____
0406	611.2006 Manholes 6-FT Diameter	12.000 EACH	_____.____	_____.____
0408	611.2007 Manholes 7-FT Diameter	5.000 EACH	_____.____	_____.____
0410	611.2008 Manholes 8-FT Diameter	3.000 EACH	_____.____	_____.____
0412	611.3004 Inlets 4-FT Diameter	87.000 EACH	_____.____	_____.____
0414	611.3220 Inlets 2x2-FT	3.000 EACH	_____.____	_____.____

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0416	611.3225 Inlets 2x2.5-FT	28.000 EACH	_____.____	_____.____
0418	611.3901 Inlets Median 1 Grate	3.000 EACH	_____.____	_____.____
0420	611.3902 Inlets Median 2 Grate	6.000 EACH	_____.____	_____.____
0422	611.8120.S Cover Plates Temporary	7.000 EACH	_____.____	_____.____
0424	611.9800.S Pipe Grates	2.000 EACH	_____.____	_____.____
0426	612.0106 Pipe Underdrain 6-Inch	16,159.000 LF	_____.____	_____.____
0428	612.0406 Pipe Underdrain Wrapped 6-Inch	8,120.000 LF	_____.____	_____.____
0430	614.0805 Crash Cushions Permanent Low Maintenance	2.000 EACH	_____.____	_____.____
0432	614.0905 Crash Cushions Temporary	8.000 EACH	_____.____	_____.____
0434	614.2300 MGS Guardrail 3	284.000 LF	_____.____	_____.____
0436	614.2500 MGS Thrie Beam Transition	197.100 LF	_____.____	_____.____
0438	614.2610 MGS Guardrail Terminal EAT	4.000 EACH	_____.____	_____.____
0440	616.0206 Fence Chain Link 6-FT	11,434.000 LF	_____.____	_____.____
0442	616.0329 Gates Chain Link (width) 0001. 6-FT	1.000 EACH	_____.____	_____.____
0444	616.0329 Gates Chain Link (width) 0002. 12-FT	9.000 EACH	_____.____	_____.____
0446	619.1000 Mobilization	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0448	620.0300 Concrete Median Sloped Nose	506.000 SF	_____.____	_____.____
0450	623.0200 Dust Control Surface Treatment	134,678.000 SY	_____.____	_____.____
0452	624.0100 Water	753.000 MGAL	_____.____	_____.____
0454	627.0200 Mulching	2,766.000 SY	_____.____	_____.____
0456	628.1104 Erosion Bales	21.000 EACH	_____.____	_____.____
0458	628.1504 Silt Fence	19,906.000 LF	_____.____	_____.____
0460	628.1520 Silt Fence Maintenance	19,906.000 LF	_____.____	_____.____
0462	628.1905 Mobilizations Erosion Control	33.000 EACH	_____.____	_____.____
0464	628.1910 Mobilizations Emergency Erosion Control	33.000 EACH	_____.____	_____.____
0466	628.2004 Erosion Mat Class I Type B	16,439.000 SY	_____.____	_____.____
0468	628.2027 Erosion Mat Class II Type C	82,765.000 SY	_____.____	_____.____
0470	628.6510 Soil Stabilizer Type B	1.000 ACRE	_____.____	_____.____
0472	628.7005 Inlet Protection Type A	595.000 EACH	_____.____	_____.____
0474	628.7010 Inlet Protection Type B	16.000 EACH	_____.____	_____.____
0476	628.7015 Inlet Protection Type C	98.000 EACH	_____.____	_____.____
0478	628.7020 Inlet Protection Type D	697.000 EACH	_____.____	_____.____
0480	628.7504 Temporary Ditch Checks	15.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0482	628.7570 Rock Bags	500.000 EACH	_____.____	_____.____
0484	629.0210 Fertilizer Type B	38.000 CWT	_____.____	_____.____
0486	630.0120 Seeding Mixture No. 20	2,428.000 LB	_____.____	_____.____
0488	630.0200 Seeding Temporary	2,500.000 LB	_____.____	_____.____
0490	630.0500 Seed Water	1,346.000 MGAL	_____.____	_____.____
0492	633.5200 Markers Culvert End	8.000 EACH	_____.____	_____.____
0494	634.0618 Posts Wood 4x6-Inch X 18-FT	58.000 EACH	_____.____	_____.____
0496	634.0622 Posts Wood 4x6-Inch X 22-FT	24.000 EACH	_____.____	_____.____
0498	634.0816 Posts Tubular Steel 2x2-Inch X 16-FT	11.000 EACH	_____.____	_____.____
0500	635.0200 Sign Supports Structural Steel HS	8,350.000 LB	_____.____	_____.____
0502	637.1220 Signs Type I Reflective SH	2,090.500 SF	_____.____	_____.____
0504	637.2210 Signs Type II Reflective H	1,000.665 SF	_____.____	_____.____
0506	637.2230 Signs Type II Reflective F	224.500 SF	_____.____	_____.____
0508	638.2101 Moving Signs Type I	1.000 EACH	_____.____	_____.____
0510	638.2102 Moving Signs Type II	33.000 EACH	_____.____	_____.____
0512	638.2601 Removing Signs Type I	15.000 EACH	_____.____	_____.____
0514	638.2602 Removing Signs Type II	75.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0516	638.3000 Removing Small Sign Supports	56.000 EACH	_____.____	_____.____
0518	638.3100 Removing Structural Steel Sign Supports	12.000 EACH	_____.____	_____.____
0520	640.1303.S Pond Liner Clay	1,839.000 CY	_____.____	_____.____
0522	643.0300 Traffic Control Drums	270,969.000 DAY	_____.____	_____.____
0524	643.0420 Traffic Control Barricades Type III	38,035.000 DAY	_____.____	_____.____
0526	643.0705 Traffic Control Warning Lights Type A	56,570.000 DAY	_____.____	_____.____
0528	643.0715 Traffic Control Warning Lights Type C	56,559.000 DAY	_____.____	_____.____
0530	643.0800 Traffic Control Arrow Boards	4,609.000 DAY	_____.____	_____.____
0532	643.0900 Traffic Control Signs	335,588.000 DAY	_____.____	_____.____
0534	643.0910 Traffic Control Covering Signs Type I	509.000 EACH	_____.____	_____.____
0536	643.0920 Traffic Control Covering Signs Type II	509.000 EACH	_____.____	_____.____
0538	643.1000 Traffic Control Signs Fixed Message	283.500 SF	_____.____	_____.____
0540	643.1050 Traffic Control Signs PCMS	2,835.000 DAY	_____.____	_____.____
0542	643.1100.S Dynamic Late Merge System	545.000 DAY	_____.____	_____.____
0544	643.4100.S Traffic Control Interim Lane Closure	2,000.000 EACH	_____.____	_____.____
0546	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0548	644.1601 Temporary Pedestrian Curb Ramp	1,072.000 DAY	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0550	644.1810 Temporary Pedestrian Barricade	755.000 LF	_____.____	_____.____
0552	645.0111 Geotextile Type DF Schedule A	378.000 SY	_____.____	_____.____
0554	645.0120 Geotextile Type HR	2,380.000 SY	_____.____	_____.____
0556	645.0220 Geogrid Type SR	33,854.000 SY	_____.____	_____.____
0558	646.1020 Marking Line Epoxy 4-Inch	1,490.000 LF	_____.____	_____.____
0560	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	53,495.000 LF	_____.____	_____.____
0562	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	11,187.000 LF	_____.____	_____.____
0564	646.3020 Marking Line Epoxy 8-Inch	587.000 LF	_____.____	_____.____
0566	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	9,871.000 LF	_____.____	_____.____
0568	646.5020 Marking Arrow Epoxy	9.000 EACH	_____.____	_____.____
0570	646.5120 Marking Word Epoxy	2.000 EACH	_____.____	_____.____
0572	646.5220 Marking Symbol Epoxy	2.000 EACH	_____.____	_____.____
0574	646.6120 Marking Stop Line Epoxy 18-Inch	245.000 LF	_____.____	_____.____
0576	646.6220 Marking Yield Line Epoxy 18-Inch	15.000 EACH	_____.____	_____.____
0578	646.7120 Marking Diagonal Epoxy 12-Inch	5,310.000 LF	_____.____	_____.____
0580	646.7220 Marking Chevron Epoxy 24-Inch	1,004.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0582	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	955.000 LF	_____.____	_____.____
0584	646.8120 Marking Curb Epoxy	240.000 LF	_____.____	_____.____
0586	646.8220 Marking Island Nose Epoxy	6.000 EACH	_____.____	_____.____
0588	646.9000 Marking Removal Line 4-Inch	1,187.000 LF	_____.____	_____.____
0590	646.9010 Marking Removal Line Water Blasting 4-Inch	282,526.000 LF	_____.____	_____.____
0592	646.9200 Marking Removal Line Wide	136.000 LF	_____.____	_____.____
0594	646.9300 Marking Removal Special Marking	2.000 EACH	_____.____	_____.____
0596	649.0120 Temporary Marking Line Epoxy 4-Inch	353,751.000 LF	_____.____	_____.____
0598	649.0150 Temporary Marking Line Removable Tape 4-Inch	9,116.000 LF	_____.____	_____.____
0600	649.0220 Temporary Marking Line Epoxy 8-Inch	21,091.000 LF	_____.____	_____.____
0602	649.0250 Temporary Marking Line Removable Tape 8-Inch	260.000 LF	_____.____	_____.____
0604	649.0760 Temporary Marking Raised Pavement Marker Type I	1,025.000 EACH	_____.____	_____.____
0606	649.0960 Temporary Marking Removable Mask Out Tape 6-Inch	224.000 LF	_____.____	_____.____
0608	652.0125 Conduit Rigid Metallic 2-Inch	969.000 LF	_____.____	_____.____
0610	652.0210 Conduit Rigid Nonmetallic Schedule 40 1-Inch	349.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0612	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	23,644.000 LF	_____.____	_____.____
0614	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,991.000 LF	_____.____	_____.____
0616	652.0605 Conduit Special 2-Inch	52.000 LF	_____.____	_____.____
0618	652.0615 Conduit Special 3-Inch	951.000 LF	_____.____	_____.____
0620	652.0700.S Install Conduit into Existing Item	7.000 EACH	_____.____	_____.____
0622	652.0800 Conduit Loop Detector	1,433.000 LF	_____.____	_____.____
0624	653.0135 Pull Boxes Steel 24x36-Inch	7.000 EACH	_____.____	_____.____
0626	653.0140 Pull Boxes Steel 24x42-Inch	47.000 EACH	_____.____	_____.____
0628	653.0220 Junction Boxes 18x6x6-Inch	21.000 EACH	_____.____	_____.____
0630	653.0222 Junction Boxes 18x12x6-Inch	36.000 EACH	_____.____	_____.____
0632	653.0905 Removing Pull Boxes	64.000 EACH	_____.____	_____.____
0634	654.0101 Concrete Bases Type 1	6.000 EACH	_____.____	_____.____
0636	654.0102 Concrete Bases Type 2	4.000 EACH	_____.____	_____.____
0638	654.0105 Concrete Bases Type 5	12.000 EACH	_____.____	_____.____
0640	654.0106 Concrete Bases Type 6	1.000 EACH	_____.____	_____.____
0642	654.0108 Concrete Bases Type 8	13.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0644	654.0110 Concrete Bases Type 10	1.000 EACH	_____.____	_____.____
0646	654.0120 Concrete Bases Type 10-Special	1.000 EACH	_____.____	_____.____
0648	654.0217 Concrete Control Cabinet Bases Type 9 Special	1.000 EACH	_____.____	_____.____
0650	654.0224 Concrete Control Cabinet Bases Type L24	1.000 EACH	_____.____	_____.____
0652	654.0230 Concrete Control Cabinet Bases Type L30	4.000 EACH	_____.____	_____.____
0654	655.0148 Cable In Duct 4-8 AWG	1,666.000 LF	_____.____	_____.____
0656	655.0230 Cable Traffic Signal 5-14 AWG	1,094.000 LF	_____.____	_____.____
0658	655.0240 Cable Traffic Signal 7-14 AWG	1,222.000 LF	_____.____	_____.____
0660	655.0260 Cable Traffic Signal 12-14 AWG	659.000 LF	_____.____	_____.____
0662	655.0320 Cable Type UF 2-10 AWG Grounded	353.000 LF	_____.____	_____.____
0664	655.0510 Electrical Wire Traffic Signals 12 AWG	40.000 LF	_____.____	_____.____
0666	655.0515 Electrical Wire Traffic Signals 10 AWG	9,167.000 LF	_____.____	_____.____
0668	655.0610 Electrical Wire Lighting 12 AWG	22,258.000 LF	_____.____	_____.____
0670	655.0620 Electrical Wire Lighting 8 AWG	119,785.000 LF	_____.____	_____.____
0672	655.0625 Electrical Wire Lighting 6 AWG	2,108.000 LF	_____.____	_____.____
0674	655.0700 Loop Detector Lead In Cable	4,577.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0676	655.0800 Loop Detector Wire	4,478.000 LF	_____._____	_____._____
0678	655.0900 Traffic Signal EVP Detector Cable	560.000 LF	_____._____	_____._____
0680	656.0200 Electrical Service Meter Breaker Pedestal (location) 0001. IH-43 NB Off Ramp & Port Washington Rd	LS	LUMP SUM	_____._____
0682	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1001. HL-40-CA	LS	LUMP SUM	_____._____
0684	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1002. HL-40-GL	LS	LUMP SUM	_____._____
0686	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1003. HL-40-CT	LS	LUMP SUM	_____._____
0688	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1004. HL-40-BP	LS	LUMP SUM	_____._____
0690	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1005. TA1	LS	LUMP SUM	_____._____
0692	656.0500 Electrical Service Breaker Disconnect Box (location) 2001. EX-CCTV-40-0076	LS	LUMP SUM	_____._____
0694	657.0100 Pedestal Bases	4.000 EACH	_____._____	_____._____
0696	657.0210 Transformer Bases Breakaway 15-17 Inch Bolt Circle	51.000 EACH	_____._____	_____._____
0698	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	26.000 EACH	_____._____	_____._____
0700	657.0305 Poles Type 2	2.000 EACH	_____._____	_____._____
0702	657.0310 Poles Type 3	2.000 EACH	_____._____	_____._____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0704	657.0322 Poles Type 5-Aluminum	21.000 EACH	_____.____	_____.____
0706	657.0327 Poles Type 6-Aluminum	1.000 EACH	_____.____	_____.____
0708	657.0375 Poles Type A	38.000 EACH	_____.____	_____.____
0710	657.0380 Poles Type E	13.000 EACH	_____.____	_____.____
0712	657.0405 Traffic Signal Standards Aluminum 3.5-FT	1.000 EACH	_____.____	_____.____
0714	657.0420 Traffic Signal Standards Aluminum 13-FT	3.000 EACH	_____.____	_____.____
0716	657.0605 Luminaire Arms Single Member 4 1/2-Inch Clamp 4-FT	17.000 EACH	_____.____	_____.____
0718	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	2.000 EACH	_____.____	_____.____
0720	657.0615 Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	5.000 EACH	_____.____	_____.____
0722	657.0620 Luminaire Arms Single Member 6-Inch Clamp 4-FT	66.000 EACH	_____.____	_____.____
0724	658.0171 Traffic Signal Face 1S 12-Inch	2.000 EACH	_____.____	_____.____
0726	658.0173 Traffic Signal Face 3S 12-Inch	10.000 EACH	_____.____	_____.____
0728	658.0174 Traffic Signal Face 4S 12-Inch	1.000 EACH	_____.____	_____.____
0730	658.0416 Pedestrian Signal Face 16-Inch	4.000 EACH	_____.____	_____.____
0732	658.0500 Pedestrian Push Buttons	5.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0734	658.5069 Signal Mounting Hardware (location) 0001. IH-43 NB Off Ramp & Port Washington Rd	LS	LUMP SUM	_____._____
0736	658.5069 Signal Mounting Hardware (location) 0002. IH 43 SB On Ramp & W. Hampton Ave.	LS	LUMP SUM	_____._____
0738	659.0600 Underdeck Lighting (location) 1001. B-40-1016	LS	LUMP SUM	_____._____
0740	659.0600 Underdeck Lighting (location) 1002. B-40-1018	LS	LUMP SUM	_____._____
0742	659.1120 Luminaires Utility LED B	26.000 EACH	_____._____	_____._____
0744	659.1125 Luminaires Utility LED C	5.000 EACH	_____._____	_____._____
0746	659.1130 Luminaires Utility LED D	88.000 EACH	_____._____	_____._____
0748	659.1205 Luminaires Underdeck LED A	8.000 EACH	_____._____	_____._____
0750	659.1215 Luminaires Underdeck LED C	18.000 EACH	_____._____	_____._____
0752	659.2124 Lighting Control Cabinets 120/240 24-Inch	1.000 EACH	_____._____	_____._____
0754	659.2230 Lighting Control Cabinets 240/480 30-Inch	4.000 EACH	_____._____	_____._____
0756	670.0100 Field System Integrator 0001. Signals	LS	LUMP SUM	_____._____
0758	670.0100 Field System Integrator 2001. FTMS	LS	LUMP SUM	_____._____
0760	670.0200 ITS Documentation 0001. Signals	LS	LUMP SUM	_____._____

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0762	670.0200 ITS Documentation 2001. FTMS	LS	LUMP SUM	_____.____
0764	671.0132 Conduit HDPE 3-Duct 2-Inch	5,150.000 LF	_____.____	_____.____
0766	671.0232 Conduit HDPE Directional Bore 3-Duct 2-Inch	2,070.000 LF	_____.____	_____.____
0768	673.0105 Communication Vault Type 1	13.000 EACH	_____.____	_____.____
0770	673.0225.S Install Pole Mounted Cabinet	1.000 EACH	_____.____	_____.____
0772	674.0200 Cable Microwave Detector	1,525.000 LF	_____.____	_____.____
0774	674.0300 Remove Cable	12,440.000 LF	_____.____	_____.____
0776	675.0100 Install Controller Ramp Meter Processor Assembly	1.000 EACH	_____.____	_____.____
0778	675.0300 Install Mounted Controller Microwave Detector Assembly	7.000 EACH	_____.____	_____.____
0780	677.0150 Install Camera Pole 50-FT	1.000 EACH	_____.____	_____.____
0782	677.0200 Install Camera Assembly	1.000 EACH	_____.____	_____.____
0784	677.9051.S Removing 50-FT Camera Pole	1.000 EACH	_____.____	_____.____
0786	677.9200.S Removing CCTV Camera	1.000 EACH	_____.____	_____.____
0788	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	530.000 LF	_____.____	_____.____
0790	678.0072 Install Fiber Optic Cable Outdoor Plant 72-CT	8,235.000 LF	_____.____	_____.____

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0792	678.0200 Fiber Optic Splice Enclosure	1.000 EACH	_____.____	_____.____
0794	678.0300 Fiber Optic Splice	448.000 EACH	_____.____	_____.____
0796	678.0400 Fiber Optic Termination	18.000 EACH	_____.____	_____.____
0798	678.0500 Communication System Testing 0001. Signals	LS	LUMP SUM	_____.____
0800	678.0500 Communication System Testing 2001. FTMS	LS	LUMP SUM	_____.____
0802	678.0600 Install Ethernet Switches	5.000 EACH	_____.____	_____.____
0804	690.0150 Sawing Asphalt	100.000 LF	_____.____	_____.____
0806	690.0250 Sawing Concrete	12,827.000 LF	_____.____	_____.____
0808	715.0415 Incentive Strength Concrete Pavement	30,696.000 DOL	1.00000	30,696.00
0810	715.0502 Incentive Strength Concrete Structures	75,528.000 DOL	1.00000	75,528.00
0812	715.0603 Incentive Strength Concrete Barrier	9,918.000 DOL	1.00000	9,918.00
0814	715.0710 Optimized Aggregate Gradation Incentive	132,102.000 DOL	1.00000	132,102.00
0816	740.0440 Incentive IRI Ride	22,791.000 DOL	1.00000	22,791.00
0818	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	1,400.000 HRS	5.00000	7,000.00
0820	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	17,280.000 HRS	5.00000	86,400.00

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0822	SPV.0045 Special 0001. Temporary Detectable Warning Field	372.000 DAY	_____.____	_____.____
0824	SPV.0060 Special 0001. Concrete Barrier Transition Type G1	1.000 EACH	_____.____	_____.____
0826	SPV.0060 Special 0002. Concrete Barrier Transition Type G2	1.000 EACH	_____.____	_____.____
0828	SPV.0060 Special 0003. Marking Contrast Epoxy Special Marking Arrow	11.000 EACH	_____.____	_____.____
0830	SPV.0060 Special 0004. Marking Contrast Epoxy Special Marking Word	6.000 EACH	_____.____	_____.____
0832	SPV.0060 Special 0006. Baseline CPM Progress Schedule	1.000 EACH	_____.____	_____.____
0834	SPV.0060 Special 0007. Monthly CPM Progess Schedule Updates	36.000 EACH	_____.____	_____.____
0836	SPV.0060 Special 0008. Concrete Barrier Transition Type M1	2.000 EACH	_____.____	_____.____
0838	SPV.0060 Special 0120. Mobilizations Emergency Pavement Repair	10.000 EACH	_____.____	_____.____
0840	SPV.0060 Special 0603. Exposing Existing Infrastructure Paved Area	5.000 EACH	_____.____	_____.____
0842	SPV.0060 Special 0604. Exposing Existing Infrastructure Unpaved Area	5.000 EACH	_____.____	_____.____
0844	SPV.0060 Special 0910. Traffic Control Close-Open Freeway Entrance Ramp	400.000 EACH	_____.____	_____.____
0846	SPV.0060 Special 0916. Traffic Control Local Road Lane Closure	100.000 EACH	_____.____	_____.____

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0848	SPV.0060 Special 0940. Emergency Response To Traffic Incident Involving Conc Barrier Temporary	40.000 EACH	_____.____	_____.____
0850	SPV.0060 Special 0945. Emergency Response To Traffic Incident Involving Crash Cushions	10.000 EACH	_____.____	_____.____
0852	SPV.0060 Special 1003. Wood Pole Lighting 60-Foot	48.000 EACH	_____.____	_____.____
0854	SPV.0060 Special 1004. Wood Poles 60-Foot	3.000 EACH	_____.____	_____.____
0856	SPV.0060 Special 1005. Removing Poles Wood 60-Foot and Floodlights	48.000 EACH	_____.____	_____.____
0858	SPV.0060 Special 1006. Removing Poles Wood 60-Foot	3.000 EACH	_____.____	_____.____
0860	SPV.0060 Special 1007. Luminaires Floodlight 400W HPS	51.000 EACH	_____.____	_____.____
0862	SPV.0060 Special 1008. Luminaires Replace Existing HPS	43.000 EACH	_____.____	_____.____
0864	SPV.0060 Special 1009. Removing Electrical Service Meter Breaker Pedestal Lighting	4.000 EACH	_____.____	_____.____
0866	SPV.0060 Special 1010. Concrete Bases Type B	15.000 EACH	_____.____	_____.____
0868	SPV.0060 Special 1011. Luminaires Sign LED	1.000 EACH	_____.____	_____.____
0870	SPV.0060 Special 1012. Luminaires Tunnel Lighting LED	8.000 EACH	_____.____	_____.____
0872	SPV.0060 Special 1014. Junction Boxes 4x4x4-Inch	8.000 EACH	_____.____	_____.____
0874	SPV.0060 Special 2000. Removing Electrical Service Meter Breaker Pedestral	1.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0876	SPV.0060 Special 2001. Removing Controller Cabinet	2.000 EACH	_____.____	_____.____
0878	SPV.0060 Special 2002. Removing Controller Cabinet Base	2.000 EACH	_____.____	_____.____
0880	SPV.0060 Special 2004. Removing Ramp Control Signal Assebly Sidemount	2.000 EACH	_____.____	_____.____
0882	SPV.0060 Special 2005. Removing Communication Vault	6.000 EACH	_____.____	_____.____
0884	SPV.0060 Special 2006. Removing Electrical Service Breaker Disconnect Box	1.000 EACH	_____.____	_____.____
0886	SPV.0060 Special 2013. Ground Rod	2.000 EACH	_____.____	_____.____
0888	SPV.0060 Special 2020. Signal Assembly Ramp Control Sidemount	2.000 EACH	_____.____	_____.____
0890	SPV.0060 Special 2022. Signal Assembly Advance Flasher Type 1	1.000 EACH	_____.____	_____.____
0892	SPV.0060 Special 2023. Communication Vault Adjustment	1.000 EACH	_____.____	_____.____
0894	SPV.0060 Special 2024. Installing Portable Video Surveillance System	1.000 EACH	_____.____	_____.____
0896	SPV.0060 Special 2025. Temporary 5.8 GHZ Ethernet Bridge	1.000 EACH	_____.____	_____.____
0898	SPV.0060 Special 2026. Refocus Vehicle Detector Assembly	10.000 EACH	_____.____	_____.____
0900	SPV.0060 Special 3001. Install Poles Type 9	1.000 EACH	_____.____	_____.____

Proposal ID: 20210413026 **Project(s):** 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0902	SPV.0060 Special 3002. Install Poles Type 9 Special	1.000 EACH	_____.____	_____.____
0904	SPV.0060 Special 3003. Install Monotube Arms 30-FT	1.000 EACH	_____.____	_____.____
0906	SPV.0060 Special 3004. Install Monotube Arms 40-FT Special	1.000 EACH	_____.____	_____.____
0908	SPV.0060 Special 4000. Embedded Galvanic Anodes	175.000 EACH	_____.____	_____.____
0910	SPV.0060 Special 4001. Ultrasonic Impact Treatment Procedure	84.000 EACH	_____.____	_____.____
0912	SPV.0060 Special 4002. Anchor Assemblies Noise Barrier Structures R-40-712	9.000 EACH	_____.____	_____.____
0914	SPV.0060 Special 4003. Anchor Assemblies Noise Barrier Structures R-40-713	64.000 EACH	_____.____	_____.____
0916	SPV.0060 Special 4004. Anchor Assemblies Noise Barrier Structures B-40-1020	13.000 EACH	_____.____	_____.____
0918	SPV.0060 Special 4005. Maintenance Doors	1.000 EACH	_____.____	_____.____
0920	SPV.0060 Special 6001. Sign Support Special Mounting	8.000 EACH	_____.____	_____.____
0922	SPV.0060 Special 7001. Adjusting Water Boxes	4.000 EACH	_____.____	_____.____
0924	SPV.0060 Special 7002. Adjusting Water Manholes	2.000 EACH	_____.____	_____.____
0926	SPV.0060 Special 8002. Manholes 9-FT Special	2.000 EACH	_____.____	_____.____
0928	SPV.0060 Special 8003. Manholes 10-FT Special	1.000 EACH	_____.____	_____.____

Proposal ID: 20210413026 **Project(s):** 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0930	SPV.0060 Special 8004. Pipe Connection to Existing Structure	9.000 EACH	_____.____	_____.____
0932	SPV.0060 Special 8005. Removing Bulkhead	15.000 EACH	_____.____	_____.____
0934	SPV.0060 Special 8006. Lake Tower Pond Outlet Storm Sewer Structure	1.000 EACH	_____.____	_____.____
0936	SPV.0060 Special 8007. Oak Leaf Pond Outlet Storm Sewer Structure	1.000 EACH	_____.____	_____.____
0938	SPV.0060 Special 8008. Slip-In Check Valve for 36-Inch Diameter Pipe	1.000 EACH	_____.____	_____.____
0940	SPV.0060 Special 8009. Slip-In Check Valve for 48-Inch Diameter Pipe	1.000 EACH	_____.____	_____.____
0942	SPV.0075 Special 0001. Pavement Cleanup Project (1228-22-71)	1,500.000 HRS	_____.____	_____.____
0944	SPV.0090 Special 0001. Concrete Curb & Gutter 4-Inch Sloped 60-Inch Type A	3,455.000 LF	_____.____	_____.____
0946	SPV.0090 Special 0002. Concrete Barrier Type S42C Special	133.000 LF	_____.____	_____.____
0948	SPV.0090 Special 1001. Cable Aerial Aluminum 6 AWG Quadruplex	7,589.000 LF	_____.____	_____.____
0950	SPV.0090 Special 1002. Cable Aerial Aluminum 6 AWG Triplex	1,255.000 LF	_____.____	_____.____
0952	SPV.0090 Special 3000. Fiber Optic Warning Tape	46.000 LF	_____.____	_____.____
0954	SPV.0090 Special 4000. Removing Existing Steel Piling	80.000 LF	_____.____	_____.____

Proposal ID: 20210413026 **Project(s):** 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0956	SPV.0090 Special 4010. Remove Existing Timber Piling	360.000 LF	_____.____	_____.____
0958	SPV.0090 Special 8001. Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class IV 38x60-	68.000 LF	_____.____	_____.____
0960	SPV.0090 Special 8025. Pipe Underdrain Exploration	100.000 LF	_____.____	_____.____
0962	SPV.0090 Special 8026. Storm Sewer Lateral Exploration	100.000 LF	_____.____	_____.____
0964	SPV.0090 Special 8027. Precast Trench Drain	267.000 LF	_____.____	_____.____
0966	SPV.0105 Special 0001. Survey Project (1228-22-71)	LS	LUMP SUM	_____.____
0968	SPV.0105 Special 0002. Temporary Causeway	LS	LUMP SUM	_____.____
0970	SPV.0105 Special 1001. Maintenance of Lighting System	LS	LUMP SUM	_____.____
0972	SPV.0105 Special 1002. Lighting System Intergrator	LS	LUMP SUM	_____.____
0974	SPV.0105 Special 3000. Trnspt & Inst State Furn Traffic Sig Cabinet IH-43 NB Off Ramp & Port Wash	LS	LUMP SUM	_____.____
0976	SPV.0105 Special 3001. Trnspt & Inst State Furn Radar Detect Sys IH-43 NB Off Ramp & Port Wash	LS	LUMP SUM	_____.____
0978	SPV.0105 Special 3002. Trnspt Traffic Sig & Inter Lighting Materials IH-43 NB Off Ramp &Port Wash	LS	LUMP SUM	_____.____

Proposal ID: 20210413026 **Project(s):** 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0980	SPV.0105 Special 3003. Trnspt & Inst State Furn EVP Heads IH-43 NB Off Ramp & Port Wash	LS	LUMP SUM	_____.____
0982	SPV.0105 Special 3004. Install Fiber Optic Communications in Cabinet S40-1207	LS	LUMP SUM	_____.____
0984	SPV.0105 Special 4000. Removing Sign Bridge S-40-381	LS	LUMP SUM	_____.____
0986	SPV.0105 Special 4001. Removing Sign Bridge S-40-383	LS	LUMP SUM	_____.____
0988	SPV.0105 Special 4002. Removing Sign Bridge S-40-803	LS	LUMP SUM	_____.____
0990	SPV.0105 Special 4003. Removing Sign Bridge S-40-848	LS	LUMP SUM	_____.____
0992	SPV.0105 Special 4004. Removing Sign Bridge S-40-849	LS	LUMP SUM	_____.____
0994	SPV.0105 Special 4005. Removing Sign Bridge S-40-981	LS	LUMP SUM	_____.____
0996	SPV.0105 Special 4006. Removing Sign Bridge S-40-228	LS	LUMP SUM	_____.____
0998	SPV.0105 Special 4007. Removing Sign Bridge S-40-229	LS	LUMP SUM	_____.____
1000	SPV.0105 Special 8001. Control of Water Storm Sewer	LS	LUMP SUM	_____.____
1002	SPV.0105 Special 8002. Dewatering for Detention Basin Construction	LS	LUMP SUM	_____.____
1004	SPV.0135 Special 0110. Field Office Special	35.000 MON	_____.____	_____.____

Proposal ID: 20210413026 **Project(s):** 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1006	SPV.0135 Special 0601. Vibration Monitoring	32.000 MON	_____.____	_____.____
1008	SPV.0165 Special 4000. Removing Loose Concrete	420.000 SF	_____.____	_____.____
1010	SPV.0165 Special 4001. Temporary Wall Wire Faced Mechanically Stabilized Earth	25,124.000 SF	_____.____	_____.____
1012	SPV.0165 Special 4002. Wall Concrete Panel Mechanically Stabilized Earth R-40-706	12,118.000 SF	_____.____	_____.____
1014	SPV.0165 Special 4003. Wall Concrete Panel Mechanically Stabilized Earth R-40-707	16,073.000 SF	_____.____	_____.____
1016	SPV.0165 Special 4004. Wall Concrete Panel Mechanically Stabilized Earth R-40-709	5,489.000 SF	_____.____	_____.____
1018	SPV.0165 Special 4005. Wall Concrete Panel Mechanically Stabilized Earth R-40-710	2,600.000 SF	_____.____	_____.____
1020	SPV.0165 Special 4006. Wall Concrete Panel Mechanically Stabilized Earth R-40-711	1,520.000 SF	_____.____	_____.____
1022	SPV.0165 Special 4007. Wall Concrete Panel Mechanically Stabilized Earth R-40-712	9,520.000 SF	_____.____	_____.____
1024	SPV.0165 Special 4008. Wall Concrete Panel Mechanically Stabilized Earth R-40-713	36,500.000 SF	_____.____	_____.____
1026	SPV.0180 Special 0301. Topsoil Special	59,939.000 SY	_____.____	_____.____
1028	SPV.0195 Special 0001. Management of Contaminated Soil and Contaminated Sediment	15,431.000 TON	_____.____	_____.____
1030	SPV.0195 Special 4000. Select Crushed Material for Travel Corridor	30.000 TON	_____.____	_____.____

Section: 0001 **Total:** _____.____

Total Bid: _____.____

PLEASE ATTACH ADDENDA HERE

Wisconsin Department of Transportation

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

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

April 5, 2021

NOTICE TO ALL CONTRACTORS:

Federal Wage Rate Addendum #01

Letting of April 13, 2021

Attached is a copy of the revised WI 10 Highway Davis Bacon Prevailing Wage Rates that are included in proposals 01 – 13, 15, 17, 18, 22, 23, 25, and 26. These wage rates are effective for all proposals they are included in in the April 13, 2021 letting. The updated wage rates are dated March 19, 2021 and are effective on or after March 29, 2021.

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

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

"General Decision Number: WI20210010 03/19/2021

Superseded General Decision Number: WI20200010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.95 for calendar year 2021 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.95 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2021. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate,if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/01/2021
1	03/12/2021
2	03/19/2021

* BRWI0001-002 06/01/2020

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.31	24.7 7

BRWI0002-002 06/01/2020

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 42.77	23.47

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* BRWI0002-005 06/01/2020

ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER	$ 36.68	23.40

BRWI0003-002 06/01/2020

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.68	24.40

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* BRWI0004-002 06/01/2020

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 39.90	25.53

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* BRWI0006-002 06/01/2020

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.60	23.48

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* BRWI0007-002 06/01/2020

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.07	24.72

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* BRWI0008-002 06/01/2020

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 40.75	24.32

BRWI0011-002 06/01/2020

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 35.68	24.40

BRWI0019-002 06/01/2020

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 34.86	25.22

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* BRWI0034-002 06/01/2020

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.36	24.43

CARP0087-001 05/01/2016

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys 35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
Carpenter & Piledrivermen	$ 36.85	18.39

CARP0252-002 06/01/2016

ADAMS, BARRON, BAYFIELD (Eastern 2/3), BROWN, BUFFALO, BURNETT (E. of Hwy 48), CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE (except area bordering Michigan State Line), FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE (except N.E. corner), MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwys 29 & 65), POLK (E. of Hwys 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX (E. of Hwy 65), TAYLOR, TREMPEALEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CARPENTER		
CARPENTER	$ 33.56	18.00
MILLWRIGHT	$ 35.08	18.35
PILEDRIVER	$ 34.12	18.00

CARP0252-010 06/01/2016

ASHLAND COUNTY

	Rates	Fringes
Carpenters		
Carpenter	$ 33.56	18.00
Millwright	$ 35.08	18.35
Pile Driver	$ 34.12	18.00

CARP0264-003 06/01/2016

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WAUKESHA, AND WASHINGTON COUNTIES

	Rates	Fringes
CARPENTER	$ 35.78	22.11

CARP0361-004 05/01/2018

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER	$ 36.15	20.43

CARP2337-001 06/01/2016

ZONE A: MILWAUKEE, OZAUKEE, WAUKESHA AND WASHINGTON

ZONE B: KENOSHA & RACINE

	Rates	Fringes
PILEDRIVERMAN		
Zone A	$ 31.03	22.69
Zone B	$ 31.03	22.69

ELEC0014-002 06/14/2020

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:	$ 35.98	20.98

ELEC0014-007 07/05/2020

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician	$ 27.75	15.14

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT,

bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

ELEC0127-002 06/01/2020

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 41.62	30%+12.70

ELEC0158-002 06/01/2020

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a ine 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 34.77	29.75%+10.26

ELEC0159-003 08/02/2020

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK COUNTIES

	Rates	Fringes
ELECTRICIAN	$ 41.86	22.67

ELEC0219-004 06/01/2019

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 33.94	21.80

Electrical contracts under $180,000	$ 31.75	21.73

ELEC0242-005 05/31/2020

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 39.77	28.11

ELEC0388-002 06/01/2020

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS AND WOOD COUNTIES

	Rates	Fringes
Electricians:	$ 34.85	26%+11.20

ELEC0430-002 02/02/2021

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 41.859	22.871

ELEC0494-005 06/01/2020

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 42.84	25.54

ELEC0494-006 06/01/2020

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes

Electricians:.....$ 36.32 22.51

ELEC0494-013 06/07/2020

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupuin), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	$ 21.46	18.52
Technician.....	$ 31.34	20.00

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2020

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:.....	$ 34.23	29.50%+10.00

ELEC0890-003 06/01/2020

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE,
RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:	$ 37.41	25.95%+11.11

ELEC0953-001 06/02/2019

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 47.53	21.43
(2) Heavy Equipment Operator	$ 42.78	19.80
(3) Equipment Operator	$ 38.02	18.40
(4) Heavy Groundman Driver	$ 33.27	16.88
(5) Light Groundman Driver	$ 30.89	16.11
(6) Groundsman	$ 26.14	14.60

ENGI0139-005 06/01/2020

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 41.62	23.80
Group 2	$ 41.12	23.80
Group 3	$ 40.62	23.80
Group 4	$ 40.36	23.80
Group 5	$ 40.07	23.80
Group 6	$ 34.17	23.80

HAZARDOUS WASTE PREMIUMS:
EPA Level ""A"" protection - $3.00 per hour
EPA Level ""B"" protection - $2.00 per hour
EPA Level ""C"" protection - $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs;

pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminious paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner, daylighting machine

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender.

GROUP 6: Off-road material hauler with or without ejector.

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 37.31	27.62

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2020

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 39.11	27.87

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/01/2020

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER	$ 37.10	27.06

IRON0498-005 06/01/2019

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 40.25	40.53

IRON0512-008 06/03/2019

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 37.60	29.40

IRON0512-021 06/03/2019

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.19	29.40

LABO0113-002 06/01/2020

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 30.05	22.26
Group 2	$ 30.20	22.26
Group 3	$ 30.40	22.26
Group 4	$ 30.55	22.26
Group 5	$ 30.70	22.26
Group 6	$ 26.54	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

LABO0113-003 06/01/2020

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 29.30	22.26
Group 2	$ 29.40	22.26
Group 3	$ 29.45	22.26
Group 4	$ 29.65	22.26
Group 5	$ 29.50	22.26
Group 6	$ 26.39	22.26

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

LABO0113-011 06/01/2020

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 29.11	22.26
Group 2	$ 29.26	22.26
Group 3	$ 29.46	22.26
Group 4	$ 29.43	22.26
Group 5	$ 29.76	22.26
Group 6	$ 26.25	22.26

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

LABO0140-002 06/01/2020

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA, JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, TREMPEALEAU, VERNON, VILLAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 33.72	17.95
Group 2	$ 33.82	17.95
Group 3	$ 33.87	17.95
Group 4	$ 34.07	17.95
Group 5	$ 33.92	17.95
Group 6	$ 30.35	17.95

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bitminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator, Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Secialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

LABO0464-003 06/01/2020

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 34.00	17.95
Group 2	$ 34.10	17.95
Group 3	$ 34.15	17.95
Group 4	$ 34.35	17.95
Group 5	$ 34.20	17.95
Group 6	$ 30.35	17.95

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminious Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

PAIN0106-008 05/01/2017

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller	$ 30.33	17.27
Spray, Sandblast, Steel	$ 30.93	17.27
Repaint:		
Brush, Roller	$ 28.83	17.27
Spray, Sandblast, Steel	$ 29.43	17.27

PAIN0108-002 06/01/2019

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 36.08	20.36
Spray & Sandblast	$ 37.08	20.36

PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER	$ 24.11	12.15

PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
PAINTER	$ 22.03	12.45

PAIN0781-002 06/01/2019

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 33.30	23.86
Brush	$ 32.95	23.86
Spray & Sandblast	$ 33.70	23.86

PAIN0802-002 06/01/2019

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 30.93	18.44

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2019

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN

LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER	$ 30.93	18.58

PAIN0934-001 06/01/2017

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
Painters:		
Brush	$ 33.74	18.95
Spray	$ 34.74	18.95
Structural Steel	$ 33.89	18.95

PAIN1011-002 06/02/2019

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 25.76	13.33

PLAS0599-010 06/01/2017

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area 1	$ 39.46	17.17
Area 2 (BAC)	$ 35.07	19.75
Area 3	$ 35.61	19.40
Area 4	$ 34.70	20.51
Area 5	$ 36.27	18.73
Area 6	$ 32.02	22.99

AREA DESCRIPTIONS

AREA 1: BAYFIELD, DOUGLAS, PRICE, SAWYER, AND WASHBURN COUNTIES

AREA 2: ADAMS, ASHLAND, BARRON, BROWN, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, IRON, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,

MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, ST CROIX, SAUK, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

AREA 3: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES

AREA 4: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA 5: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA 6: KENOSHA AND RACINE COUNTIES

TEAM0039-001 06/01/2020

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 31.07	22.94
3 or more Axles; Euclids, Dumptor & Articulated, Truck Mechanic	$ 31.22	22.94
WELL DRILLER	$ 16.52	3.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic

violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and

non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.)

and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION"

Wisconsin Department of Transportation

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

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

April 1, 2021

NOTICE TO ALL CONTRACTORS:

Proposal #26: 1228-22-71, WISC 2021228
North-South Freeway
Capitol Drive to 2100' N of Hampton Ave.
IH-43
Milwaukee County

Letting of April 13, 2021

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

Special Provisions:

Revised Special Provisions	
Article No.	Description
3	Prosecution and Progress
7	Utilities
8	Other Contracts
115	Luminaires Tunnel Lighting LED, Item SPV.0060.1012.
169	Management of Contaminated Soil and Contaminated Sediment, Item SPV.0165.0001

Added Special Provisions	
Article No.	Description
171	Noise Barriers Double-Sided Sound Absorptive N-40-94, Item 541.0300.S.0001; Noise Barriers Double-Sided Sound Absorptive N-40-95, Item 541.0300.S.0002; Noise Barriers Double-Sided Sound Absorptive N-40-96, Item 541.0300.S.0003;

Deleted Special Provisions	
Article No.	Description
65	Noise Barriers Double-Sided Sound Absorptive N-40-94, Item 531.0300.S.0001; Noise Barriers Double-Sided Sound Absorptive N-40-95, Item 531.0300.S.0002; Noise Barriers Double-Sided Sound Absorptive N-40-96, Item 531.0300.S.0003;

Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
204.0110	Removing Asphaltic Surface	SY	12,691	175	12,866
204.0150	Removing Curb & Gutter	LF	943	488	1,431
204.0155	Removing Concrete Sidewalk	SY	1,066	224	1,290
305.0120	Base Aggregate Dense 1 1/4-Inch	TON	54,744	178	54,922
416.0610	Drilled Tie Bars	EACH	2,698	162	2,860
455.0605	Tack Coat	GAL	2,424	-12	2,412
465.0105	Asphaltic Surface	TON	202	-18	184
601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	2,372	489	2,861
602.0410	Concrete Sidewalk 5-Inch	SF	11,690	7,190	18,880
603.8000	Concrete Barrier Temporary Precast Delivered	LF	38,751	949	39,700
603.8125	Concrete Barrier Temporary Precast Installed	LF	43,327	949	44,276
608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	1161	140	1301
608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	2366	18	2384
608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	127	277	404
611.0535	Manhole Covers Type J Special	EACH	34	1	35
611.0624	Inlet Covers Type H	EACH	13	-1	12
611.0636	Inlet Covers Type HM-S	EACH	3	1	4
611.0639	Inlet Covers Type H-S	EACH	4	1	5
611.0654	Inlet Covers Type V	EACH	75	19	94
611.2004	Manholes 4-FT Diameter	EACH	16	1	17
611.3004	Inlets 4-FT Diameter	EACH	87	20	107
643.0300	Traffic Control Drums	DAY	270,969	107,416	378,385
643.0420	Traffic Control Barricades Type III	DAY	38,035	7,597	45,632
643.0705	Traffic Control Warning Lights Type A	DAY	56,570	17,378	73,948
643.0715	Traffic Control Warning Lights Type C	DAY	56,559	17,174	73,733
643.0800	Traffic Control Arrow Boards	DAY	4,609	-904	3,705
643.0900	Traffic Control Signs	DAY	335,588	13,228	348,816
643.0920	Traffic Control Covering Signs Type II	EACH	509	112	621
644.1601	Temporary Pedestrian Curb Ramp	DAY	1,072	170	1,242
644.1810	Temporary Pedestrian Barricade	LF	755	-389	366
646.9010	Marking Removal Line Water Blasting 4-Inch	LF	282,526	27,296	309,822
649.0120	Temporary Marking Line Epoxy 4-Inch	LF	353,751	38,634	392,385
649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	9,116	-2,017	7,099
649.0220	Temporary Marking Line Epoxy 8-Inch	LF	21,091	325	21,416
690.0250	Sawing Concrete	LF	12,827	513	13,340
SPV.0045	0001. Temporary Detectable Warning Field	DAY	372	170	542

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
611.0420	Reconstructing Manholes	EACH	0	3	3
649.0520	Temporary Marking Arrow Epoxy	EACH	0	4	4

Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
16	Typical Existing Section, Varies dimension and sta range update
42	Typical Finished Section, Sidewalk and Curb & Gutter replacement on Glendale Ave
90	Removal Plan, Sidewalk, Terrace and Curb & Gutter removal on Glendale Ave
104	Plan Details, Sidewalk, Terrace and Curb & Gutter replacement on Glendale Ave
227-322	Drainage, Drainage updates, (23 sheets updated)
381-382	Stage 2A TC, Covering 4 impacting existing signs and extending centerlane shift
406-407	Stage 2C1 TC, Extended lane closure on North end of project
412-413	Stage 2C2, Removing Ramp closure, Addressing question #7 from contractors
419-420	Stage 2C2 TC, Extended lane closure on North end of project
422	Stage 2D OV, Edited bullet point. Addressing question #9 from contractors
432-433	Stage 2D TC, Extended lane closure on North end of project
445-446	Stage 3A TC, Extended lane closure on North end of project
459-460	Stage 3B TC, Extended lane closure on North end of project
484-485	Stage 4 TC, Extended lane closure on North end of project
497-498	Stage 5 TC, Extended lane closure on North end of project
562-563	Roadway MQ's, Adding quantity for removals
565	Roadway MQ's, Adding quantity for sawing curb
571	Roadway MQ's, Adding tie bars to tie into adjacent existing lane
573	Roadway MQ's, Removed quantity for asphalt sections and tack coat
575	Roadway MQ's, Adding quantity for concrete sidewalk and base aggregate
577	Roadway MQ's, Adding quantity for curb & gutter replacement
591-601	Roadway MQ's, Updated quantities for traffic control
604	Roadway MQ's, Updated quantities for traffic control

616-662	Drainage MQ's, Updated quantities and table information for Drainage (16 sheets updated)
1037	Structure, Updated bearing plat dimensions

Added Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
237A	Storm Sewer Profiles, New storm sewer profiles
240A	Storm Sewer Profiles, New storm sewer profiles
245A	Storm Sewer Profiles, New storm sewer profiles
407A-407C	Stage 2C1 TC, Extended the lane closure on the North end of project
420A-420C	Stage 2C2 TC, Extended the lane closure on the North end of project
433A-433C	Stage 2D TC, Extended the lane closure on the North end of project
446A-446C	Stage 3A TC, Extended the lane closure on the North end of project
460A-460C	Stage 3B TC, Extended the lane closure on the North end of project
485A-485C	Stage 4 TC, Extended the lane closure on the North end of project
498A-498C	Stage 5 TC, Extended the lane closure on the North end of project
500A-500C	Hampton Avenue TC, New Traffic control pattern for Hampton to allow for work in the Median as well as the outside Shoulder

Deleted Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was deleted)
61	Construction Detail, Removed HPC Detail
504	Ped Accommodations, Removed Ped accomodation sheet because a new traffic control plan was created for this area

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

1228-22-71

April 1, 2021

Special Provisions

3. Prosecution and Progress

Add the following to the beginning of Section titled **I Local Street Work Restrictions***:*

Definitions
The following definitions apply to this contract for local street work restrictions:
Peak Hours

- 6:00 AM – 9:00 PM Monday, Tuesday, Wednesday, Thursday, Friday
- 10:00 AM – 9:00 PM Saturday
- 11:00 AM – 6:00 PM Sunday

Off-Peak Hours

- 9:00 PM – 6:00 AM Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM
- 9:00 PM – 10:00 AM Friday PM to Saturday AM
- 9:00 PM – 10:00 AM Saturday PM to Sunday PM
- 6:00 PM – 6:00 AM Sunday PM to Monday AM

Night Time Hours

- 10:00 PM – 6:00 AM Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM, Thursday PM to Friday AM
- 12:00 AM – 8:00 AM Saturday AM, Sunday AM
- 9:00 PM – 6:00 AM Sunday PM to Monday AM

Do not close local street traffic lanes or intersections and ensure that the local street traffic lanes are entirely clear for traffic during Peak Hours, except as shown in the traffic control plans. One local street traffic lane and/or the shoulder may be closed, but maintain at least one local street traffic lane open to traffic, during Off-Peak Hours. Close intersections only during Off-Peak Hours, unless otherwise specified in the plan, or unless otherwise approved by the engineer for safety or operational reasons associated with other adjacent local street closures.
Follow plan details for closures. Lane restriction beyond that shown on the traffic control plans must be approved by the engineer. If plan details are not provided in the traffic control plan, furnish plans for review by the engineer for approval. Once approved, allow at least five business days prior to the closure of local roadway and/or intersection as identified in Contractor Coordination.
Do not, at any time, conduct construction operations in the median area and adjacent outside shoulder area of the local street at the same time without obtaining prior permission of the engineer, beyond that shown on the traffic control plans.
Do not begin or continue any work that closes local street traffic lanes or intersection outside the allowed time periods specified in this contract. If the contractor fails to open local roadway lane s of traffic and/or intersections to traffic by the specified times, assessments shown in the article Lane Rental Assessment will be placed upon the contractor based on the hourly rental rate that the ono-compliant closure occurs. The total assessment to the contractor will be the summation of the separate assessments for each local street traffic lane and local street intersection closure violation.
Permitting the contractor to continue and finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, will in no way operate as a waiver on the part of the department of any of its rights under the contract.

Port Washington Rd
Port Washington Rd may be restricted to one lane in each direction from Glendale Rd to the Milwaukee River

during stage 4 as shown in the plans.

Hampton Ave
Hampton Ave may be restricted to one lane in each direction from the IH 43 southbound on ramp to Iroquois Ave during stage 1 through stage 4 as shown in the plans.
Hampton Ave may be closed during Night Time Hours between Port Washington Road and the IH 43 southbound on ramp to facilitate the deck removal, girder removal, and girder placement on structure B-40-1016 and B-40-1018 as shown in the plans.

Glendale Ave
Glendale Ave may be closed during Night Time Hours between Port Washington Road and the driveway to Sprecher Brewery to facilitate the deck removal, girder removal, and girder placement on structure B-40-1019, B-40-1020, and B-40-1021 as shown in the plans.

7. Utilities.

Replace the article in its entirety with the following:

This contract comes under the provisions of Wisconsin Administrative Code Chapter TRANS 220.

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

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

Utility companies will be performing utility work and adjustments within the limits during the life of the project. The contractor shall cooperate and coordinate construction activities with these companies.

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

Known utilities in the projects are as follows:

AT&T Local Network (aka TCA) has existing underground facilities within the project limits at the following locations:

- TCA has facilities approximately 27 to 29-Feet south of Glendale Avenue centerline. Prior to and during construction, TCA will install new conduit from a new handhole at STATION 10+74GD, 23'RT and stay 23'RT of alignment Glendale Avenue centerline to a new handhole at STATION 15+40GD, 44'RT. TCA will discontinue the old conduit between STATION 10+74, 28'RT – 15+40, 44'RT once new conduit had been installed.
- The TCA Handhole at STATION 100+75PW, 58' LT is in conflict with proposed reconstruction of Ramp HAA. Prior to and during construction, TCA to place a new handhole at STATION 100+77PW, 190'LT. Install new conduit from the new handhole east to intercept existing conduit at STATION 100+61PW, 32'RT. TCA proposed elevation to be 622 under proposed Storm pipe P496 between Structure 495 and P497. TCA proposed elevation to be 621 under proposed Storm pipe P518 between Structure 517 and 519.

Anticipated construction time for all work described above is 30 working days. Anticipated Start date is May 1, 2021.

AT&T Wisconsin operates facilities within the project limits as shown and described as follows:

- AT&T Wisconsin will need to verify relocation of the (2) Cell Towers Between STATION 942+50 LT and STATION 945 LT to confirm aerial relocations to these service points and obtain easements to re-service the carrier customers associated with the towers.
- AT&T has an existing underground service at STATION 943 LT to RT under the existing IH 43 bridge. During construction, AT&T will replace direct buried crossing at approx. STATION 943 LT to RT under proposed IH 43 and associated proposed walls.
- AT&T Wisconsin has (2) cabinets and a handhole in existing easement that are in conflict with the proposed storm P376 between structure 375 and E377 as well as the future bike path west side of IH 43 at STATION 966+91, 101'LT, STATION 966+96, 101'LT, and STATION 967+04, 102'LT these cabinets and the hand hole are enclosed in a 10' x 20' x 6" concrete slab. During construction, the cabinets and hand hole will be relocated and removed. There is a power service supplied by We Energies that will need to be disconnected. AT&T Wisconsin is proposing a new pole on W Glendale Avenue at STATION 10+87, 20' RT and anchor at STATION 10+99, 20' RT. AT&T Wisconsin to bore and place conduit and cables across W Glendale Avenue to STATION 11+15, 48' LT and place Pad mounted cabinet excavate and place interconnect and tie in New Pad mounted VRAD Cabinet at STATION 11+15, 53' LT. Place power pedestal and then bore and place conduit and for power service cable. Power connection anticipated to take 15 working days.
- AT&T has an existing Down Guy and anchor (not shown on plan) STATION 966+84, 112'LT associated with joint use We Energies Pole at STATION 967+13, 111'LT, holding the aerial line going north. During construction the down guy anchor will be removed and replaced as sidewalk guy at STATION 967+00, 111'LT.
- AT&T has an existing Down Guy and anchor STATION 967+18, 98'LT associated with joint use We Energies Pole at STATION 967+13, 111'LT. During construction, the Down Guy and anchor will need to be removed and replaced with a new pole STATION 967+08, 141'LT and anchor STATION 967+11, 121'LT – 30-Feet west of existing pole to hold overhead line west.
- AT&T has an existing pedestal located at STATION 11GD+09, 21' RT and facilities buried along the south side of W Glendale Avenue STATION 11GD+09, 25' RT to STATION 14GD+57, 21' RT to remain in place.

AT&T Wisconsin anticipated construction time for all work described above 90 working days.

ATC Management, Inc. - Electricity-transmission has existing overhead facilities crossing the project. ATC Management's relocation plan includes:

- Prior to and during construction, two (2) new structures will be installed. One (1) wood pole structure will be installed west of the new IH-43 right-of-way at approximately STATION 953+00, 127' LT. One (1) additional wood pole structure to the east of IH-43 right-of-way at approximately STATION 954+25, 112' RT.
- Prior to and during construction, one (1) existing wood pole structure at STATION 953+50, 20' LT will be removed for the project.

ATC Management's anticipated construction time for all work described above is 10 working days. Anticipated start date is May 1, 2021.

CenturyLink Communications, LLC has existing underground long haul fiber optic (Qwest) that crosses IH-43 on the north side of the Oak Leaf Trail. No relocation work is anticipated.

City of Glendale – Sewer has existing facilities within the project limits. During Stage 1 of construction, the City of Glendale will:

- Discontinue the sanitary manhole at STATION 975+50HAA, 30'LT.
- Install a new sanitary manhole at STATION 976+00HAA, 18'RT.

Contractor to provide advance notice of when the site will be available to the City of Glendale The estimated construction time for the work is 5 working days.

During Stage 2 of construction, provide advance notice of when the subgrade of the site identified below, will be exposed and available to the City of Glendale to perform the following work:

- Discontinue the buried manhole at STATION 975+65, 35'LT
- Relay new 10-Inch sanitary sewer main from the discontinued manhole at STATION 975+65, 35'LT northwest to the new sanitary manhole at STATION 975+10HAB, 101'LT.
- Install a new sanitary manhole at STATION 975+10HAB, 101'LT.

Contractor to provide advance notice of when the subgrade will be exposed, and the site will be available to the City of Glendale. The estimated construction time for the work is 15 working days during Stage 2.

City of Glendale - Street Lighting has existing overhead and underground lighting facilities throughout the project limits. Construct, relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans and bid items.

City of Glendale – Water has existing facilities within the project limits. One fire hydrant at STATION 978HAA will conflict with the project. During construction, the City of Glendale will relocate the hydrant to STATION 978+04HAA, 45' LT between the sidewalk and the curb along N Port Washington Road. The City of Glendale anticipates performing the relocation work May 2021. The estimated construction time for the work is 3 working days.

City of Milwaukee - Conduit has existing facilities throughout the project limits. No relocation work is anticipated.

City of Milwaukee – Forestry has existing lawn sprinkling facilities in medians throughout the project limits. No relocation work is anticipated.

City of Milwaukee – Sewer has existing sewer facilities throughout the project limits. No relocation work is anticipated.

City of Milwaukee - Street Lighting has existing lighting facilities throughout the project limits. No relocation work is anticipated.

City of Milwaukee - Water has existing water facilities throughout the project limits. The following manholes and valve boxes to be adjusted as shown in the plans and bid items**.** Approximate Stations and Offsets:

STA	Offset	
926+42	51' RT	Valve box
926+48	51' RT	Valve box
931+30 GBD	4' LT	Valve box
943+75 GBA2	8' LT	Valve box
926+45	51' RT	Manhole
926+54	51' RT	Manhole

Everstream - Communication Line has existing communication facilities within the project limits. No relocation work is anticipated.

Midwest Fiber Networks LLC has an existing communications fiber cable in WisDOT Communications duct that is in conflict with the roadway plans, there will be a temporary relocation required and a permanent relocation required. This will be a multi-phase, coordinated venture between Midwest Fiber Networks (MWFN), Wisconsin Independent Network (WIN) and Wisconsin Department of Transportation (WisDOT). Construct, relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans and bid items.

Temporary Path:

- During Stage 1 construction, the contractor will install a conduit run between CV974 (south of the

Ramp HAA and Port Washington Road) on the east side of IH-43 to handhole EXCV1004 (north of the Oak Leaf Trail (as shown in the plans and bid items). Once the conduit is installed, MWFN will then install a temporary 432ct fiber starting at MWFN's proposed handhole south of CV974 intercepting the 2-Inch temporary conduit coming from the proposed WisDOT handhole CV974. MWFN will splice into the existing adjacent handhole.

- MWFN will share 1 (one) 2-Inch conduit with WisDOT and WIN in the parapet conduit in the Southbound Hampton Avenue on-ramp (Ramp HAB).
- During construction of the conduit (in Stage 1) from EXCV936 to CV974, MWFN will reroute the feed fiber up N Port Washington Road from existing MWFN handhole south of Capitol Drive to meet the new MWFN handhole near CV974 and splice the temp fiber. MWFN anticipates this work will require 45-working days after the installation of the conduit.
- After completion of the temporary path splicing, MWFN will remove the original 432ct fiber through the existing WisDOT duct from EXCV1004 through CV936 then continuing to the MWFN existing handhole south of Capitol Drive. It is anticipated that this work will require 5-working days for removal, no splicing time will be needed for this work.

Permanent Path:

- After the WisDOT 2-Inch conduit is installed in the IH-43 Northbound parapet, MWFN will place temporary 432ct fiber starting at EXCV1004 and continuing to CV974, then pull through the WisDOT permanent path via CV976 in the Northbound parapet back to EXCV1004 and resplice. It is anticipated this work will require 30-working days to allow for scheduling, pulling & splicing.

Milwaukee Metropolitan Sewerage District has existing sewer facilities throughout the project limits. No relocation work is anticipated**.**

Spectrum (aka Charter Communications) - Communication Line has existing underground facilities within the project limits. Joint underground work We Energies will occur 10 working days after receiving notice from We Energies that it is safe for Spectrum crews to begin work. Joint overhead work will begin 30 working days after WE Energies has released the poles to Spectrum.

Location			Working Days
932+00	Crossing IH 43	Relocate Overhead	25 days
938+00 to 943+00	West side of IH 43	Discontinue Overhead and Install new Underground	25 days
962+00 to 968+00	W Glendale Ave – crossing under IH43 from N Ironwood Lane east to N Port Washington Road.	Discontinue Overhead and Install new Underground	33 days
975+00 to 984+00	East side of IH 43: - Ramp HAA and N Port Washington Road - River crossing from Ramp HAA to north side of W Hampton Avenue.	Relocate Overhead and Underground	30 days

Total Working days for all work described above is 113 Working days.

Verizon Business - Communication Line has existing underground facilities within the project limits. The

following relocation work will occur prior to and during construction:

- At the intersection of N Port Washington Road and HAA Ramp, the existing conduit will be intercepted from the handhole at STATION 976+65,332' RT, then new conduit and fiber optic cable will be installed north along the east side of N Port Washington Road to STATION 977+53, then new conduit will be bored west across N Port Washington Road, to a new handhole at STATION 977+54, 218' RT. The existing handhole at STATION 976+56, 226' RT will be removed.
- From the new handhole at STATION 977+54, 218' RT new conduit will be installed north under the river 637-ft to the north side of N Hampton Avenue, then west 21-ft to an existing handhole at northwest corner of N Port Washington Road and W Hampton Avenue.
- At the southwest corner of N Port Washington Road and W Glendale Avenue, intercept conduit from the existing handhole, install new conduit on an northwest angle until the conduit is 3-ft south of the existing concrete curb and gutter, then continue west beyond the project limits to the W Glendale Avenue and N Ironwood Lane intersection.

Verizon Business' anticipated construction time for all work described above is 30 working days. Anticipated start date is May 1, 2021

Wisconsin Department of Transportation (WISDOT) has existing overhead and underground communications facilities throughout the project limits. Construct, relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans and bid items.

Wisconsin Department of Transportation (WISDOT) has existing overhead and underground lighting facilities throughout the project limits. Construct, relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans and bid items.

Wisconsin Department of Transportation (WISDOT) has existing traffic signal facilities within the project limits. Construct, relocate, reconstruct, remove, discontinue and leave in place portions of these facilities as shown in the plans and bid items.

Wisconsin Independent Network, LLC (WIN) has an existing communications fiber cable in WisDOT Communications duct that is in conflict with the roadway plans, there will be a temporary relocation required and a permanent relocation required.

Temporary path:

- During construction Contractor to provide advance notice of when the installation of the temporary conduit path to start, during that time WIN will install a conventional 288ct SASJ FOC in a 2-Inch WisDOT provided duct from the WisDOT handhole on the east side of IH 43 n/o Oak Leaf Trail (EXCV1004) south to the WisDOT handhole at the Fiebrantz Avenue NB on-ramp (EXCV936). WIN will share a single 2-Inch duct with WisDOT and Midwest Fiber in the parapet conduit in the SB Hampton Avenue on ramp.
- WIN and Midwest Fiber Network to install fiber cables at the same time in the new temporary path.

Permanent path:

- During construction, after the new WisDOT conduit has been installed including the NB IH-43 bridge parapet (as shown in the plans and bid items). WIN will cut the 288ct conventional cable at CV984 at the southwest corner of Hampton Avenue and N Port Washington Road. This fiber cable will be pulled back to CV974 and then pulled back into the new duct in the NB IH-43 bridge parapet back to CV984 and re-spliced.

Anticipated construction time for all work described above is 30 working days.

We Energies – Electricity has existing underground and overhead facilities within the project limits at the following locations:

- The following power poles will be removed, installed or relocated prior to and during construction:

Station	Offset		Station	Offset	Comments

982+97	50'RT	Remove pole	--	--	--
981+90	54'RT	Relocate pole to	981+93	128'RT	--
981+00	59'RT	Relocate pole to	981+04	139'RT	--
977+93	78'RT	Relocate pole to	977+68	182'RT	--
977+06	83'RT	Relocate pole to	977+58	183'RT	--
976+90	82' RT	Relocate pole to	977+48	185'RT	--
976+75	84' RT	Remove pole	--	--	--
976+60	86'RT	Remove pole	--	--	--
967+25	54'LT	Remove pole	--	--	--
967+52	92'RT	Remove pole	--	--	--
967+57	118'RT	Remove pole	--	--	--
967+27	124'RT	Relocate pole to	966+70	135'RT	--
966+93	130'RT	New Primary Riser Pole		--	--
967+73	127'RT	New Primary Riser Pole		--	--
966+77	118'LT	New Primary Riser Pole		--	--
966+25	98'LT	Relocate pole to	965+36	124'LT	--
962+51	132'LT	Guy and anchor relocated to	962+47	115'LT	Buried extra deep to accommodate grade cut
954+36	90'LT	Relocate pole to	954+96	107'LT	
953+49	111'LT	New Pole	--	--	--
953+10	92'LT	Remove pole	--	--	--
952+96	105'LT	Guy and anchor attached ATC structure at STATION 952+83, 126'LT			
952+70	70'LT	Guy and anchor attached ATC structure at STATION 952+83, 126'LT			
939(GBC)+00	105'LT	Remove pole	--	--	--
940(GBC)+68	57'LT	Remove pole	--	--	--
941(GBC)+30	23'LT	Remove pole	--	--	--
942(GBC)+07	17'RT	Remove pole	--	--	--
942(GBC)+35	21'RT	Remove pole	--	--	--
943+17	44'LT	Remove pole	--	--	--
944+26	51'LT	Remove pole	--	--	--
932+05	82'LT	Relocate pole to	932+12	79'LT	--
932(GBA2)+15	37'RT	Relocate pole to	932(GBA2)+23	38'RT	--
933(GBA2)+08	47'RT	New Primary Riser Pole -- the circuit will be raised to avoid the proposed noise wall			

- The following underground facilities will be discontinued in place prior to and during construction:
    - Underground primary conductors from STATION 976+90, 82'RT, east to STATION 977+00, 324'RT (crossing Port Washington Road at PW100+59).
    - Underground primary conductors from STATION 976+75, 84'RT east to STATION 976+79, 223'RT, then south to STATION 975+88, 190'RT.
    - Underground secondary conductors from STATION 976+75, 84'RT to STATION 976+84, 202'RT.
    - Underground primary conductors from STATION 976+60, 86'RT to STATION 976+94, 324'RT (crossing Port Washington Road at PW100+56).
    - Underground primary conductors from STATION 952+68, 167'LT to STATION 955+50, 256'RT.
    - Underground primary conductors from STATION 942+10, 48'LT to 942+05, 113'RT.
- New underground primary conductors will be installed prior to and during construction:
    - New primary riser pole will be installed at STA 933(GBA2)+08 RT 47'. This overhead crossing has 2 circuits. One of the circuits will be raised to avoid the proposed noise wall and be attached to the first 2 poles listed above. The other circuit will be converted underground from new pole at STA 932+12 LT 79' west to STA 932(GBA2)+23 RT 38' (crossing IH 43 at

approximately STA 932+10).

- From STATION 977+68, 182'RT east to STATION 976+56, 318'RT (crossing Port Washington Road at PW101+11), then south to STATION 976+94, 327'RT splicing into existing conductors.
- From STATION 977+48, 185'RT east to STATION 977+32, 218'RT, then continuing east to STATION 977+42, 318'RT (crossing Port Washington Road at PW100+97), then south to STATION 977+00, 324'RT splicing into existing conductors.
- From STATION 977+58, 183'RT to a new padmounted transformer at STATION 977+26, 203'RT then west to STATION 977+24, 186'RT, then south to STATION 975+88, 190'RT, splicing into existing conductors.
- From the new padmounted transformer at STATION 977+26, 203'RT to STATION 976+84, 202'RT splicing into existing conductors to feed the existing traffic signal service.
- From the new pole at STATION 966+77 118'LT north to STATION 967+18, 123'LT then east to STATION 967+89, 270'RT then south to STATION 967+77, 273'RT.
- From the new pole at STATION 967+73, 127'LT, south to STATION 967+50, 114'LT, then east to STATION 967+88, 133'RT, then north to a new padmounted VFI at STATION 968+27, 157'RT.
- From the new padmounted VFI at STATION 968+27, 157'RT, south to STATION 966+98, 148'RT, then to new pole at STATION 966+93, 130'RT.
- From new pole at STATION 965+36, 124'LT northeast to STATION 966+98, 52'RT, then north to STATION 967+35, 144'RT, splicing into existing cable.
- From STATION 952+58, 145'LT to STATION 955+30, 271'RT.
- From an existing padmounted transformer at STATION 945+00, 397'RT, north to STATION 45+47, 387'RT, then west to STATION 944+84, 102'RT, then south to a new padmounted transformer at approximately STATION 944+46, 108'RT. Underground secondary conductors will then run from that transformer to the customer's meter at approximately STATION 942+05, 113'RT.
- From the existing pole at STATION 938(GBC)+50, 74'LT, going northwest to STATION 393(GBC)+00, 128'LT. From there it will stay 3-Feet east of the west proposed right of way line to a new padmounted transformer at STATION 942(GBC)+12, 83'LT. From there We Energies will have buried secondary conductors 3-Feet east of the west proposed right of way line, going north to a new pole at STATION 943+79, 139'LT.

- Prior to and during construction, a secondary pedestal at STATION 944+27, 52'RT will be removed.
- The overhead IH 43 crossing will be discontinued. We Energies will install underground primary conductors from the new pole at STATION 966+77, 118'LT, north to STATION 967+18, 123'LT, then east to STATION 967+89, 270'RT, and south to STATION 967+77, 273'RT.

Anticipated construction time for all work described above is 200 working days. Anticipated start date is May 1, 2021. The information in the table below is not meant to shorten the anticipated relocation timeline but to further allow planning for the working days required to complete work in a specific area. The working days are further described:

STATION	Description	Type of Work	Working Days
931+00 to 932+00	Crossing IH 43	Overhead and Underground	15 days
938+00 to 944+00	West side of IH 43	Overhead and Underground	15 days
942+00 to 945+00	East side of IH 43	Underground	10 days
962+00 to 968+00	West side of IH 43 W Glendale Ave – crossing under IH 43 from N Ironwood Lane east to N Port Washington Road.	Overhead and Underground	25 days
953+00 to 957+00	West side of IH 43	Overhead	15 days
953+00 to 955+00	Crossing IH 43	Underground	15 days
975+00 to 984+00	East side of IH 43:	Overhead and	25 days

	- Ramp HAA and N Port Washington Road - River crossing from Ramp HAA to north side of W Hampton Avenue and	Underground	

We Energies – Gas has existing underground facilities within the project limits at the following locations:

- A 3-Inch PE Gas main that crosses IH 43 at approximately STATION 942+00GBD and turns North to approximately STATION 945+25GBD and crosses under the proposed retaining wall. Prior construction 3-Inch PE Gas main will be discontinued and not replaced at this location.
- An 8-Inch steel Gas main that runs parallel with N. Port Washington Rd at approximately STATION 978+10HAA is in conflict with proposed Storm Sewer pipe P524 between Structure 523 and E535. Prior to construction, We Energies will lower the existing main in its existing location 15-Feet in each direction (North and South) of the proposed Storm Sewer pipe P524.

Anticipated construction time for all work described above is 30 working days.

8. Other Contracts.

Add the following to the end of the article:

Project 1228-22-74
IH 43, North-South Freeway
Hampton Ave – SB Ramp over Milwaukee River
WisDOT contact: David Pittman; (262) 548-6439

65. DELETED

115. LuminairesTunnel Lighting LED, Item SPV.0060.1012.

Replace entire section titled **B.1 Materials** *with the following:*

Tunnel lighting LED luminaires shall be vandal-resistant and tampered-resistant.

The lighting unit shall be corner mount clamshell housing with 2-ft in length and painted white. The color temperature for the LED shall be minimum 3500K and multi-voltage ranged 120-277 Volts. Units shall be UL listed for WET LOCATIONS.

169. Management of Contaminated Soil and Contaminated Sediment, Item SPV.0195.0001.

Replace the article in its entirety with the following:

A General
A.1 Description
This work will conform with the requirements of Section 205 of the Standard Specifications; to pertinent parts of the Wisconsin Administrative Code, Chapters NR 700-736 Environmental Investigation and Remediation of Environmental Contamination; Wisconsin Administration Code, Chapters NR 500-538, Solid Waste; and as shown on the plans and as supplemented herein.

Soil and sediment considered to be solid waste due to metal, polychlorinated biphenyl (PCB), and polycyclic aromatic hydrocarbon (PAH) contamination will be encountered within the construction limits. The solid waste may contain NR 500 non-exempt industrial wastes. Impacted waste material excavated during construction which cannot in the opinion of the environmental consultant be managed as common excavation or as contaminated soil will be managed as solid waste.

This work consists of excavating, segregating, temporary stockpiling, loading, hauling, and disposing of solid waste material at a WDNR-approved disposal facility. **Hazardous contaminated soil shall be placed in covered roll-off containers provided by others. Sampling and disposal of the hazardous contaminated soil will be coordinated by the environmental consultant. The contractor shall provide a location for the roll-off containers**. The nearest WDNR-approved disposal facilities are:

Waste Management Orchard Ridge Landfill
W124 N9355 Boundary Rd.
Menomonee Falls, WI 53051
(866) 909-4458

Advanced Disposal Emerald Park Landfill
W124 S10629 S. 124th St.
Muskego, WI 53150
414-529-1360

Provide information to the environmental consultant and engineer that indicates the WDNR-approved disposal facility that the contractor will use.

A.2 Notice to the Contractor–Solid Waste Location
The department and others completed hazardous materials assessments for locations within this project where excavation is required. Investigation for soil and sediment contamination was conducted at select locations. Results indicate that solid waste (metals-, PCB-, and PAH-contaminated soil and sediment) is present at the following locations as shown on the plans:

Contaminated Soil:

- Station 940+50 to 944+80, from construction limits left to construction limits right. Depths of contamination range from ground surface to 4 ft bgs. **There is an area within this location from 941+85 to 943+00 with TCLP (toxicity characteristic leaching procedure) - hazardous waste lead that likely will require hazardous waste disposal.** The estimated volume of PAH and metal contaminated soil to be excavated at this location is 3,431 cubic yards (approximately 5,833 tons) of which approximately 143 tons will be considered TCLP–hazardous waste lead and 5,690 tons will be considered non-hazardous. Incidental to construction, within the limits stated above, an additional 1,489 tons of TCLP-hazardous waste lead soil will require excavation and disposal.

- Station 944+80 to 953+80, from construction limits left to construction limits right. Depths of contamination range from ground surface to 20 ft bgs. The estimated volume of PAH-contaminated soil to be excavated at this location is 685 cubic yards (approximately 1,165 tons).

- Station 953+80 to 955+00, from construction limits left to the reference line. Depths of contamination range from ground surface to 12 ft bgs. The estimated volume of metal-contaminated soil to be excavated at this location is 5,539 cubic yards (approximately 9,416 tons).

- Station 980+75 to 982+00, from construction limits left to construction limits right. Depths of contamination range from ground surface to 4 ft bgs. The estimated volume of PAH-, PCB-, and metal-contaminated soil to be excavated at this location is 334 cubic yards (approximately 568 tons).

Contaminated Sediment:

- Station 978+50 to 980+75, from construction limits left to construction limits right. Depths of contamination range from the sediment surface to bedrock (0-2' below the sediment surface). The estimated volume of PAH-, PCB-, and metal-contaminated sediment to be excavated at this location is 201 cubic yards (approximately 342 tons).

Directly load solid waste soil and sediment excavated by the project at the above locations into trucks that will transport the material to a WDNR-licensed landfill facility for landfill disposal.

If obviously contaminated soils or sediment or signs of NR 500 non-exempt solid waste and hazardous materials are unexpectedly encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. Examples of these unexpected conditions may include, but are not limited to, buried containers or tanks, noxious odors and fumes, stained soils, sheen on ground water, other industrial wastes, and significant volumes of municipal or domestic garbage.

Active groundwater monitoring wells were not observed within the construction limits. If active groundwater monitoring wells are encountered elsewhere during construction, notify the engineer and protect the wells to maintain their integrity. The environmental consultant will determine if monitoring wells need to be maintained. For monitoring wells that do need to be maintained, adjust the wells that do not conflict with structures or curb and gutter to be flush with the final grade. For wells that conflict with the previously mentioned items or if monitoring wells are not required to be maintained, they will be abandoned by others.

If dewatering is required at the above locations, conduct the dewatering in accordance with Section C below.

A.3 Notice to Contractor – Reuse of Solid Waste Soils
Approximately 8,030 cubic yards (13,651 tons) of low-level impacted soil excavated from STA 944+80 to 949+10 is characterized as Solid Waste Soil and shall be reused as fill at the following location:

- Station 940 + 00 to 954 +70, from construction limits left to construction limits right.

Cap of reuse soil deposited at this location will either be the constructed roadway, or if placed outside of the constructed roadway, cap will consist of 2 feet of clay. Cover the clay with topsoil and then seed.

The clay material can be acquired on site or be furnished by the contractor from a borrow site. The contractor shall submit laboratory test results of the clay lining material from onsite or borrow source(s) documenting that the clay meets or exceeds the clay material specifications prior to the start of lining construction and prior to bringing borrow to the site.

The laboratory tests shall be conducted on clay material from on site or borrow areas at the frequency listed below and be performed in accordance to ASTM standard methods as listed below. The test results shall be submitted to the engineer for review and approval prior to construction. The following tests are required:

- A minimum of 50 percent by weight which passes the 200 sieve.
- Liquid Limit (LL): 22 percent or greater.
- Plasticity Index (PI): 12 percent or greater.

Clay not meeting these three requirements shall be removed and disposed of by the contractor without additional payment. Soils that are reused as project fill should not contain crushed asphalt or other non-exempt solid wastes.

A.4 Clay Cap
The contractor shall place and compact approved clay material in four 6-inch lifts for a total compacted thickness of two feet.

Contractor shall notify the engineer at least three days prior to start of placing clay cap.

Lift thickness shall be 6 inches maximum after compaction.

Clay cap shall be a minimum of two feet thick measured perpendicular to the surface. Compact clay to a minimum of 98% Standard Proctor Maximum Density (ASTM D698) with a sheepsfoot roller or other suitable equipment.

Placement of each lift shall not proceed until all required clay testing and documentation has been completed for the previous lift. The moisture content of the clay during placement shall be:

- No drier than 1 % below the optimum moisture content as determined by ASTM D698.
- No wetter than 3% above the optimum moisture content as determined by ASTM D698.

A.5 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated waste. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities in these areas contact:

Name:	Andrew Malsom
Address:	141 NW Barstow Street, Waukesha, WI 53187-0798
Phone:	262-548-6705
Fax:	262-548-6891
e-mail:	andrew.malsom@dot.state.wi.us

A.6 Coordination

Coordinate work under this contract with the environment consultant:

Consultant:	TRC Environmental Corporation
Address:	150 N. Patrick Blvd. Ste. 180, Brookfield, WI 53045
Contact:	Bryan Bergmann
Phone:	262-901-2126 (office), 262-227-9210 (cell)
Fax:	262-879-1220
E-mail:	bbergmann@trccompanies.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of solid waste to be excavated based on soil and sediment analytical results from previous investigations, visual observations, and field screening of soil and sediment that is excavated;
2. Identifying soil and sediment to be hauled to the landfill facility;
3. Documenting that activities associated with management of solid waste are in conformance with the solid waste management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of solid waste from the landfill facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the area of solid waste described in A.2 to the environmental consultant. Identify the WDNR licensed landfill facility that will be used for disposal of solid waste, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation in the impacted area or at the preconstruction

conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals from the landfill facility for disposal of the solid waste.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation in the impacted areas. Notify the environmental consultant at least three calendar days prior to commencement of excavation in the impacted areas. Perform excavation in the impacted areas on a continuous basis until excavation work is completed. Do not transport soil containing solid waste offsite without prior approval from the environmental consultant.

A.7 Health and Safety Requirements
Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter metal-, PCB-, and PAH-contaminated soil and sediment. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each impacted area as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

B (Vacant)

C Construction
Subsection 205.3 of the Standard Specification is supplemented with the following:

Control operations in the impacted areas to minimize the quantity of soil and sediment excavated.

The environmental consultant will periodically monitor soil and sediment excavated from the areas identified in A.2 above. The environmental consultant will evaluate excavated soil and sediment based on field screening results, visual observations, and soil and sediment analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil and sediment samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

On the basis of the results of such field-screening and existing laboratory analytical results, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, bituminous pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or

- Low-level contaminated material (PID readings less than 10 ppm and no observation of staining or petroleum odor, or based on existing analytical data) for reuse as fill within the construction limits as allowed by the project engineer, or

- Contaminated soil (based on the presence of industrial fill or existing analytical data) for off-site disposal at the WDNR-licensed disposal facility, or

- Contaminated sediment for off-site treatment and disposal at the WDNR-licensed landfill facility, or

- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal.

Directly load and haul solid waste soil and sediment designated by the environmental consultant for offsite disposal to the WDNR approved landfill facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of the material. Prior to transport, sufficiently dewater soils and sediment designated for off-site disposal so as not to contain free liquids. Sediment dewatering will be conducted in accordance with best management practices and will comply with the requirements of all applicable state and federal permits. Filtered water from dewatered sediments can be discharged back into the body of water from which it was removed.

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 100 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material in accordance with NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration of precipitation. The Department's environmental consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 15 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at the WDNR-licensed disposal facility by the contractor or, if characterized as hazardous waste, by the Department. As an alternative to temporarily stockpiling contaminated soil/fill material that requires additional characterization, the contractor has the option of suspending excavation in those areas where such soil is encountered until such time as characterization is completed.

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum or chemical products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer.

Verify that the vehicles used to transport material are licensed for such activity in accordance with applicable state and federal regulations. Obtain the necessary disposal facility approvals and WDNR approvals for disposal. Do not transport regulated solid waste off-site without obtaining the approval of the environmental consultant and engineer and notifying the disposal facility.

During excavations in the areas of known contamination, larger chunks of clean concrete (~2 cubic feet), asphalt and bricks shall be segregated from the fill, to the extent practical and managed as common excavation. Under NR 500.08 this material is exempt from licensing and requirements of Wisconsin Administrative Code NR 500-538 of the solid waste regulations, and will be reused as designated by the engineer as fill on the project, or it will be disposed of off-site at the contractor's disposal site(s).

If dewatering is required in an area of known contamination, water generated from dewatering activities may contain contaminants and require testing, special handling, temporary storage, and disposal. Disposal of contaminated water may require use of a licensed hazardous waste hauler to transport contaminated groundwater to a treatment and disposal facility. Contaminated water could possibly be discharged to the sanitary sewer with prior approval from the Milwaukee Metropolitan Sewerage District (MMSD) and the City of Glendale.

Notify the engineer of any dewatering activities. The contractor shall obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for laboratory testing, obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

Costs associated with excavation dewatering in contaminated areas are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

D Measurement

The department will measure solid waste by the ton of waste accepted by the disposal facility and as documented by weight tickets.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Management of Solid Waste	Ton

Payment is full compensation for excavating, segregating, loading, hauling, and landfill disposal of solid waste; obtaining solid waste collection and transportation service operating licenses; assisting in the collection of soil samples for field evaluation; dewatering of soils prior to transport, if necessary; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

171. Noise Barriers Double-Sided Sound Absorptive N-40-94, Item 541.0300.S.0001; Noise Barriers Double-Sided Sound Absorptive N-40-95, Item 541.0300.S.0002; Noise Barriers Double-Sided Sound Absorptive N-40-96, Item 541.0300.S.0003;

A Description

This special provision describes designing, fabricating, transporting, and erecting composite concrete double-sided sound absorptive noise barriers as the plans show and conforming to department-approved installation specifications.

B Noise Wall System

B.1 System Pre-Qualification and Selection

The noise wall system supplied must be pre-qualified by the department. The department maintains a list of pre-qualified systems which can be viewed online at:

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

Systems eligible for use on this project shall be pre-qualified before the award of this contract.

Provide the name of the selected system, and the intended fabricator to the engineer within 25 days after award of the contract. Schedule a pre-design meeting with the engineer subsequent to award of the contract and before beginning design of the noise barrier. A representative of the fabricator of the noise barrier components shall attend this meeting.

B.2 Design

B.2.1 Structural and Foundation Design

The structural and foundation design of the noise barrier system shall conform to the current edition of "AASHTO LRFD Bridge Design Specifications" published by the American Association of State Highway and Transportation Officials (AASHTO), 444 North Capitol Street, NW, Suite 225, Washington, DC 20001, with the following exceptions:

The minimum design wind pressure shall be 35 pounds per square foot (Strength III) for ground mounted noise barriers and 40 pounds per square foot (Strength III) for structure mounted noise barriers, unless specified otherwise on the plans. For ground and structure mounted noise barriers, the minimum Service I design wind pressure shall be 15 pounds per square foot. All wind loads shall be applied perpendicular to the barrier, alternately in each direction.

Design drilled shaft foundations using the Broms Method. Ignore the top 1 foot of supporting soil in the design of ground-mounted barrier foundations.

In addition to wind loads, design the bottom noise barrier panel to support the dead load (weight) of the panels directly above it and its own dead load. Assume this dead load to be distributed uniformly across the bottom panel acting as a simple beam supported at the posts.

Bottom noise barrier panels shall have a minimum amount of perimeter reinforcement of a #4 bar which shall be continuous around the corners. Reinforcing steel in the concrete core of noise barrier panels shall have a minimum clear cover of 1 inch. Clear cover does not include sound absorptive material. Design the reinforced concrete core to resist the loads without considering any composite action from other material in the panel.

Provide a neoprene bearing pad or equivalent material of 1/4 inch minimum thickness between the foundation and the bottom panels. The allowable bearing stress shall not exceed 900 psi. Precast concrete pedestals placed between the foundation and bottom panels shall be reinforced if over 1’-0" high. The bearing pads shall be preformed EPDM rubber conforming to ASTM D-2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80.

B.2.2 Fire Hose Access Openings

Design fire hose access openings, at locations the plans show, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity. Detail drawings shall show the additional reinforcement and method for attaching the Fire Hydrant Location Signs to the barrier panel.

B.2.3 Barrier Profile

Unless the plans show or the engineer approves otherwise, design the top of the noise barrier to be horizontal and at or above the acoustic elevation line the plans show. The bottom elevation of the noise barrier shall be as the plans show. Changes in elevation shall be accomplished by stepping sections at posts. Steps shall not exceed 3-feet in height. All joints shall be horizontal or vertical and shall be aligned with the adjacent panels.

B.2.4 Panel Orientation

Design the panels to prevent entrapment and ponding of water. Avoid inadvertently providing areas for perching, nesting of birds or collecting of dirt and debris in the design of the noise barrier system.

B.2.5 Sound Transmission Loss (TL)

Design the noise barrier panel material to achieve a transmission loss equal to or greater than 20 decibels in all test frequency bands, as referenced in ASTM E90.

B.2.6 Noise Reduction Coefficient (NRC)

Design the noise barrier system so that the highway sides of the noise barrier panels have a minimum NRC of 0.80 and the residential sides have a minimum NRC of 0.70 as referenced in ASTM C423.

B.2.7 Design Coordination

Design the noise barrier post spacing so as not to interfere with the existing utility and drainage facilities.

Design the noise barrier post spacing so as not to interfere with proposed utility and drainage facilities the plans show. This includes proposed roadway lighting and ITS facilities.

For noise barriers mounted behind or near proposed retaining walls, coordinate and design the noise barrier post spacing so as to not interfere with embedded portion of the proposed retaining walls, including MSE wall soil reinforcement and tieback anchors on soldier pile and timber lagging retaining walls.

For noise barriers mounted on proposed bridges and retaining walls, coordinate and design the noise barrier post spacing to coincide with noise barrier post and embedded noise barrier anchor assembly spacing shown on the bridge and retaining wall plans. Coordinate any required changes to the noise barrier post spacing and embedded noise barrier anchor assembly locations shown on the bridge and retaining wall plans, if required for the design of the noise barrier.

B.2.8 Weep Hole Openings

Design panels such that weep hole openings in noise wall to allow water to drain can be field installed per C.3 at locations the plans show.

B.2.9 Maintenance Doors

Design maintenance doors and door portals in noise walls, at locations the plans show, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity per B.2.1.

B.3 Materials

Required material certifications and testing are the responsibility of the contractor. All certifications and test reports shall carry the name and address of the fabrication facility where the specific material was produced.

B.3.1 Concrete Masonry

Provide grade A, A-2, A-FA, A-S, A-T, A-IS, A-IP, or A-IT concrete conforming to standard spec 501 as modified in standard spec 716 for concrete posts and the core component of composite concrete sound absorbing panels. Provide QMP for class II ancillary concrete as specified in standard spec 716.

B.3.2 Materials Testing General

All test reports shall carry the name and address of the laboratory where testing was performed, and the name of the person in responsible charge of the specific tests for which data is presented. Materials tested shall be representative of materials manufactured for this specific contract. Panels tested or from which samples will be taken will be selected and appropriately marked by the engineer either at the manufacturer's plant or from panels delivered to the project at the engineer's option.

Testing as detailed below is required for each lot of material not to exceed 100,000 SF of noise barrier produced. Conduct testing on panels within the first 30,000 SF of production of each lot not exceeding 100,000 SF. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage. The first set of tests conducted for projects that do not exceed 100,000 SF shall be within the first third of the total square footage of the project. Provide the shipping record of the samples to the laboratory within five days of sampling. Begin testing as soon as practicable after sampling.

Test all materials as fabricated, including any specified finishing.

B.3.2.1 Noise Reduction Coefficient (NRC)

Test noise barrier panels in accordance with ASTM C423, and placed in accordance with ASTM E795, mounting type A, to determine the noise reduction coefficient (NRC) of the material. Submit to the engineer an independent laboratory test report that shows that the noise barrier panels achieve an NRC as specified in B.2.6 for the highway side of the barrier.

B.3.2.2 Long-term Durability

Test all sound absorbing composite concrete and composite concrete components for long-term durability in accordance with ASTM C672 and the following modifications and/or requirements:

B.3.2.2.1 Test Specimens

Three specimens of a full cross section of the composite panel at least 144 square inches in face area will be selected at random from the provided composite panel as defined in B.3. Sample specimens shall be representative of the manufacturer's continuous production operation, as selected and marked by the engineer. Specimens shall be 2D-symmetric and shaped according to the testing laboratory's accommodations.

Prepare the surfaces of the sample specimens for testing as follows. Brush the surfaces of the sample to remove any loose particles. Before testing, submerge the test specimens be submerged in water for a period of 24 hours before testing. Immediately following this, cover the specimens with the sodium chloride solution as stated below.

B.3.2.2.2 Test Procedure

Place samples in a 5 sided water tight container, fully submerged in a solution of sodium chloride (concentration 3% by mass). Maintain 1/4 inch of sodium chloride solution above the top surface of the fully submerged specimen within the container.

Subject the submerged specimens to continuous freeze-thaw cycles as follows:

After each five cycles, remove the salt solution and particles of deteriorated concrete from the slab and collect in a watertight container. The operation is best accomplished by tilting the slab in a funnel approximately 20 inches in diameter and washing the surface of the slab with a 3% sodium chloride solution. Continue this washing until all loose particles are removed from the sample. Strain the solution through a filter and dry the residue at 221 degrees Fahrenheit to a constant mass condition. Cumulatively weigh the residue after each five cycles. The dry residue is defined as the loss of mass. Calculate the loss of mass to the nearest 0.01 pounds per square foot, not including the exposed surface of any core material on the cast or cut edges. Visually rate the surfaces in accordance with 10.1.5 of ASTM C672 including any delamination of the sound absorbing material from the concrete core for composite concrete materials. After each washing of each sample, re-establish the initial submerged condition with a new solution of 3% sodium chloride before continuing with freeze-thaw cycling.

Continue the test until 30 freeze-thaw cycles have been completed.

During the test position and support each specimen to allow free circulation of the test solution under, around, and over test pieces. Support the bottom of the specimens on blocks in a manner to facilitate movement of moisture through and around the test specimens.

B.3.2.2.3 Test Report

Submit to the engineer an independent testing laboratory test report which shows that all solid and composite concrete products meet or exceed the following criteria:

1. After 30 freeze-thaw cycles the test specimens shall not exhibit excessive deterioration in the form of cracks, spalls, aggregate disintegration, delamination or other objectionable features.
2. Compliance with the test requirements is based upon a loss of mass of not more than 0.2 pounds per square foot from the surface after 30 cycles of freezing and thawing.
3. The report shall include the following:
    - 3.1. Name of manufacturer.
    - 3.2. Location of production.
    - 3.3. Production description.
    - 3.4. Date product sample was cast.
    - 3.5. Date testing began.
    - 3.6. Specimen identification.
    - 3.7. 5x7-inch color photographs of the test specimens before and after the 30 cycles of freeze-thaw test showing both sound absorbing faces and at least one representative side view of a cut (not cast) face, and any defects.
    - 3.8. A graph of the cumulative mass loss of each specimen plotted against the number of freeze-thaw cycles for 5, 10, 15, 20, 25, and 30 freeze-thaw cycles.
    - 3.9. Visual rating in accordance with ASTM C672 Section 10.1.5, including report of any delamination of the sound absorbing material from the concrete core for composite concrete components.

B.3.3 Materials Certification - General

Provide certification of compliance or sample fabrications as noted below. All material certifications shall reference the specific facility manufacturing the material and this contract. Certification is required for each lot of material not to exceed 100,000 SF of noise barrier produced, and shall include dates of fabrication for the lot being certified. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage.

B.3.3.1 Color and Surface Texture

Supply and deliver to the engineer a 3 foot x 5 foot minimum test panel for each panel type with the specified pattern and colors. Obtain the engineer's acceptance of the panel's pattern and color before production of the panels required for the contract. The accepted pattern and color test panels shall remain on the project site in a readily accessible location for the duration of the project. The accepted pattern and color sample panels will be the standard for all noise barriers on the project.

Manufacture noise barrier posts of the same materials throughout the project. Shop apply coating and coloring of the post and panels.

Unless otherwise shown and provided for in the plans, wall pattern shall contain textures with relief features of sufficient depth and quantity to be distinguishable at an observation distance of 500-feet. The colors and textures chosen will be within the following parameters; however, at the discretion of the engineer, a single color and/or a single texture may be selected for either side of the noise barrier.

	FREEWAY SIDE	**RESIDENTIAL SIDE**
Number of colors	2	2
In the proportion of	75:25 (+/- 5%)	75:25 (+/-5%)
Number of textures	2	2
In the proportion of	75:25 (+/- 5%)	75:25 (+/- 5%)

The engineer will visually inspect panels for color consistency upon arrival at the project. The panels shall have no substantial variation in color from the accepted sample panel submitted for the project. All panels with substantial color variation will be rejected and shall be removed from the project.

B.3.3.2 Structural Steel

Submit to the engineer certification of compliance, including mill certifications and heat numbers, that structural steel conforms to the properties required on the plans and shop drawings, and is galvanized after fabrication by the hot-dip process in accordance with ASTM A123. Galvanize all steel hardware and threaded fasteners, bolts, nuts, and washers in accordance with ASTM A153.

Shop coat all steel galvanized surfaces exposed to view with a department-approved paint system. Clean galvanizing surfaces to be painted in accordance with SSPC-SP1 to remove, chlorides, sulfates zinc salts, oil, dirt, organic matter and other contaminants. Brush Blast clean the surfaces in accordance with SSPC-SP7 to create a slight angular surface profile (1.0 – 1.5 mils suggested) for adhesion. Do not fracture the galvanized finish or remove any dry film thickness during these processes.

After cleaning, provide a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface. The tie coat shall etch the galvanized surface and prepare the surface for the top coat. Apply a top coat matching the finished color specified in B.3.2. Use a pre-approved top coat that is resistant to the effects of the sun, and is suitable for use in a marine environment. Exercise care so as not to damage the painted surfaces during shipment and erection of the noise barriers.

Use one of the qualified paint sources and products given below. An equivalent system may be used with the written approval of the engineer. Supply the engineer with the product data sheets before applying any coating. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, the minimum drying time for shop applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

Producer	Coat	Products	Dry Film Minimum Thickness (mils)	Minimum Time Between Coats (hours)
Sherwin Williams Co. (847) 330-1250	Tie	Recoatable Epoxy Primer B67-5 Series/B67V5	2.0 to 4.0	6
	Top	Acrolon 218 HS Polyurethane, B65-650	2.0 to 4.0	NA
Carboline Co. (314) 644-1000	Tie	Rustbond Penetrating Sealer FC	1	36
	Top	Carboline 133 LH	4	NA
Wasser Corp. (253) 850-2967	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	2.0 to 4.0	NA

B.3.3.3 Sound Transmission Loss (TL)

Submit to the engineer certification of compliance that the sound transmission loss of the panel material, when tested in accordance with ASTM Standard E90, achieves a transmission loss as specified in B.2.5.

B.3.3.4 Accelerated Weathering

Submit to the engineer certification of compliance that all coatings on barrier components, with the exception of structural steel and wood components comply with the following requirements when tested in accordance with ASTM Standard G155, G153, or G152 after 2400 hours of exposure on a cement based test specimens:

1. No checking when rated in accordance with ASTM D660.
2. No cracking when rated in accordance with ASTM D661.
3. No blistering when rated in accordance with ASTM D714.
4. No difference in adhesion between the unexposed control sample and an exposed sample when tested in accordance with ASTM D3359, Method A.
5. No chalking less than #7 rating when rated in accordance with ASTM D4214.
6. No color change greater than 5 NBS units when measured in accordance with ASTM D2244, using illuminant D65 and the 1964 10-degree standard observer.

B.3.3.5 Corrosion Resistance (Salt Fog Exposure)

Submit to the engineer certification of compliance that all coated steel components, with the exception of structural steel, has a coating system that has been tested for corrosion resistance in accordance with ASTM B117 and comply with the following requirements:

1. No checking when rated in accordance with ASTM D660.
2. No blistering when rated in accordance with ASTM D714.
3. No loss of adhesion when tested in accordance with ASTM D3359 with no evidence of corrosion along the edges of the samples or along the score lines, or both, or other defects.

B.4 Project Submittal Requirements

Furnish required submittals according to the following:

B.4.1 Pre-Construction Submittals

A minimum of 14 days before beginning any shop or field work, submit the following documents to the engineer conforming to standard spec 105.2 with electronic submittal to the fabrication library under standard spec 105.2.2.

1. Structural and foundation design calculations

Design calculations shall be on 8 1/2 x 11-inch sheets, neatly bound with a title sheet listing the complete project identification number and sound barrier designation. Structural and foundation calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

2. Detailed design/shop drawings

   Design/shop drawings shall conform to the contract plans and the requirements of these special provisions. The design/shop drawings shall consist of plan and profile sheets, details, explanatory notes, erection diagrams, aesthetic treatments, and other working plans. All dimensions, sizes of material, material information and other information necessary for the complete fabrication and construction of the noise barrier shall be designated on the appropriate sheets. The design/shop drawings shall be drawn to an appropriate scale on reproducible sheets 11 x 17 inches including borders. Each sheet shall carry the complete project identification number and noise barrier designation. Design/shop drawings shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

3. Specifications regarding installation requirements and sequence of construction, including a detailed bill of materials.
4. Detailed color plan of the aesthetic treatments and finishes for the entire noise barrier.
5. Shipping, handling, and storage plan identifying methods or practices to limit post production damage.

Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings.

B.4.2 Pre-Installation Submittals

Supply and deliver to the engineer the sample panel required under Section B.3.3.1 at least 14 calendar days before beginning production and/or installation of job materials. Acceptance of the sample panel will be by: Steven Kuhl, 414-531-6932. If the panel is not acceptable, a second panel shall be produced and submitted for acceptance. Sample panel to be representative of quality for precast panel work after acceptance. Deliver test panels to be determined by the engineer, for comparison purposes during production of project panels.

B.4.3 Payment Submittals

Submit certifications and test data as required under B.3 for all materials, including trade name of the products along with the name and address of the manufacturers.

B.4.4 Submittal Review

The engineer's review and acceptance of the drawings, calculations, and related material, submitted by the contractor, is for compliance with design intent only, and does not relieve the contractor from responsibility in regard to errors or omissions on said submittals.

The final accepted design documents and/or shop drawings will become a part of the contract. Any substitution of materials or dimensions contemplated by the contractor's submitted documents, different from materials or dimensions shown on the contract plans, shall be made only when approved by the engineer, and in such case, additional costs resulting from such substitution shall be borne by the contractor.

Ordering materials before department acceptance of submittals is at the contractor's risk.

C Construction

C.1 General

Construct the noise barriers at the locations the plans show, according to the contract specifications and design drawings and/or as the engineer directs. Deliver all sound absorbing composite concrete components to the project site as a finished component. A sound absorbing composite concrete system, which has the sound absorbing material glue-laminated or alternately affixed by a secondary adhesion method on the project site, will not be allowed.

Provide a minimum ten day notice to the engineer of the date that the fabrication of the noise barrier material will begin.

Inspect all materials delivered to the construction site for proper dimensions, honeycombing, cracks, voids, surface defects, consistency in color and texture, and any other damage or imperfections, before installation.

If any part of the noise barrier material fails to comply with any requirements of the contract specification, the component shall either be corrected, permanently marked as unacceptable and be disposed of by the contractor or accepted at a reduced price. The decision will be made by the engineer and is dependent on the severity of the specification deviation.

Erect noise barriers to avoid conflict with any existing facilities or utilities to remain in place. Any damage caused by construction activities shall be repaired by the contractor at no cost to the department.

C.2 Fire Hydrant Location Signs

Attach fire hydrant location signs to the noise barrier at each location the plans show by a method the department's approved drawings show. The signs shall conform and be of the type specified in the department's sign plate book, plate D9-54 and/or D9-54A.

Compensation for furnishing and placing the fire hydrant location signs shall be included in the contract price for Noise Barriers Double-Sided Sound Absorptive and no additional compensation therefore will be allowed.

C.3 Weep Hole Openings

Provide weep hole openings for drainage at the locations and sized as noted on the plan. Install weep holes by drilling through the wall after erection of the noise barrier. Use 6" PVC Schedule 40 pipe sleeve conforming to ASTM D-1785. Epoxy 6" PVC Schedule 40 pipe sleeve into bored weep hole. PVC pipe sleeve shall fit snugly in cored hole through wall. Epoxy PVC pipe sleeve into bored weep hole in noise barrier. Locate and construct weep holes in accordance with the plans and as the engineer directs. Place weep holes at locations the plans show unless the engineer approves adjusting locations to fit field conditions. The engineer will field verify the height and location of the weep hole for positive drainage.

C.4 Name Plates

Provide name plates conforming to the requirements of standard spec 506.2.4. Install one name plate on each noise barrier at the location the plans show. Rigidly attach each plate to the barrier by a means approved by the engineer.

Compensation for furnishing and placing of name plates shall be included in the contract price for Noise Barriers, Double-Sided Sound Absorptive Structure and no additional compensation therefore will be allowed.

C.5 Structure Mounted Noise Barriers

Do not erect noise barriers mounted to bridge or retaining wall structures until after the concrete for bridge decks and parapets or retaining wall moment slabs and parapets have attained their specified 28-day strength.

For noise barriers mounted to moment slabs and parapets on top of MSE retaining walls, erection of the noise barrier is limited to two-thirds the height of the noise barrier acoustical line the plans show before placement of earth fill or pavement over the top of the moment slab as the plans show. Erection of the noise barrier in excess of two-thirds its height to the full height of the noise barrier acoustical line the plans show may not occur until after the earth fill or pavement structure over the top of the moment slab the plans show is complete.

C.6 Construction Tolerances

Install the posts and panels comprising the noise barrier plumb within 1/2 inch in 15-feet. Locate the posts to the line and grades as the plans show to within +/- 3/4 inch. Align horizontal joints of adjacent panels to a vertical tolerance of 1/4 inch. Where vertical adjustments are required for alignment, use a mortar base or steel shims. Galvanize and prime coat steel shims in accordance with B.3.3.2.

D Measurement

The department will measure Noise Barriers Double-Sided Sound Absorptive B-40-94, Noise Barriers Double-Sided Sound Absorptive B-40-95, Noise Barriers Double-Sided Sound Absorptive B-40-96, by the square foot, acceptably completed, as the area the original plans show plus engineer-approved modifications to the plan quantity caused by plan corrections or revisions.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
541.0300.S.0001	Noise Barriers Double-Sided Sound Absorptive N-40-94	SF
541.0300.S.0002	Noise Barriers Double-Sided Sound Absorptive N-40-95	SF
541.0300.S.0003	Noise Barriers Double-Sided Sound Absorptive N-40-96	SF

Payment is full compensation for providing noise barrier including: coloring and aesthetic treatment on panels, preparing the design drawings and calculations, furnishing and delivering sample and test panels, materials testing, furnishing materials test reports and certifications, excavation, preparing the site, constructing foundations, erecting posts and panels, and disposing of waste materials.

stp-541-010 (20200629)

Schedule of Items
Attached, dated April 1, 2021, are the revised Schedule of Items Pages 1 – 36.

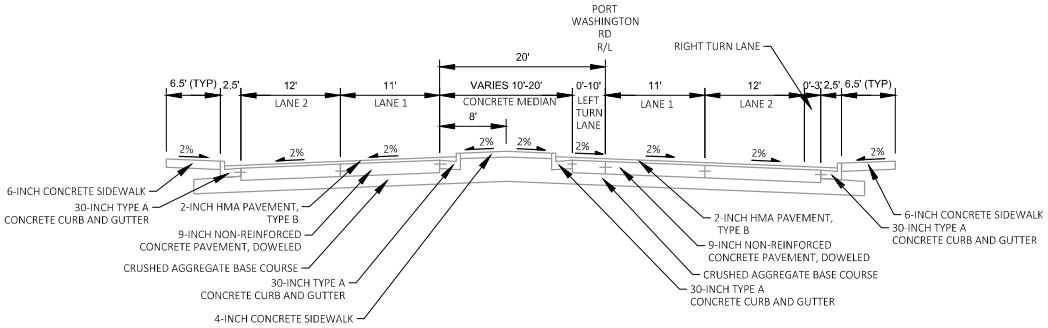
Plan Sheets
The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:

Revised: 16, 42, 90, 104, 227-322, 381-382, 406-407, 412-413, 419-420, 422, 432-433, 445-446, 459-460, 484-485, 497-498, 562-563, 565, 571, 573, 575, 577, 591-601, 604, 616-662, 1037
.
Added: 237A, 240A, 245A, 407A-407C, 420A-420C, 433A-433C, 446A-446C, 460A-460C, 485A-485C, 498A-498C, 500A-500C

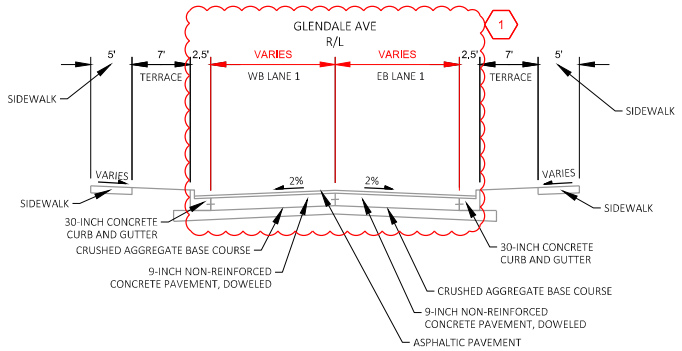
Deleted: 61, 504

END OF ADDENDUM

2



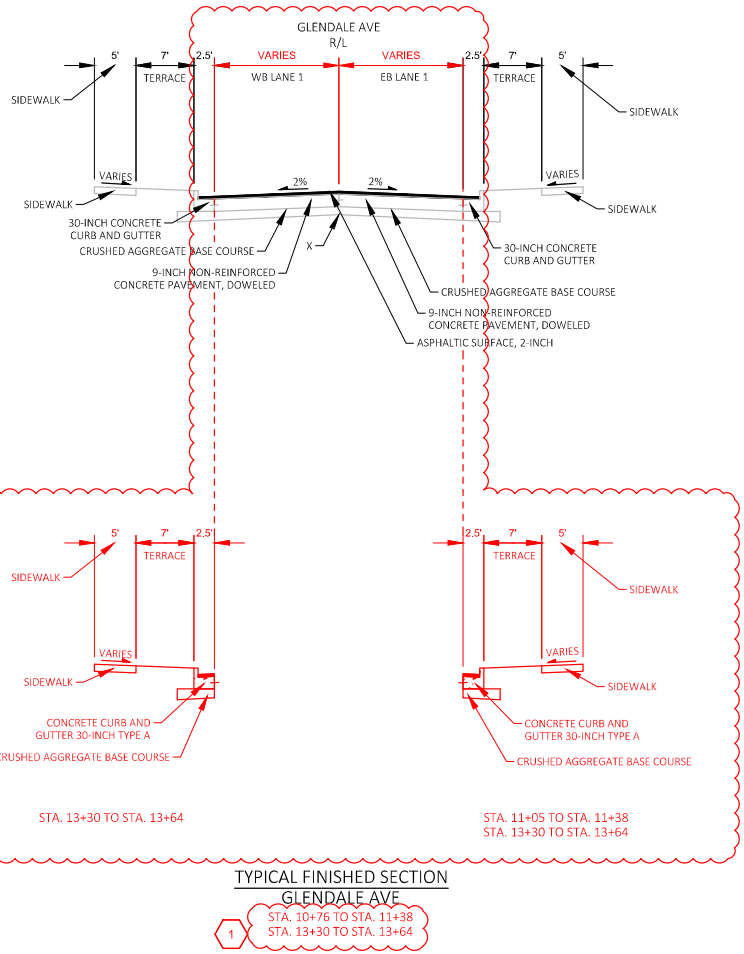
TYPICAL EXISTING SECTION
PORT WASHINGTON RD
STA. 100+99 TO SOUTHERN ABUTMENT B-40-0010



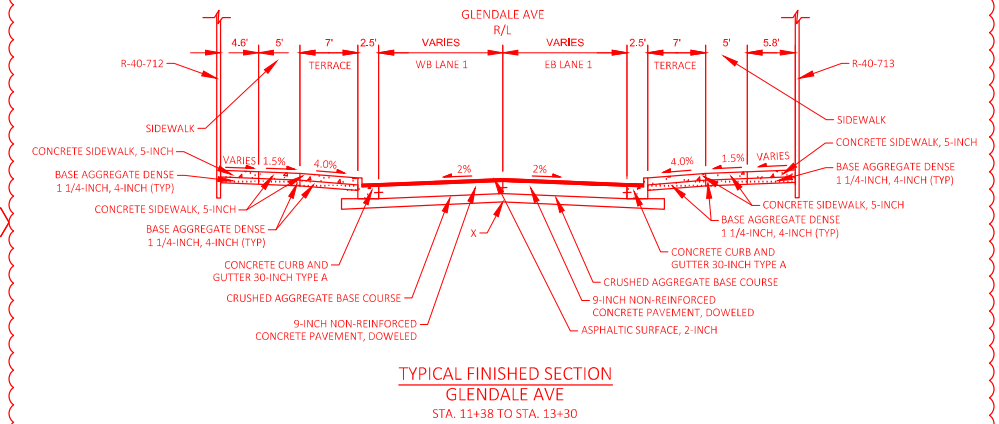
TYPICAL EXISTING SECTION
GLENDALE AVE
STA. 10+76 TO STA. 13+64 (1)

Addendum No. 01
ID 1228-22-71
Revised Sheet 16
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 16	E



TYPICAL FINISHED SECTION
GLENDALE AVE
1 STA. 10+76 TO STA. 11+38
STA. 13+30 TO STA. 13+64



TYPICAL FINISHED SECTION
GLENDALE AVE
STA. 11+38 TO STA. 13+30

Addendum No. 01
ID 1228-22-71
Revised Sheet 42
April 1, 2021

NOTES:
X = POINT REFERRED TO ON CROSS-SECTION
PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATIONS

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TYPICAL SECTION	SHEET 42	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\020401-TS.DWG
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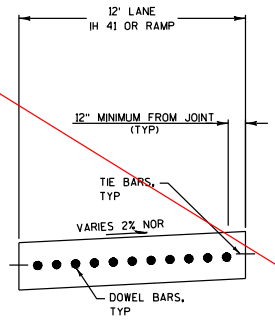
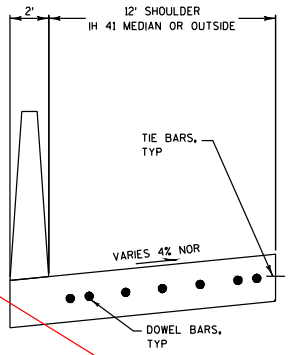
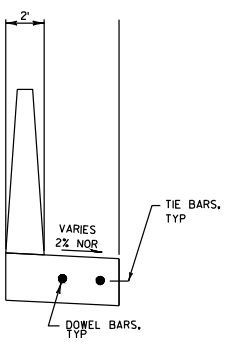
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:15 FT



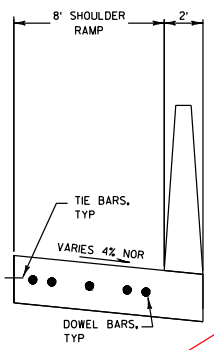
ELEVATION VIEW



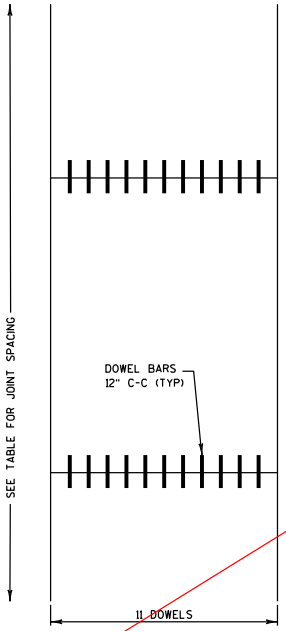
ELEVATION VIEW



ELEVATION VIEW

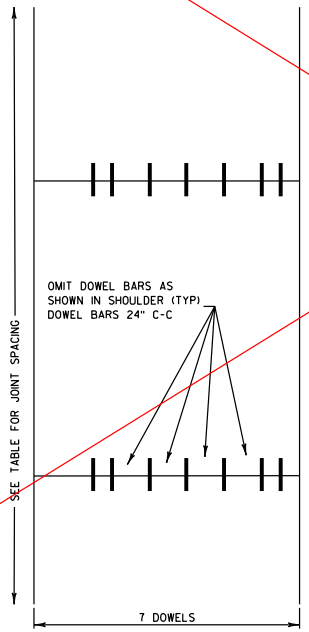


ELEVATION VIEW



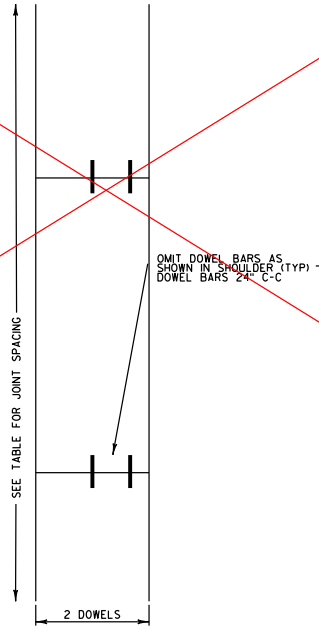
PLAN VIEW

HPC PAVEMENT JOINT DETAIL 12-FT LANE



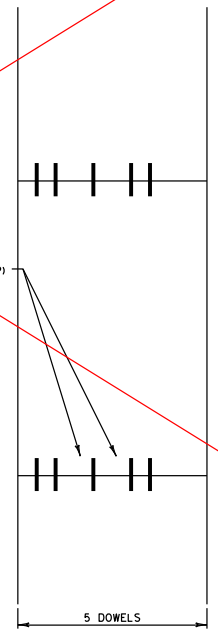
PLAN VIEW

HPC PAVEMENT JOINT DETAIL 12-FT SHOULDER



PLAN VIEW

HPC PAVEMENT JOINT DETAIL 4-FT SHOULDER



PLAN VIEW

HPC PAVEMENT JOINT DETAIL 8-FT SHOULDER

Addendum No. 01
ID 1228-22-71
Deleted Sheet 61
April 1, 2021

NOTES

1) ALL DRIVING LANES TO HAVE DOWEL BARS SPACED 12 INCHES FROM CENTER TO CENTER.
2) DETAILS NOT SHOWN SHALL CONFORM TO STANDARD DETAIL DRAWINGS.
3) LOCATE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS 12 INCHES FROM THE EDGE OF PAVEMENT OR LONGITUDINAL JOINT.
4) TREAT SAWED SURFACES OF TRANSVERSE AND LONGITUDINAL JOINTS WITH SILANE SEALANT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
12"	1 ½"	15'

1 THIS SHEET IS OBSOLETE

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 61	E

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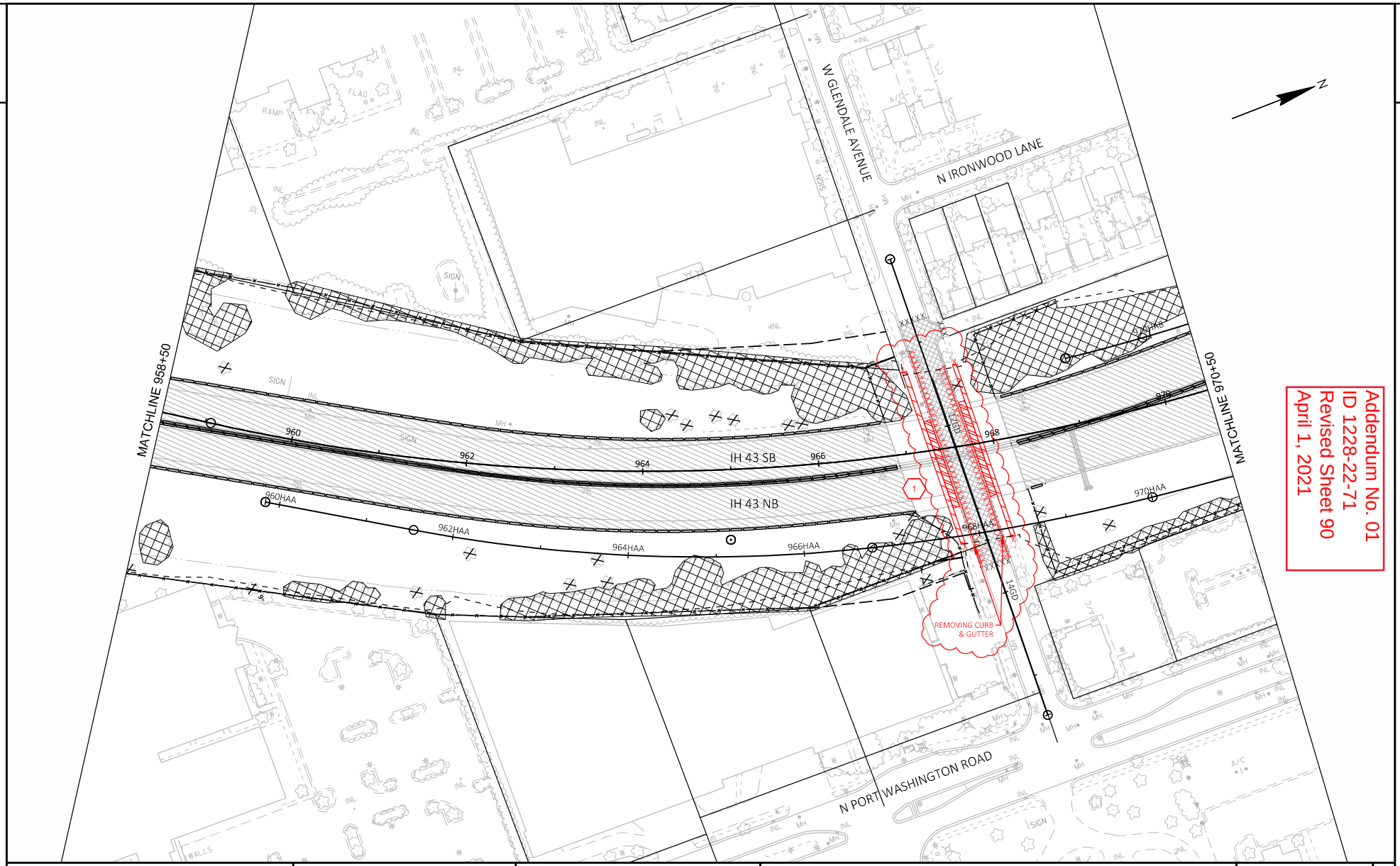

Addendum No. 01
ID 1228-22-71
Revised Sheet 90
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 90	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\021101-RM.DWG
LAYOUT NAME - 021104-rm
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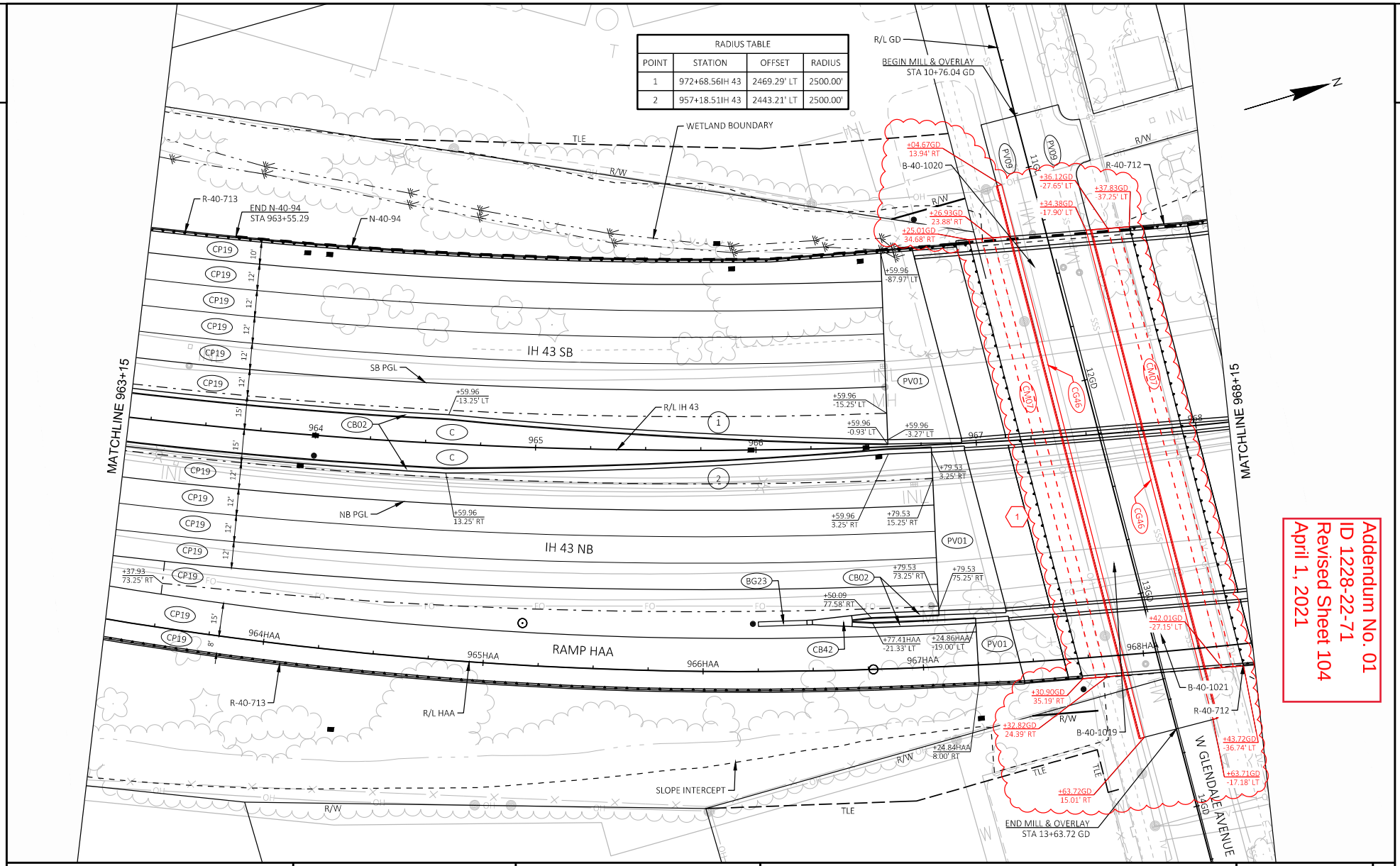
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



Addendum No. 01
ID 1228-22-71
Revised Sheet 104
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 104	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\021201-PD.DWG
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PLOT NAME :
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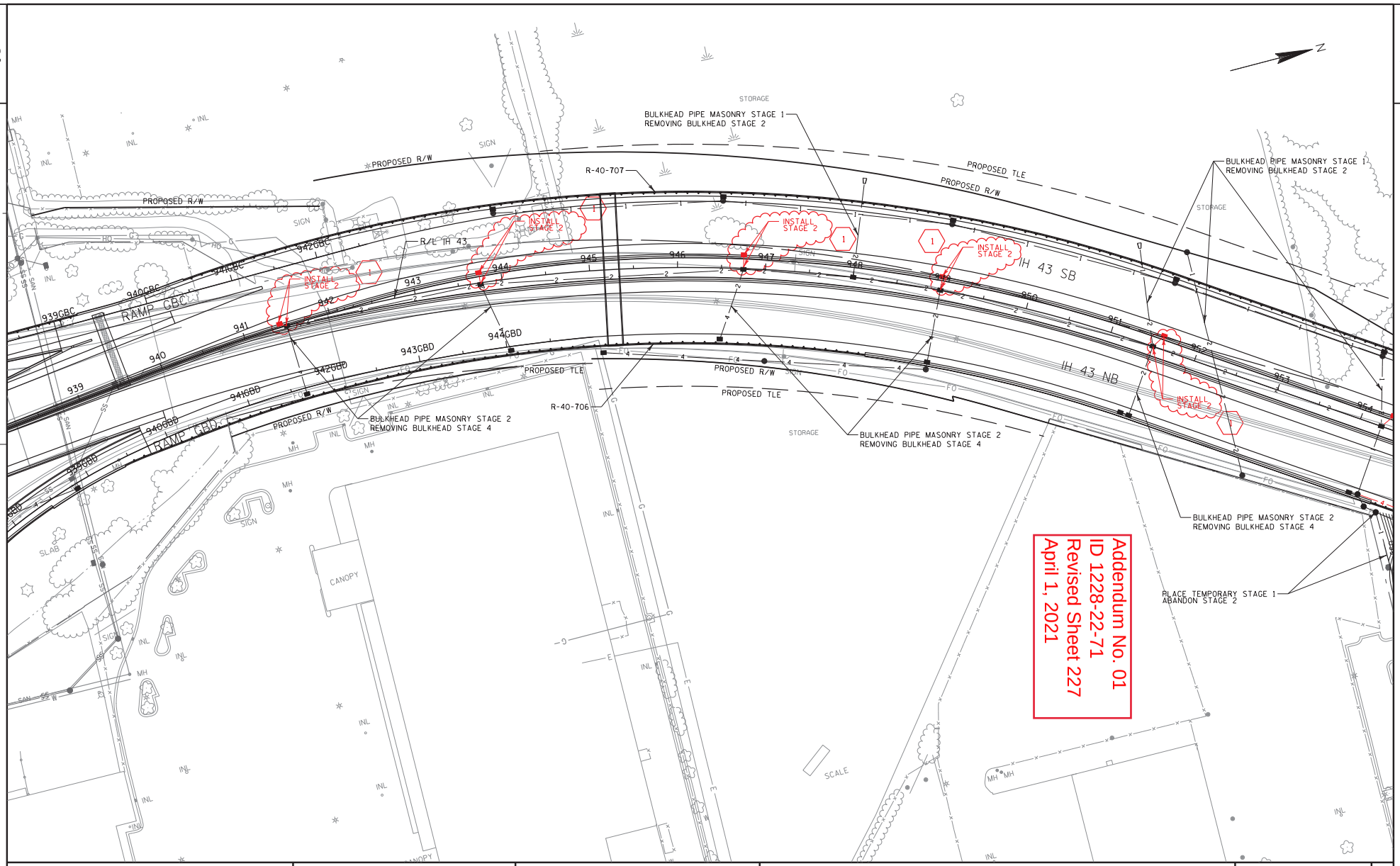
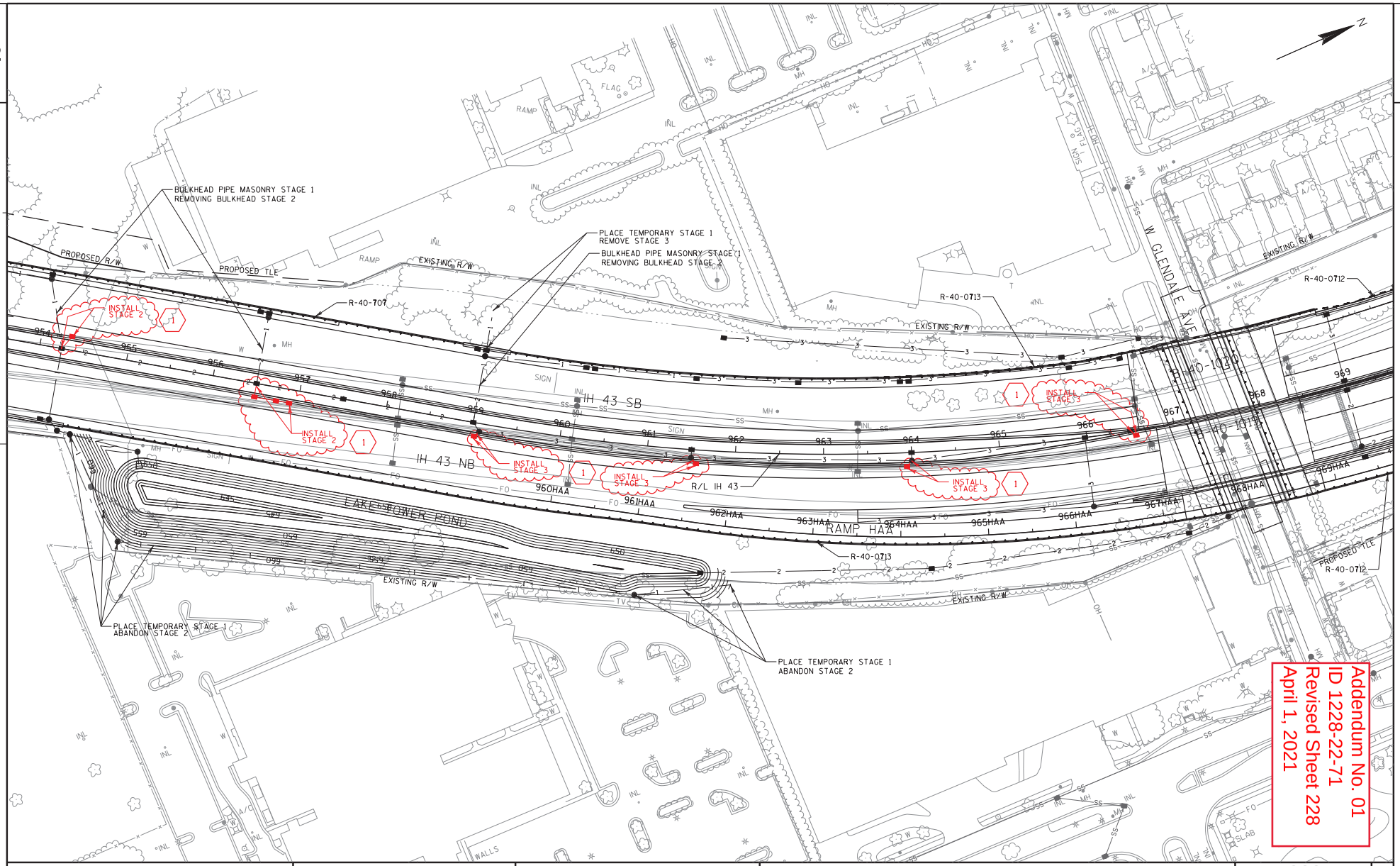


Addendum No. 01
ID 1228-22-71
Revised Sheet 227
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY AND PROPOSED STORM SEWER STAGING	SHEET 227	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022523_SS.dgn PLOT DATE : 3/17/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41



Addendum No. 01
ID 1228-22-71
Revised Sheet 228
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY AND PROPOSED STORM SEWER STAGING	SHEET 228	E

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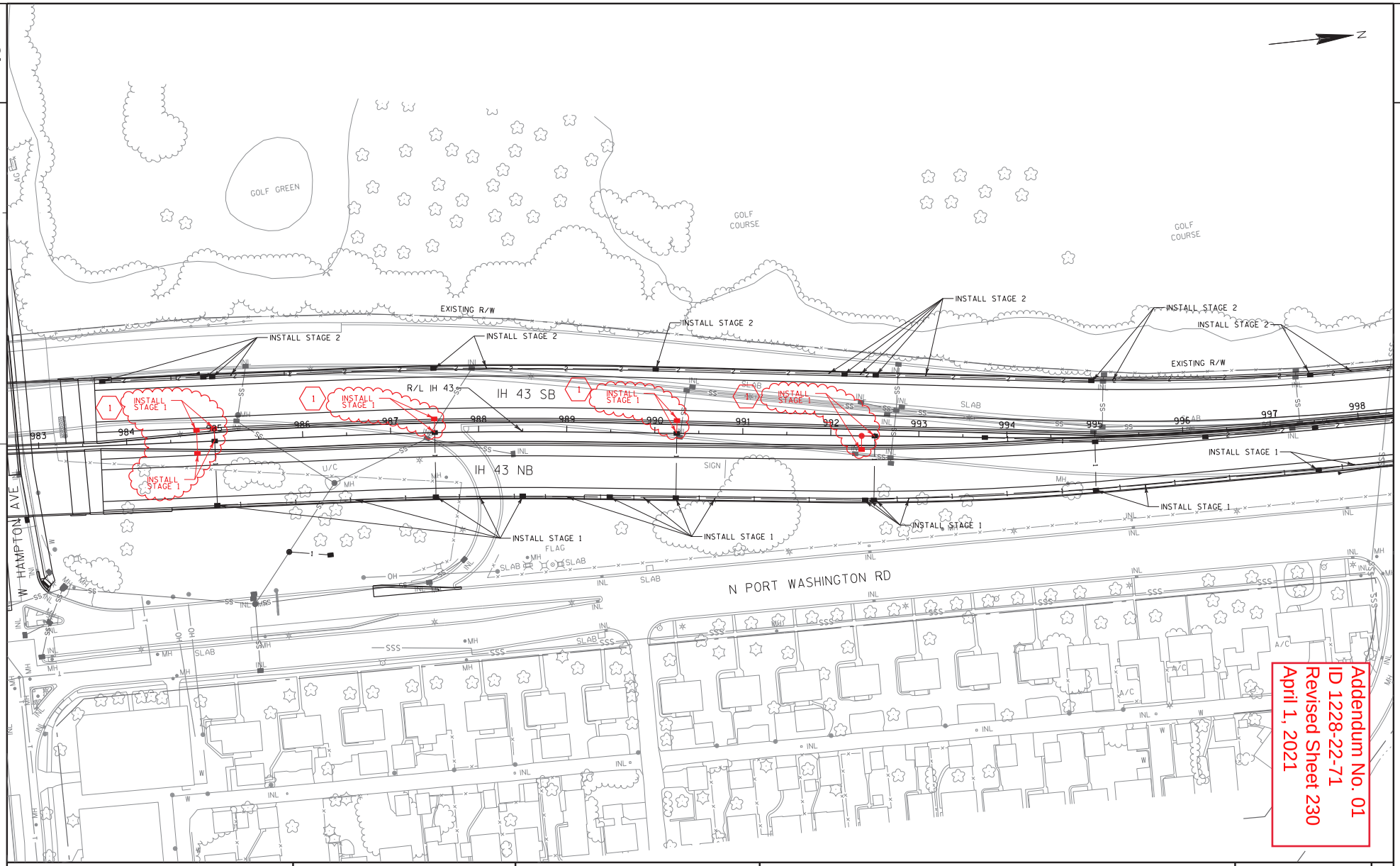
WISDOT/CADDS SHEET 41



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY AND PROPOSED STORM SEWER STAGING	SHEET 230	E

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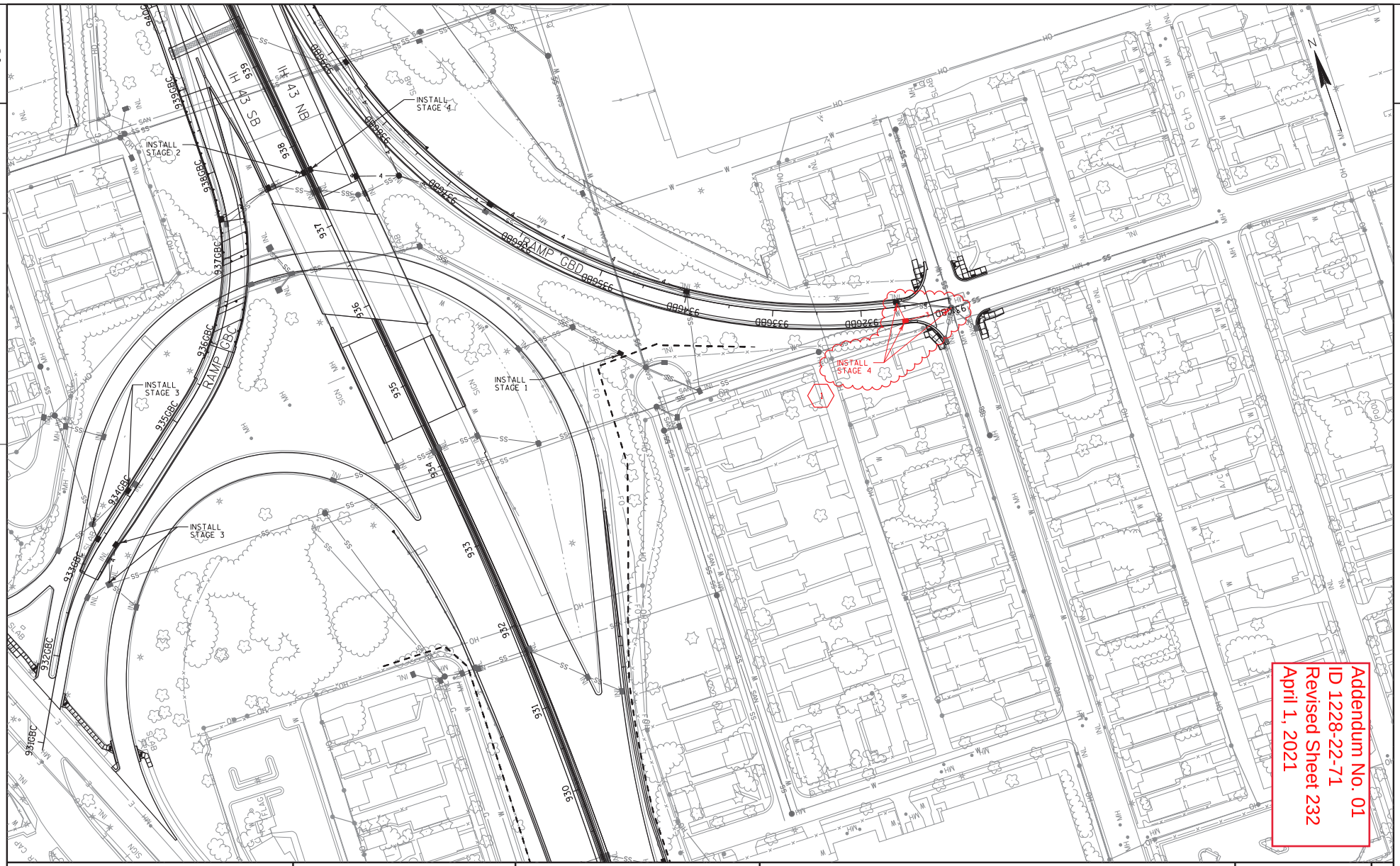
WISDOT/CADDS SHEET 41



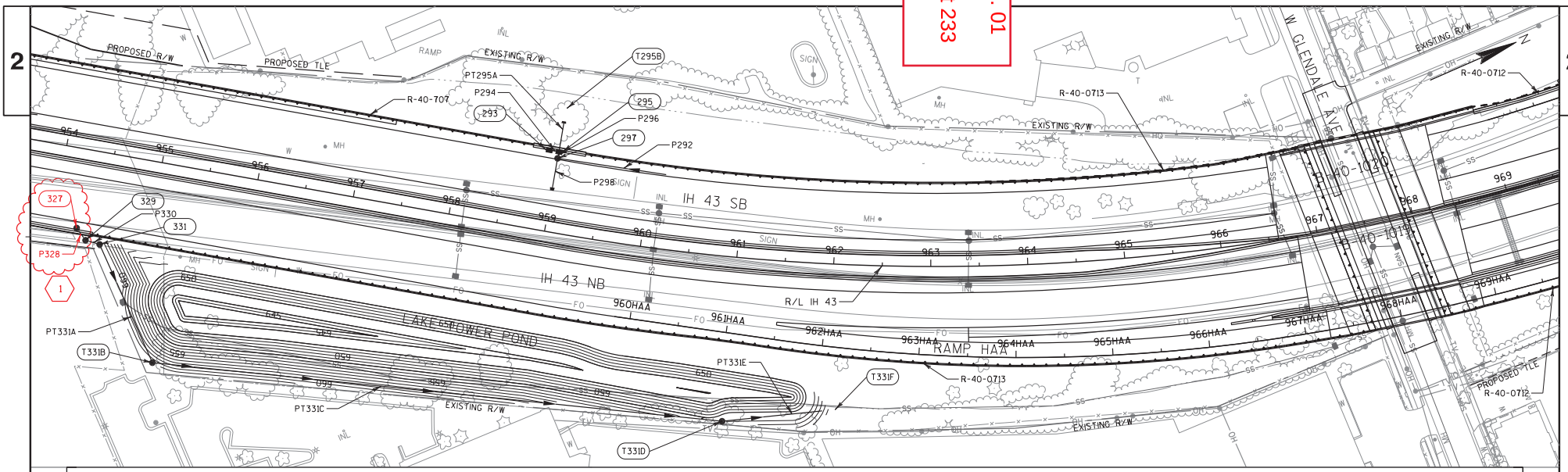
Addendum No. 01
ID 1228-22-71
Revised Sheet 232
April 1, 2021

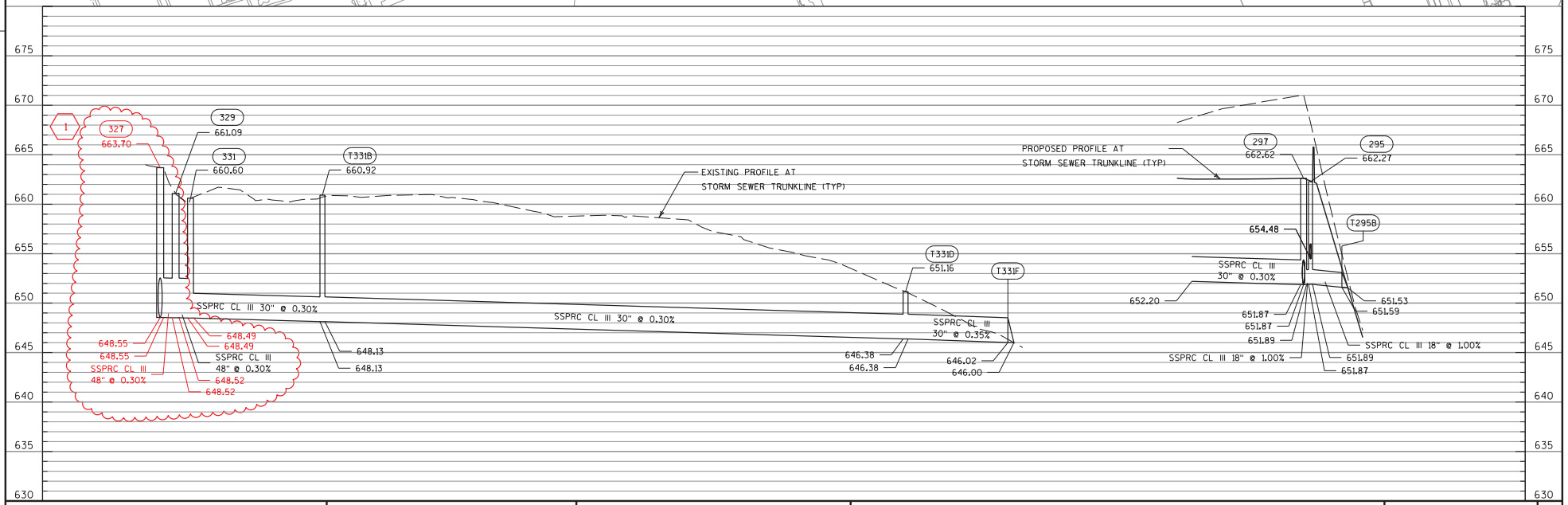
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY AND PROPOSED STORM SEWER STAGING	SHEET 232	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022528_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

Addendum No. 01
ID 1228-22-71
Revised Sheet 233
April 1, 2021

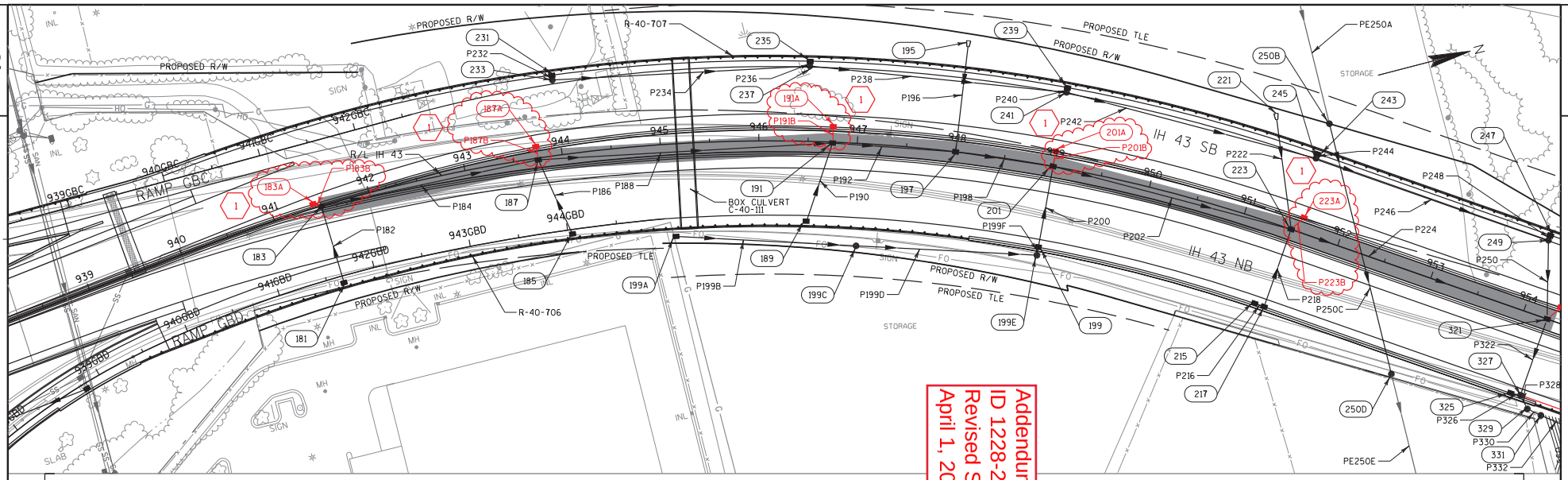




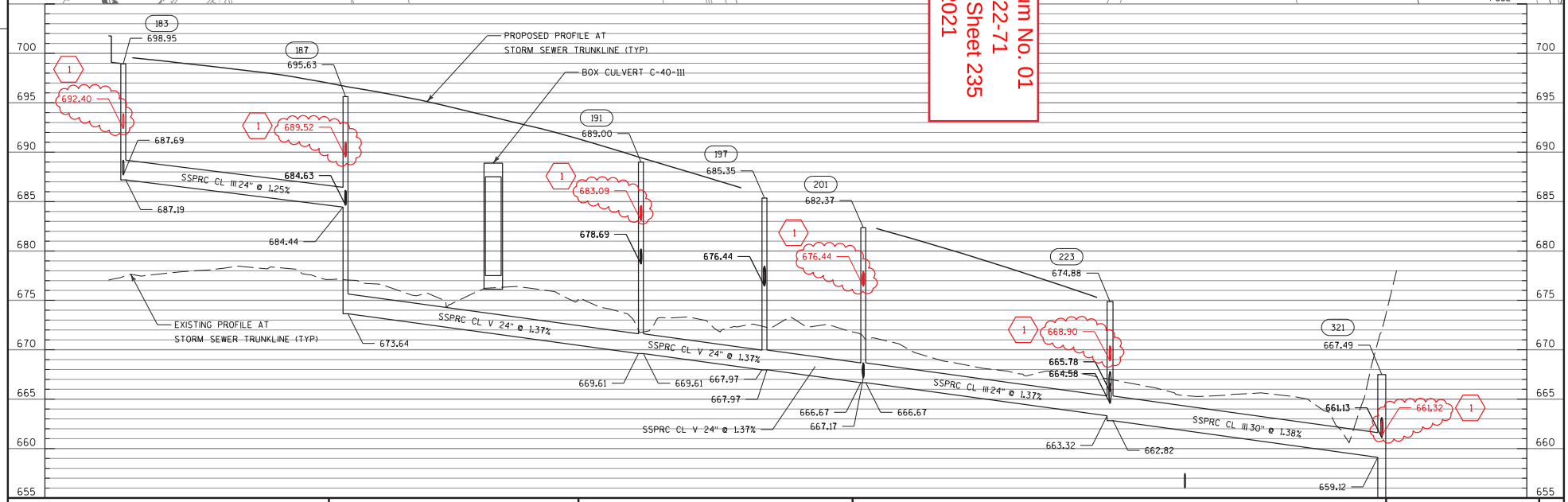
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY STORM SEWER PLAN AND PROFILE	SHEET 233 E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022529_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41



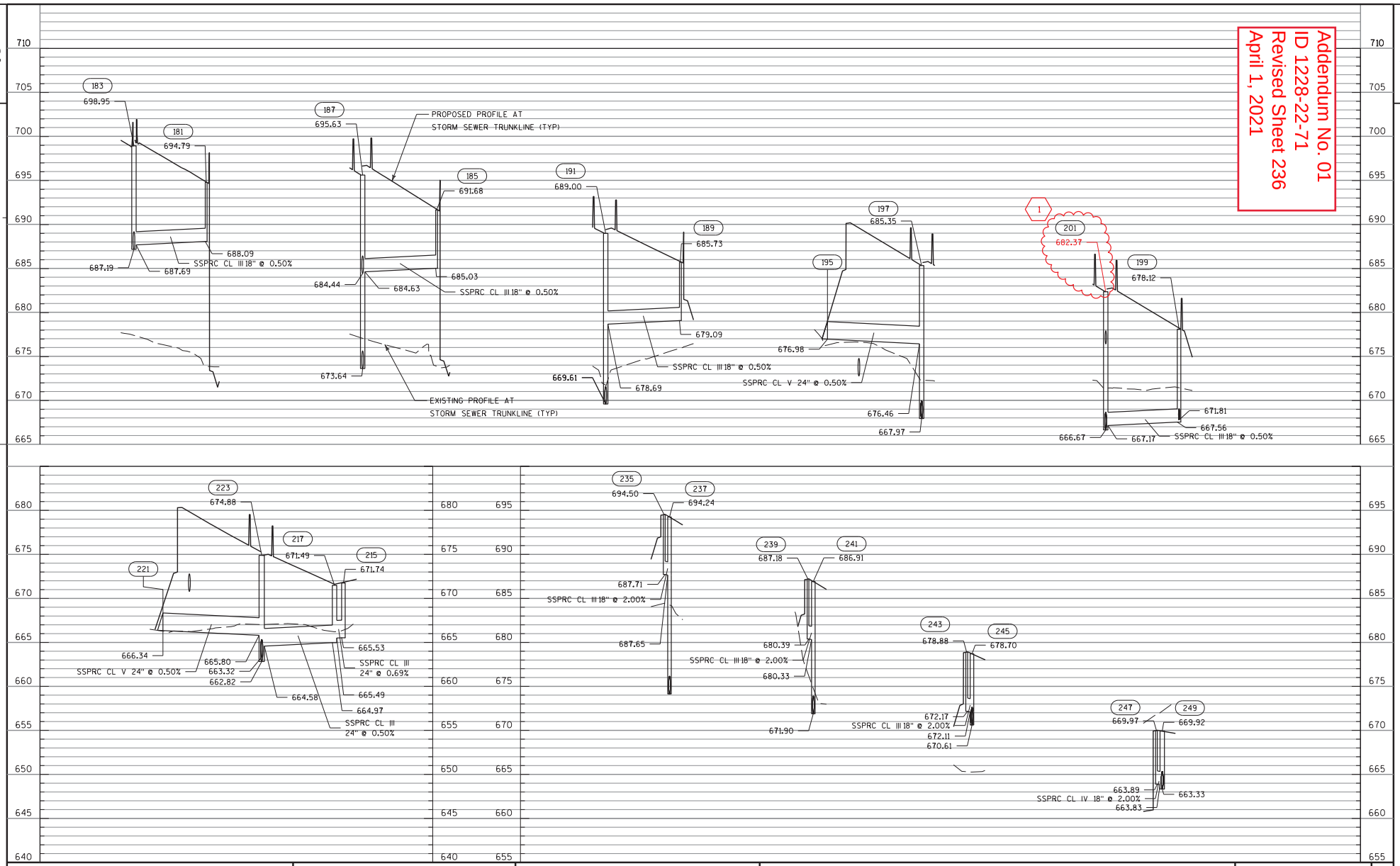
Addendum No. 01
ID 1228-22-71
Revised Sheet 235
April 1, 2021



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 235 E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022531_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

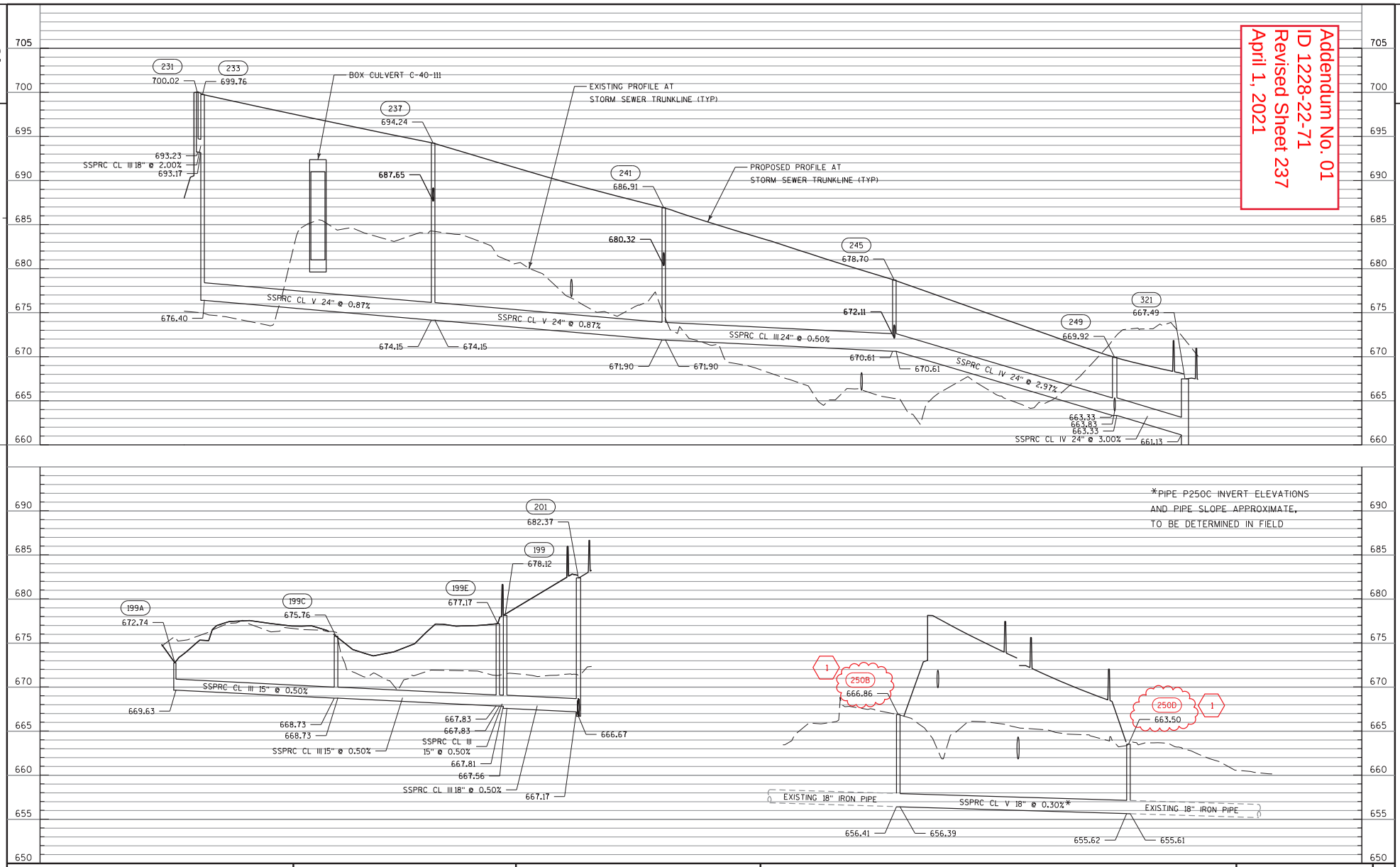


PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022531A_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

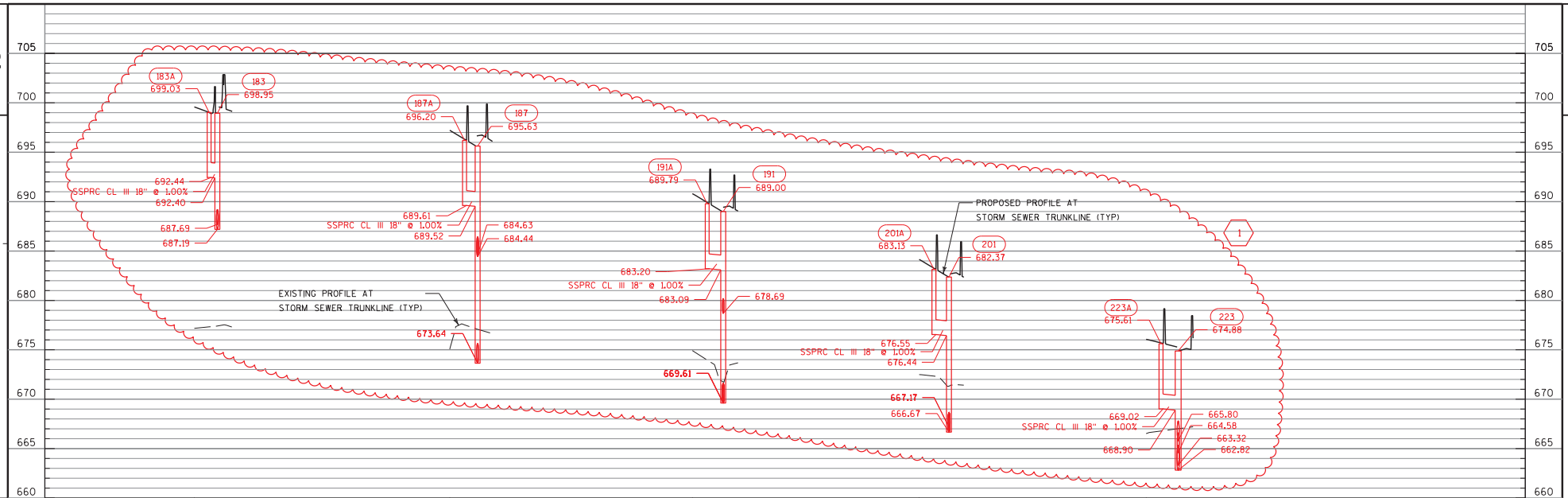
Addendum No. 01
ID 1228-22-71
Revised Sheet 237
April 1, 2021



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 237	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022531B_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



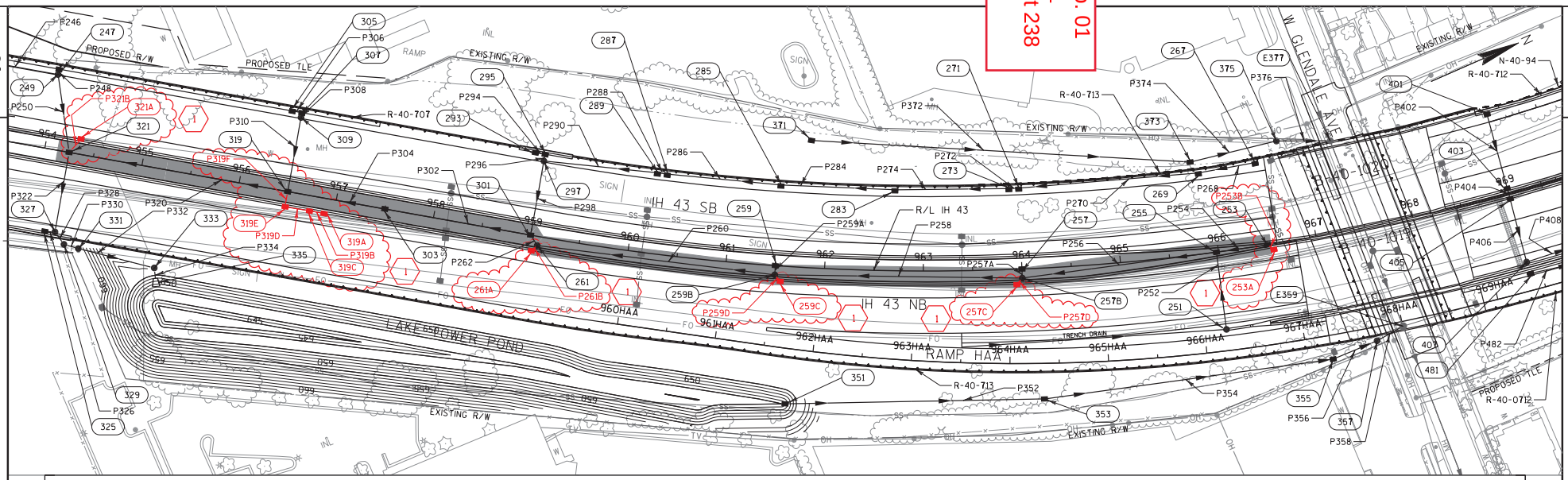
Addendum No. 01
ID 1228-22-71
Added Sheet 237A
April 1, 2021

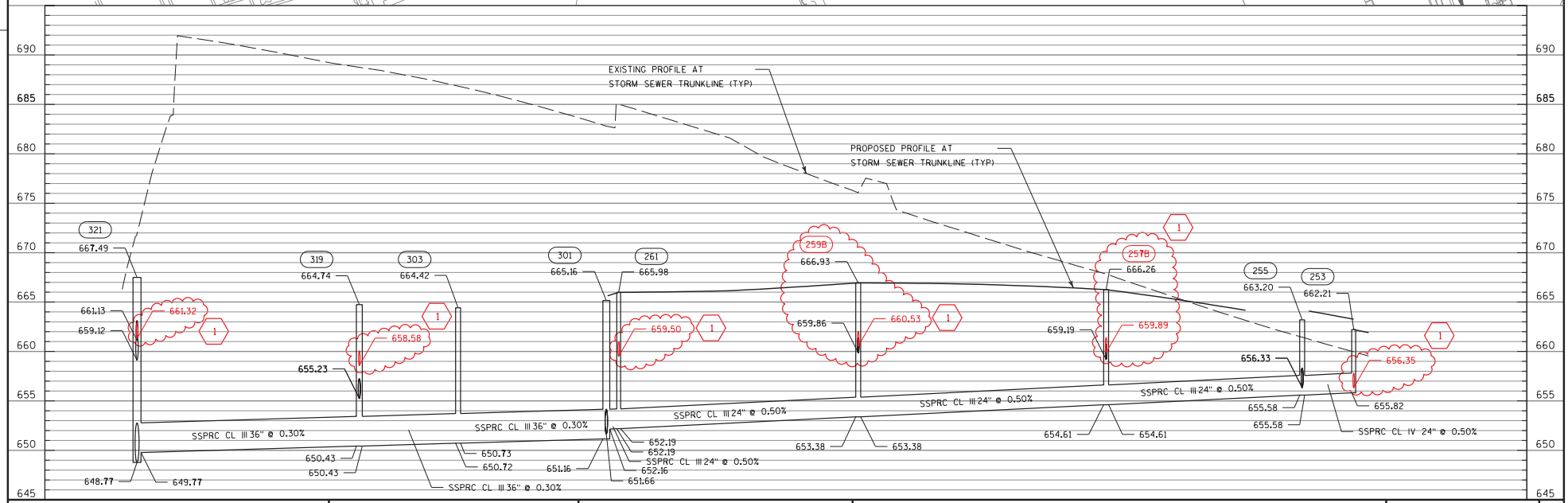
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 237A	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022531C_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

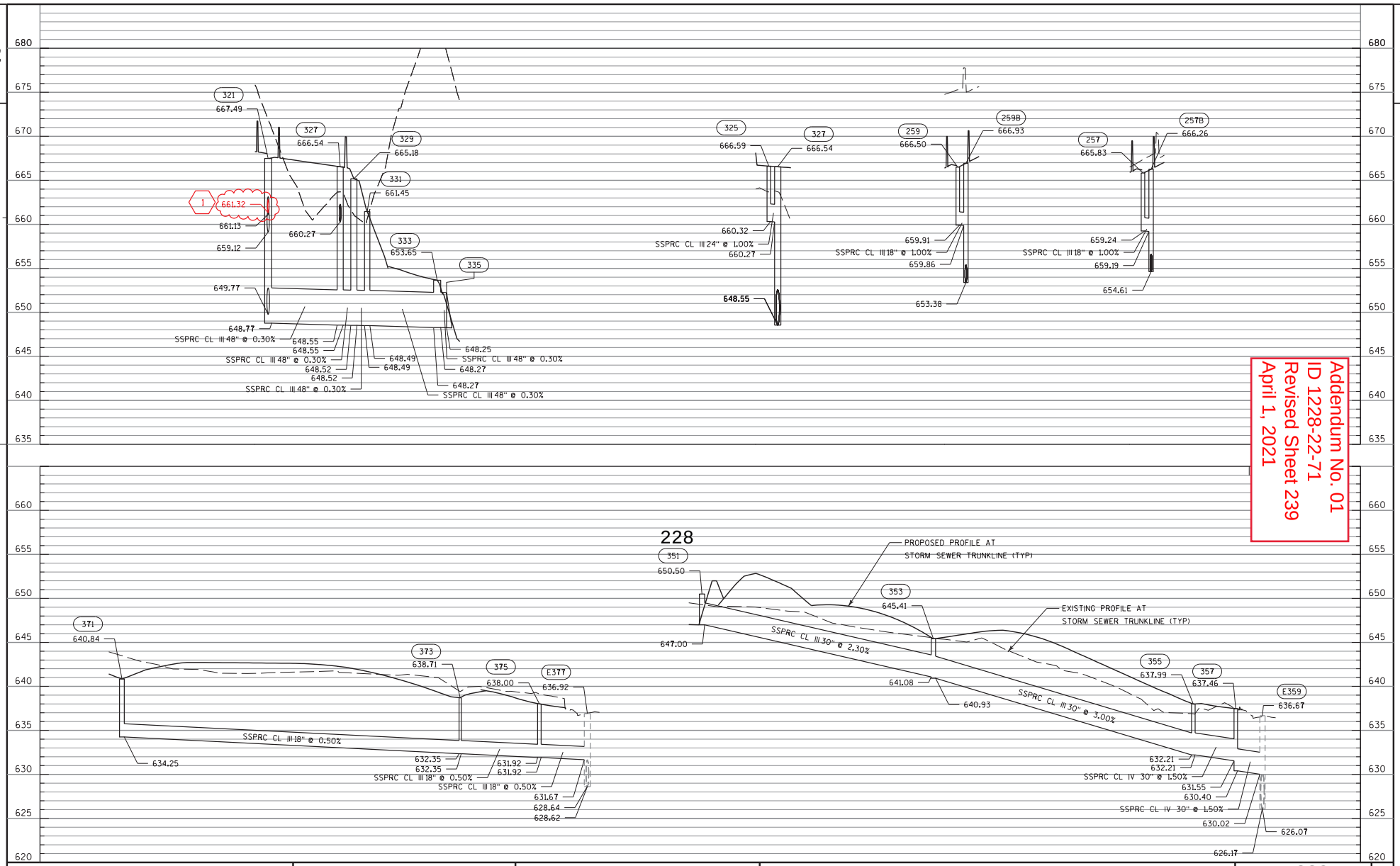
Addendum No. 01
ID 1228-22-71
Revised Sheet 238
April 1, 2021





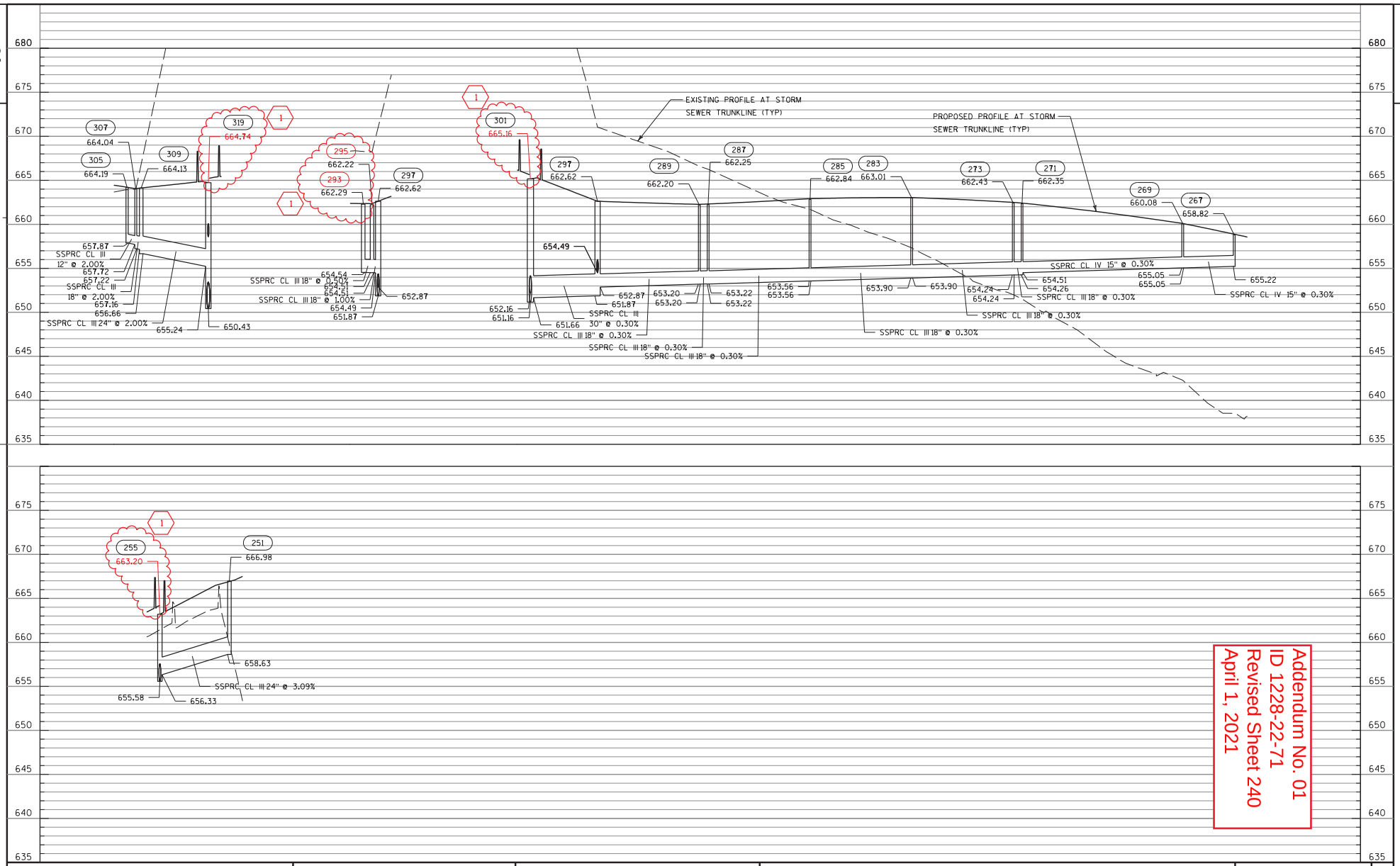
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 238	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022532_SS.dgn PLOT DATE : 3/26/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 239	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022532A_SS.dgn PLOT DATE : 3/26/2021 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:100

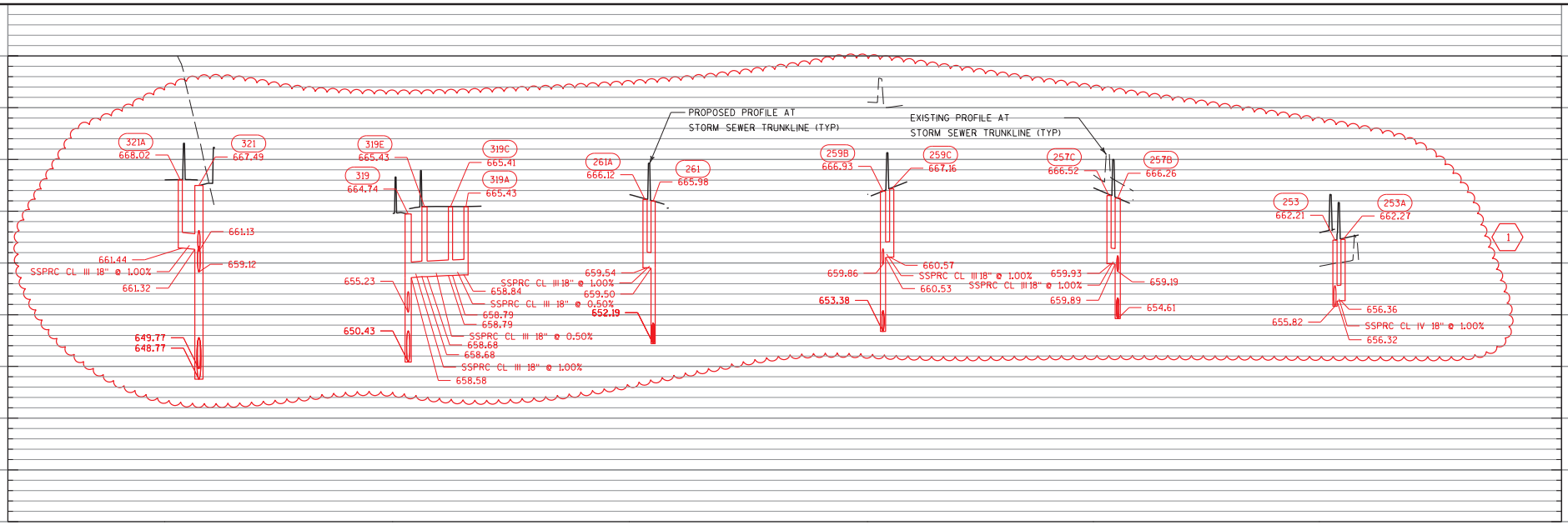


Addendum No. 01
ID 1228-22-71
Revised Sheet 240
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 240	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022532B_SS.dgn PLOT DATE : 3/26/2021 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

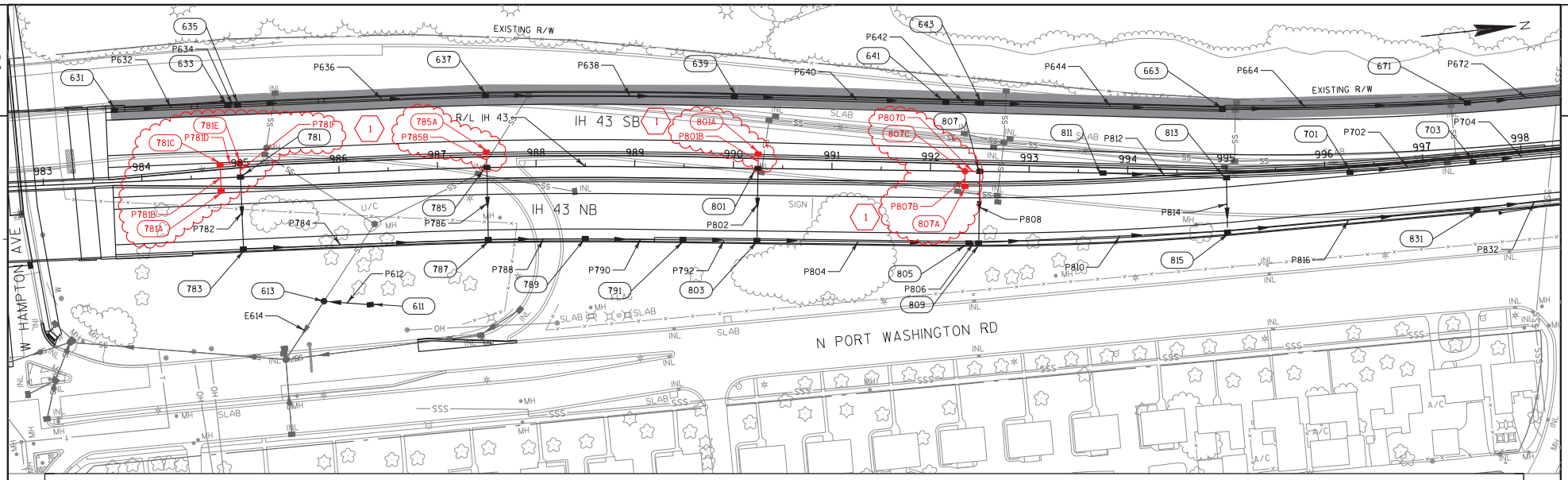


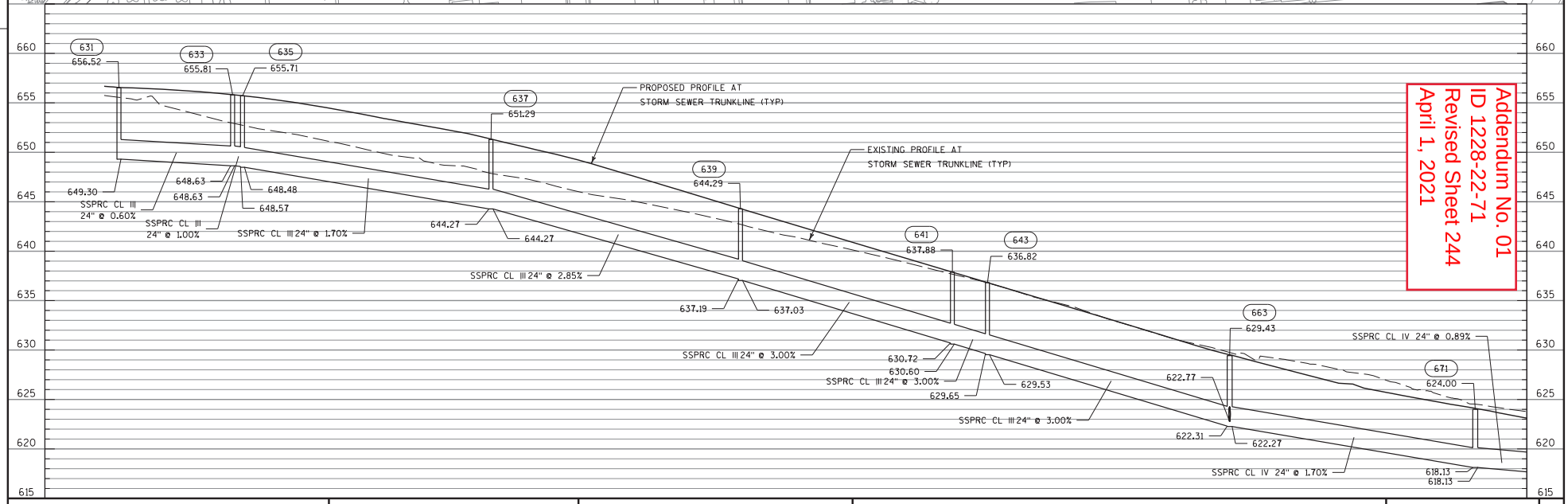
Addendum No. 01
ID 1228-22-71
Added Sheet 240A
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 240A	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022532C_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42



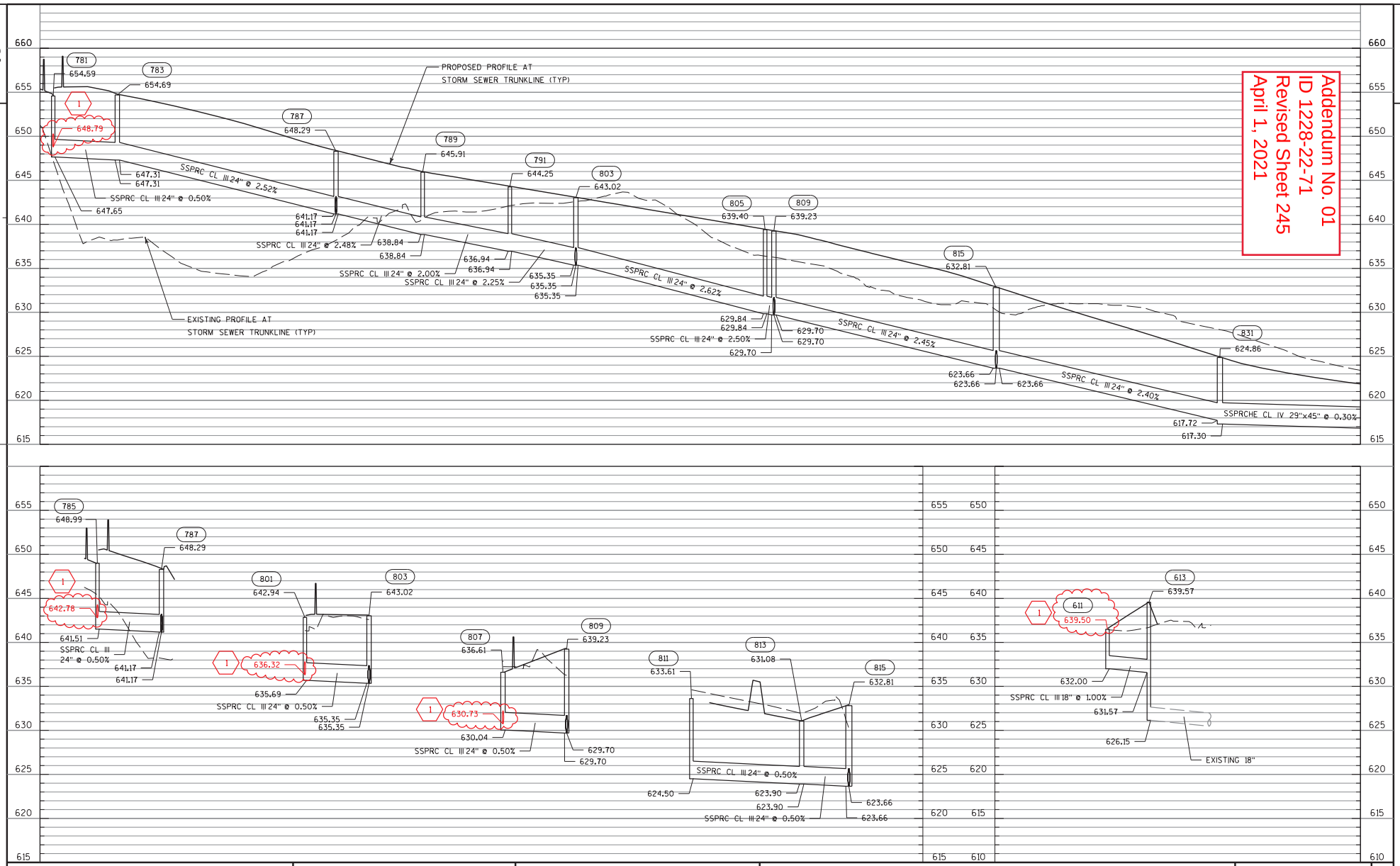


Addendum No. 01
ID 1228-22-71
Revised Sheet 244
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 244	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022534_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

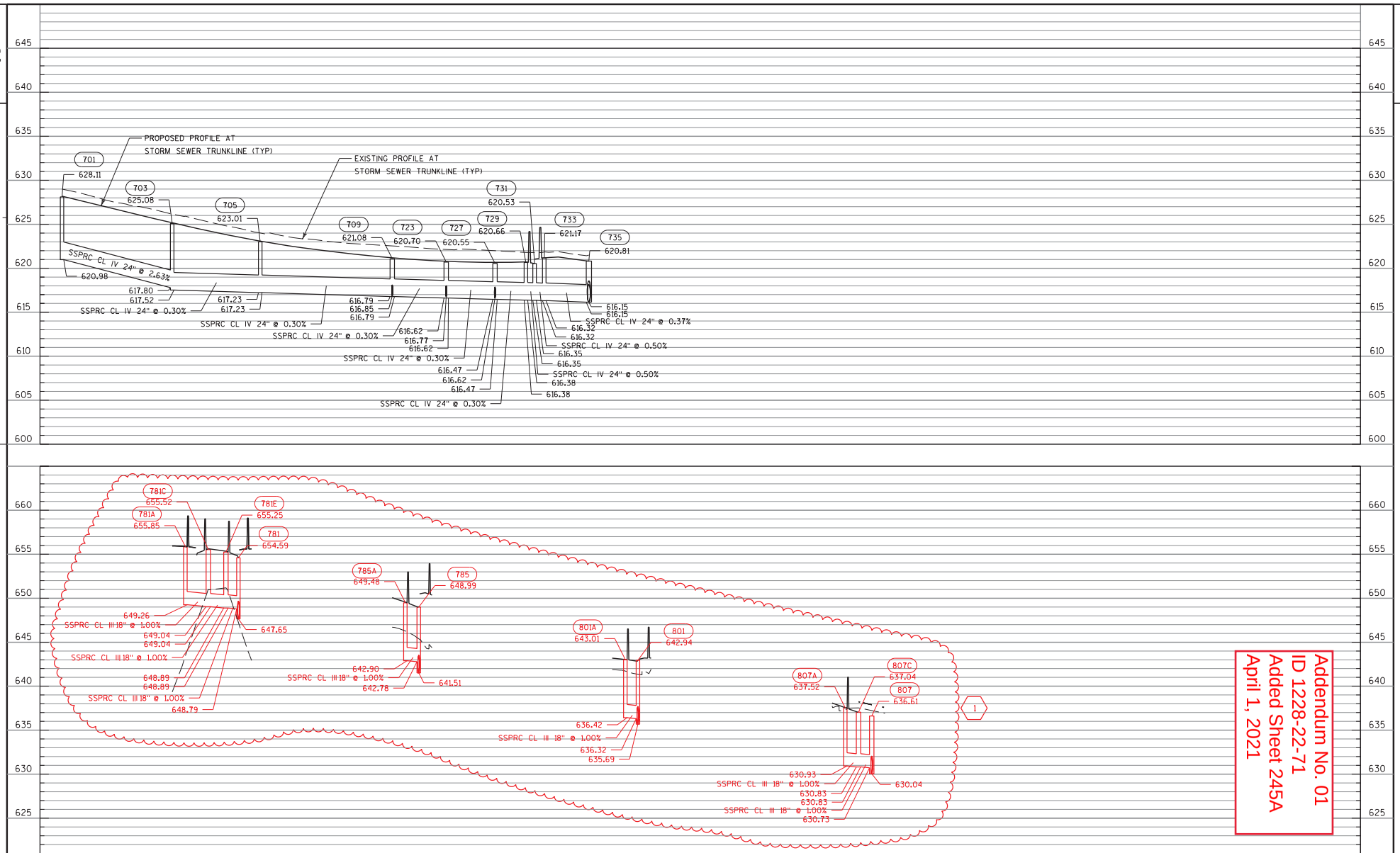


Addendum No. 01
ID 1228-22-71
Revised Sheet 245
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 245	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022534A_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

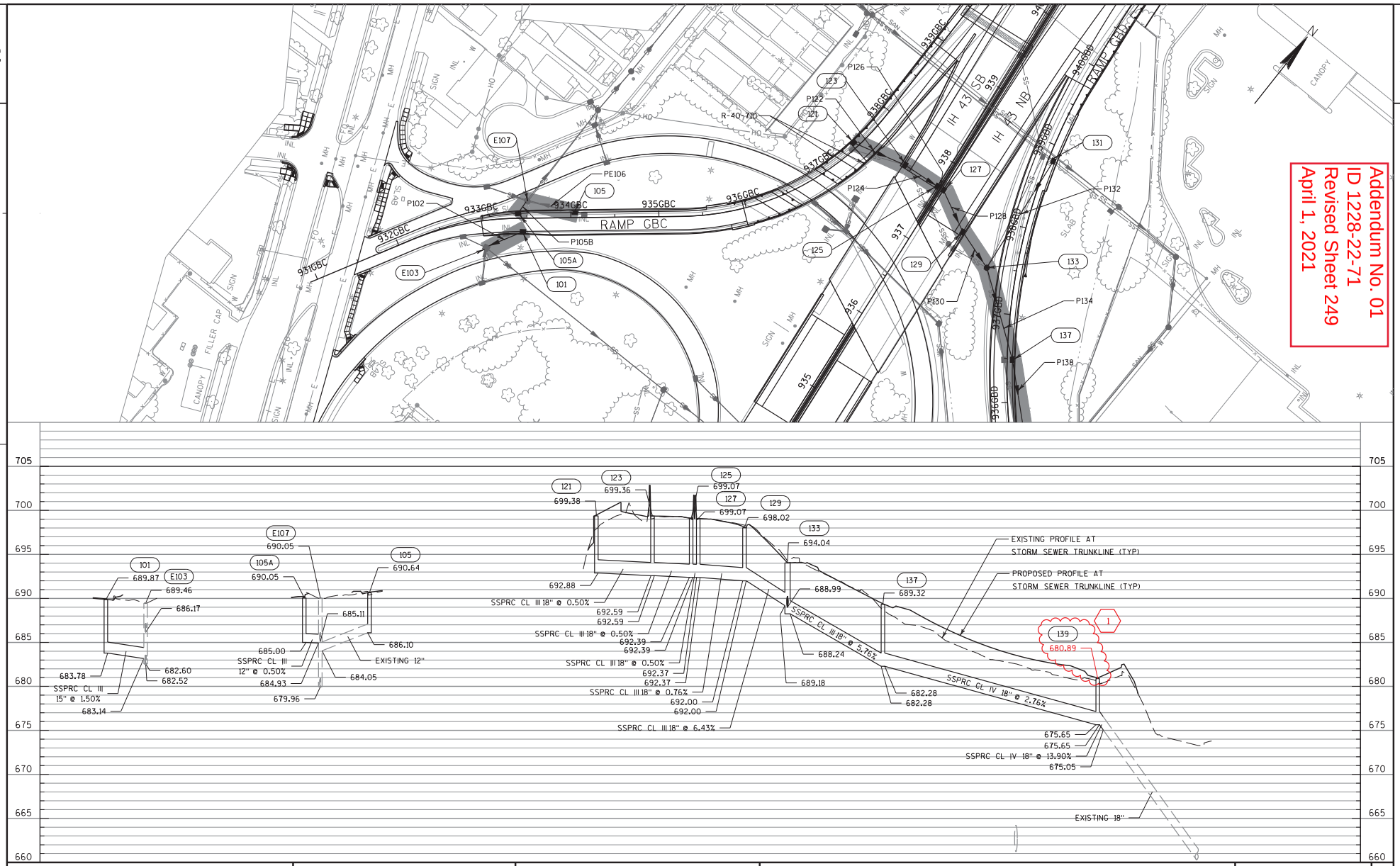


Addendum No. 01
ID 1228-22-71
Added Sheet 245A
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PROFILES	SHEET 245A	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022534B_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : $FILE$ PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

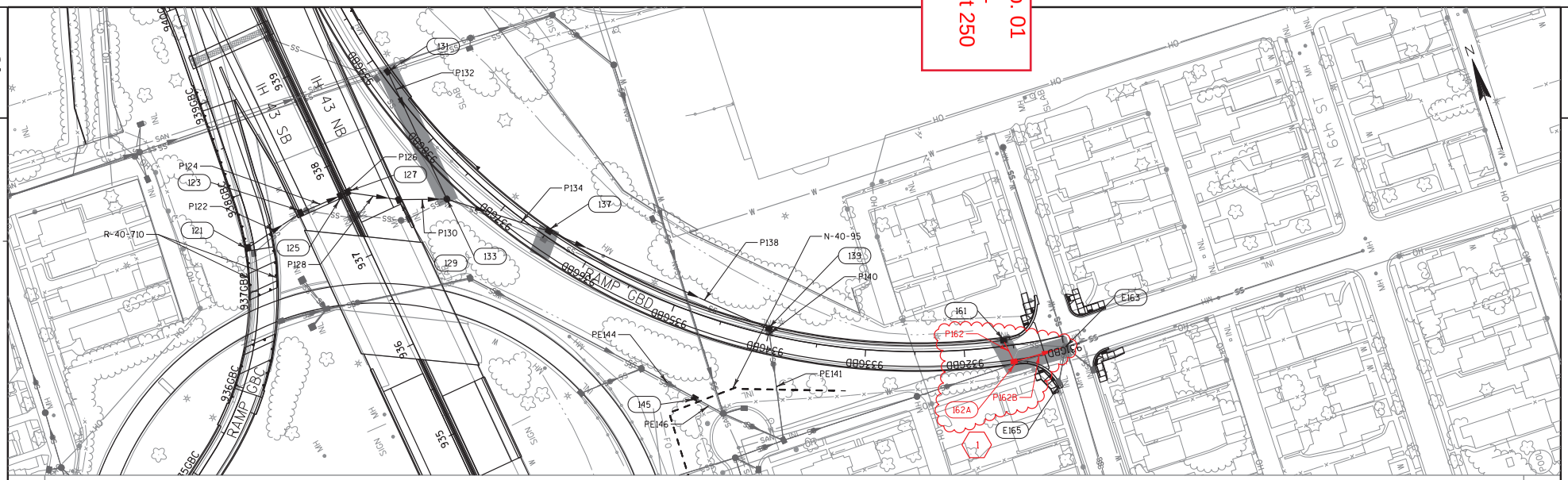


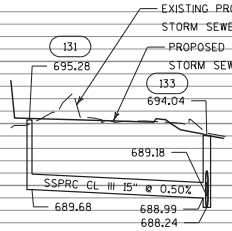
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 249	E

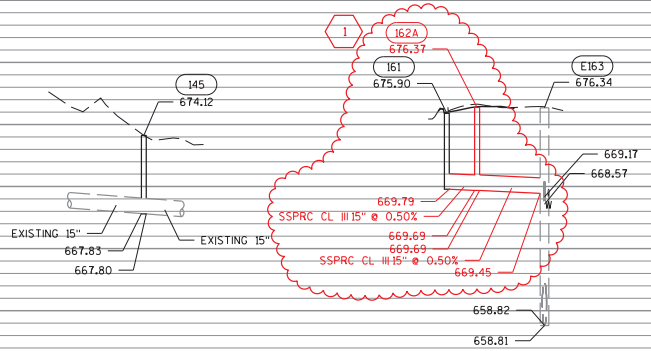
FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022551_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

Addendum No. 01
ID 1228-22-71
Revised Sheet 250
April 1, 2021



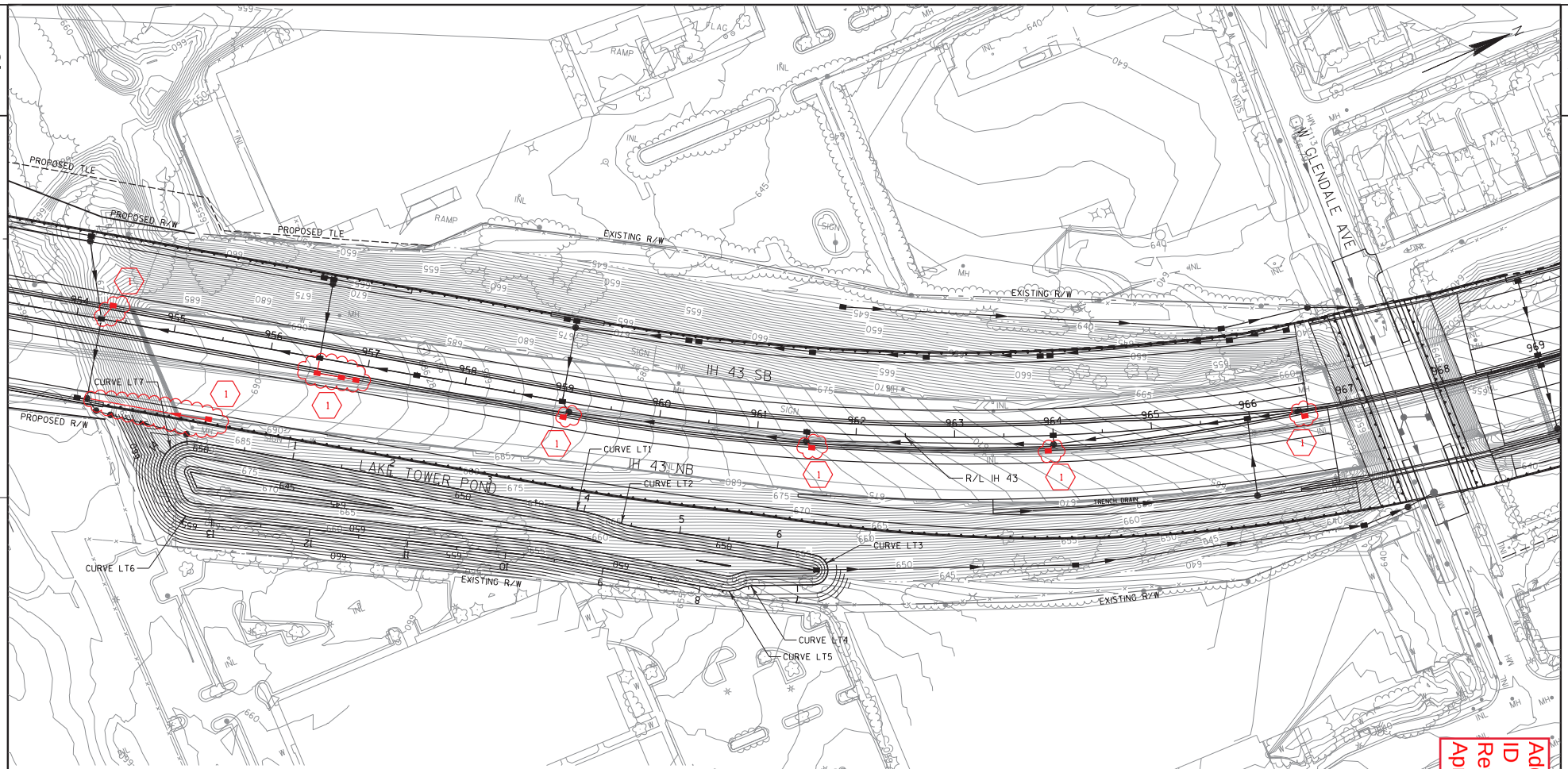




PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE	SHEET 250	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022552_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41



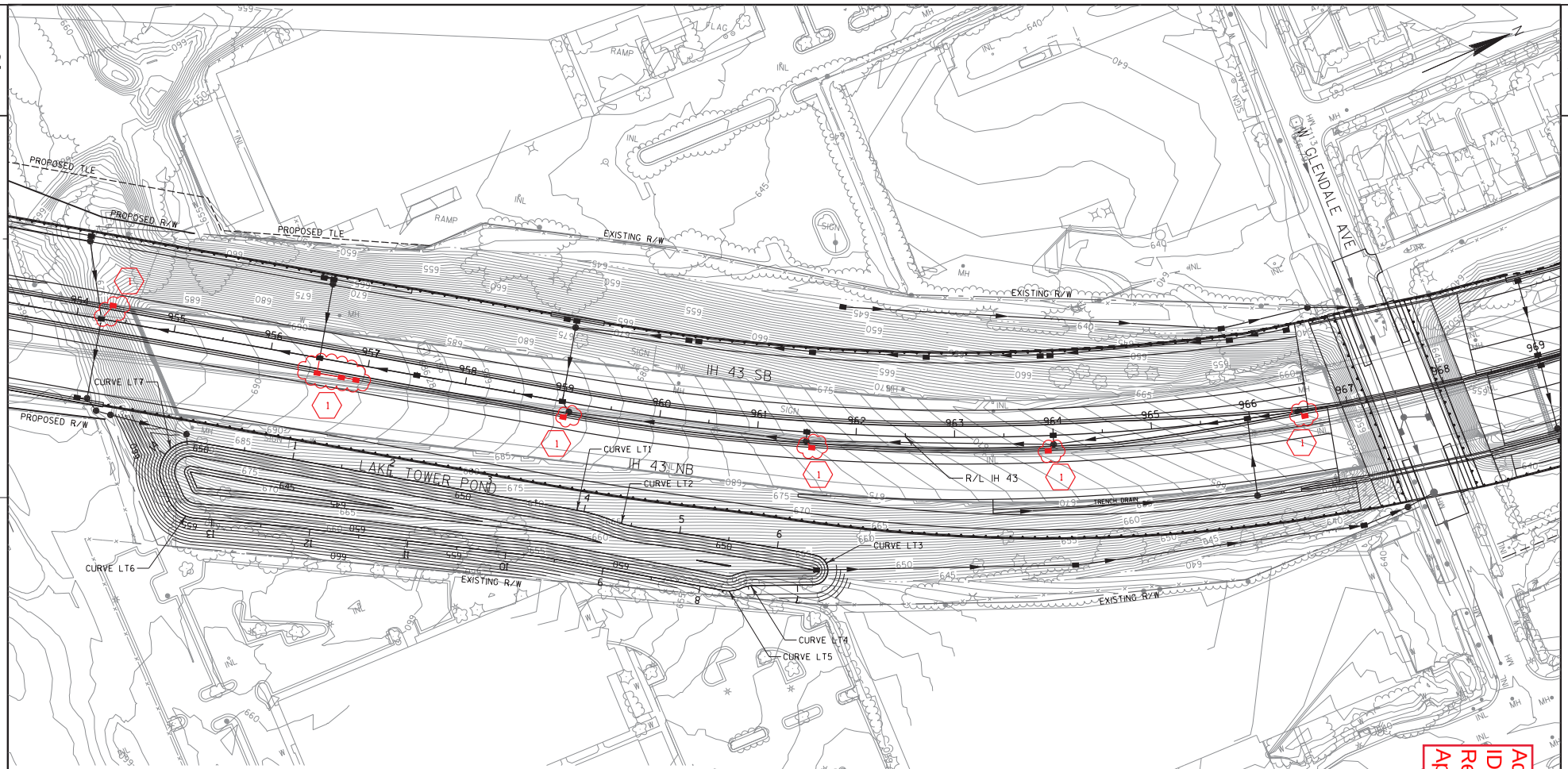
CURVE LT1	CURVE LT2	CURVE LT3	CURVE LT4	CURVE LT5	CURVE LT6	CURVE LT7
PC=3+91.69	PRC=4+29.10	PC=6+41.25	PC=7+45.22	PRC=7+57.55	PC=13+17.81	PC=13+68.50
X=603404.78	X=603428.64	X=603546.00	X=603547.41	X=603545.03	X=603256.26	X=603211.48
Y=321167.52	Y=321196.25	Y=321372.66	Y=321300.78	Y=321288.77	Y=320810.06	Y=320794.25
PI=4+10.45	PI=4+44.83	PI=7+42.14	PI=7+51.47	PI=7+66.98	PI=13+36.33	PI=14+25.96
X=603415.26	X=603439.86	X=603610.69	X=603544.97	X=603545.13	X=603247.30	X=603154.03
Y=321183.09	Y=321207.29	Y=321450.08	Y=321295.02	Y=321279.34	Y=320793.86	Y=320794.89
PRC=4+29.10	PT=4+60.41	PT=6+83.95	PRC=7+57.55	PT=7+75.82	PT=13+51.20	PT=14+35.21
X=603428.64	X=603448.09	X=603571.32	X=603545.03	X=603539.82	X=603228.78	X=603186.10
Y=321196.25	Y=321220.70	Y=321357.19	Y=321288.77	Y=321271.55	Y=320794.06	Y=320842.56
R=186.0187	R=128.9813	R=15.0000	R=30.0000	R=30.0000	R=31.0000	R=31.0000
DELTA=11°31'22" RT	DELTA=13°54'44" LT	DELTA=163°05'12" RT	DELTA=23°33'23" LT	DELTA=34°53'20" RT	DELTA=61°42'13" RT	DELTA=123°18'05" RT
D=30°48'04"	D=44°25'18"	D=381°58'19"	D=190°59'09"	D=190°59'09"	D=184°49'30"	D=184°49'30"
L=37.4100	L=31.3184	L=42.6960	L=12.3341	L=18.2678	L=33.3848	L=66.7125
T=18.7683	T=15.7366	T=100.8899	T=6.2554	T=9.4270	T=18.5177	T=57.4548
BK=N 33°56'18" E	BK=N 45°27'40" E	BK=N 39°52'58" E	BK=S 22°58'11" W	BK=S 0°35'13" E	BK=S 28°56'00" W	BK=N 89°21'47" W
AH=N 45°27'40" E	AH=N 31°32'56" E	AH=S 22°58'11" W	AH=S 0°35'13" E	AH=S 34°18'08" W	AH=N 89°21'47" W	AH=N 33°56'18" E

Addendum No. 01
ID 1228-22-71
Revised Sheet 252
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER LAKE TOWER POND OVERVIEW	SHEET 252	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022572_SS.dgn PLOT DATE : 3/15/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41



CURVE LT1	CURVE LT2	CURVE LT3	CURVE LT4	CURVE LT5	CURVE LT6	CURVE LT7
PC=3+91.69	PRC=4+29.10	PC=6+41.25	PC=7+45.22	PRC=7+57.55	PC=13+17.81	PC=13+68.50
X=603404.78	X=603428.64	X=603546.00	X=603547.41	X=603545.03	X=603256.26	X=603211.48
Y=321167.52	Y=321196.25	Y=321372.66	Y=321300.78	Y=321288.77	Y=320810.06	Y=320794.25
PI=4+10.45	PI=4+44.83	PI=7+42.14	PI=7+51.47	PI=7+66.98	PI=13+36.33	PI=14+25.96
X=603415.26	X=603439.86	X=603610.69	X=603544.97	X=603545.13	X=603247.30	X=603154.03
Y=321183.09	Y=321207.29	Y=321450.08	Y=321295.02	Y=321279.34	Y=320793.86	Y=320794.89
PRC=4+29.10	PT=4+60.41	PT=6+83.95	PRC=7+57.55	PT=7+75.82	PT=13+51.20	PT=14+35.21
X=603428.64	X=603448.09	X=603571.32	X=603545.03	X=603539.82	X=603228.78	X=603186.10
Y=321196.25	Y=321220.70	Y=321357.19	Y=321288.77	Y=321271.55	Y=320794.06	Y=320842.56
R=186.0187	R=128.9813	R=15.0000	R=30.0000	R=30.0000	R=31.0000	R=31.0000
DELTA=11°31'22" RT	DELTA=13°54'44" LT	DELTA=163°05'12" RT	DELTA=23°33'23" LT	DELTA=34°53'20" RT	DELTA=61°42'13" RT	DELTA=123°18'05" RT
D=30°48'04"	D=44°25'18"	D=381°58'19"	D=190°59'09"	D=190°59'09"	D=184°49'30"	D=184°49'30"
L=37.4100	L=31.3184	L=42.6960	L=12.3341	L=18.2678	L=33.3848	L=66.7125
T=18.7683	T=15.7366	T=100.8899	T=6.2554	T=9.4270	T=18.5177	T=57.4548
BK=N 33°56'18" E	BK=N 45°27'40" E	BK=N 39°52'58" E	BK=S 22°58'11" W	BK=S 0°35'13" E	BK=S 28°56'00" W	BK=N 89°21'47" W
AH=N 45°27'40" E	AH=N 31°32'56" E	AH=S 22°58'11" W	AH=S 0°35'13" E	AH=S 34°18'08" W	AH=N 89°21'47" W	AH=N 33°56'18" E

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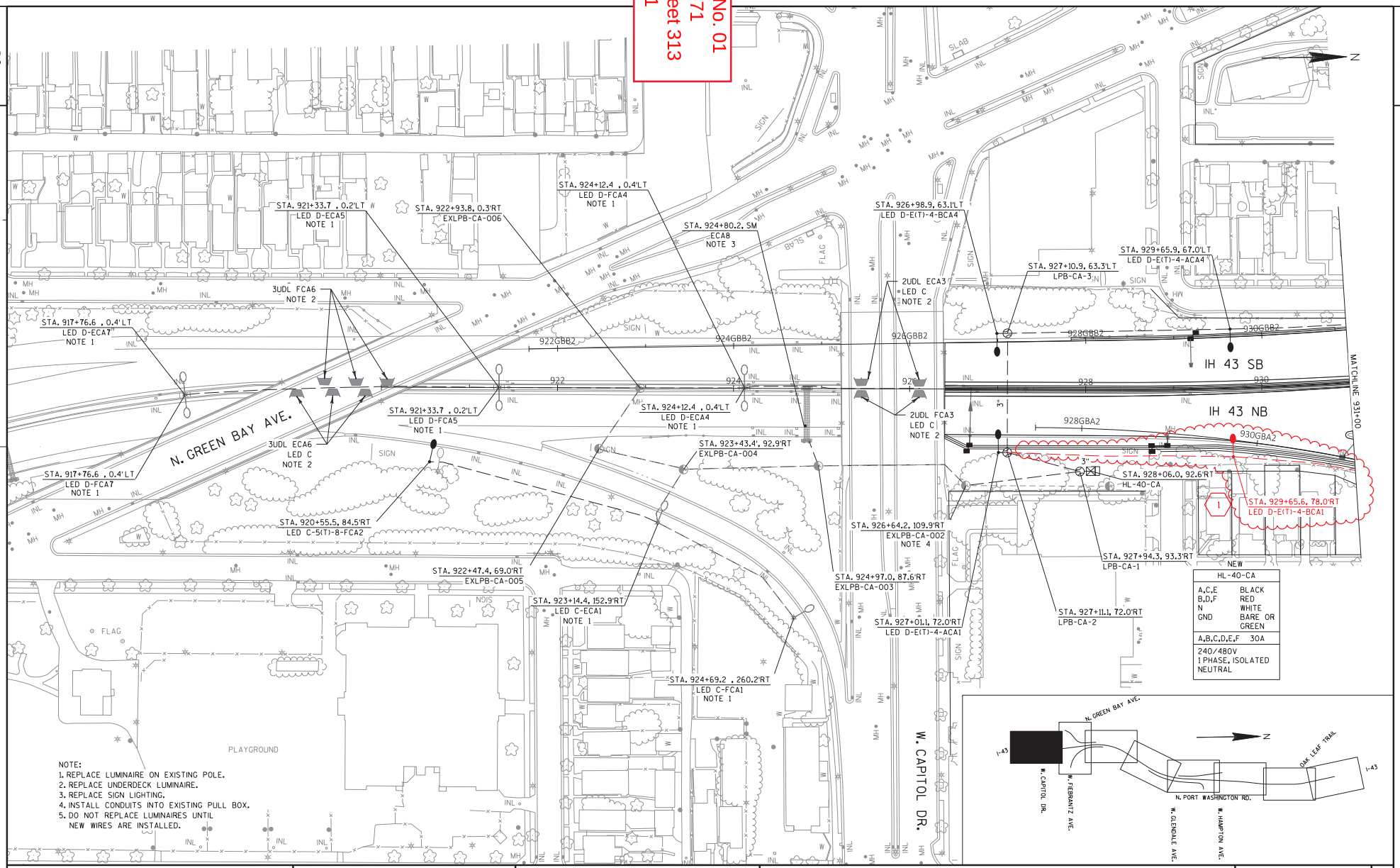
ID 1228-22-71
Revised Sheet 257
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	STORM SEWER LAKE TOWER POND OVERVIEW	SHEET 257	E

FILE NAME : C:\Users\wwolak\OneDrive - Kapur & Associates, Inc\Documents\Work\DOT WORK I43-NORTH SS\022572_SS.dgn PLOT DATE : 3/26/2021 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

Addendum No. 01
ID 1228-22-71
Revised Sheet 313
April 1, 2021



NOTE:
1. REPLACE LUMINAIRE ON EXISTING POLE.
2. REPLACE UNDERDECK LUMINAIRE.
3. REPLACE SIGN LIGHTING.
4. INSTALL CONDUITS INTO EXISTING PULL BOX.
5. DO NOT REPLACE LUMINAIRES UNTIL NEW WIRES ARE INSTALLED.

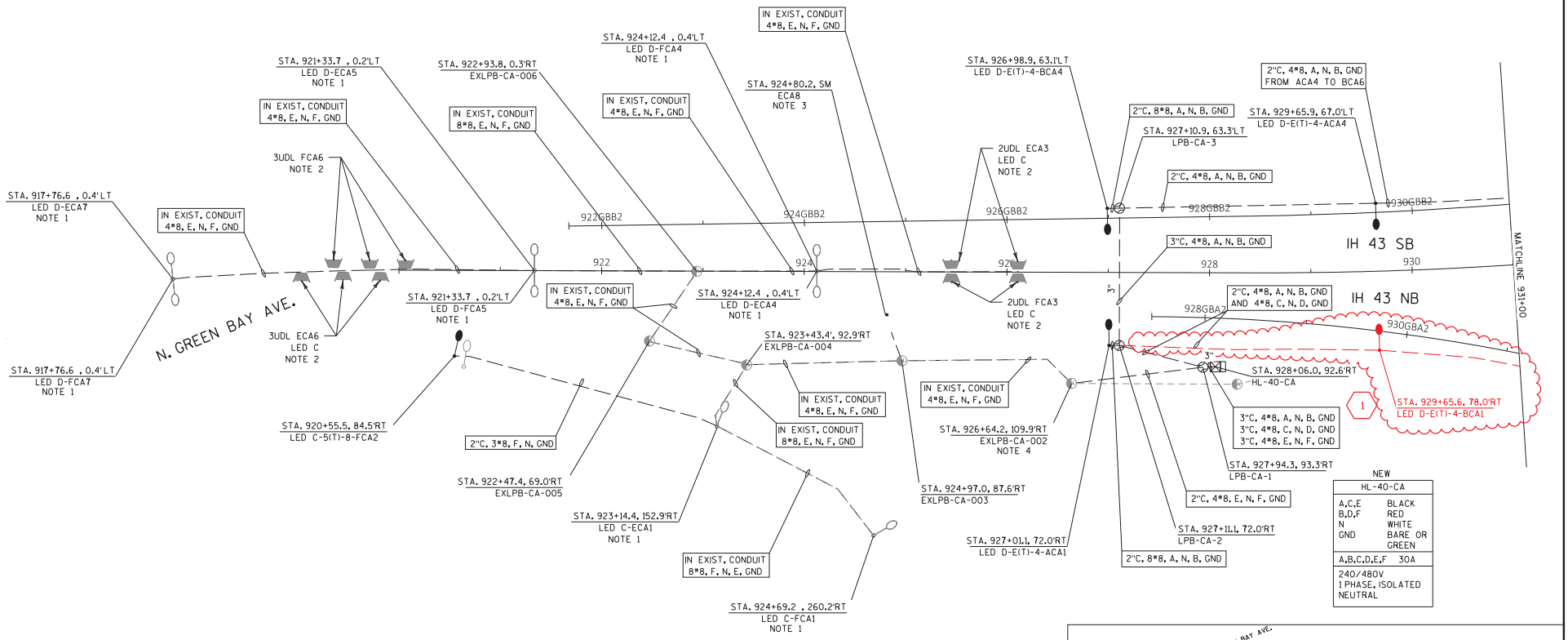
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - FINAL	SHEET 313 E

FILE NAME : S:\DOT\DOT_SE\190224_I43_N-S_Freeway_North-Hampton\Design\DGN\12282271_North\Plansheets\023530_LP.dgn PLOT DATE : 3/15/2021 PLOT BY : kchai PLOT NAME : PLOT SCALE : 1:100

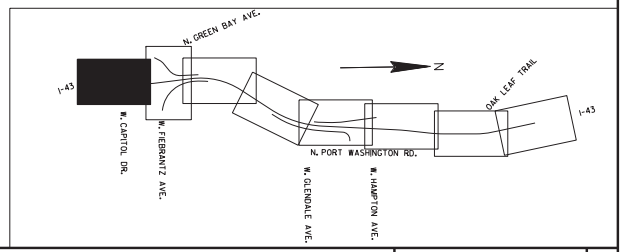
Addendum No. 01
ID 1228-22-71
Revised Sheet 314
April 1, 2021

2

2



NOTE:
1. REPLACE LUMINAIRE ON EXISTING POLE.
2. REPLACE UNDERDECK LUMINAIRE.
3. REPLACE SIGN LIGHTING.
4. INSTALL CONDUITS INTO EXISTING PULL BOX.
5. DO NOT REPLACE LUMINAIRES UNTIL NEW WIRES ARE INSTALLED.

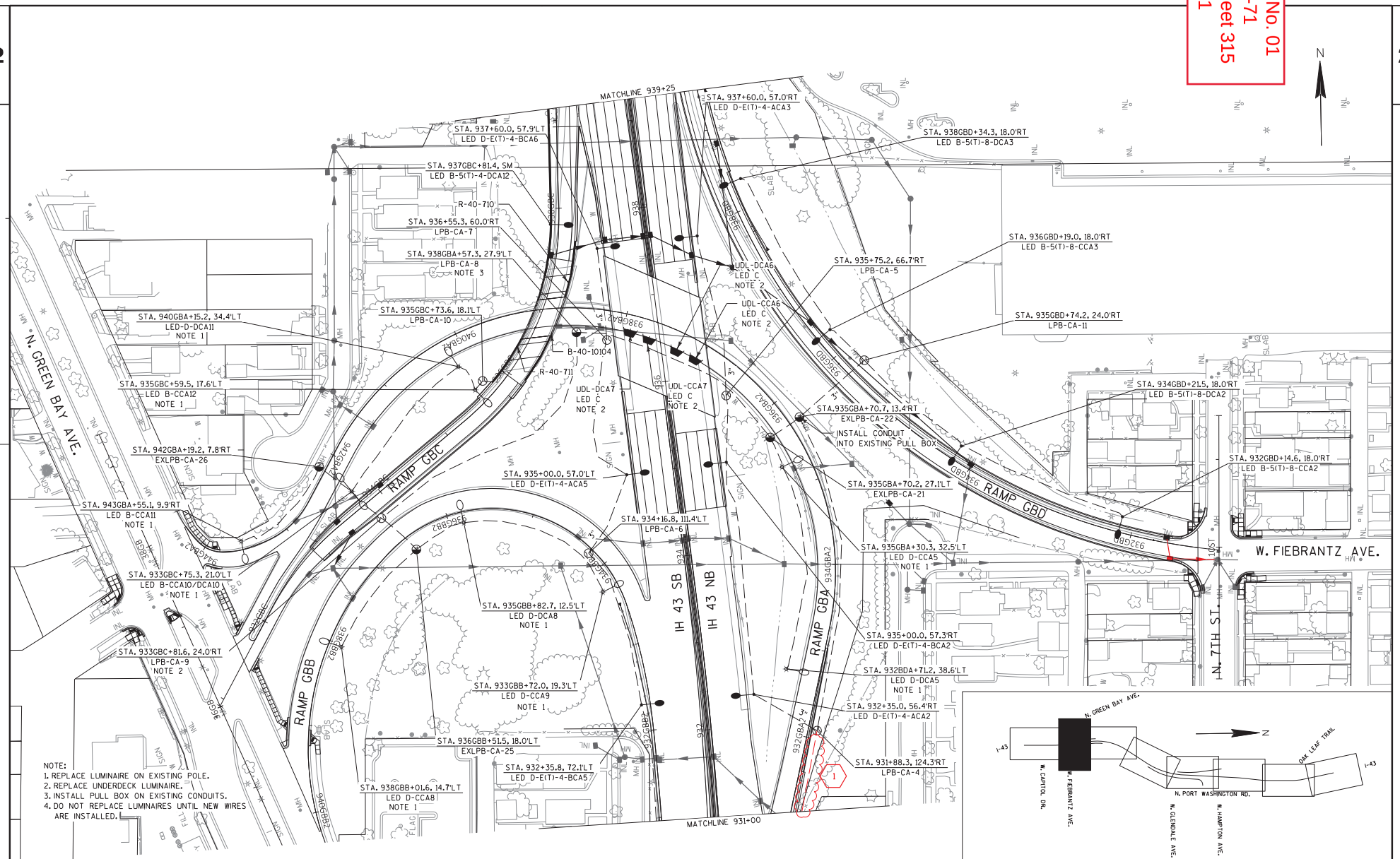


PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET 314	E

FILE NAME : S:\DOT\DOT_SE\190224_I43_N-S_Freeway_North-Hampton\Design\DGN\12282271_North\Plansheets\023531_LP.dgn PLOT DATE : 3/15/2021 PLOT BY : kchai PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

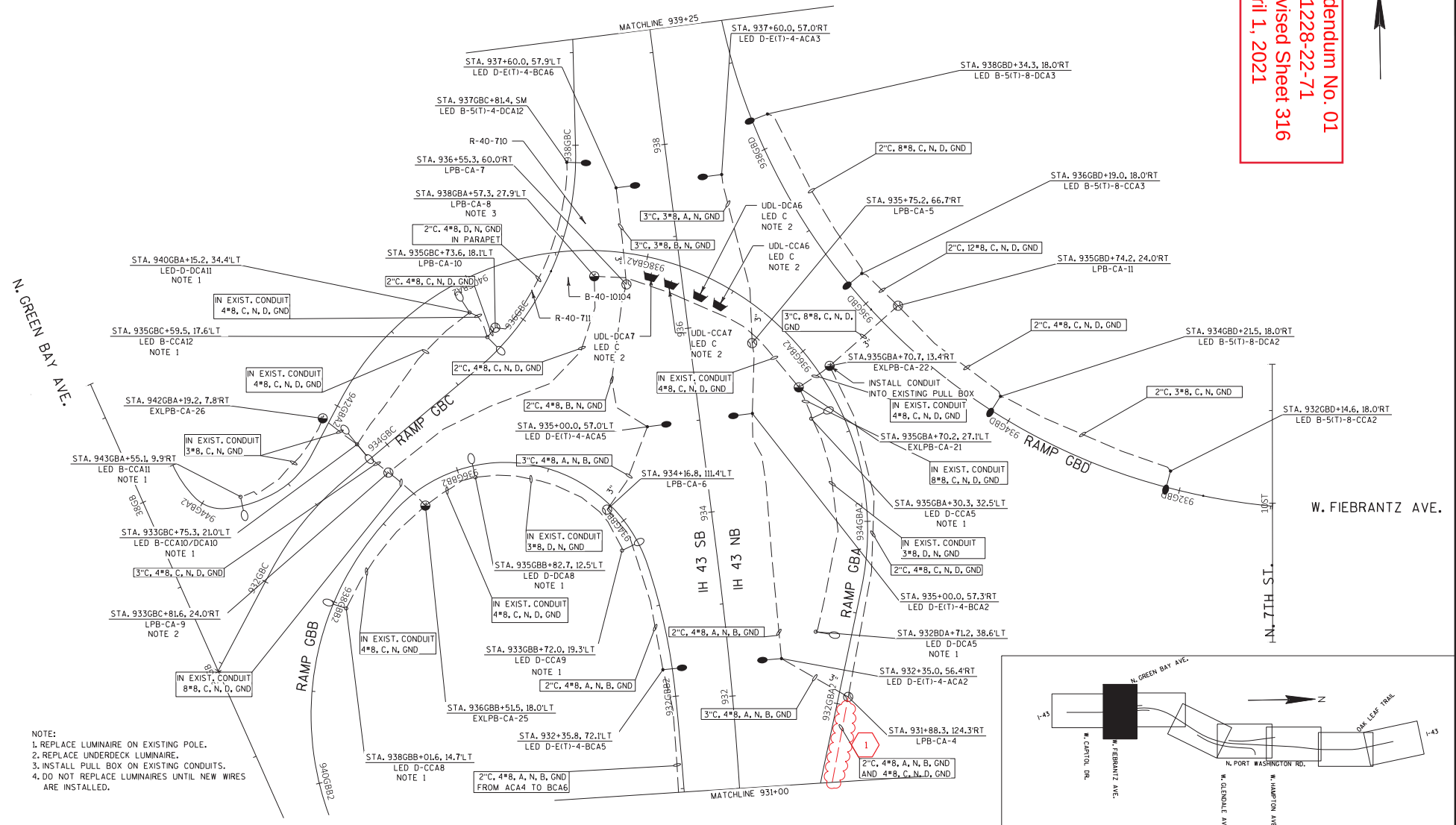
Addendum No. 01
ID 1228-22-71
Revised Sheet 315
April 1, 2021



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - FINAL	SHEET 315	E

FILE NAME : S:\DOT\DOT_SE\190224_I43_N-S_Freeway_North-Hampton\Design\DGN\12282271_North\Plansheets\023532_LP.dgn
PLOT DATE : 3/15/2021
PLOT BY : kchai
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 42

Addendum No. 01
ID 1228-22-71
Revised Sheet 316
April 1, 2021

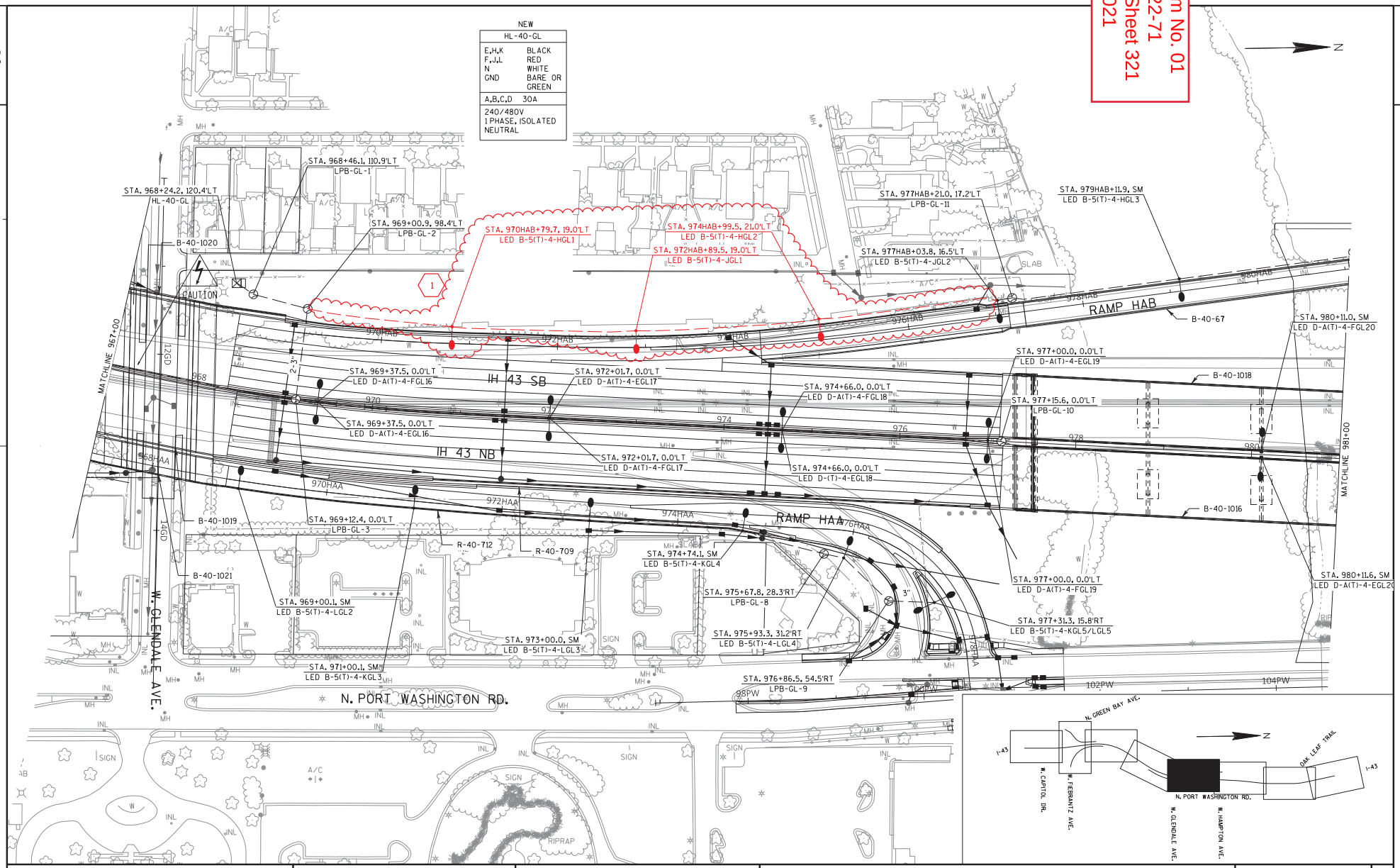


PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET 316	E

FILE NAME : S:\DOT\DOT_SE\190224_I43_N-S_Freeway_North-Hampton\Design\DGN\12282271_North\Plansheets\023533_LP.dgn PLOT DATE : 3/15/2021 PLOT BY : kchai PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

Addendum No. 01
ID 1228-22-71
Revised Sheet 321
April 1, 2021

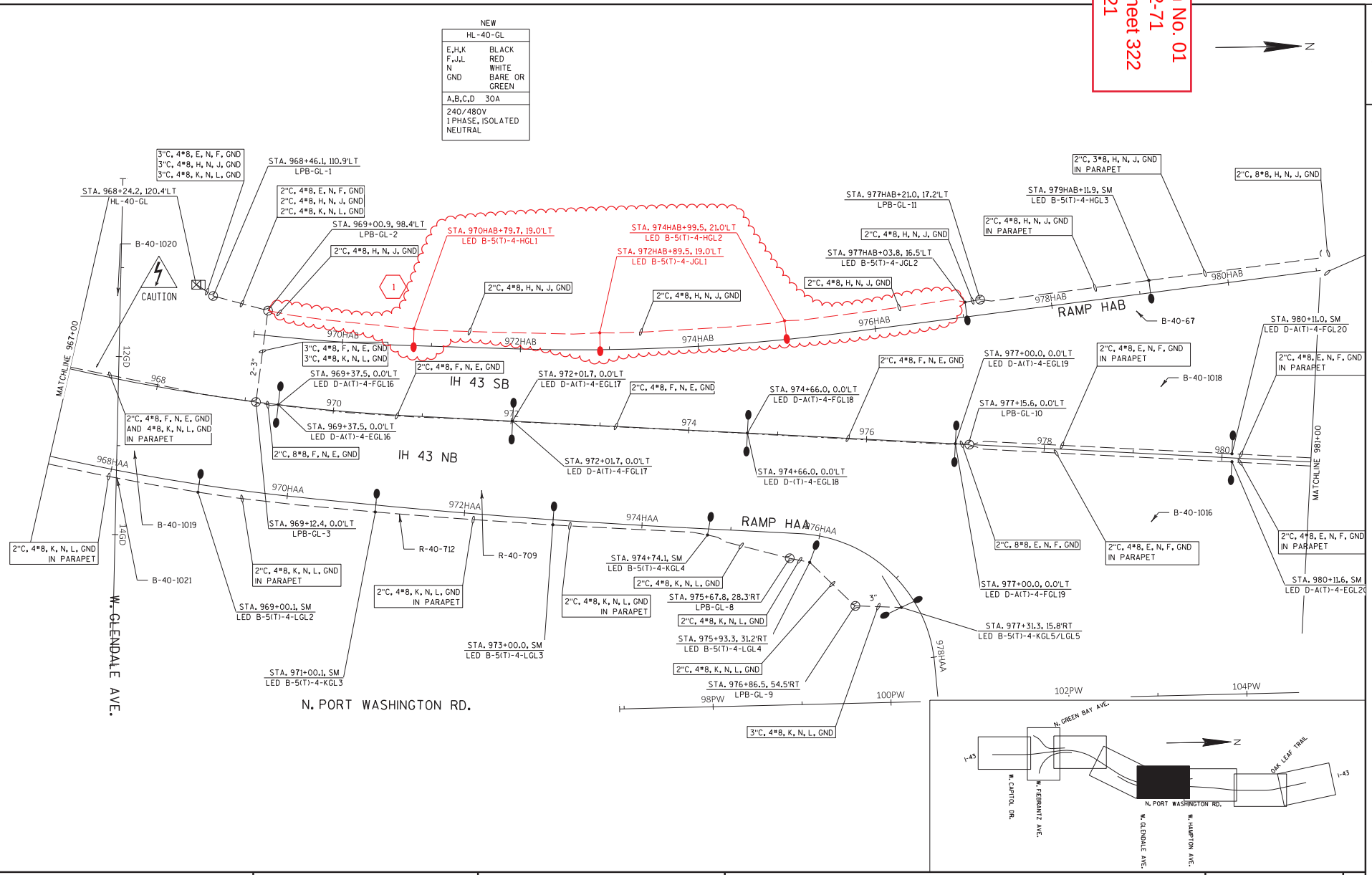


PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - FINAL	SHEET 321	E

FILE NAME : S:\DOT\DOT_SE\190224_I43_N-S_Freeway_North-Hampton\Design\DGN\12282271_North\Plansheets\023538_LP.dgn PLOT DATE : 3/16/2021 PLOT BY : kchai PLOT NAME : PLOT SCALE : 1:100

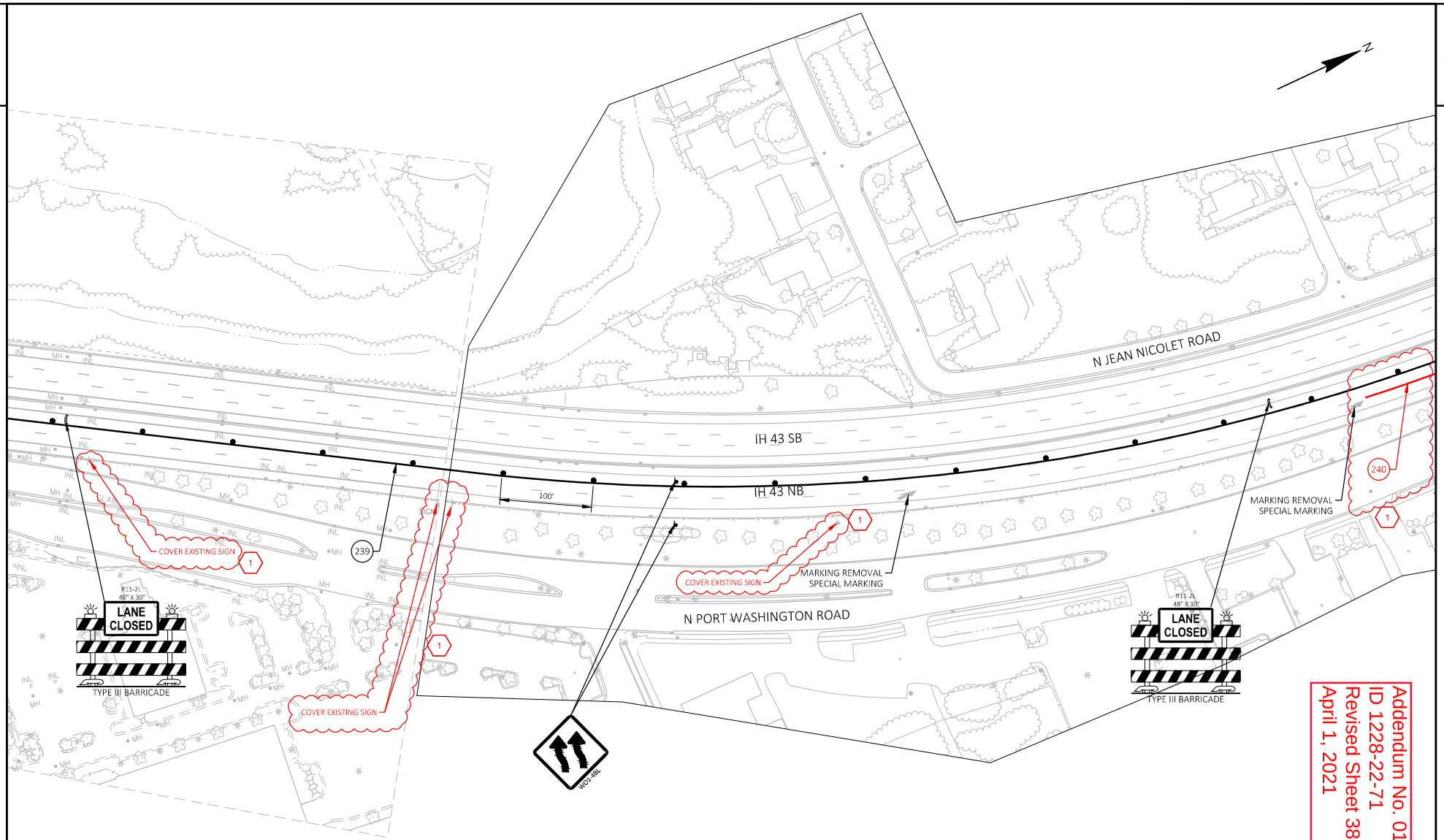
WISDOT/CADDS SHEET 42

Addendum No. 01
ID 1228-22-71
Revised Sheet 322
April 1, 2021



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	LIGHTING PLANS - SCHEMATIC	SHEET 322	E

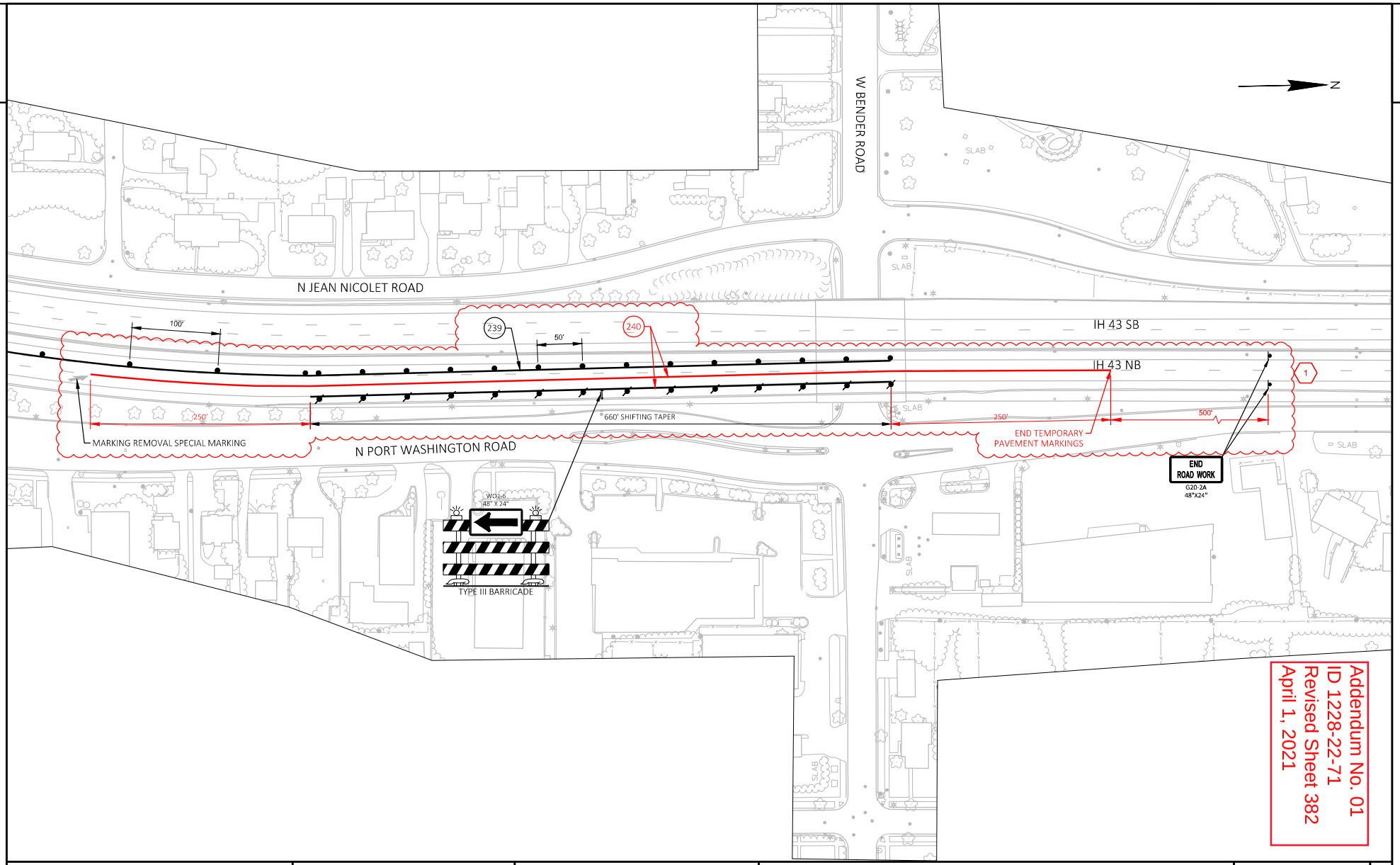
FILE NAME : S:\DOT\DOT_SE\190224_I43_N-S_Freeway_North-Hampton\Design\DGN\12282271_North\Plansheets\023539_LP.dgn PLOT DATE : 3/16/2021 PLOT BY : kchai PLOT NAME : PLOT SCALE : 1:100



Addendum No. 01
ID 1228-22-71
Revised Sheet 381
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 381	E

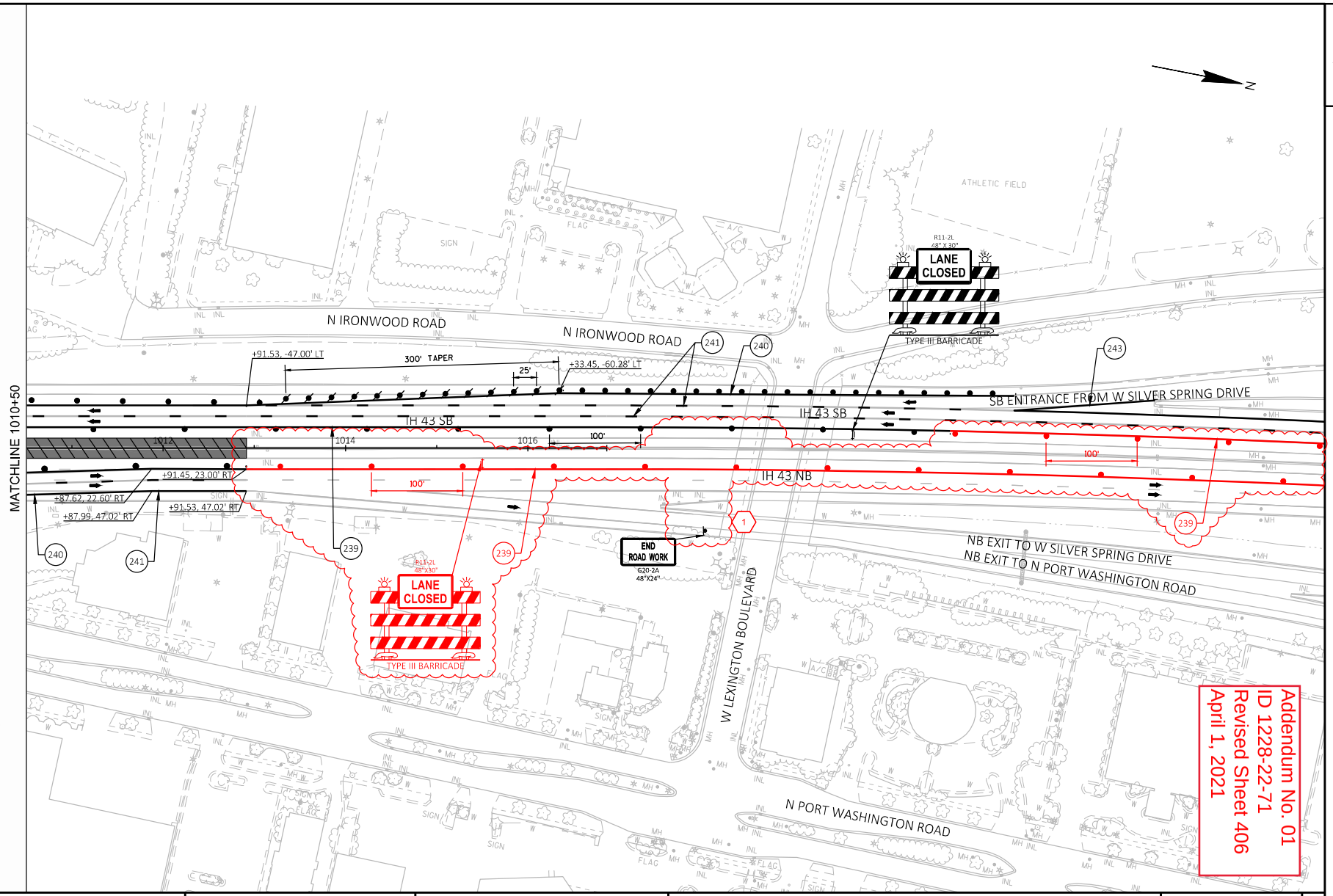
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2A-3ST.DWG
LAYOUT NAME - 11
PLOT DATE : 3/31/2021 9:20 AM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



Addendum No. 01
ID 1228-22-71
Revised Sheet 382
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 382	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2A-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 3/31/2021 9:20 AM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : ##########

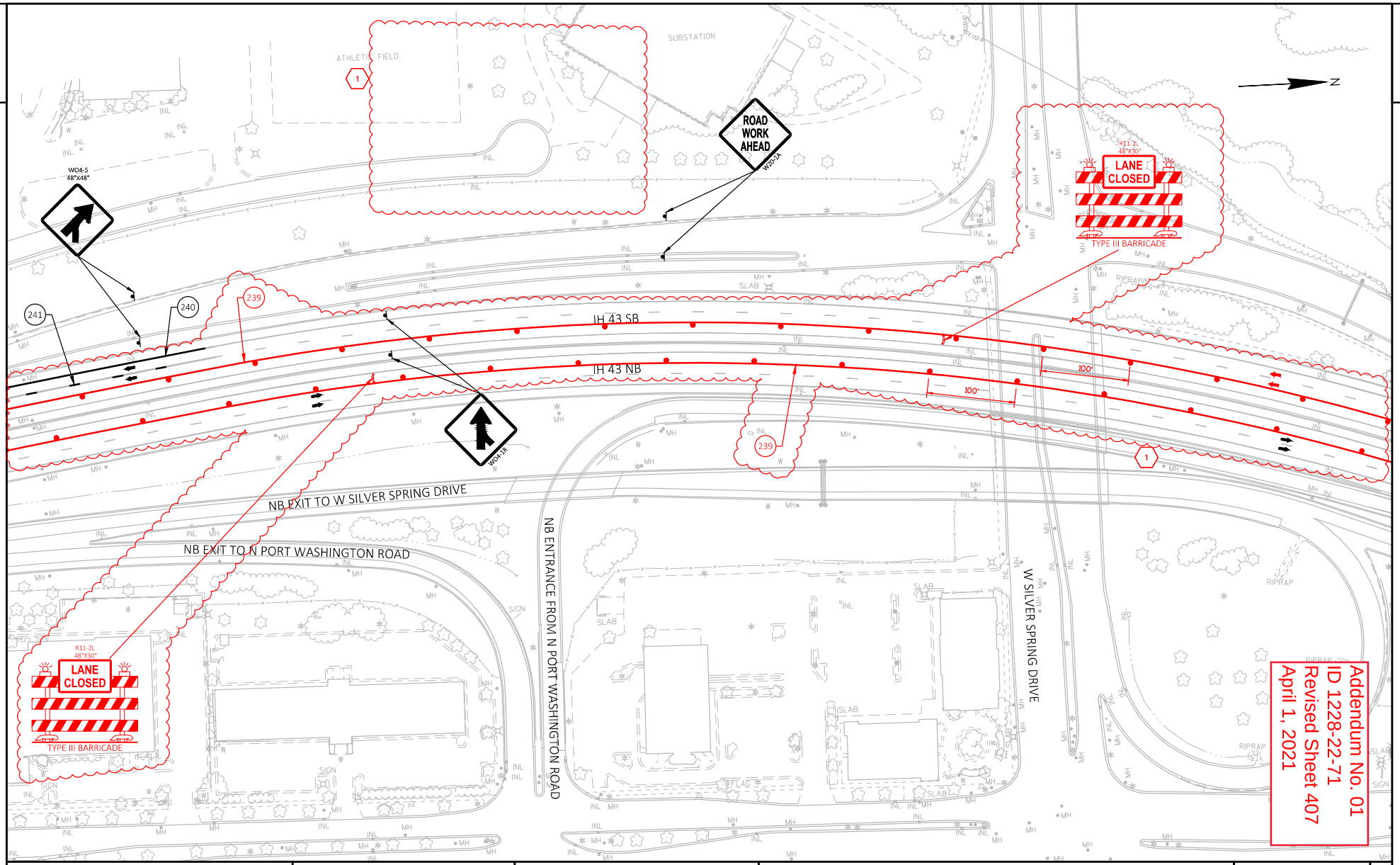


PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C1	SHEET 406	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C1-3ST.DWG
LAYOUT NAME - 08

PLOT DATE : 3/31/2021 3:55 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



Addendum No. 01
ID 1228-22-71
Revised Sheet 407
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C1	SHEET 407	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C1-3ST.DWG
LAYOUT NAME - 09
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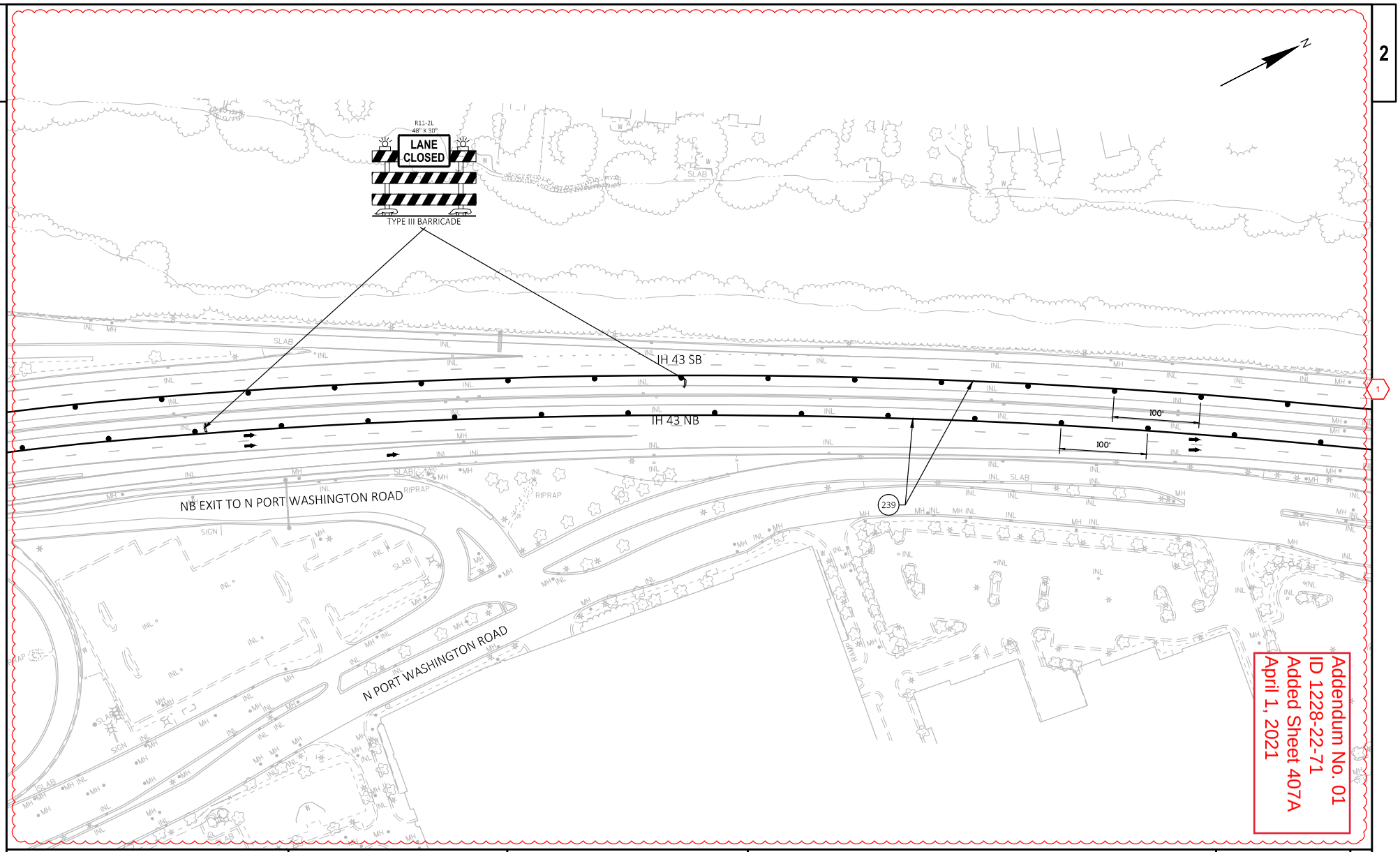
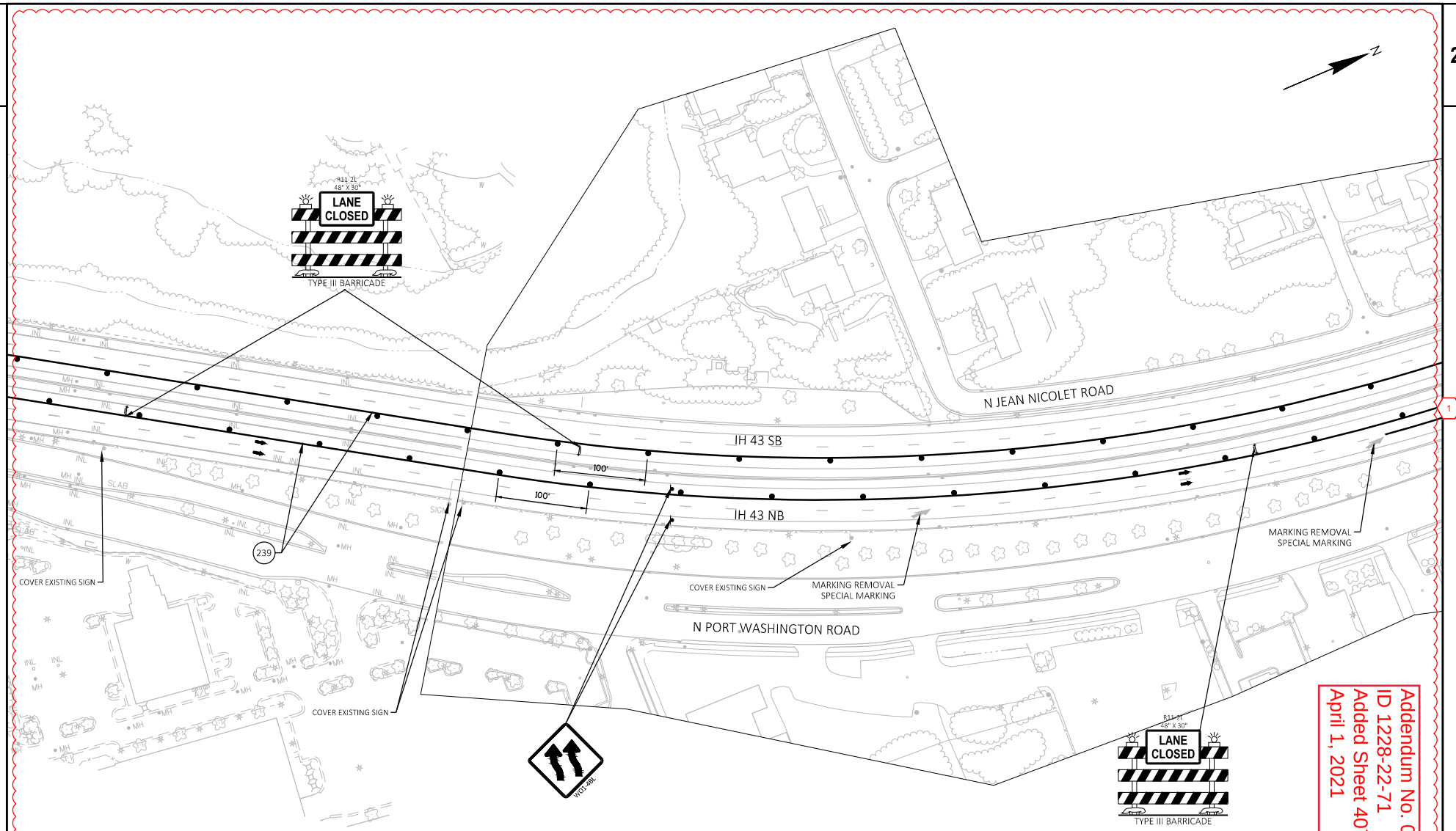
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



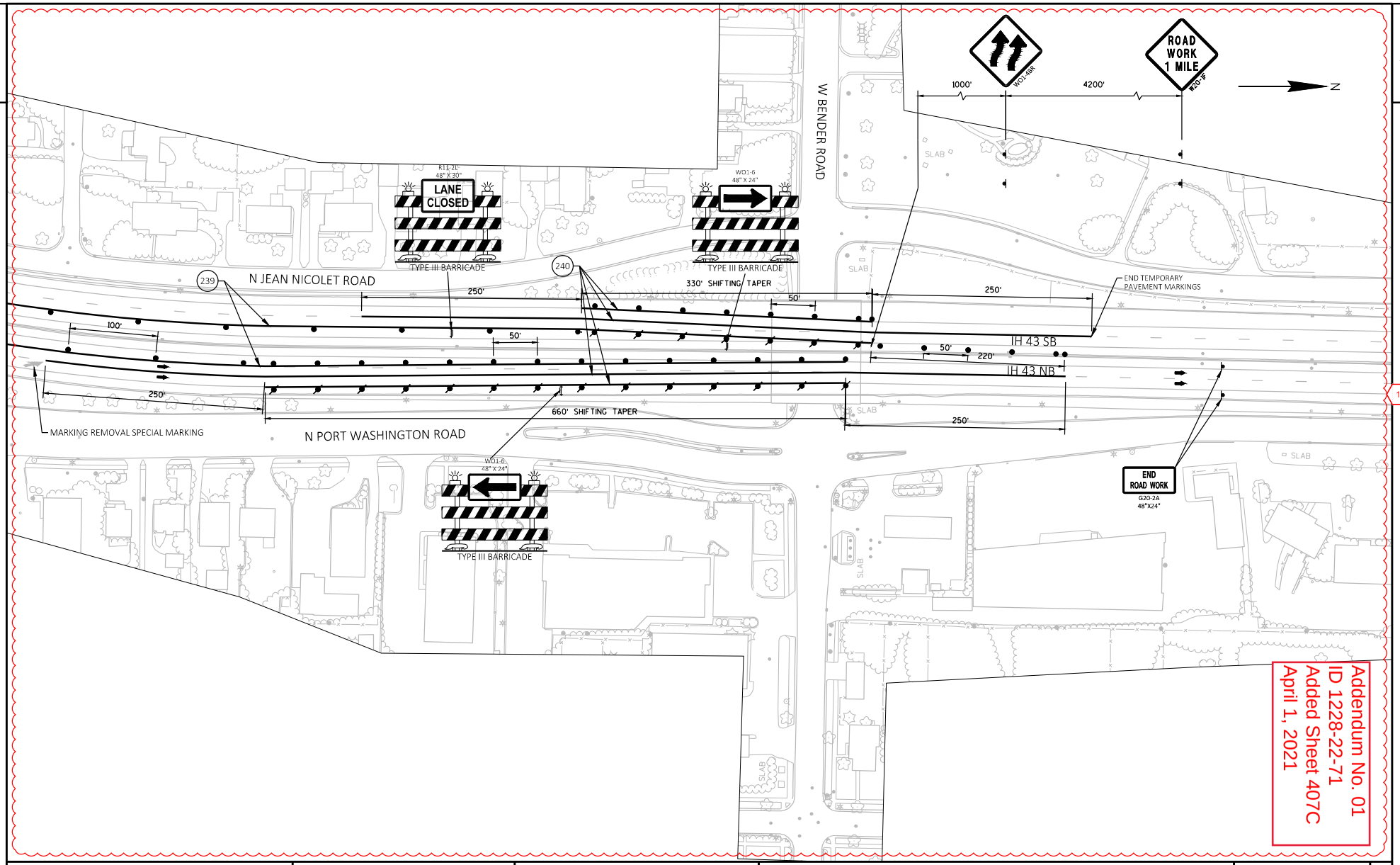
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C1	SHEET 407A	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C1-3ST.DWG
LAYOUT NAME - 10
PLOT DATE : 3/31/2021 3:56 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C1	SHEET 407B	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C1-3ST.DWG
LAYOUT NAME - 11
PLOT DATE : 3/31/2021 3:57 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########

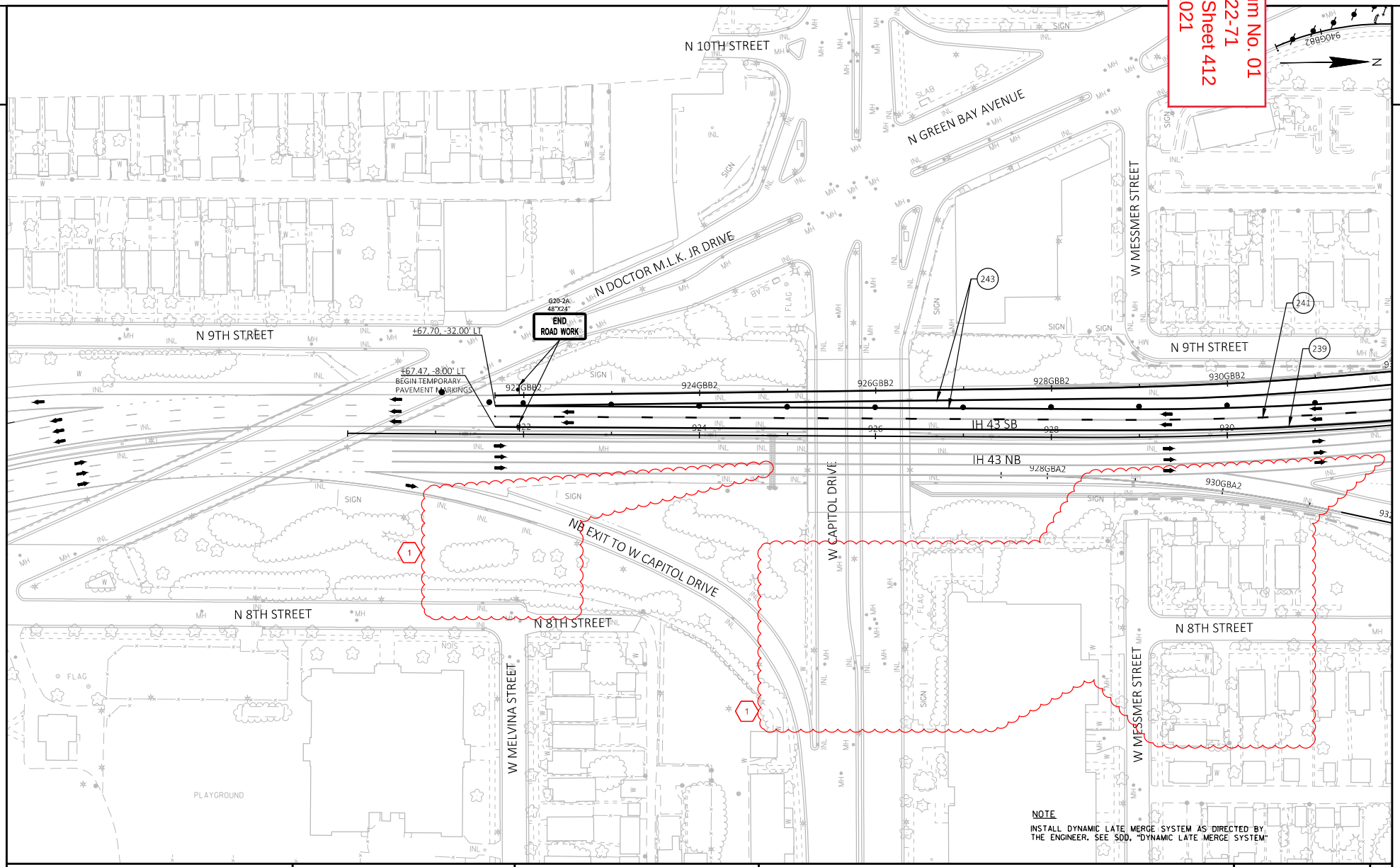


Addendum No. 01
ID 1228-22-71
Added Sheet 407C
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C1	SHEET 407C	E

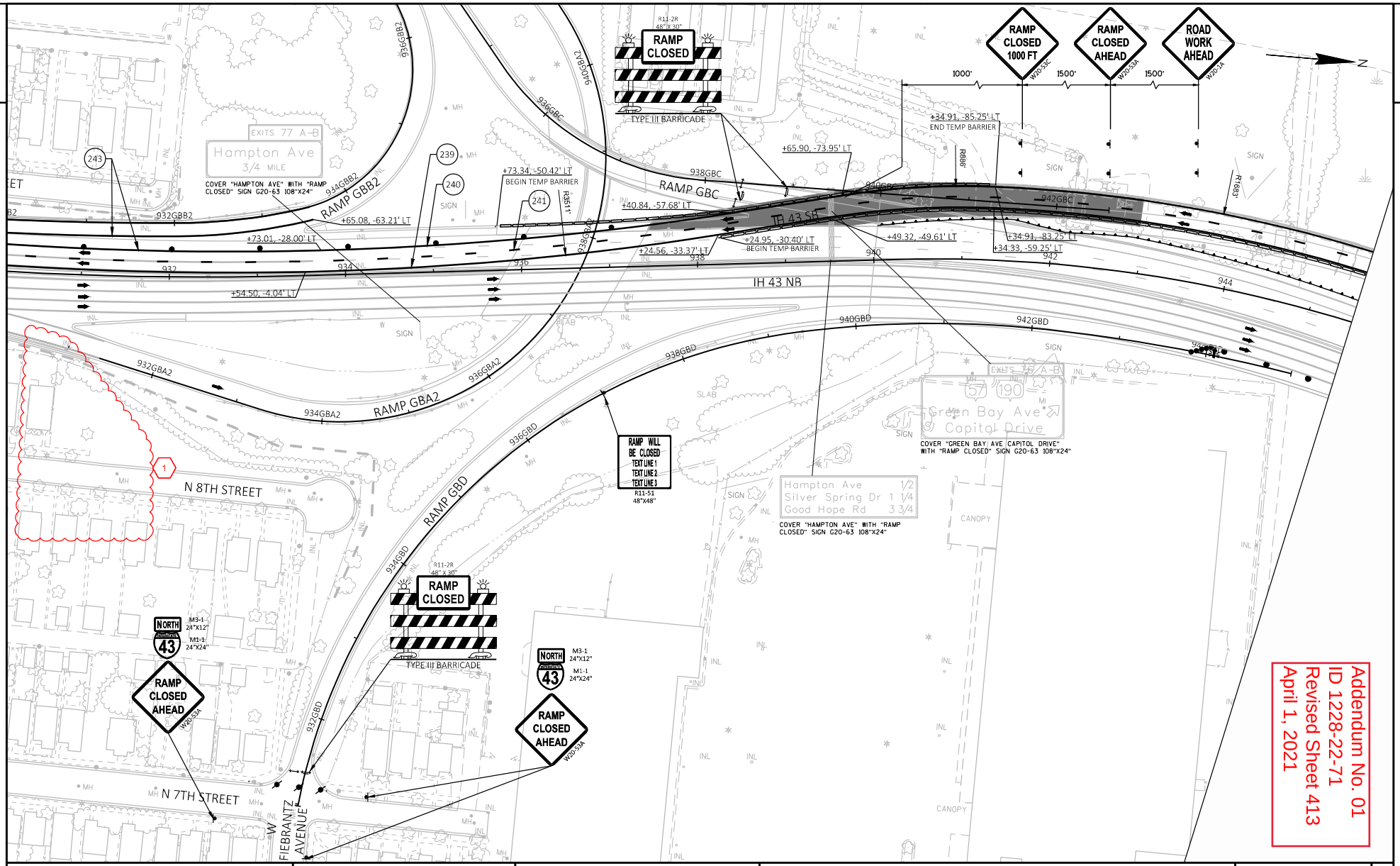
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C1-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 3/31/2021 3:57 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########

Addendum No. 01
ID 1228-22-71
Revised Sheet 412
April 1, 2021



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 412	E

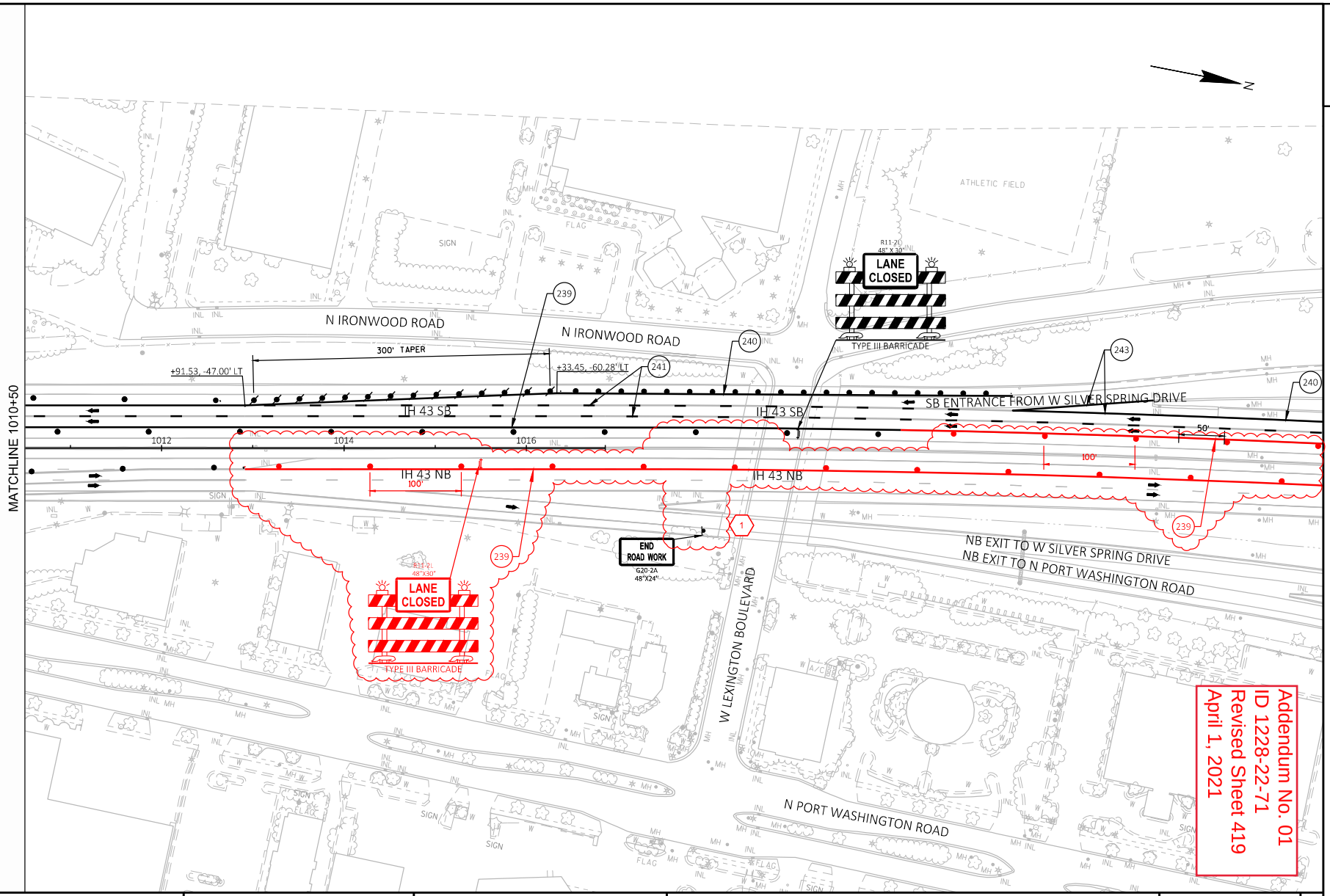
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 01
PLOT DATE : 3/30/2021 6:11 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 01
ID 1228-22-71
Revised Sheet 413
April 1, 2021

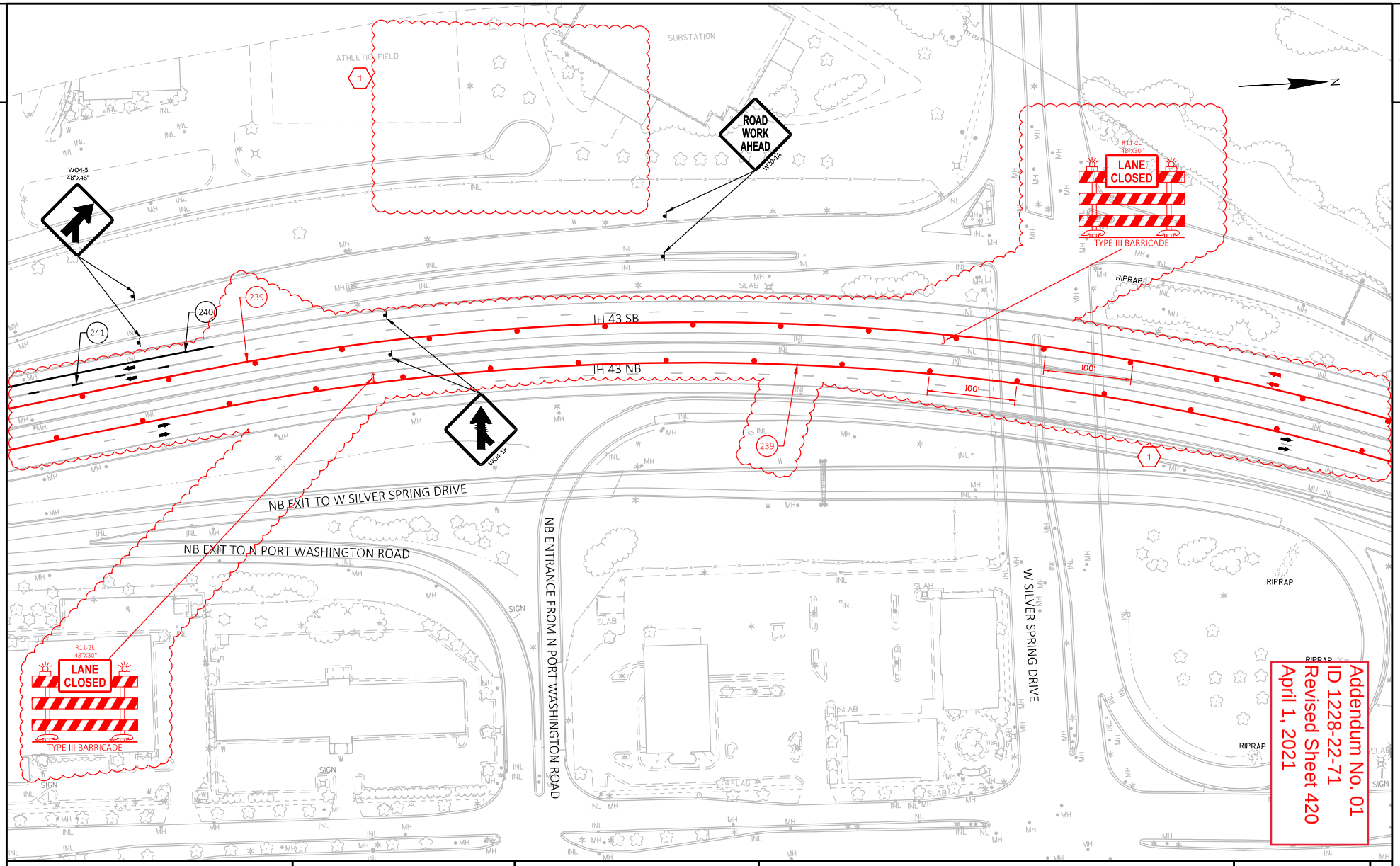
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 413	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 02
PLOT DATE : 3/30/2021 6:12 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



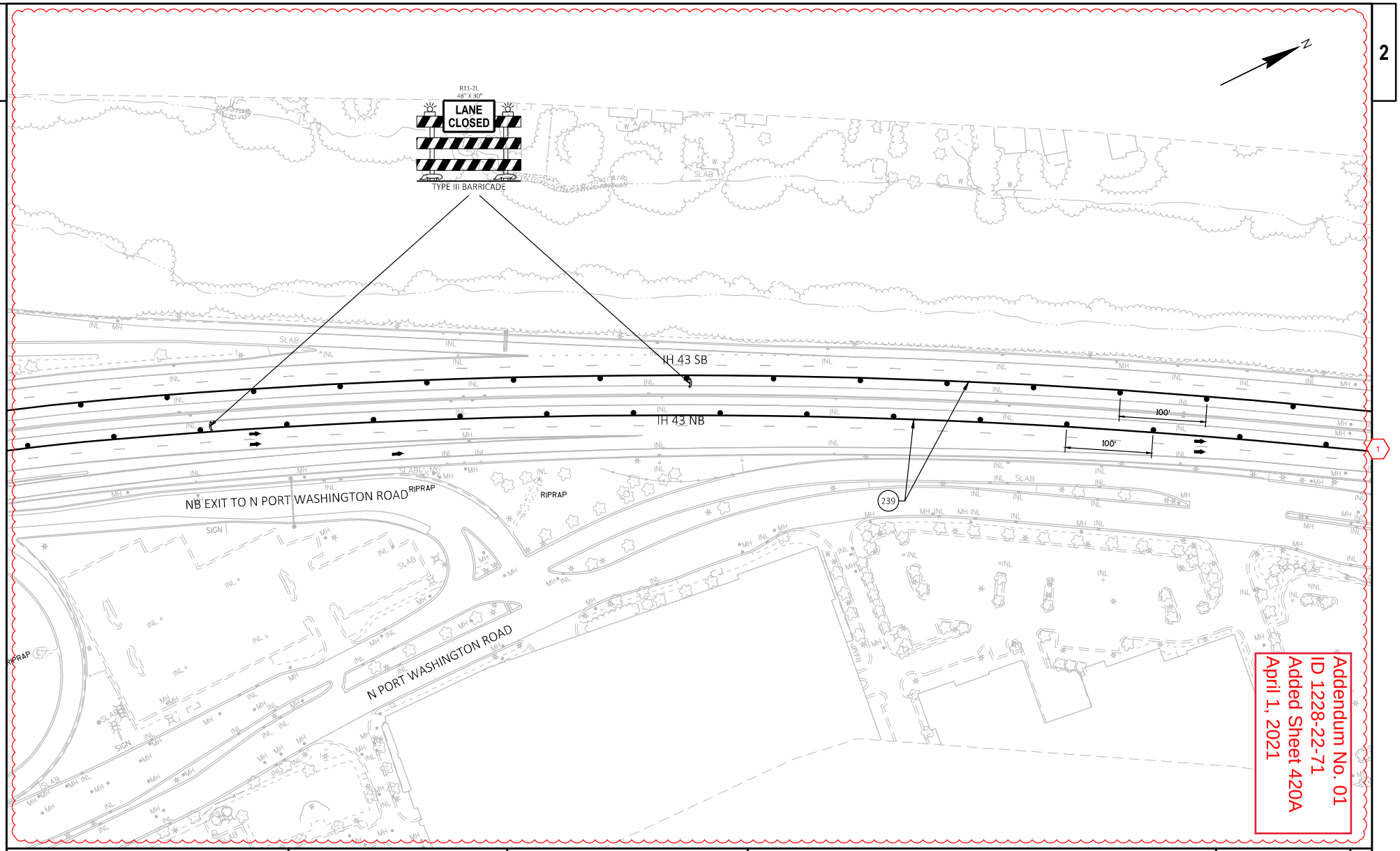
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 419	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 08
PLOT DATE : 3/31/2021 4:44 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



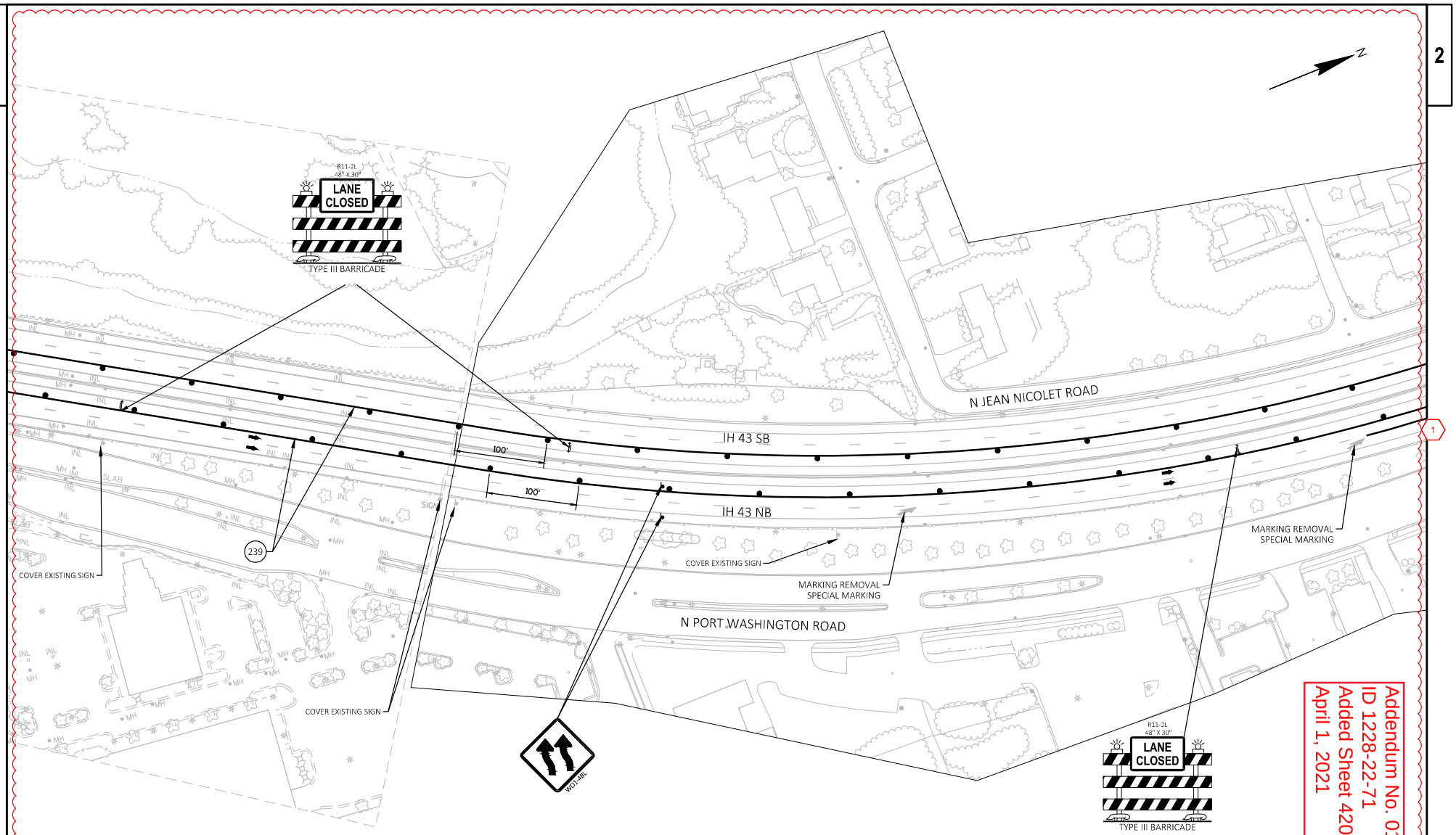
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 420	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 09
PLOT DATE : 3/31/2021 4:45 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



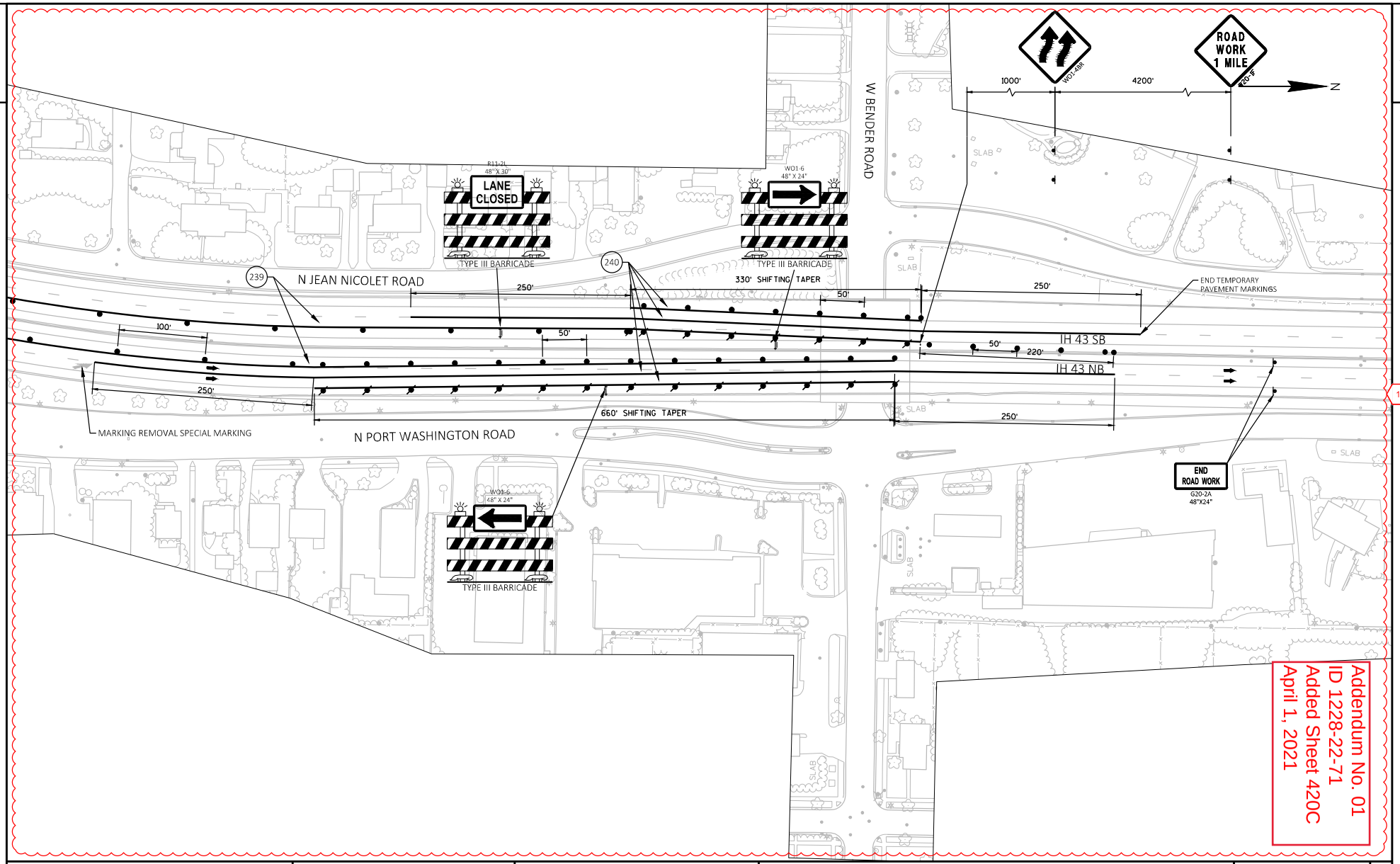
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 420A	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 10
PLOT DATE : 3/31/2021 4:45 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 420B	E

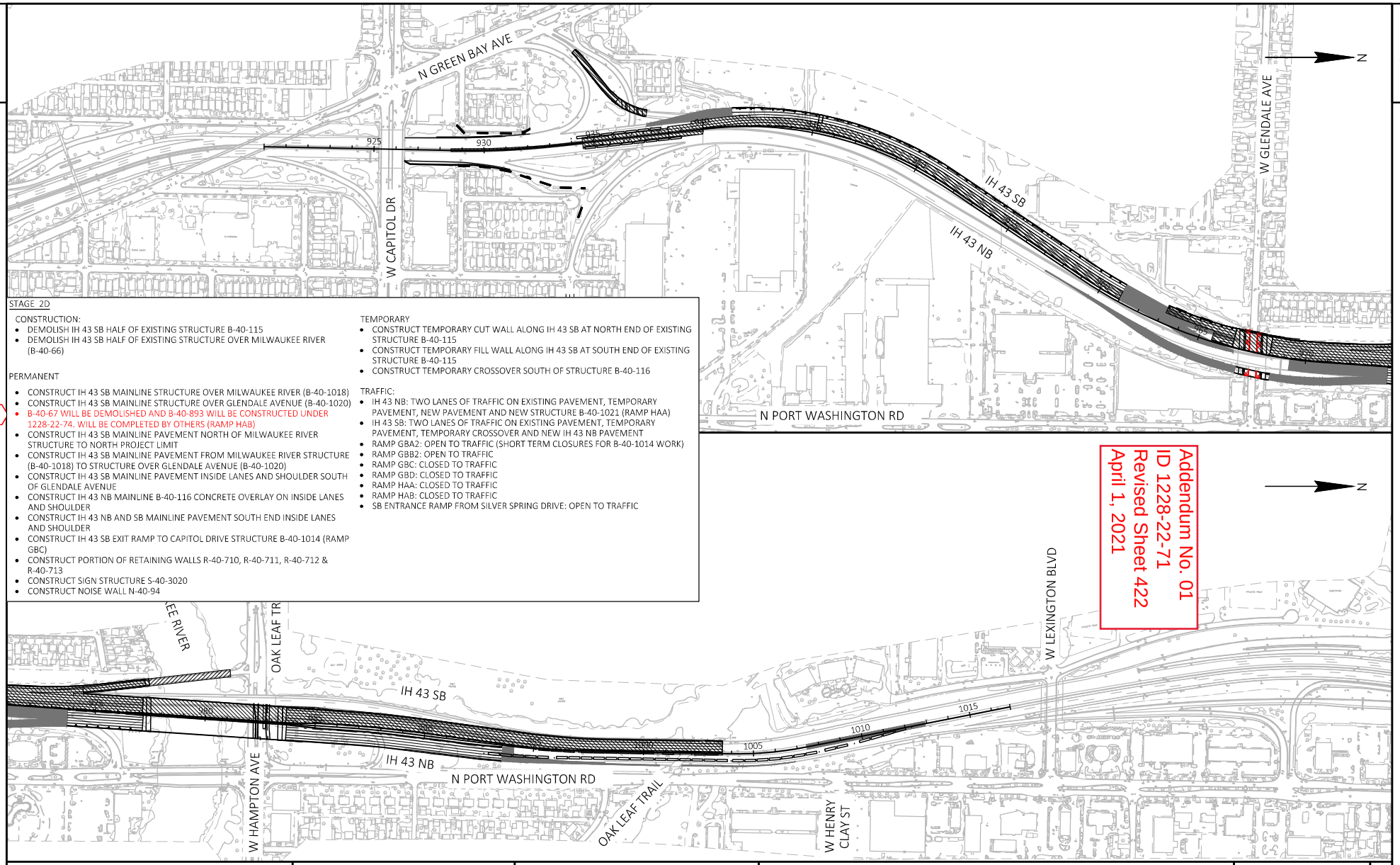
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 11
PLOT DATE : 3/31/2021 4:46 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



Addendum No. 01
ID 1228-22-71
Added Sheet 420C
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 420C	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 3/31/2021 4:47 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



STAGE 2D

CONSTRUCTION:
- DEMOLISH IH 43 SB HALF OF EXISTING STRUCTURE B-40-115
- DEMOLISH IH 43 SB HALF OF EXISTING STRUCTURE OVER MILWAUKEE RIVER (B-40-66)

PERMANENT
- CONSTRUCT IH 43 SB MAINLINE STRUCTURE OVER MILWAUKEE RIVER (B-40-1018)
- CONSTRUCT IH 43 SB MAINLINE STRUCTURE OVER GLENDALE AVENUE (B-40-1020)
- B-40-67 WILL BE DEMOLISHED AND B-40-893 WILL BE CONSTRUCTED UNDER 1228-22-74. WILL BE COMPLETED BY OTHERS (RAMP HAB)
- CONSTRUCT IH 43 SB MAINLINE PAVEMENT NORTH OF MILWAUKEE RIVER STRUCTURE TO NORTH PROJECT LIMIT
- CONSTRUCT IH 43 SB MAINLINE PAVEMENT FROM MILWAUKEE RIVER STRUCTURE (B-40-1018) TO STRUCTURE OVER GLENDALE AVENUE (B-40-1020)
- CONSTRUCT IH 43 SB MAINLINE PAVEMENT INSIDE LANES AND SHOULDER SOUTH OF GLENDALE AVENUE
- CONSTRUCT IH 43 NB MAINLINE B-40-116 CONCRETE OVERLAY ON INSIDE LANES AND SHOULDER
- CONSTRUCT IH 43 NB AND SB MAINLINE PAVEMENT SOUTH END INSIDE LANES AND SHOULDER
- CONSTRUCT IH 43 SB EXIT RAMP TO CAPITOL DRIVE STRUCTURE B-40-1014 (RAMP GBC)
- CONSTRUCT PORTION OF RETAINING WALLS R-40-710, R-40-711, R-40-712 & R-40-713
- CONSTRUCT SIGN STRUCTURE S-40-3020
- CONSTRUCT NOISE WALL N-40-94

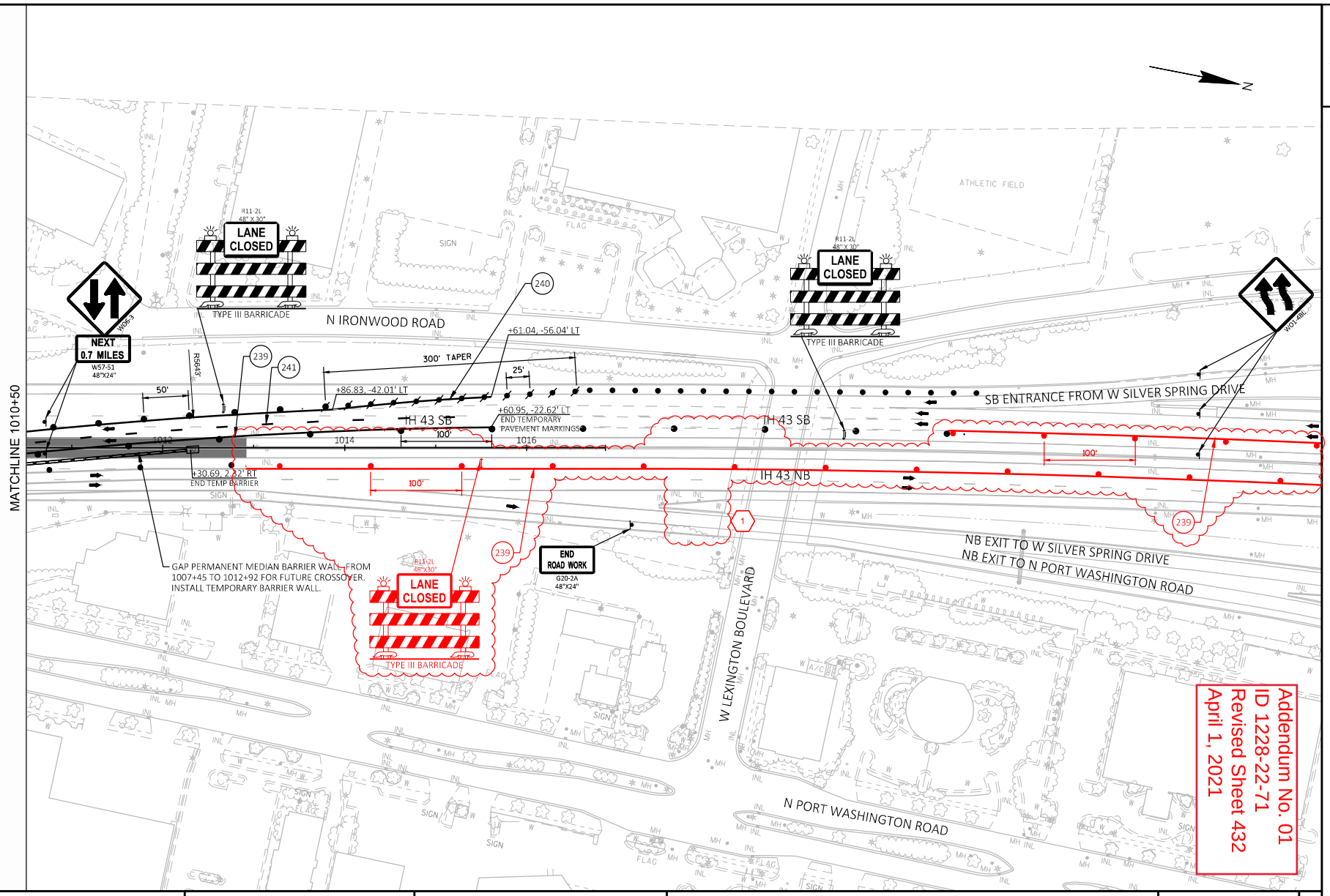
TEMPORARY
- CONSTRUCT TEMPORARY CUT WALL ALONG IH 43 SB AT NORTH END OF EXISTING STRUCTURE B-40-115
- CONSTRUCT TEMPORARY FILL WALL ALONG IH 43 SB AT SOUTH END OF EXISTING STRUCTURE B-40-115
- CONSTRUCT TEMPORARY CROSSOVER SOUTH OF STRUCTURE B-40-116

TRAFFIC:
- IH 43 NB: TWO LANES OF TRAFFIC ON EXISTING PAVEMENT, TEMPORARY PAVEMENT, NEW PAVEMENT AND NEW STRUCTURE B-40-1021 (RAMP HAA)
- IH 43 SB: TWO LANES OF TRAFFIC ON EXISTING PAVEMENT, TEMPORARY PAVEMENT, TEMPORARY CROSSOVER AND NEW IH 43 NB PAVEMENT
- RAMP GBA2: OPEN TO TRAFFIC (SHORT TERM CLOSURES FOR B-40-1014 WORK)
- RAMP GBB2: OPEN TO TRAFFIC
- RAMP GBC: CLOSED TO TRAFFIC
- RAMP GBD: CLOSED TO TRAFFIC
- RAMP HAA: CLOSED TO TRAFFIC
- RAMP HAB: CLOSED TO TRAFFIC
- SB ENTRANCE RAMP FROM SILVER SPRING DRIVE: OPEN TO TRAFFIC

Addendum No. 01
ID 1228-22-71
Revised Sheet 422
April 1, 2021

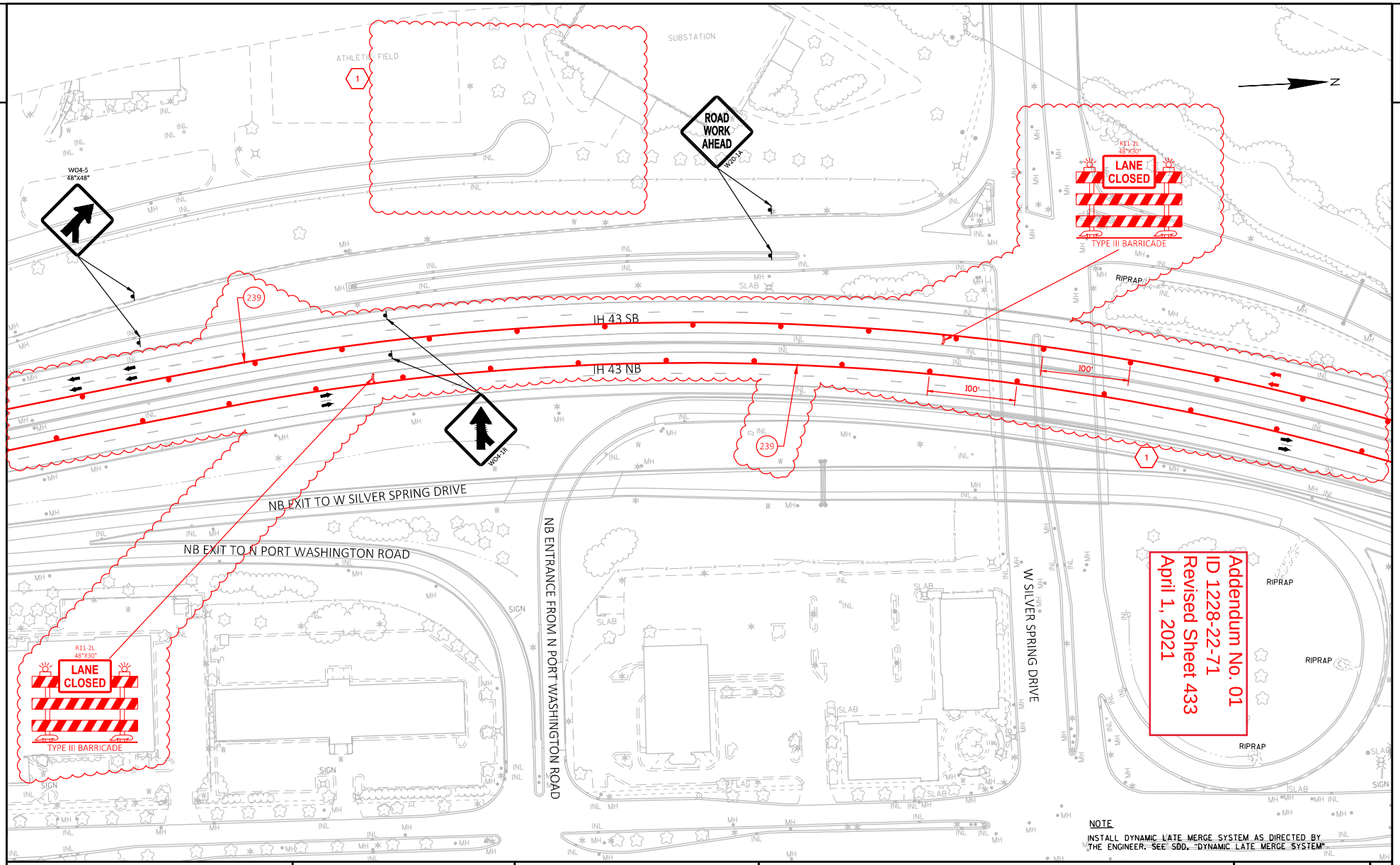
PROJECT NO: 1228-22-71	HWY: IH43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - OVERVIEW STAGE 2D	SHEET 422	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-1OV.DWG
LAYOUT NAME - OVERVIEW
PLOT DATE : 3/31/2021 2:06 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN: 400 FT



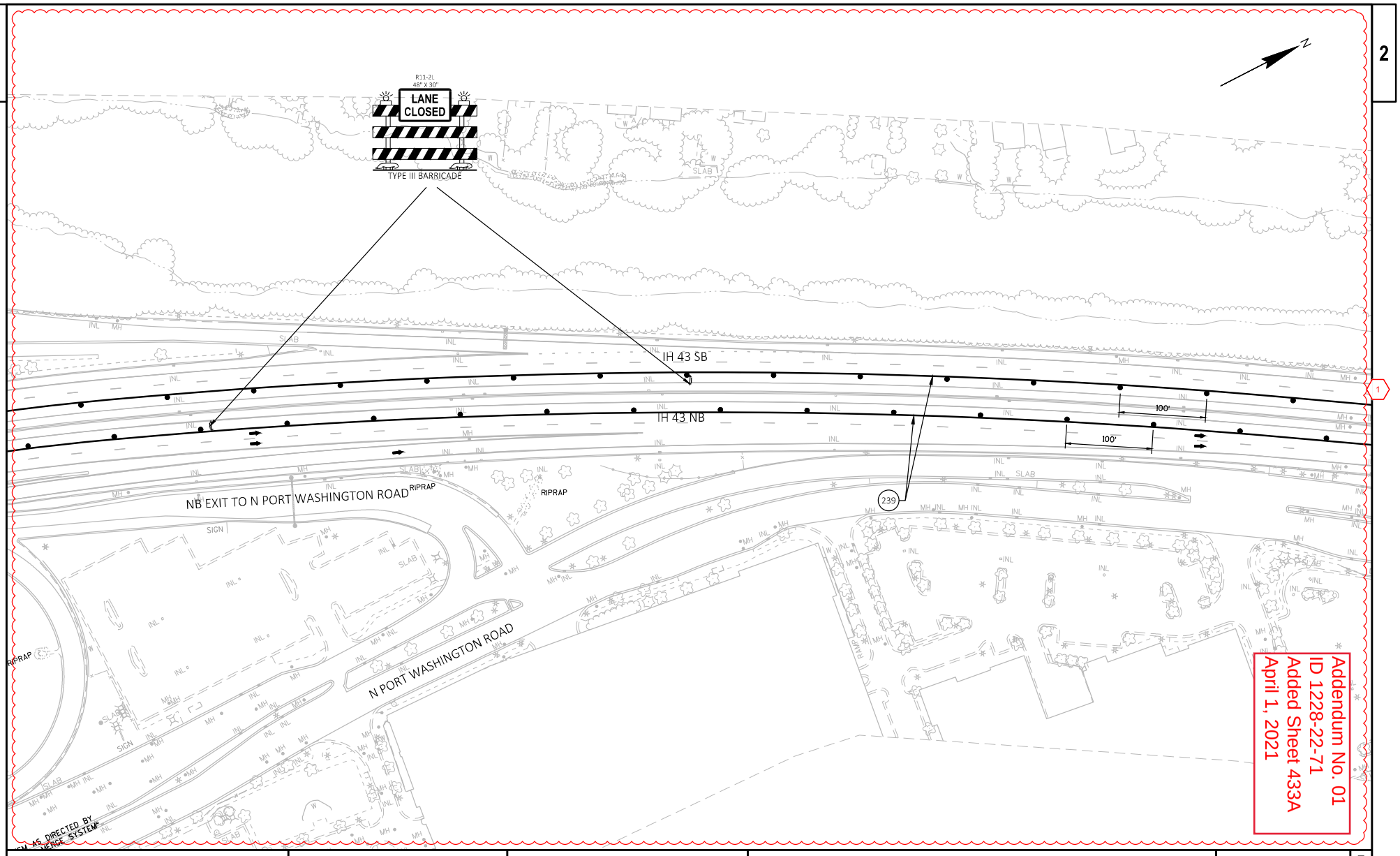
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 432	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 08
PLOT DATE : 3/31/2021 6:49 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



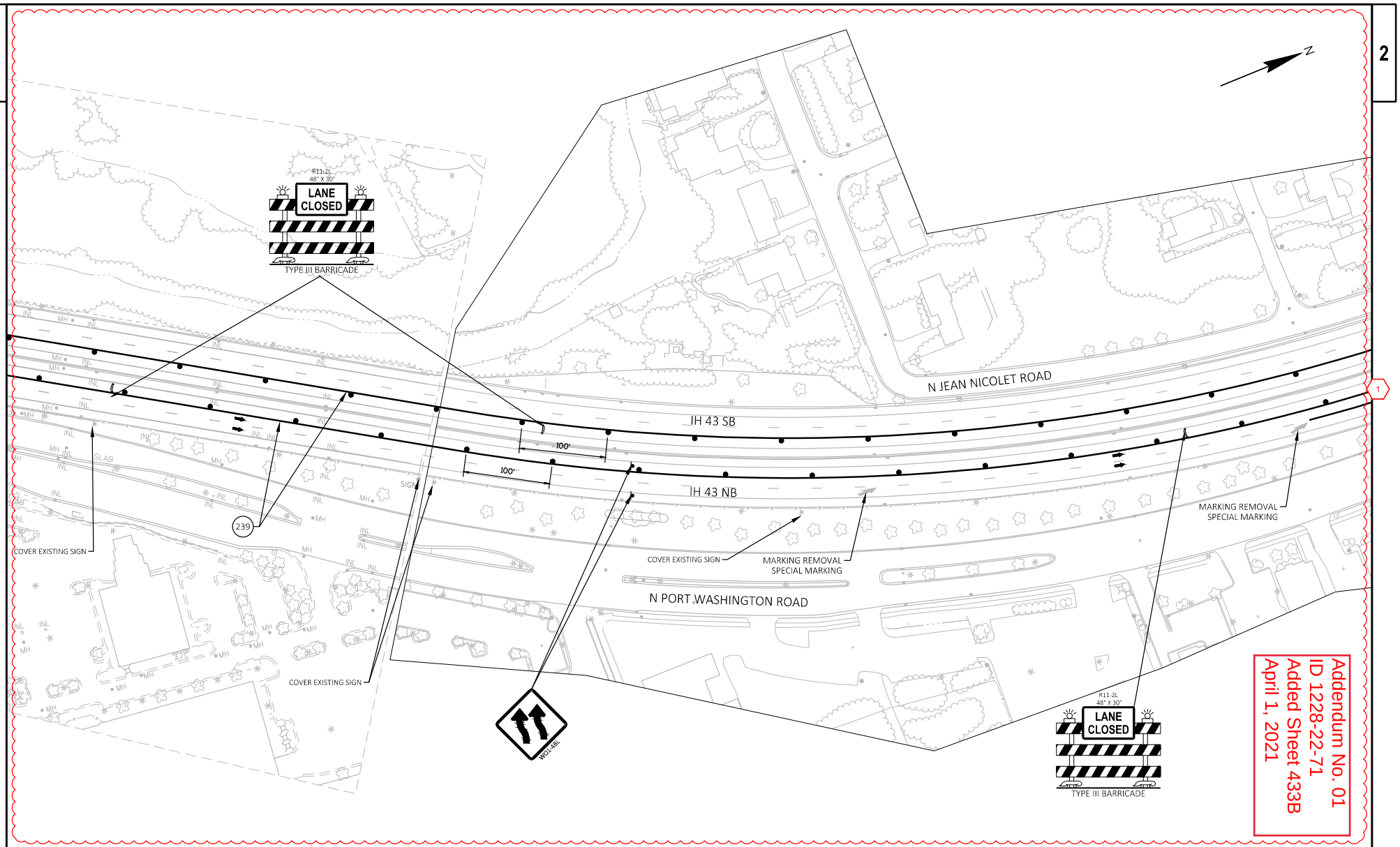
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 433	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 09
PLOT DATE : 3/31/2021 6:50 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



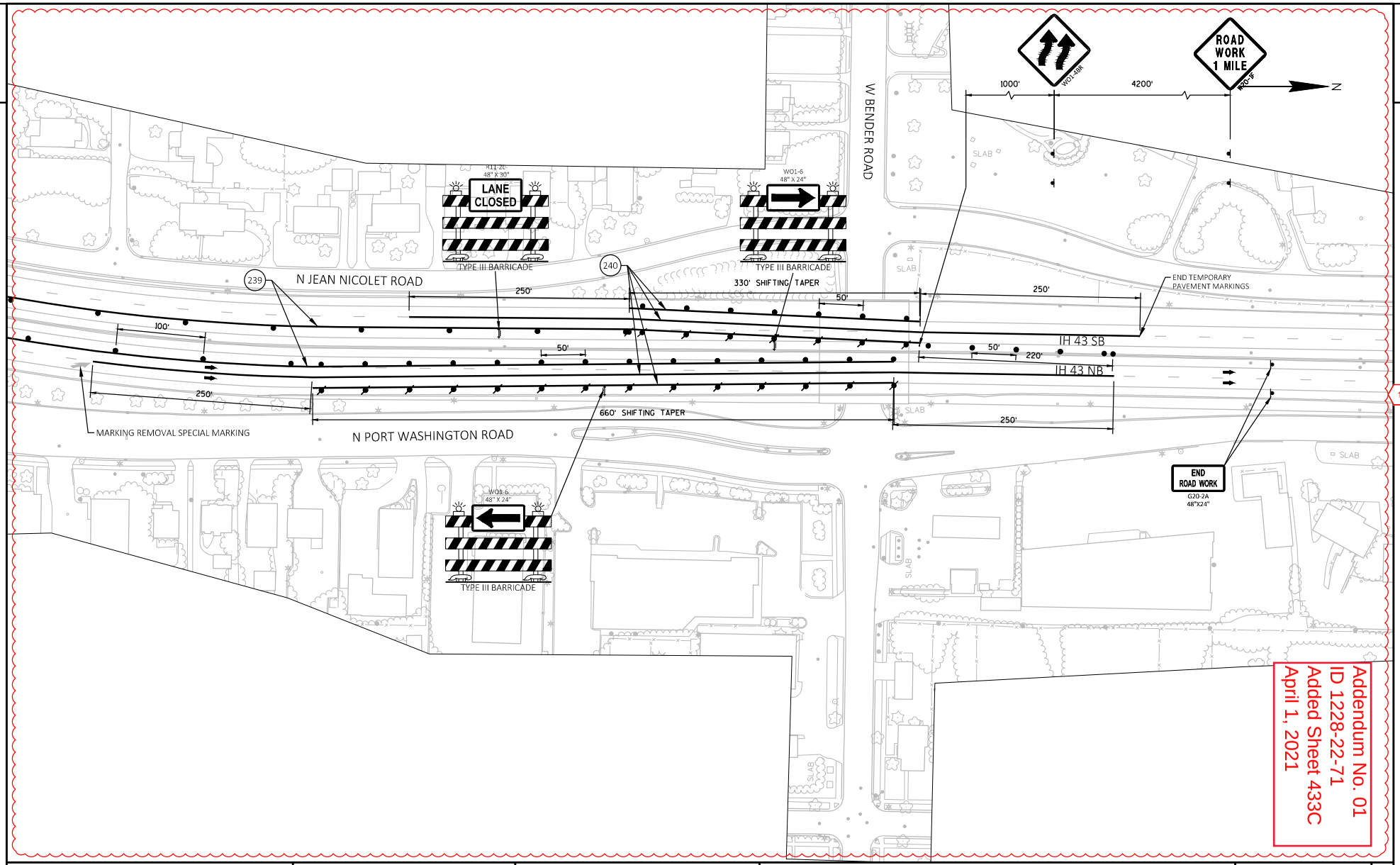
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 433A	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 10
PLOT DATE : 3/31/2021 6:51 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 433B	E

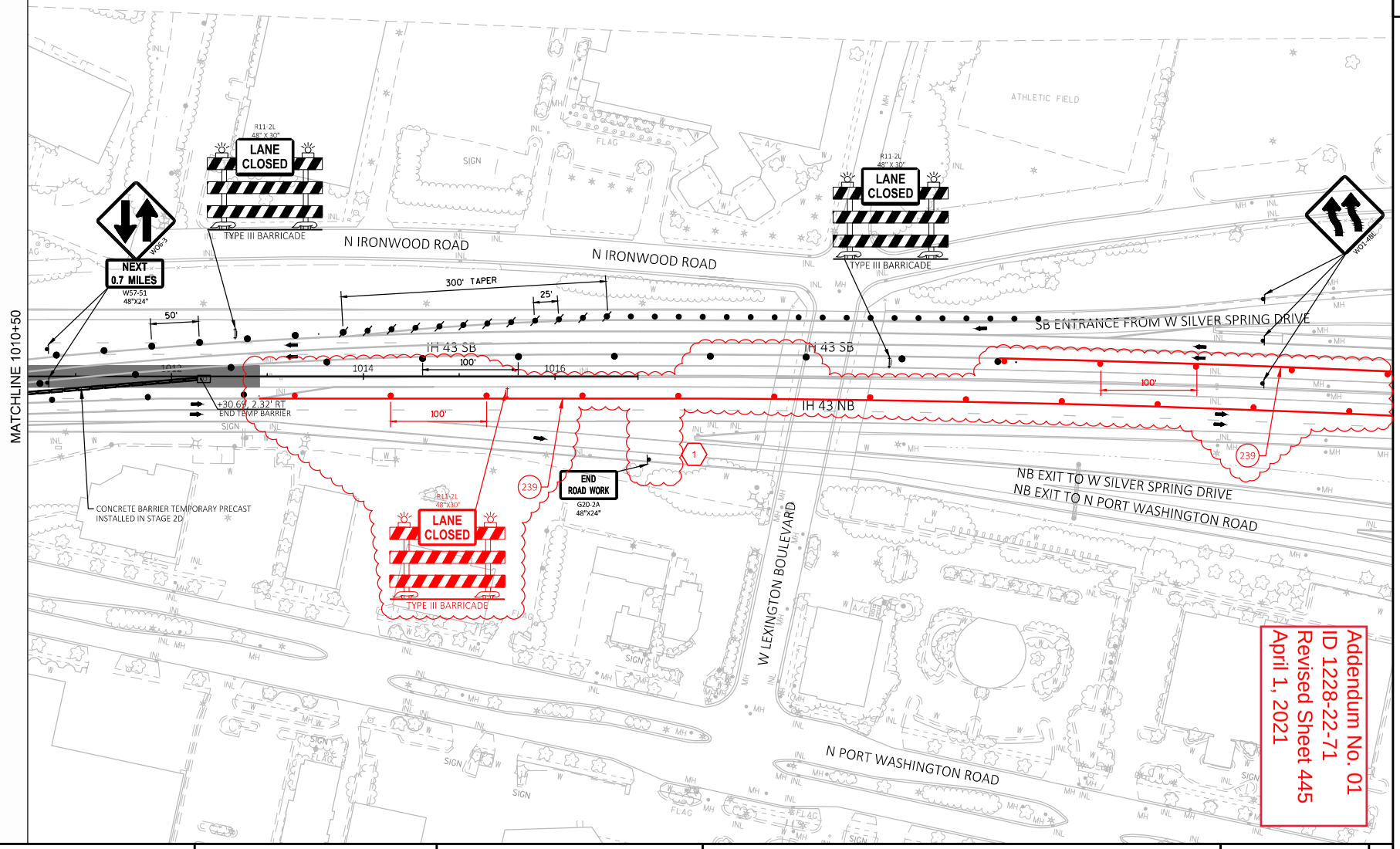
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 11
PLOT DATE : 3/31/2021 6:52 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



Addendum No. 01
ID 1228-22-71
Added Sheet 433C
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 433C	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 3/31/2021 6:53 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########

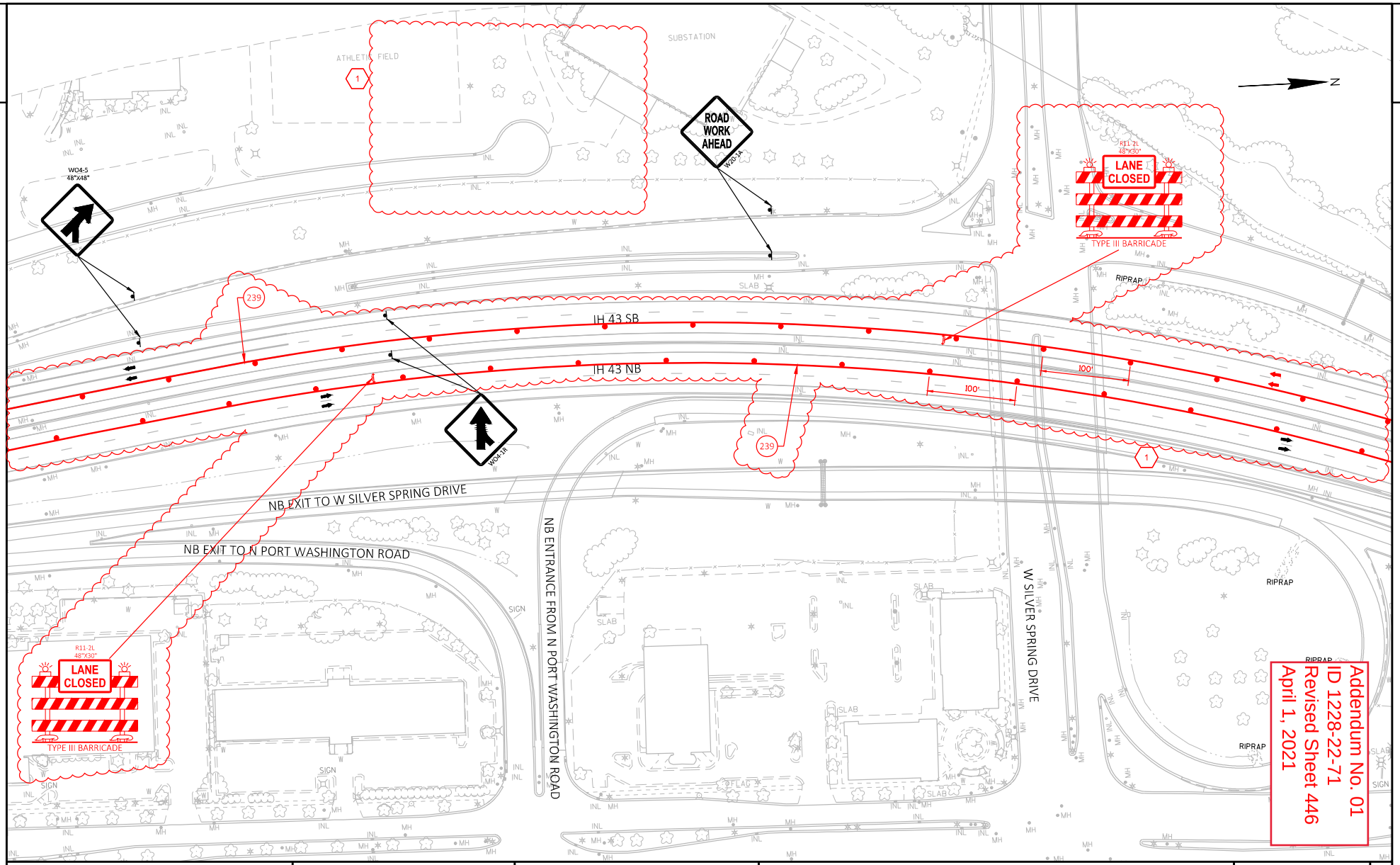


Addendum No. 01
ID 1228-22-71
Revised Sheet 445
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 445	E

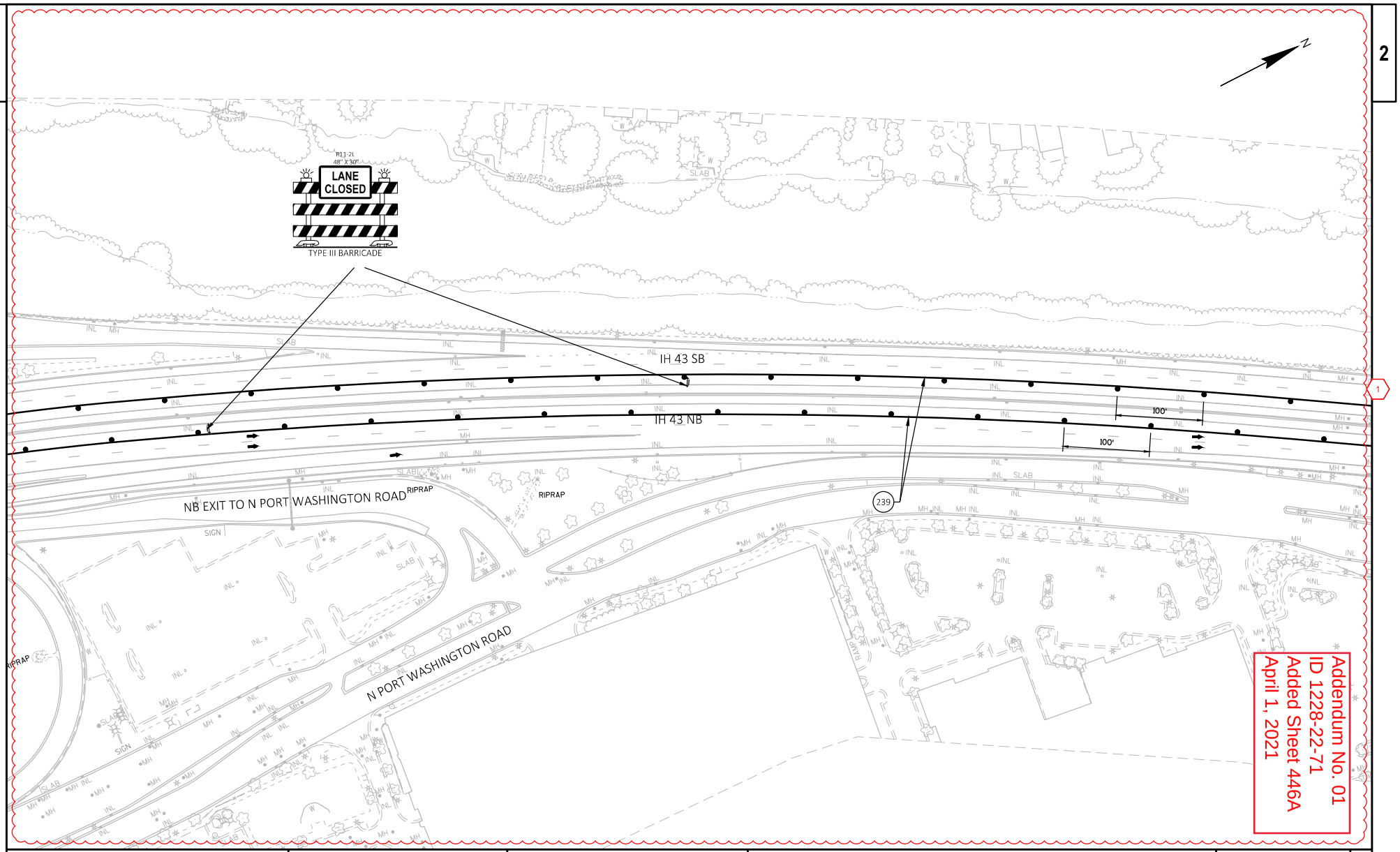
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 08
PLOT DATE : 3/31/2021 6:55 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



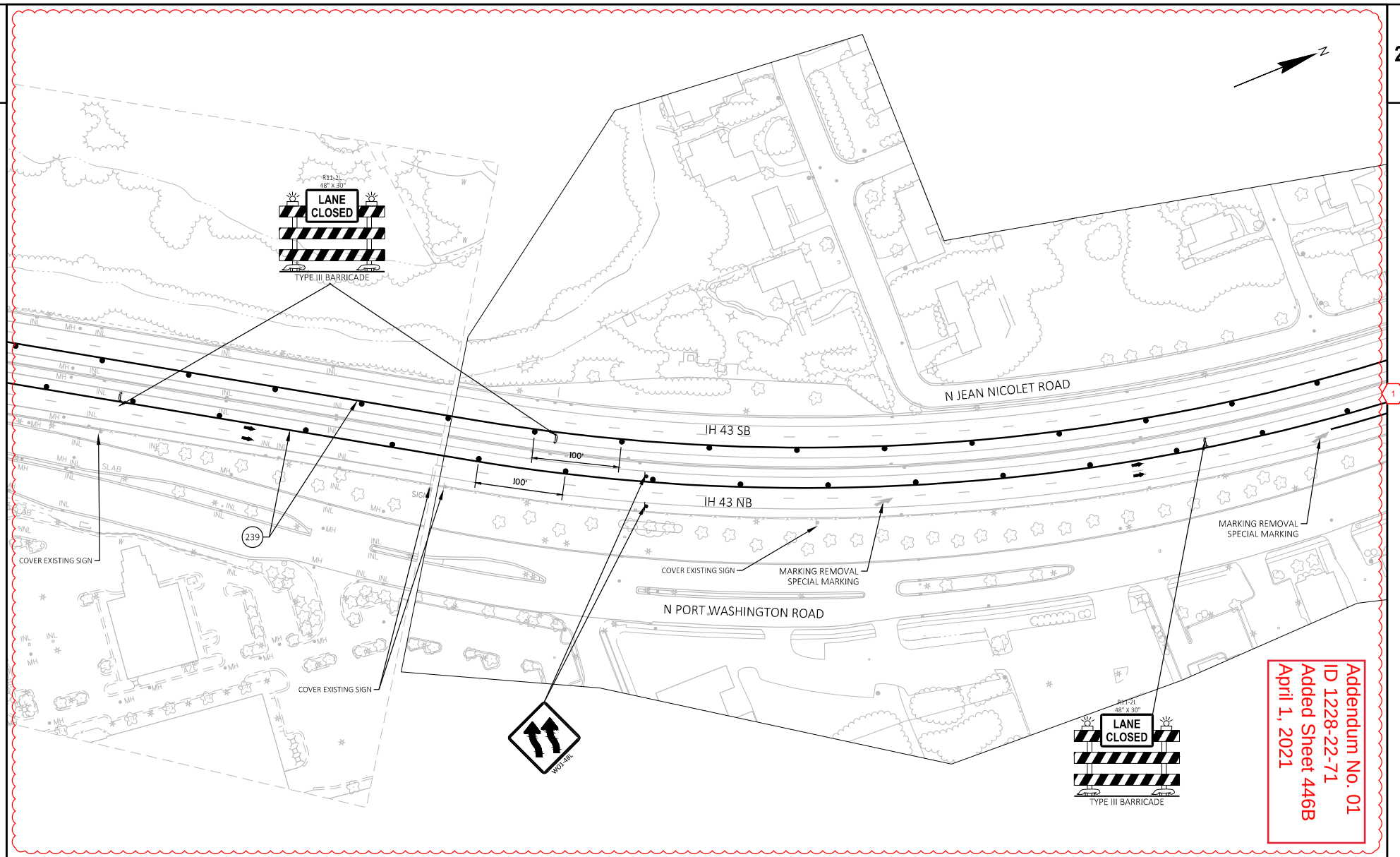
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 446	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 09
PLOT DATE : 3/31/2021 6:56 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



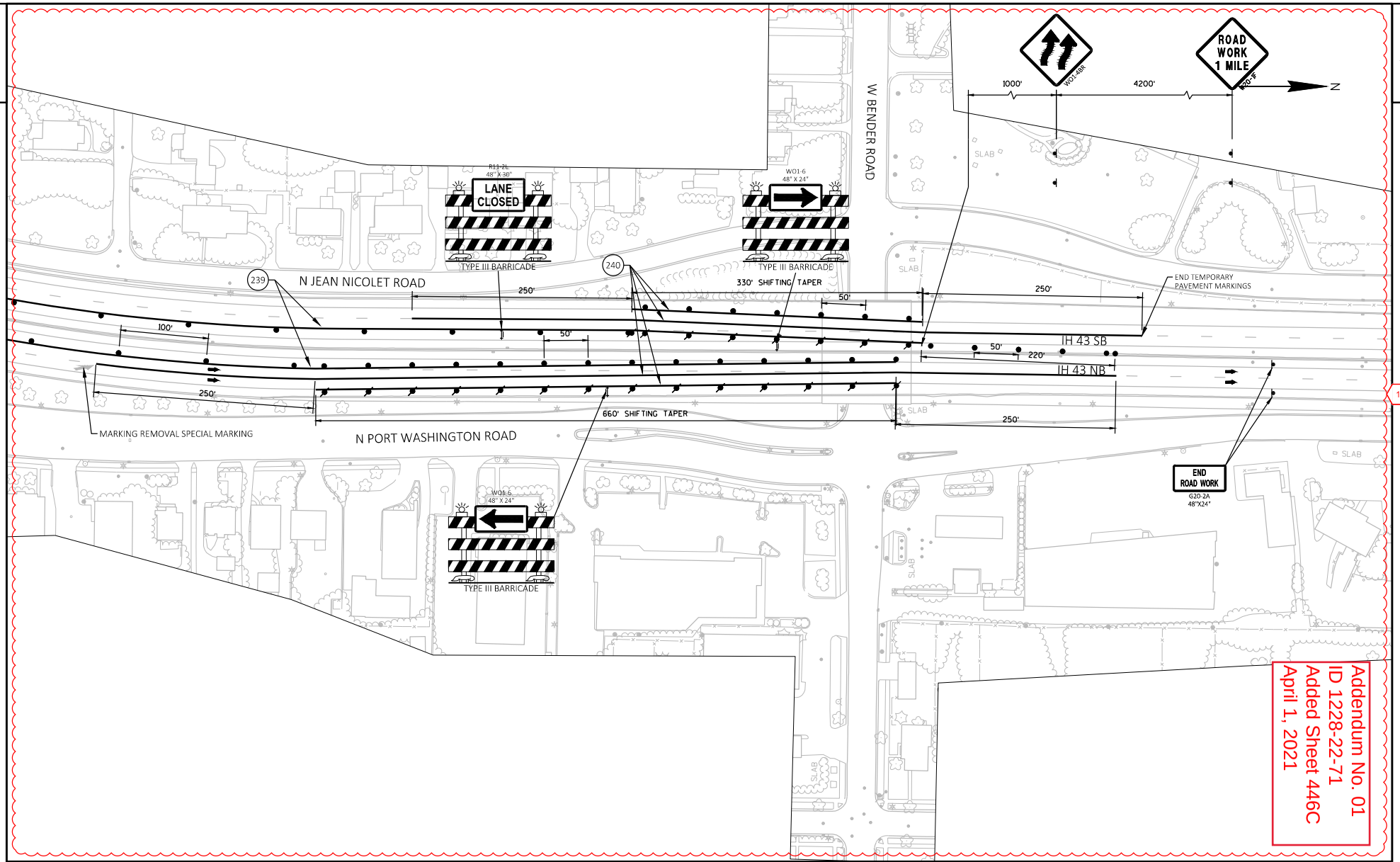
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 446A	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 10
PLOT DATE : 3/31/2021 6:56 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 446B	E

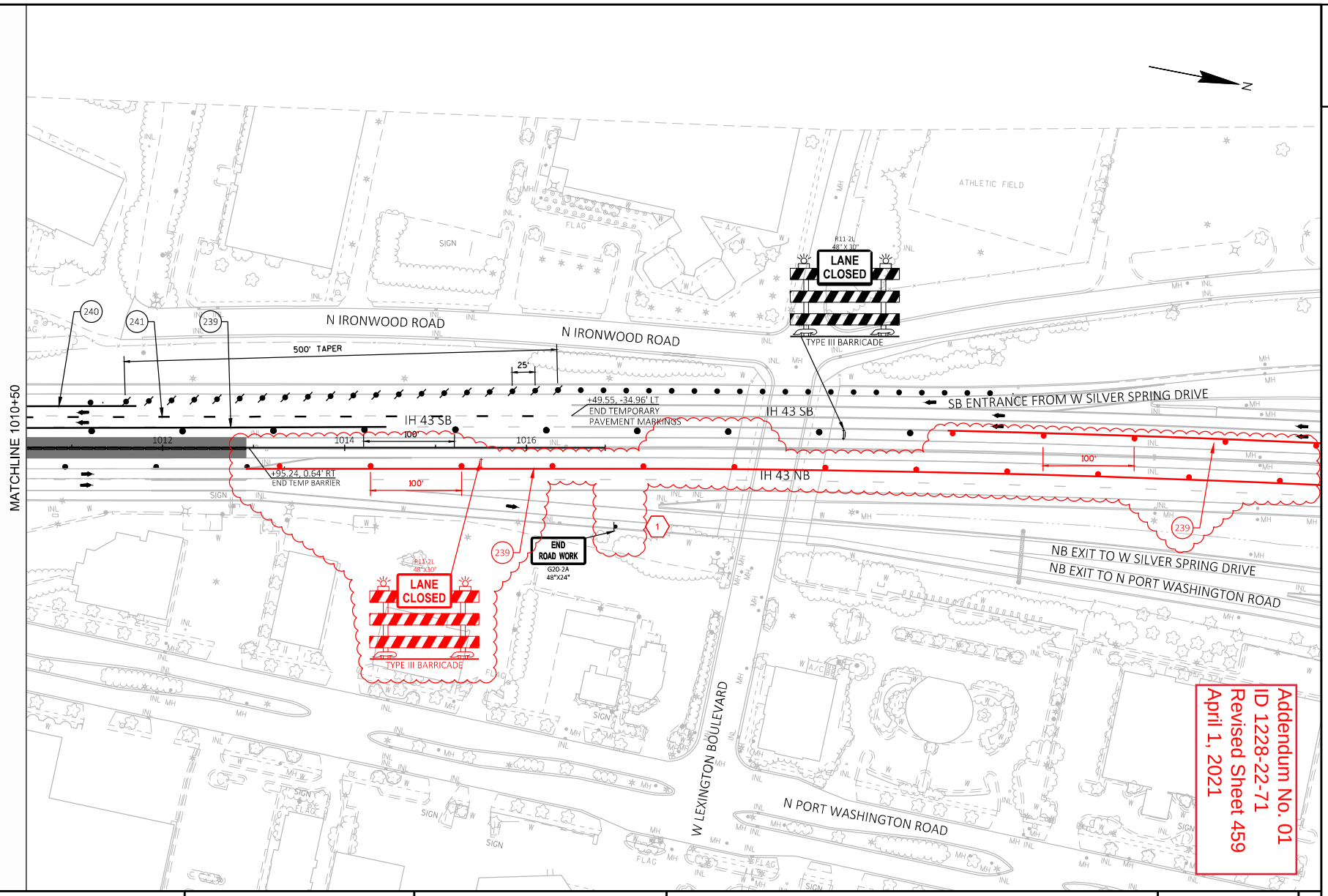
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 11
PLOT DATE : 3/31/2021 6:57 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



Addendum No. 01
ID 1228-22-71
Added Sheet 446C
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 446C	E

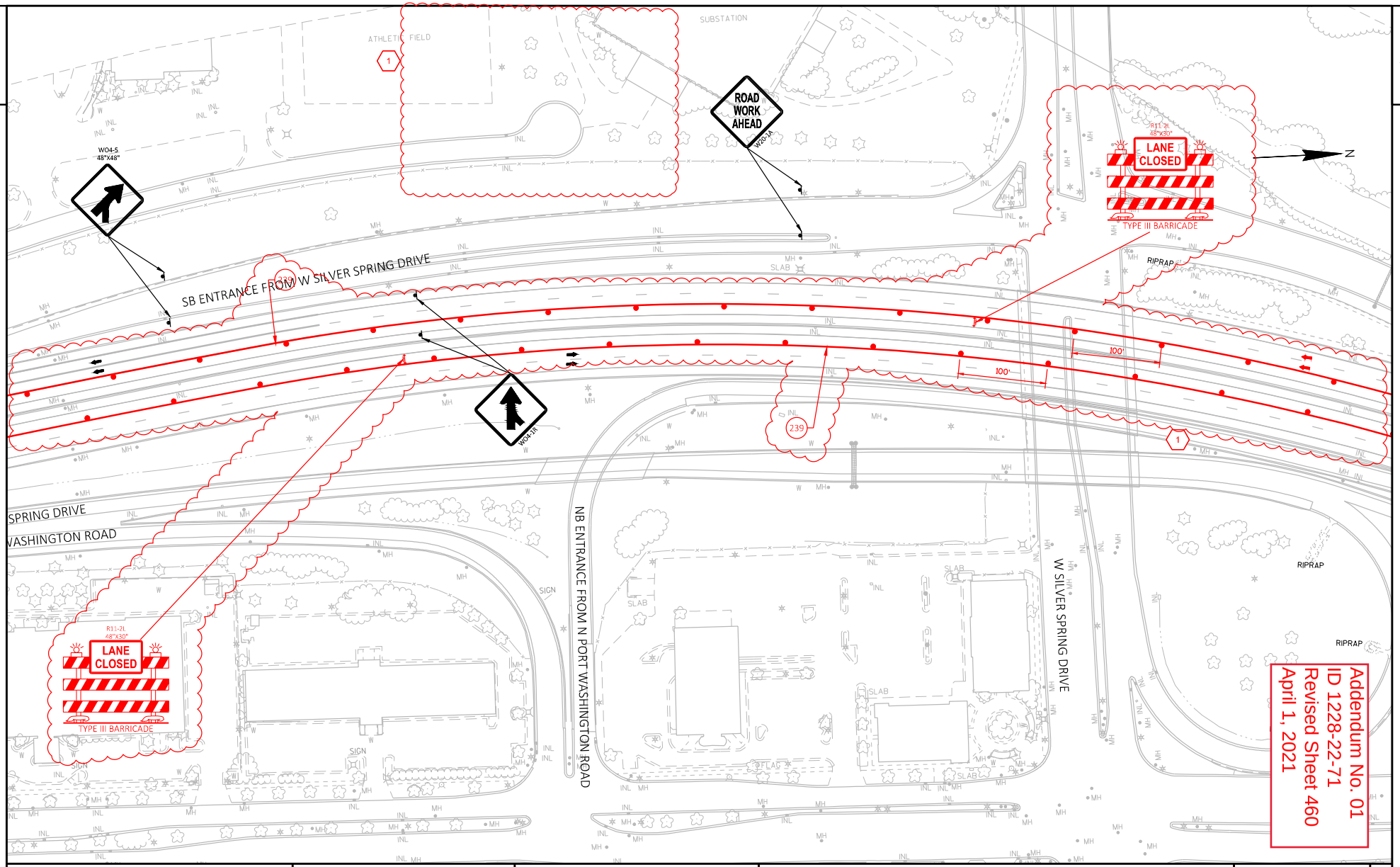
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 3/31/2021 6:58 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



Addendum No. 01
ID 1228-22-71
Revised Sheet 459
April 1, 2021

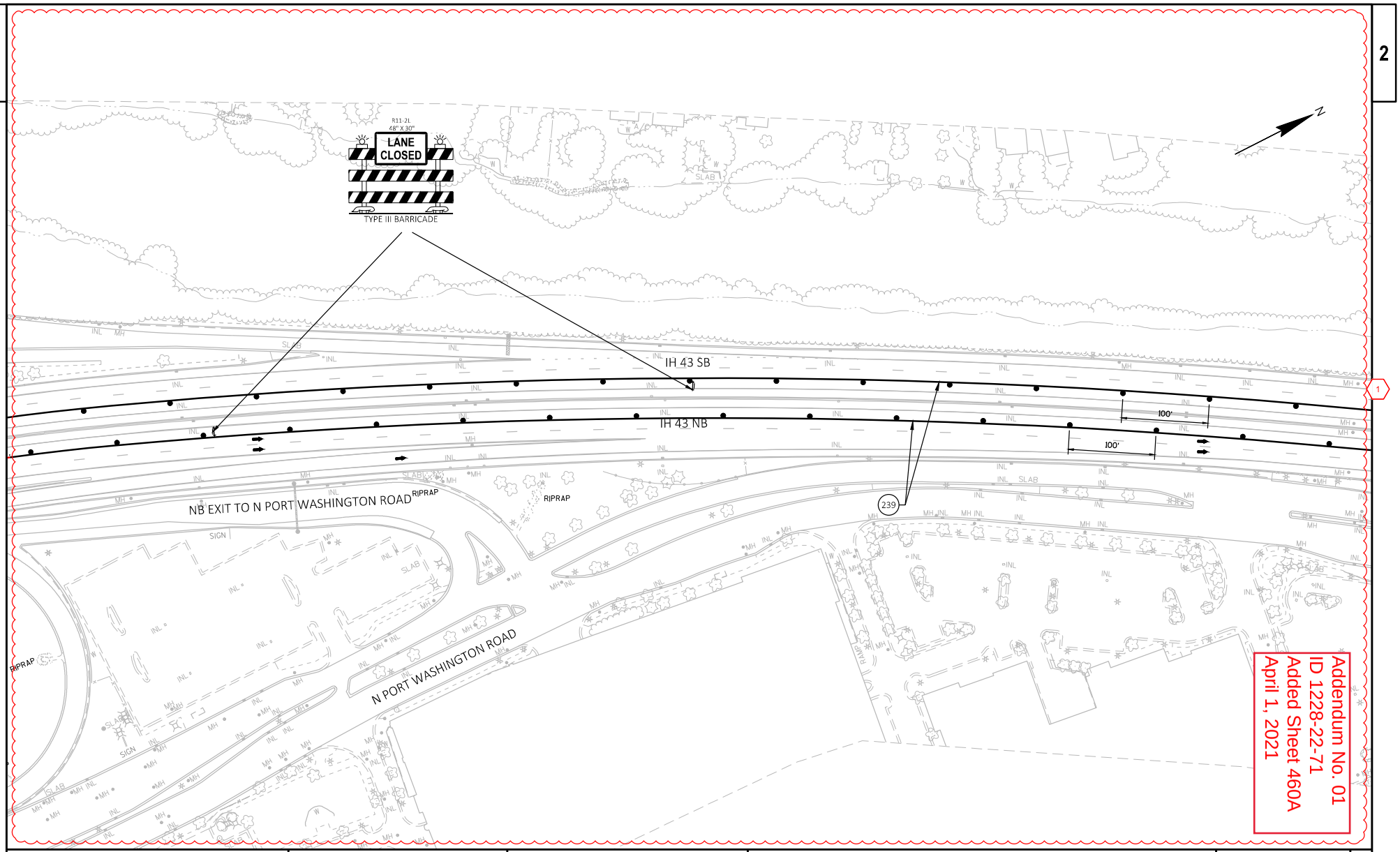
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 459	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3B-3ST.DWG
LAYOUT NAME - 08
PLOT DATE : 3/31/2021 6:59 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 460	E

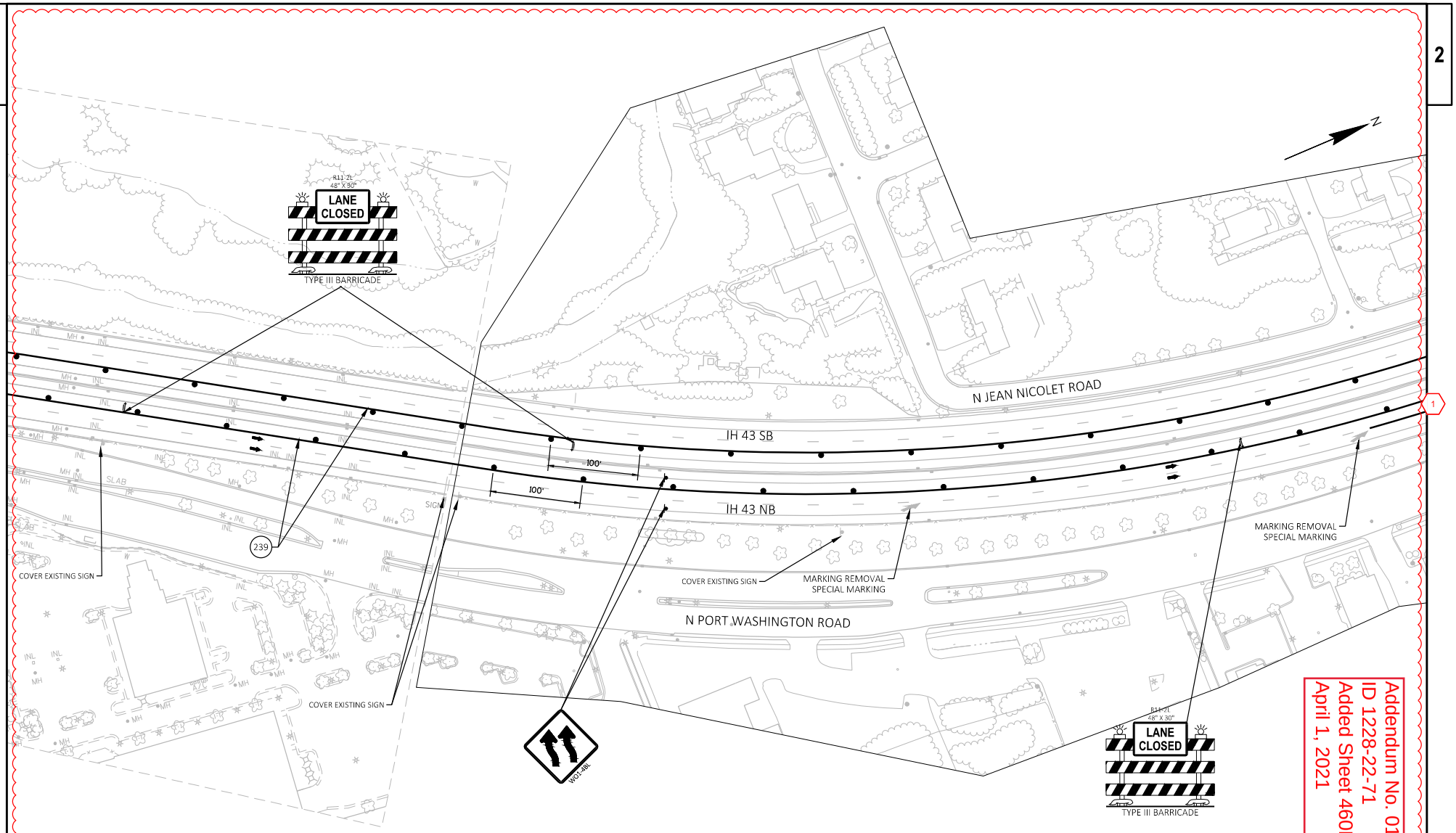
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3B-3ST.DWG
LAYOUT NAME - 09
PLOT DATE : 3/31/2021 6:59 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 460A	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3B-3ST.DWG
LAYOUT NAME - 10
PLOT DATE : 3/31/2021 7:00 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

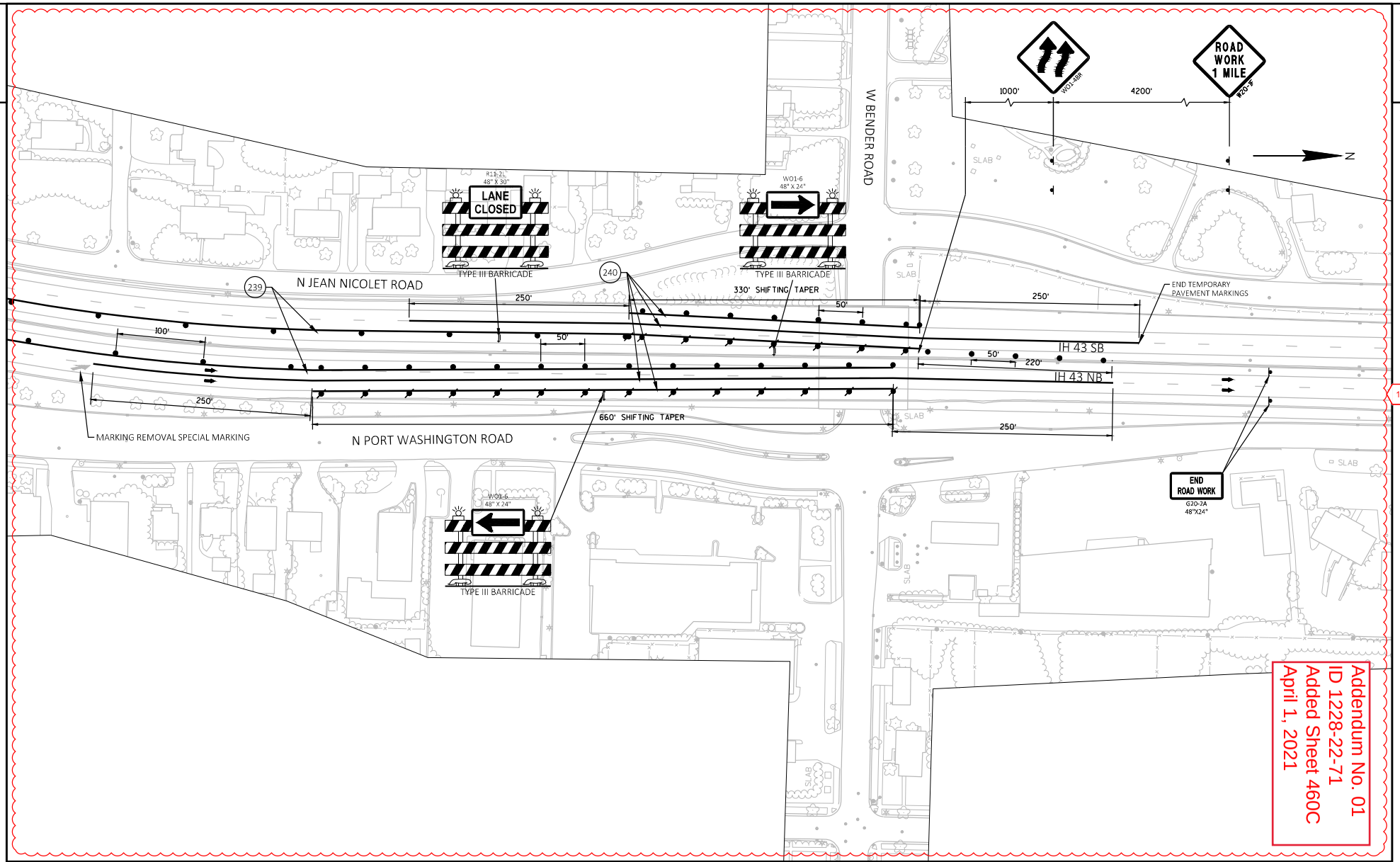
WISDOT/CADDS SHEET 42



Addendum No. 01
ID 1228-22-71
Added Sheet 460B
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 460B	E

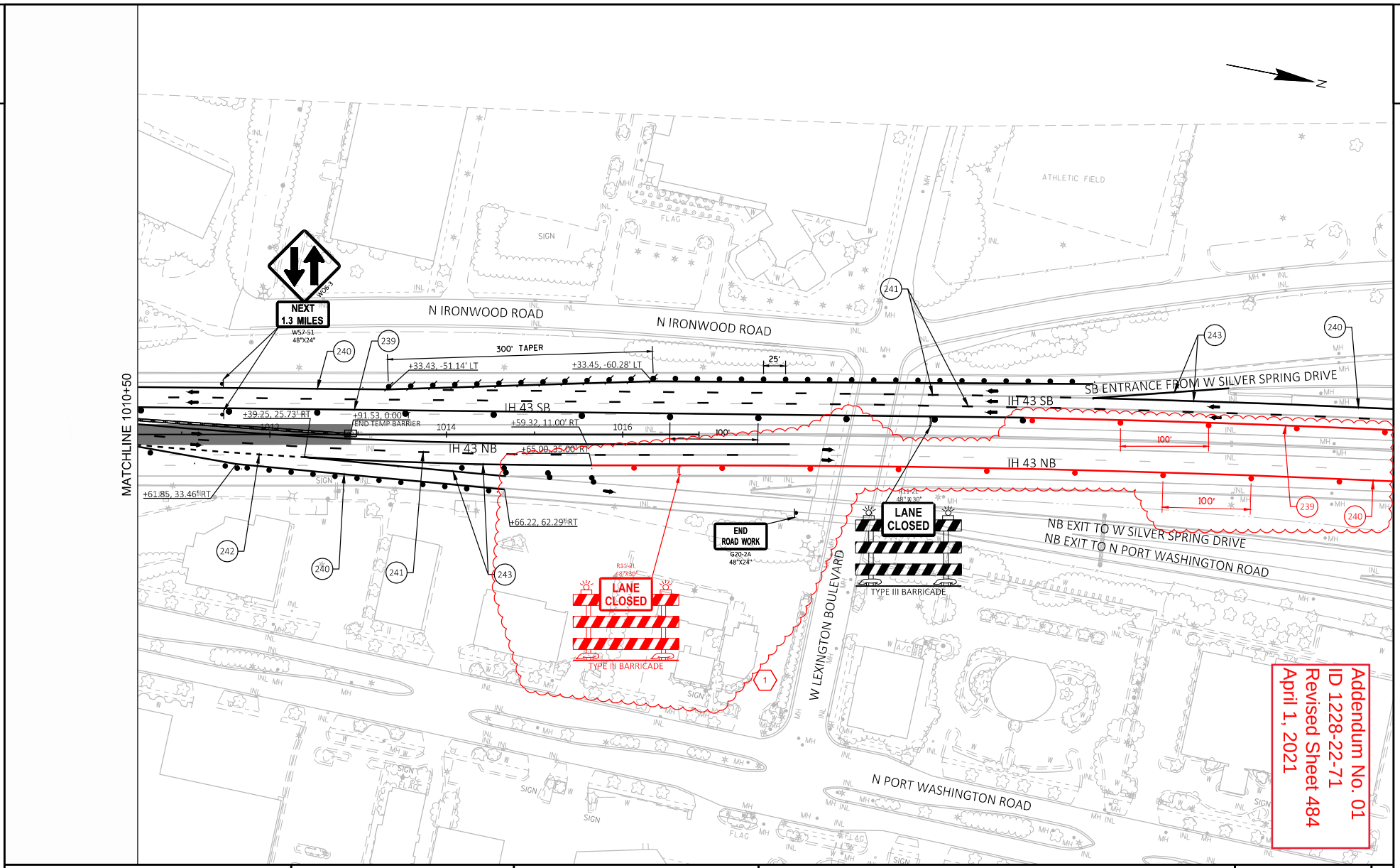
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3B-3ST.DWG
LAYOUT NAME - 11
PLOT DATE : 3/31/2021 7:01 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



Addendum No. 01
ID 1228-22-71
Added Sheet 460C
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 460C	E

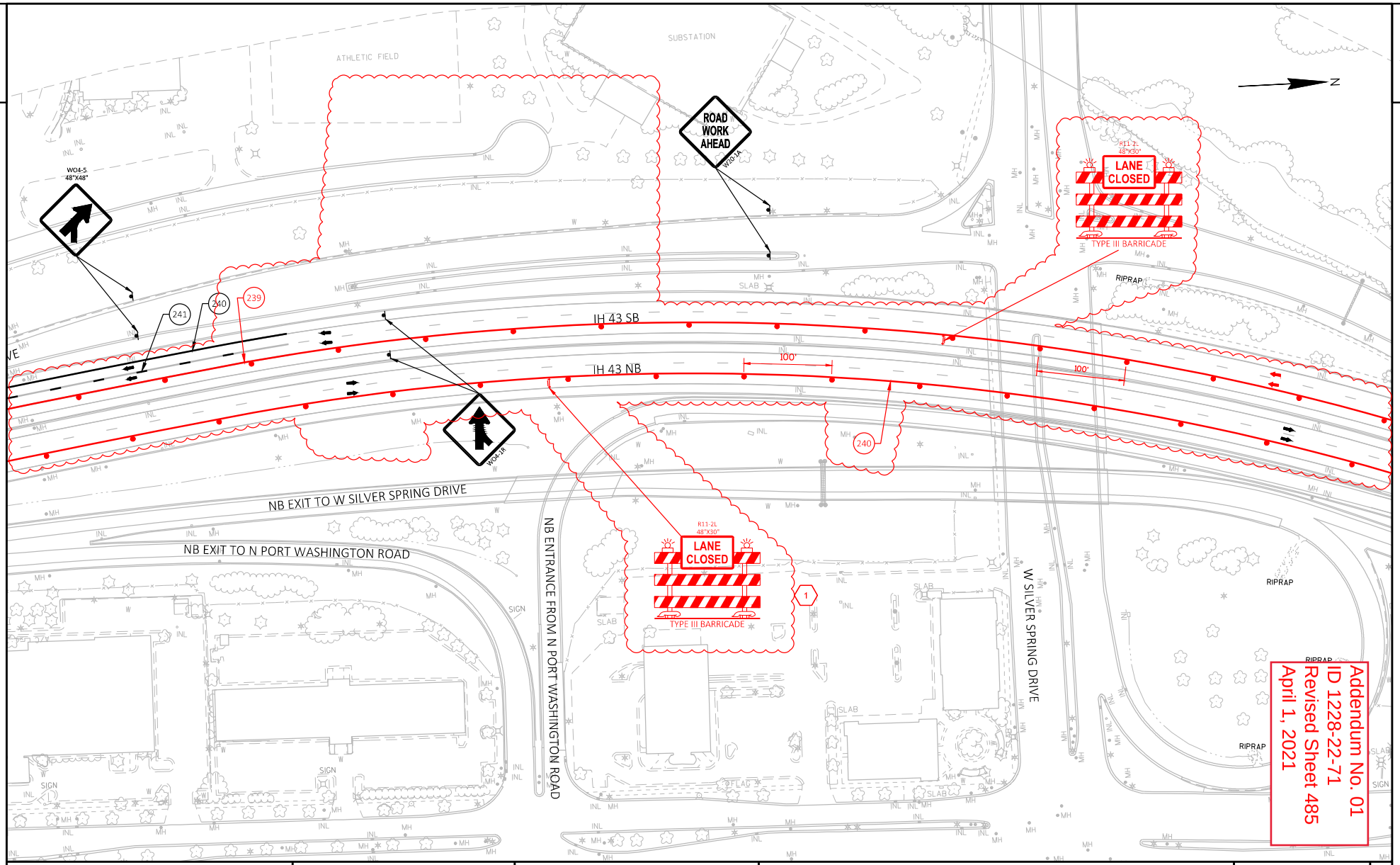
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3B-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 3/31/2021 7:01 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 01
ID 1228-22-71
Revised Sheet 484
April 1, 2021

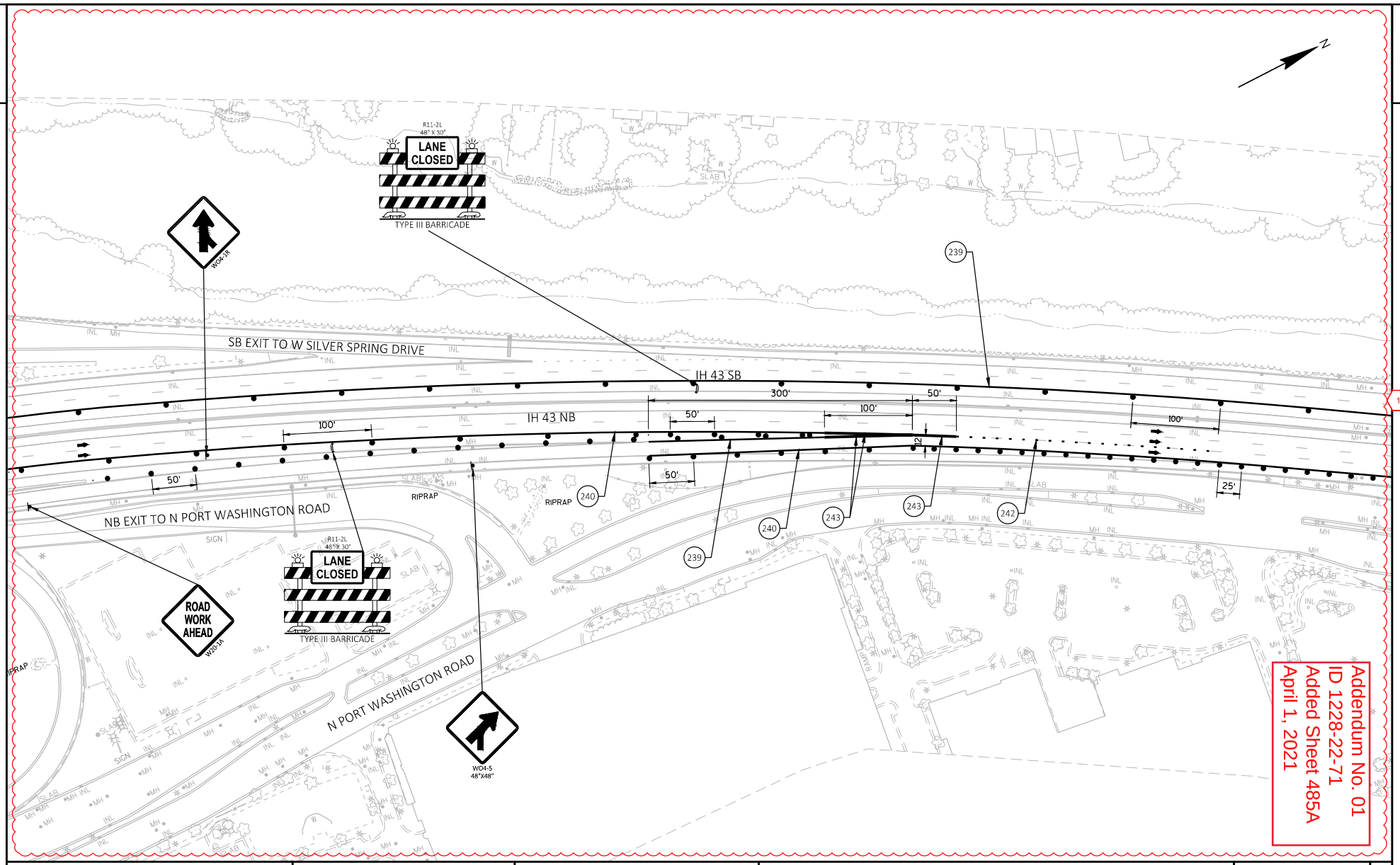
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 484	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-3ST.DWG
LAYOUT NAME - 08
PLOT DATE : 3/31/2021 8:03 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



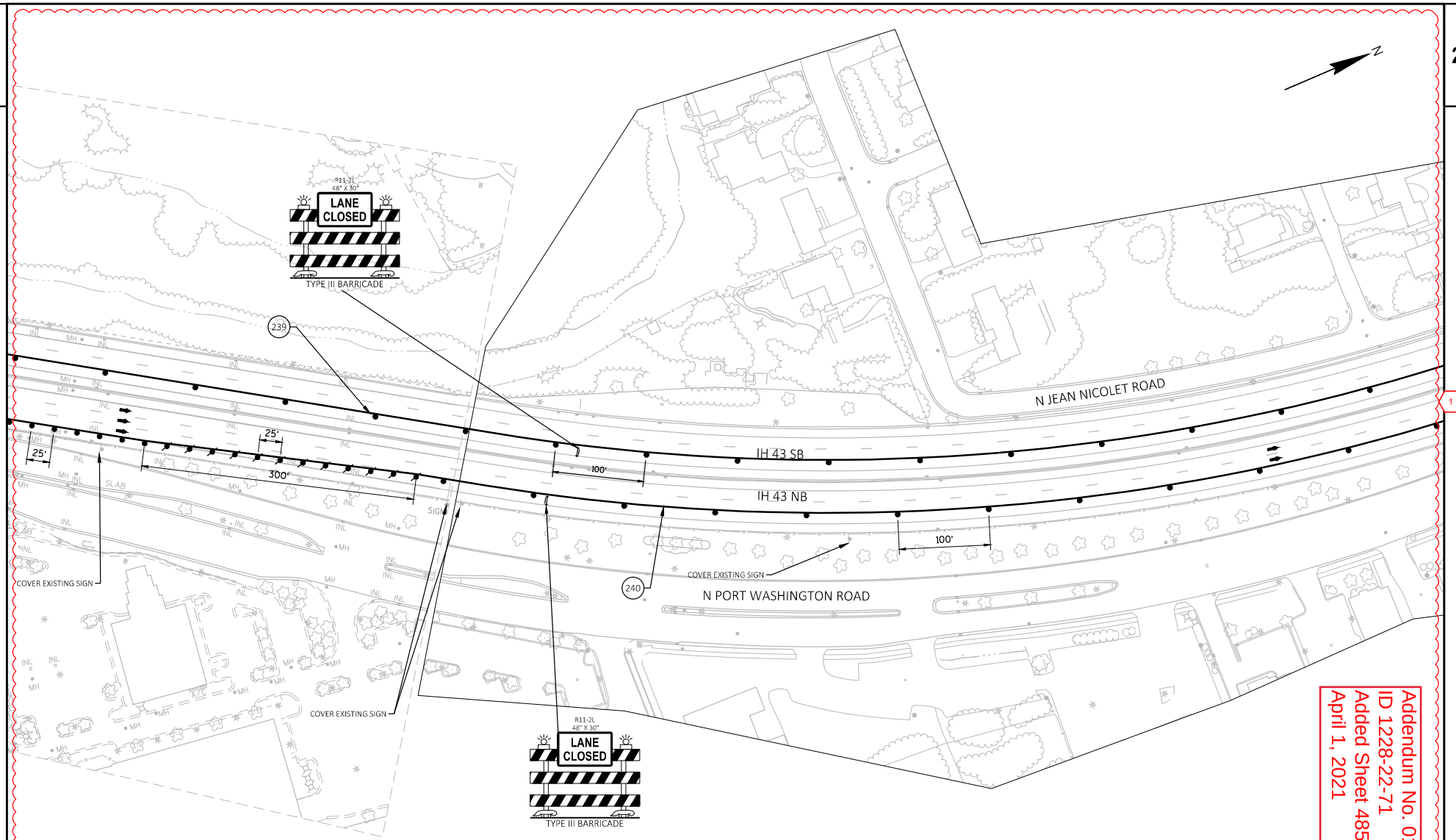
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 485	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-3ST.DWG
LAYOUT NAME - 09
PLOT DATE : 3/31/2021 8:04 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



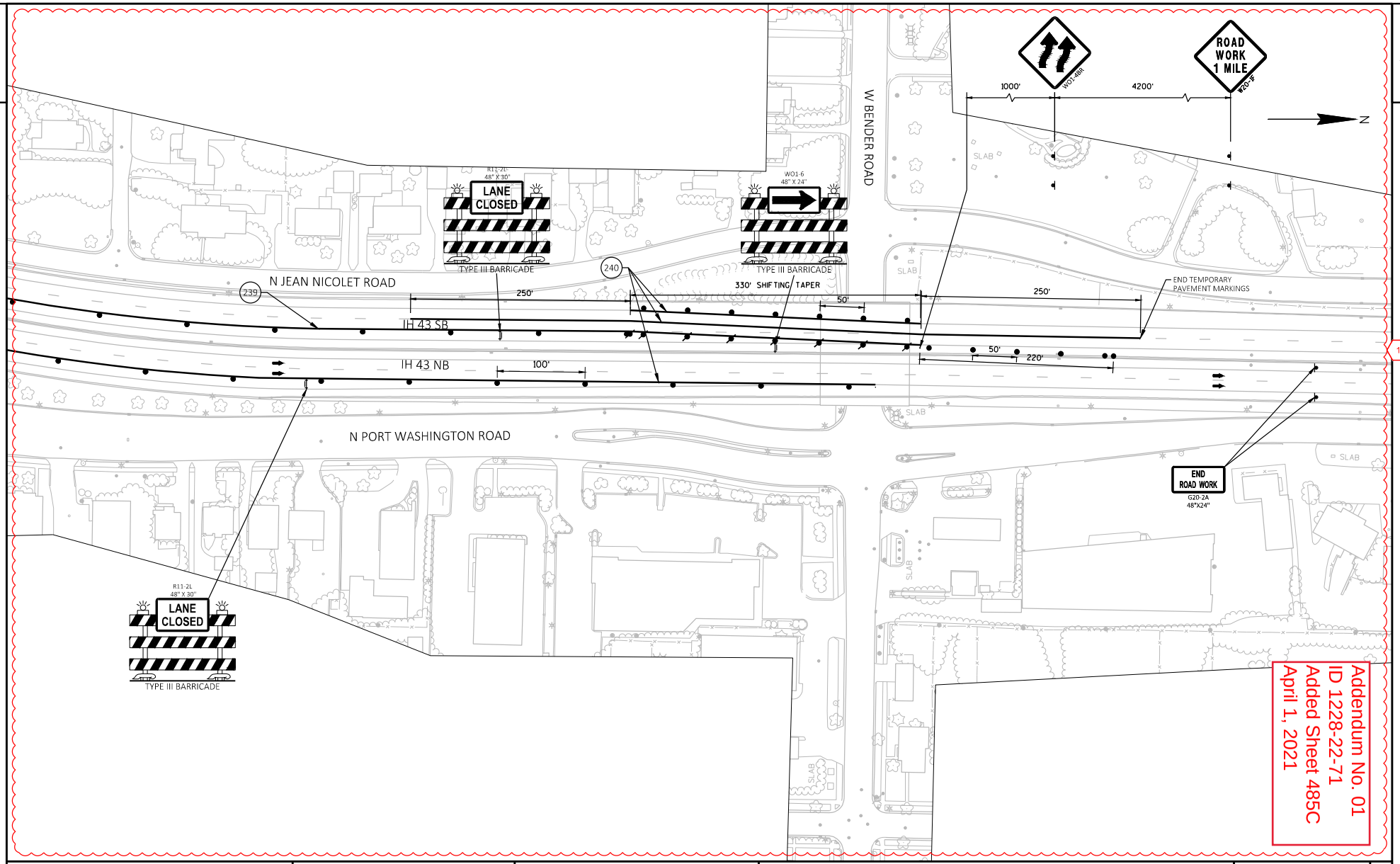
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 485A	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-3ST.DWG
LAYOUT NAME - 10
PLOT DATE : 3/31/2021 8:05 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 485B	E

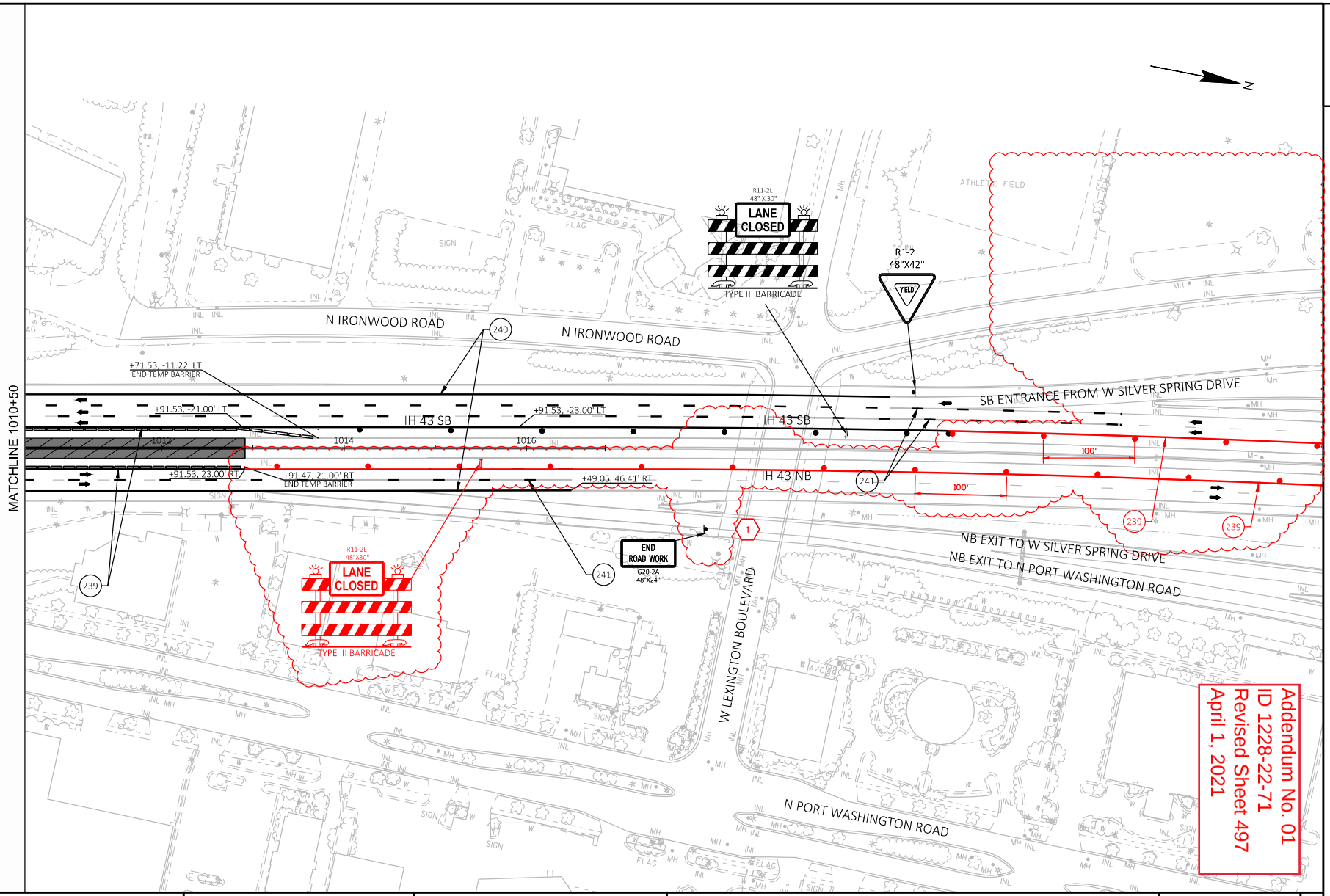
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-3ST.DWG
LAYOUT NAME - 11
PLOT DATE : 3/31/2021 8:06 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



Addendum No. 01
ID 1228-22-71
Added Sheet 485C
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 485C	E

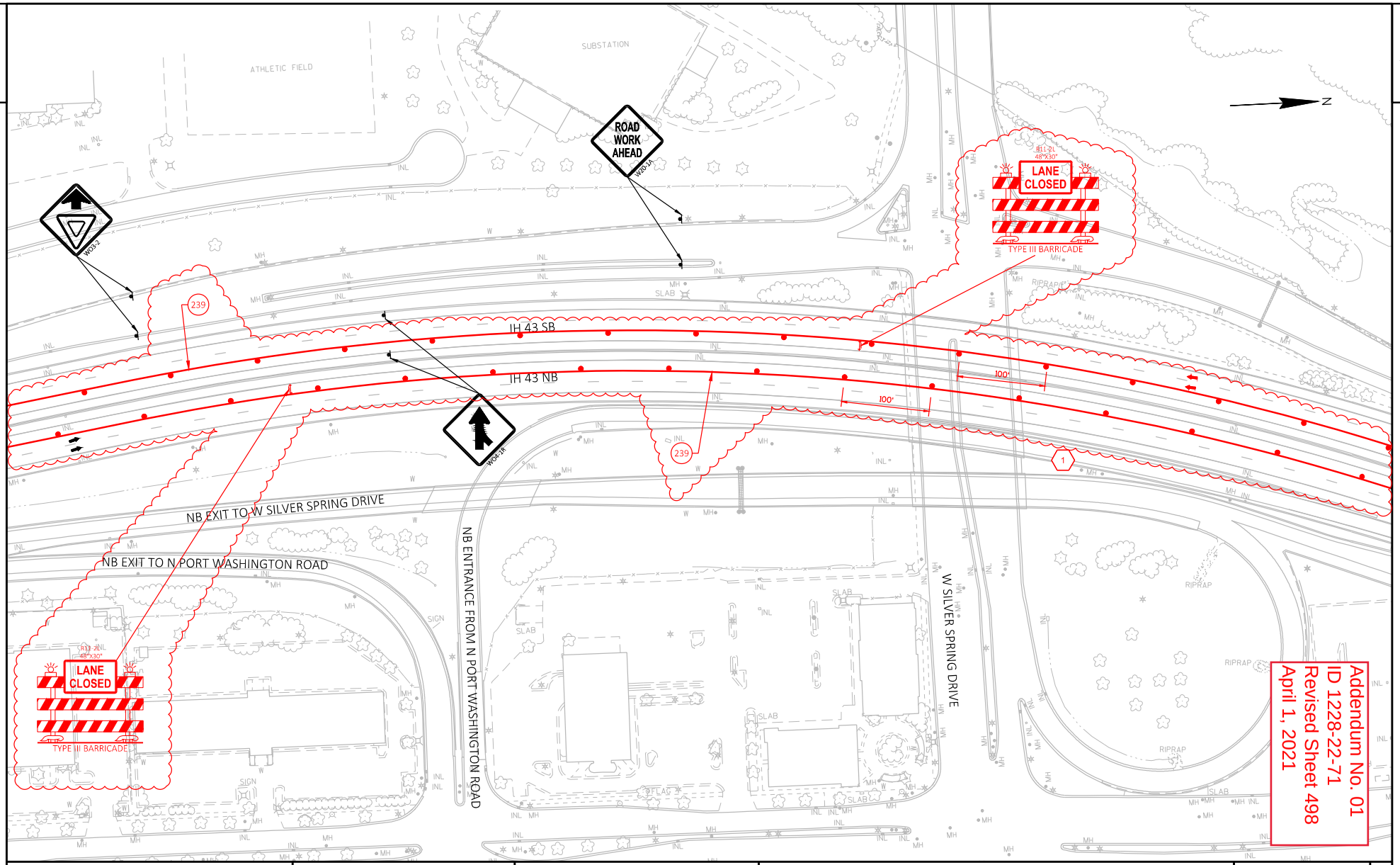
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 3/31/2021 8:07 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 5	SHEET 497	E

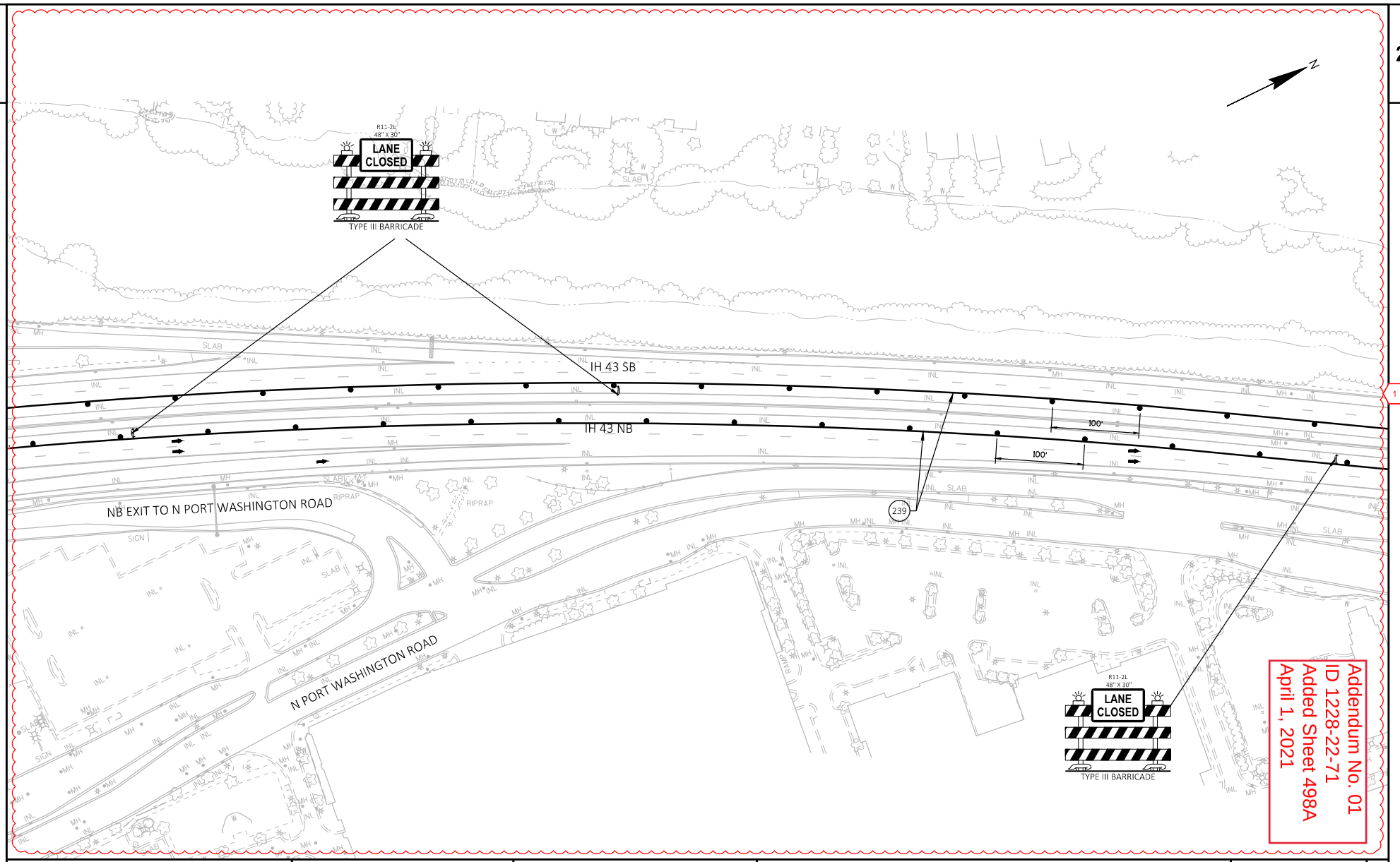
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST5-3ST.DWG
LAYOUT NAME - 08
PLOT DATE : 3/31/2021 7:03 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



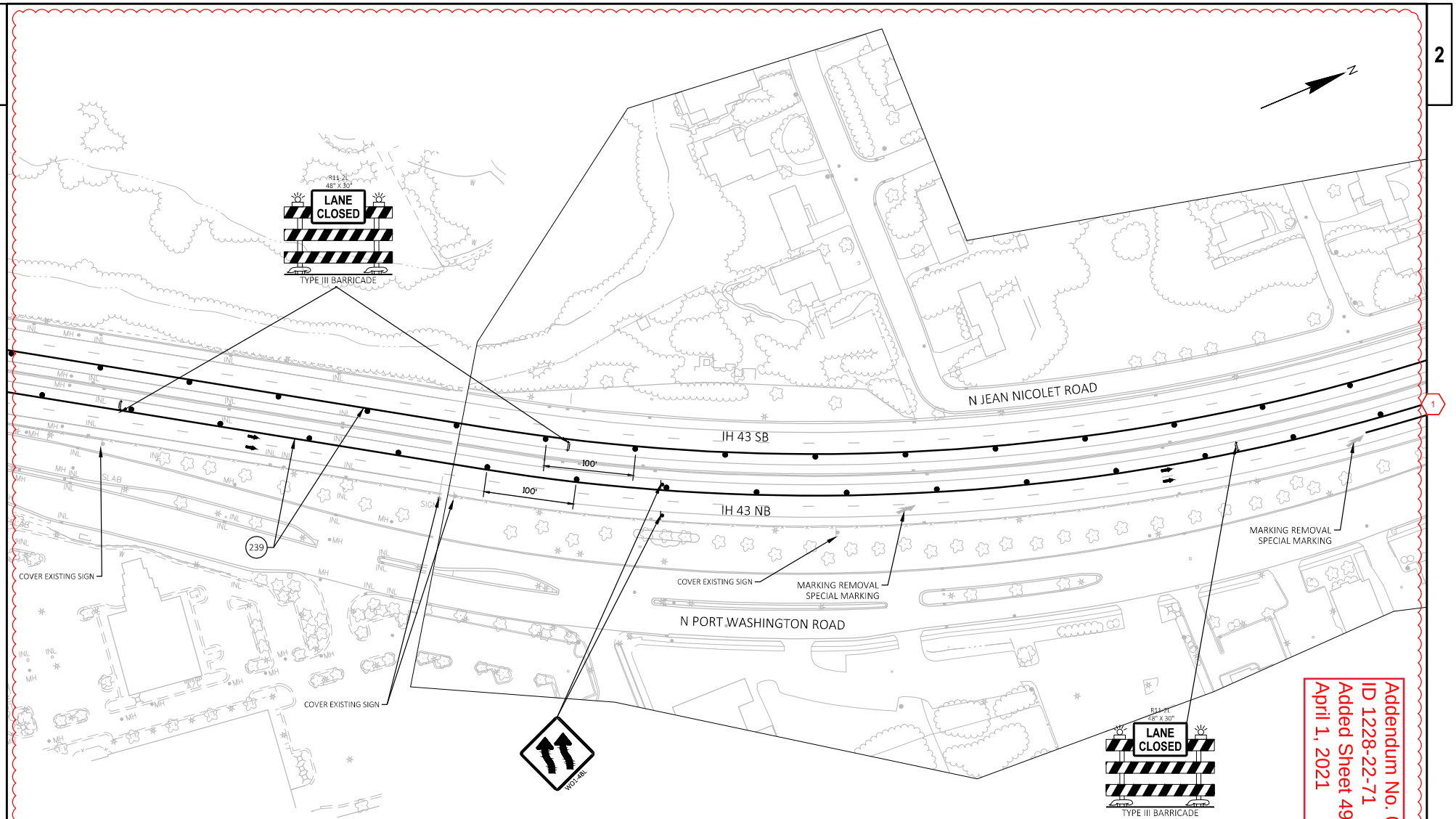
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 5	SHEET 498	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST5-3ST.DWG
LAYOUT NAME - 09
PLOT DATE : 3/31/2021 7:04 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



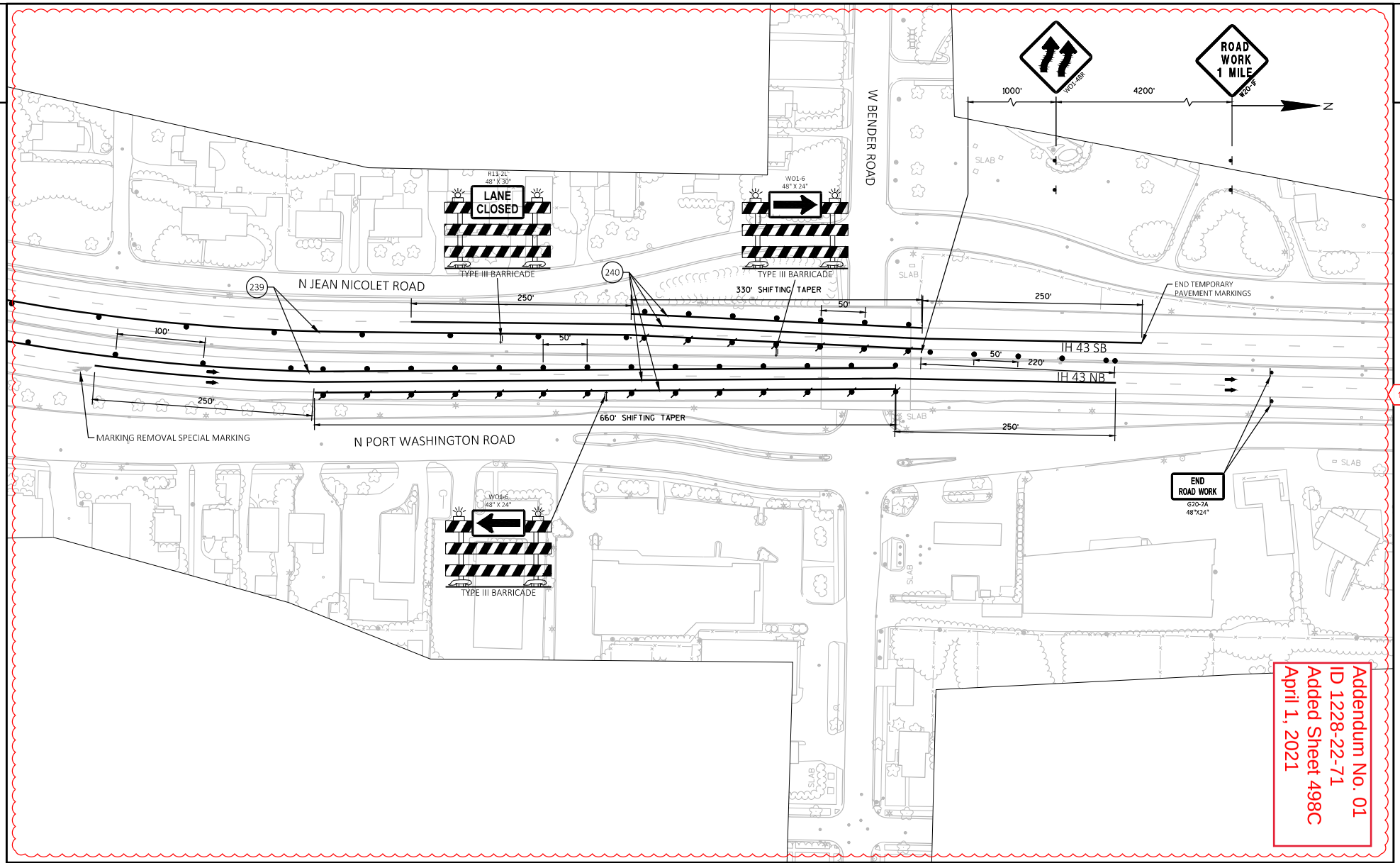
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 5	SHEET 498A	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST5-3ST.DWG
LAYOUT NAME - 10
PLOT DATE : 3/31/2021 7:05 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 5	SHEET 498B	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST5-3ST.DWG
LAYOUT NAME - 11
PLOT DATE : 3/31/2021 7:05 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

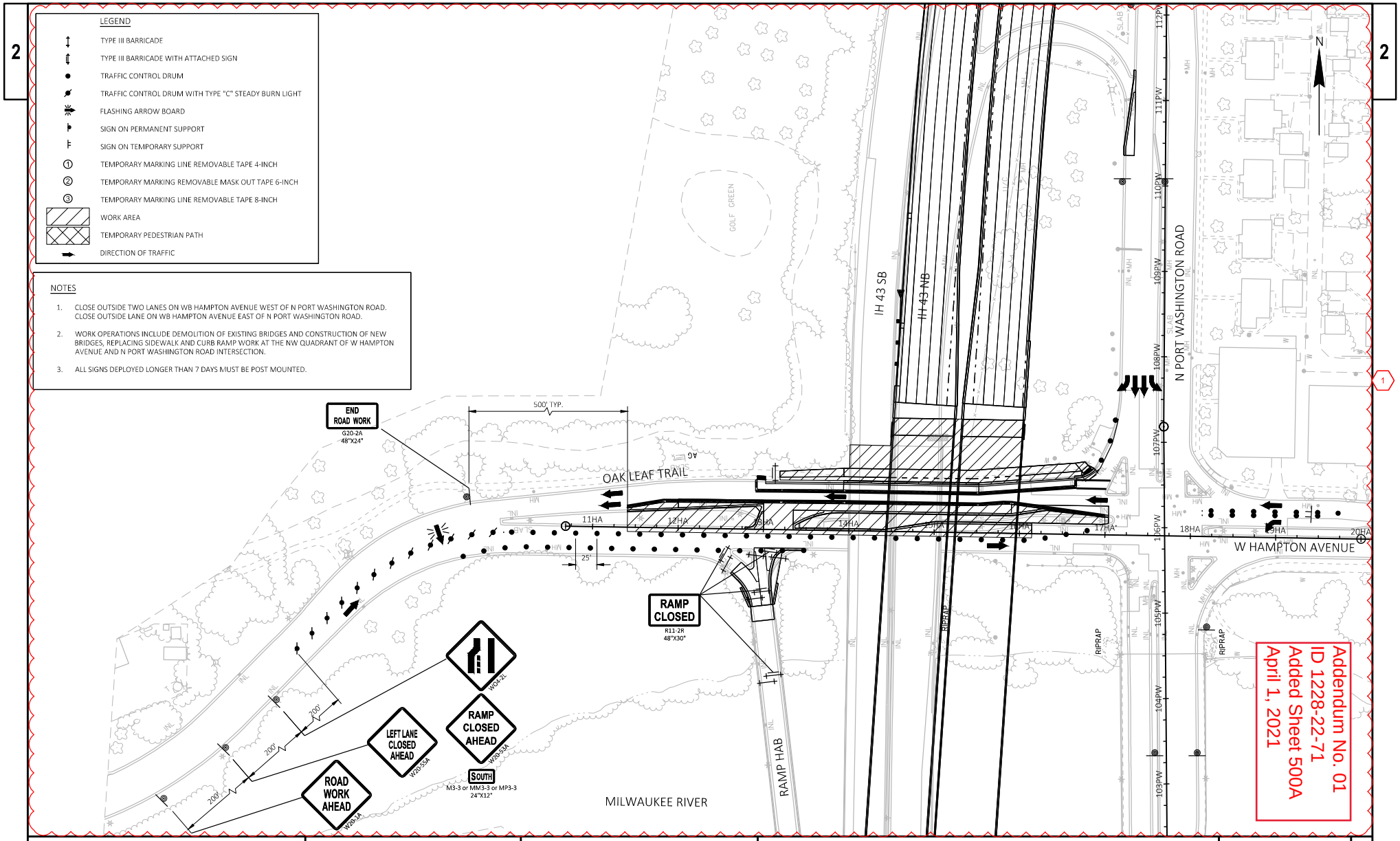


PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 5	SHEET 498C	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST5-3ST.DWG
LAYOUT NAME - 12

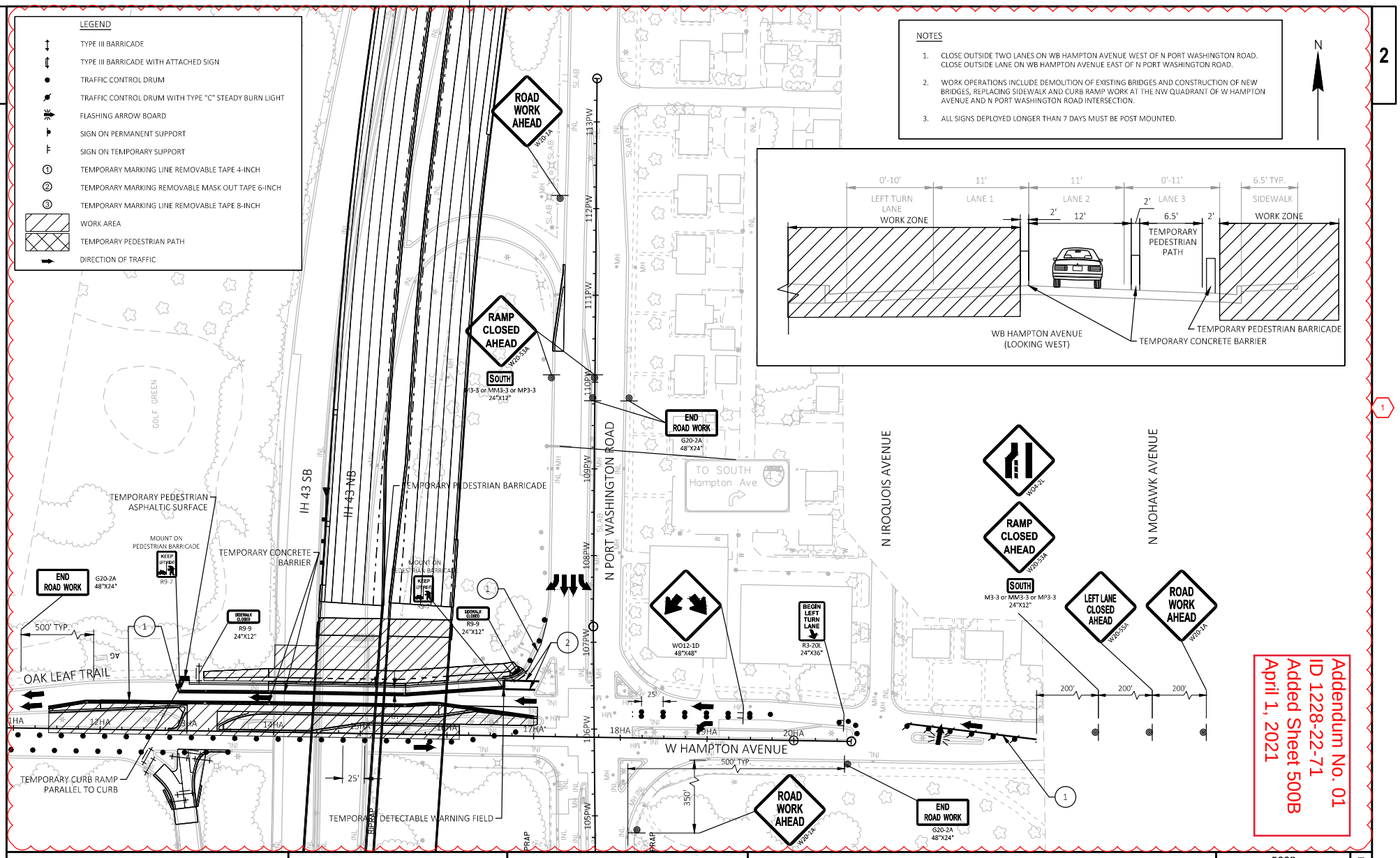
PLOT DATE : 3/31/2021 7:06 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



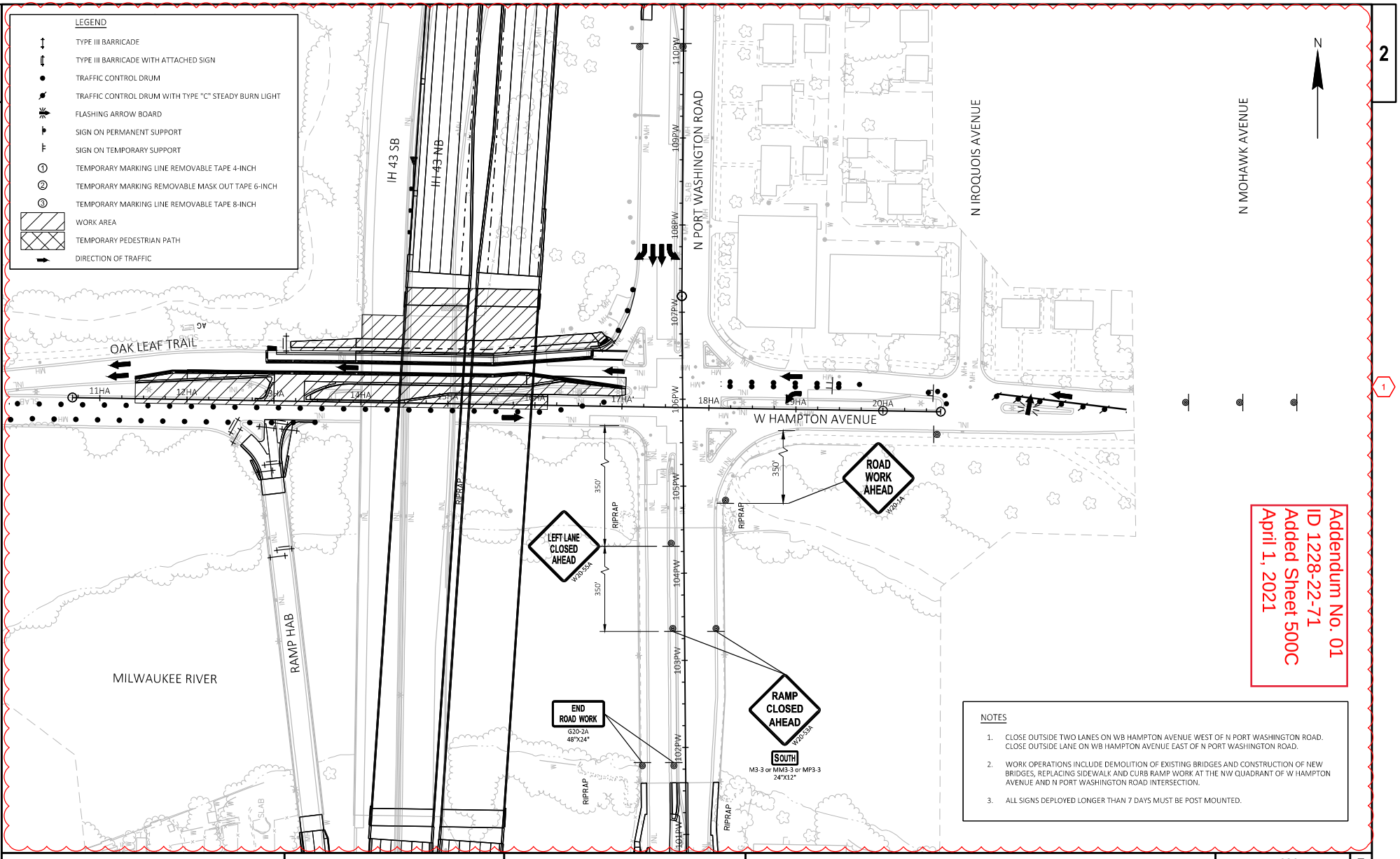
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL HAMPTON AVENUE WITH PEDESTRIAN ACCOMMODATIONS	SHEET 500A	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\HAMPTON PED WORKSHEET-ST7_PEDESTRIAN ACCOMODATIONS-3ST.DWG
LAYOUT NAME - 026001-st7-01
PLOT DATE : 3/31/2021 11:28 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



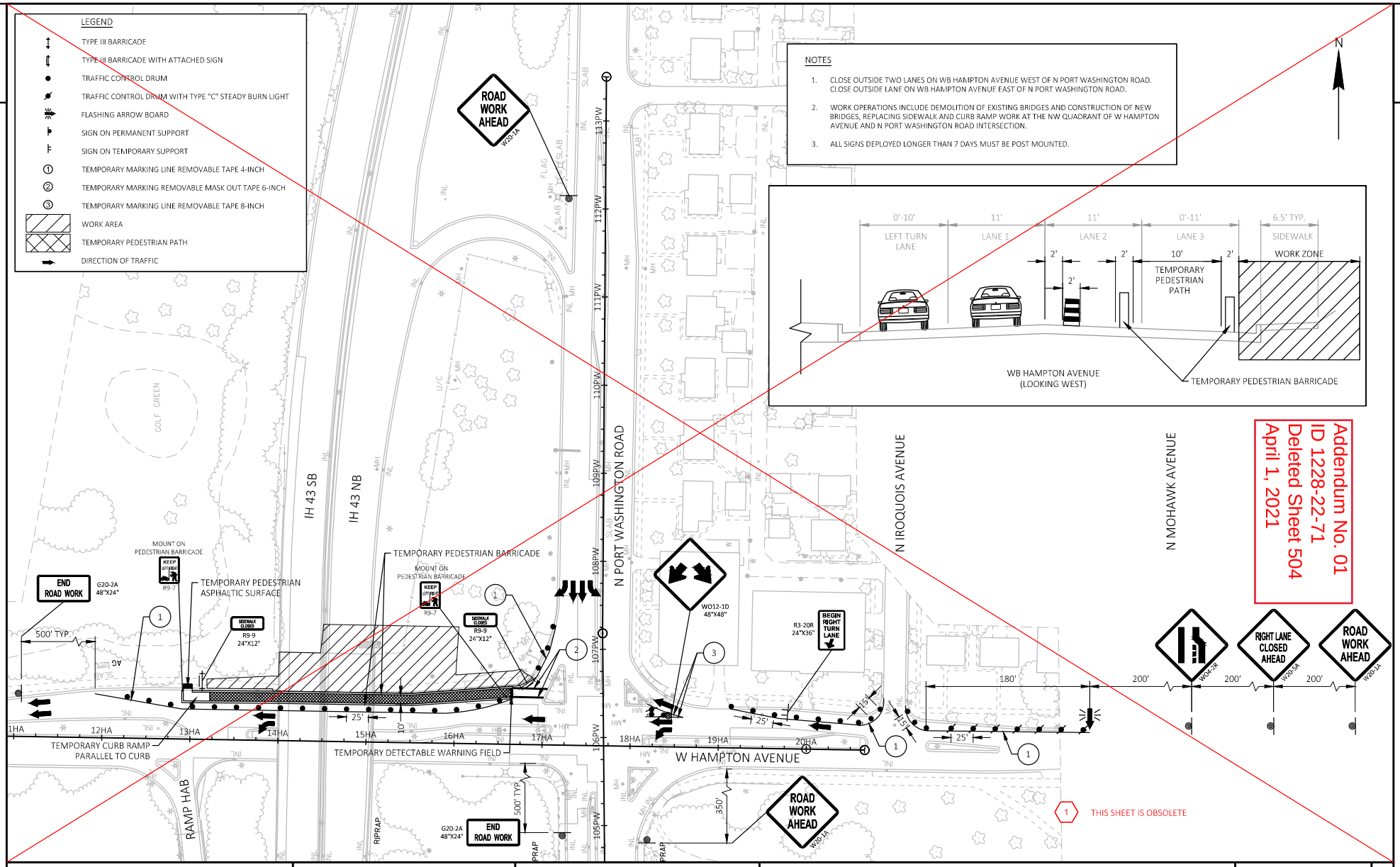
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL HAMPTON AVENUE WITH PEDESTRIAN ACCOMMODATIONS	SHEET 500B	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\HAMPTON PED WORKSHEET-ST7_PEDESTRIAN ACCOMODATIONS-3ST.DWG
LAYOUT NAME - 026001-st7-02
PLOT DATE : 3/31/2021 11:28 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL HAMPTON AVENUE WITH PEDESTRIAN ACCOMMODATIONS	SHEET 500C	E

FILE NAME : N:\PDS\C3D\122822711\SHEETSPLAN\CURRENT PLAN\HAMPTON PED WORKSHEET-ST7_PEDESTRIAN ACCOMODATIONS-3ST.DWG
LAYOUT NAME - 026001-st7-03
PLOT DATE : 3/31/2021 11:29 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL PEDESTRIAN ACCOMMODATIONS-HAMPTON AVENUE	SHEET 504	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST7_PEDESTRIAN ACCOMODATIONS-3ST.DWG
LAYOUT NAME - 026001-st7-01
PLOT DATE : 3/31/2021 11:44 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

3

REMOVING PAVEMENT ITEMS

ROADWAY	STATION	TO	STATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SF
MAINLINE					
IH 43 NB					
	926+40	-	934+50	308	386
	934+50	-	935+81	613	-
	936+91	-	940+00	1740	-
	954+89	-	967+01	6339	-
	968+20	-	977+44	6009	-
	983+15	-	1003+58	12175	-
	1003+58	-	1012+92	673	-
IH 43 SB					
	926+40	-	934+50	371	-
	934+50	-	936+12	801	-
	937+22	-	940+09	1907	-
	954+56	-	966+91	6430	-
	968+11	-	977+41	5731	-
	983+13	-	1003+58	11477	-
	1007+45	-	1012+92	600	-
SUBTOTAL				55174	386
RAMPS					
IH 43 SB OFF RAMP TO N GREEN BAY AVENUE					
	934+47	-	938+59	1234	-
IH 43 NB ON RAMP FROM W FIEBRANTZ AVENUE					
	933+17	-	939+14	2241	-
IH 43 NB OFF RAMP TO N PORT WASHINGTON ROAD					
	973+64	-	976+48	1687	-
IH 43 SB ON RAMP FROM W HAMPTON AVENUE					
	974+59	-	977+37	730	-
	980+98	-	981+89	329	-
IH 43 NB OFF RAMP TO SB N PORT WASHINGTON ROAD					
	986+73	-	988+27	688	-
SUBTOTAL				6909	-

REMOVING PAVEMENT ITEMS (CONTINUED)

ROADWAY	STATION	TO	STATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH SF
LOCAL ROADS					
N PORT WASHINGTON ROAD					
	97+86 PW	-	101+59 PW	308	-
W HAMPTON AVENUE					
	10+74 HA	-	17+05 HA	6575	-
SUBTOTAL				6883	-
TOTAL				68966	386

REMOVING ASPHALTIC SURFACE ITEM

ROADWAY	STATION	TO	STATION	OFFSET	204.0110 REMOVING ASPHALTIC SURFACE SY
MAINLINE					
IH 43 NB TEMPORARY					
	15+25	-	25+03	RT	2204
	26+64	-	32+02	RT	2002
	11+52	-	16+20	RT	700
IH 43 SB TEMPORARY					
	10+47	-	14+36	LT	1364
	11+85	-	17+53	LT	1791
	10+00	-	15+69	LT	2093
	18+32	-	22+79	LT	2374
LOCAL ROADS					
W HAMPTON AVENUE					
	13+18 HA	-	15+53 HA	LT	163
W GLENDALE AVENUE	11+79 GD	-	12+92 GD	LT/RT	175
TOTAL					12866

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Addendum No. 01
ID 1228-22-71
Revised Sheet 562
April 1, 2021

*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

3

REMOVING ASPHALTIC SURFACE MILLING ITEM

ROADWAY	STATION	TO	STATION	OFFSET	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
MAINLINE					
IH 43 NB	926+40	-	934+50	RT	4244
IH 43 SB	926+40	-	934+50	LT	4357
SUBTOTAL					8601
RAMPS					
RAMP GBA2	928+55 GBA2	-	944+36 GBA2	LT	3227
RAMP GBB2	932+03 GBB2	-	940+22 GBB2	RT	1838
RAMP GBC	931+48 GBC	-	932+98 GBC	LT	231
SUBTOTAL					5296
LOCAL ROADS					
W GLENDALE AVENUE	10+76 GD	-	13+64 GD	LT/RT	1175
SUBTOTAL					1175
TOTAL					15072

*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

REMOVING CURB & GUTTER ITEM

ROADWAY	STATION	TO	STATION	204.0150 REMOVING CURB & GUTTER LF
LOCAL ROADS				
N GREEN BAY AVENUE	35+18 GB	-	37+79 GB	254
N PORT WASHINGTON ROAD	98+16 PW	-	101+59 PW	333
N 7TH STREET	9+47 ST	-	10+45 ST	151
W HAMPTON AVENUE	13+71 HA	-	16+86 HA	205
W GLENDALE AVENUE	11+05 GD	-	13+64 GD	488
TOTAL				1431

1

REMOVING SIDEWALK ITEM

ROADWAY	STATION	TO	STATION	OFFSET	204.0155 REMOVING CONCRETE SIDEWALK SY
LOCAL ROADS					
N GREEN BAY AVENUE	35+07 GB	-	38+20 GB	LT/RT	230
N PORT WASHINGTON ROAD	98+62 PW	-	101+59	LT/RT	388
N 7TH STREET	9+41 ST	-	10+50 ST	LT/RT	124
W HAMPTON AVENUE	13+09 HA	-	17+05 HA	LT/RT	325
W GLENDALE AVENUE	11+26 GD	-	13+43 GD	LT/RT	223
TOTAL					1290

1

Addendum No. 01
ID 1228-22-71
Revised Sheet 563
April 1, 2021

3

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET: 563	E

3

REMOVING FENCE ITEM

ROADWAY	STATION	TO	STATION	OFFSET	204.0170 REMOVING FENCE LF
MAINLINE					
IH 43 NB					
	926+40	-	934+12	RT	1069
	940+46	-	967+54	RT	1759
	968+28	-	977+82	RT	1311
	983+18	-	1000+98	RT	1959
IH 43 SB					
	928+66	-	932+13	LT	447
	939+20	-	966+80	LT	2572
	967+99	-	977+34	LT	425
	983+19	-	1002+21	LT	1907
TOTAL					11449

REMOVING SIGN BRIDGE

ROADWAY	STATION	OFFSET	SPV.0105.4006 S-40-228 LS	SPV.0105.4007 S-40-229 LS
MAINLINE				
IH 43				
	927+80	0'	1	-
	1001+10	0'	-	1
TOTAL			1	1

SAWING ITEMS

ROADWAY	STATION	TO	STATION	690.0150 SAWING ASPHALT LF	* 690.0250 SAWING CONCRETE LF
MAINLINE					
IH 43 NB					
	926+40	-	934+50	-	1263
	1003+58	-	1012+92	-	955
IH 43 SB					
	926+40	-	934+50	-	1030
	1003+58	-	1012+92	-	618
SUBTOTAL				-	3866
LOCAL ROADS					
N GREEN BAY AVENUE					
	34+24 GB	-	38+20 GB	-	557
N PORT WASHINGTON ROAD					
	97+86 PW	-	101+59 PW	-	862
	110+35 PW	-	111+35 PW	-	115
N 7TH STREET					
	9+41 ST	-	10+50 ST	-	241
W GLENDALE AVE					
	10+76 GD	-	13+64 GD	92	513
W HAMPTON AVENUE					
	10+74 HA	-	17+05 HA	8	1331 1
SUBTOTAL				100	3619
TOTAL				100	7485

Addendum No. 01
ID 1228-22-71
Revised Sheet 565
April 1, 2021

*ADDITIONAL QUANTITIES FOUND ELSEWHERE
CATEGORY 1000 UNLESS OTHERWISE NOTED

3

DRILLED BAR ITEMS

ROADWAY	STATION	TO	STATION	OFFSET	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH
MAINLINE						
IH 43 NB						
	926+40	-	934+50	RT	491	46
	1003+58	-	1012+92	RT	294	65
IH 43 SB						
	926+40	-	934+50	LT	370	46
	1003+58	-	1012+92	LT	182	69
SUBTOTAL					1336	226
RAMPS						
RAMP GBC						
	932+98 GBC			LT/RT	-	10
RAMP GBD						
	931+22 GBD			LT/RT	-	40
RAMP HAA						
	978+08 HAA			LT/RT	50	-
RAMP HAB						
	981+66 HAB	-	981+91 HAB	LT/RT	20	8
SUBTOTAL					70	58

DRILLED BAR ITEMS (CONTINUED)

ROADWAY	STATION	TO	STATION	OFFSET	* 416.0610 DRILLED TIE BARS EACH	* 416.0620 DRILLED DOWEL BARS EACH
LOCAL ROADS						
N GREEN BAY AVENUE						
	35+18 GB	-	37+86 GB	LT/RT	81	-
N PORT WASHINGTON ROAD						
	97+86 PW	-	101+59 PW	LT/RT	216	16
	110+35 PW	-	111+35 PW	LT	33	8
N 7TH STREET						
	9+47 ST	-	10+45 ST	LT/RT	48	-
W HAMPTON AVENUE						
	10+74 HA	-	17+04 HA	LT	356	70
1 W GLENDALE AVENUE	11+05 GD	-	13+64 GD	LT/RT	162	-
SUBTOTAL					896	94
TOTAL				1	2302	378

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*ADDITIONAL QUANTITIES FOUND ELSEWHERE
CATEGORY 1000 UNLESS OTHERWISE NOTED

ASPHALTIC ITEMS (CONTINUED)

STAGE	ROADWAY	STATION	TO	STATION	455.0605 TACK COAT GAL	460.6224 HMA PAVEMENT 4 MT 58-28 S 3 TON	460.7223 HMA PAVEMENT 3 HT 58-28 S TON	460.7424 HMA PAVEMENT 4 HT 58-28 H TON	460.8424 HMA PAVEMENT 4 SMA 58-28 H TON	465.0105 ASPHALTIC SURFACE TON	* 465.0125 ASPHALTIC SURFACE TEMPORARY TON
ALL	**RAMPS**										
	RAMP GBA2	930+01 GBA2	-	944+33 GBA2	392	-	411	-	320	-	-
	RAMP GBB2	930+83 GBB2	-	940+22 GBB2	221	-	232	-	180	-	-
	RAMP GBC	931+40 GBC	-	932+98 GBC	28	-	30	-	23	-	-
	SUBTOTAL				641	-	673	-	523	-	-
ALL	**LOCAL ROADS**										
	W GLENDALE AVENUE	10+76 GD	-	13+64 GD	82 1	-	-	-	-	132 1	-
	W HAMPTON AVENUE	13+18 HA	-	13+93 HA	-	-	-	-	-	12	-
	N PORT WASHINGTON ROAD	97+85 PW	-	99+78 PW	15	-	-	-	-	24	-
		100+99 PW	-	101+59 PW	6	-	-	-	-	10	-
		110+35 PW	-	111+25 PW	4	-	-	-	-	6	-
	SUBTOTAL				107	-	-	-	-	184	-
	TOTAL				2412 1	1083	1757	144	1366	184 1	5260

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April 1, 2021

*ADDITIONAL QUANTITIES FOUND ELSEWHERE
CATEGORY 1000 UNLESS OTHERWISE NOTED

CONCRETE SIDEWALK ITEMS

ROADWAY	STATION	TO	STATION	OFFSET	305.0120 * BASE AGGREGATE DENSE 1 1/4-INCH TON	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
RAMPS								
RAMP HAA	975+49 HAA	-	978+13 HAA	LT/RT	35	-	3016	64
RAMP HAB	981+33 HAB	-	981+82 HAB	RT	12	328	-	-
SUBTOTAL					47	328	3016	64
LOCAL ROADS								
N GREEN BAY AVENUE	35+04GB	-	38+20 GB	LT/RT	74	1980	-	136
W HAMPTON AVENUE	13+42 HA	-	17+04 HA	LT	296	7997	-	20
N PORT WASHINGTON ROAD	100+26 PW	-	101+59 PW	LT/RT	25	183	835	36
N 7TH STREET	9+37 ST	-	10+50 ST	LT/RT	45	1202	-	82
1 W GLENDALE AVENUE	11+25 GD	-	13+44 GD	LT/RT	178	7190	-	-
SUBTOTAL					1 618	18552	835	274
TOTAL					665	18880	3851	338

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April 1, 2021

*ADDITIONAL QUANTITIES FOUND ELSEWHERE
CATEGORY 1000 UNLESS OTHERWISE NOTED

CONCRETE CURB & GUTTER ITEMS (CONTINUED)

ROADWAY	STATION	TO	STATION	OFFSET	601.0322 CONCRETE CURB & GUTTER 22-INCH LF	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0551 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A LF	601.0600 CONCRETE CURB PEDESTRIAN LF	SPV.0090.0001 CONCRETE CURB & GUTTER 4-INCH SLOPED 60-INCH TYPE A LF
LOCAL ROADS										
N GREEN BAY AVENUE										
	35+18 GB	-	37+86 GB	LT/RT	87	129	-	-	145	-
W HAMPTON AVENUE										
	10+74 HA	-	17+04 HA	LT	-	-	1075	-	-	-
N PORT WASHINGTON ROAD										
	97+87 PW	-	101+59 PW	LT/RT	-	-	404	-	35	-
	110+35 PW	-	111+35 PW	LT	-	-	101	-	-	-
N 7TH STREET										
	9+41 ST	-	10+45 ST	LT/RT	82	89	-	-	184	-
1 W GLENDALE AVENUE										
	11+05 GD	-	13+64 GD	LT/RT	-	-	488	-	-	-
SUBTOTAL					169	218	1 2068	-	364	-
TOTAL					169	361	2861	2133	461	3455

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*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : June 14, 1911 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1

TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES DAYS	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY
		PROJECT ID 1228-22-71													
1000	1	**MAINLINE**	269												
		IH 43 NB		50	13,450	7	1,883	8	2,152	–	–	2	538	23	6,187
		IH 43 SB		5	1,345	4	1,076	4	1,076	–	--	1	269	16	4,304
		RAMPS													
		GBB2		5	1345	2	538	2	538	5	1345	–	–	4	1,076
		HAB		29	7801	–	–	–	–	5	1345	–	–	1	269
		LOCAL ROADS													
		PORT WASHINGTON ROAD		62	868	2	28	4	56	19	266	2	28	18	252
		SUBTOTAL			24,809		3,525		3,822		2,956		835		12,088
1000	2A	**MAINLINE**	90												
		IH 43 NB		184	16,560	16	1,440	24	2,160	39	3,510	2	180	30	2,700
		IH 43 SB		40	3,600	–	–	–	–	5	450	–	–	7	630
		RAMPS													
		GBD		3	270	2	180	2	180	3	270	–	–	11	990
		GBC		32	2,880	–	–	–	–	8	720	–	–	2	180
		LOCAL ROADS													
		HAMPTON AVENUE	1	–	–	–	–	–	–	–	–	–	–	–	–
		PORT WASHINGTON ROAD		62	868	2	28	4	56	19	266	2	28	18	252
		SUBTOTAL	1		24,178		1,648		2,396		5,216		208		4,752

(CONTINUED ON NEXT SHEET)

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

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TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES DAYS		* 643.0300 TRAFFIC CONTROL DRUMS		* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III		* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		* 643.0800 TRAFFIC CONTROL ARROW BOARDS		* 643.0900 TRAFFIC CONTROL SIGNS	
					EACH**	DAY	EACH**	DAY	EACH**	DAY	EACH**	DAY	EACH**	DAY	EACH**	DAY
1000	2B	**MAINLINE**	70													
		IH 43 NB			62	4,340	7	490	6	420	–	–	3	210	21	1,470
		IH 43 SB			–	–	–	–	–	–	–	–	–	–	3	210
		RAMPS														
		HAB			29	2,030	–	–	–	–	5	350	–	–	1	70
		LOCAL ROADS														
		PORT WASHINGTON ROAD			62	868	2	28	4	56	19	266	2	28	18	252
		SUBTOTAL				7,238		518		476		616		238		2,002
1000	2C1	**MAINLINE**	42													
		IH 43 NB			173	7,266	13	546	22	924	38	1,596	2	84	30	1,260
				1												
		IH 43 SB			209	8,778	13	546	22	924	34	1,428	–	–	35	1,470
		RAMPS														
		GBB2			68	2856	–	–	–	–	–	–	–	–	1	42
		GBD			3	126	2	84	2	84	3	126	–	–	11	462
		HAB			37	1554	–	–	–	–	13	546	–	–	2	84
		LOCAL ROADS														
		HAMPTON AVENUE		1	–	–	–	–	–	–	–	–	–	–	–	–
		PORT WASHINGTON ROAD			62	868	2	28	4	56	19	266	2	28	18	252
		SUBTOTAL		1		21,448		1,204		1,988		3,962		112		3,570

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*ADDITIONAL QUANTITIES FOUND ELSEWHERE

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TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES / DAYS	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY
1000	2C2	**MAINLINE**	10												
		IH 43 NB	1	174	1,740	13	130	22	220	39	390	1	10	26	260
		IH 43 SB		198	1,980	18	180	28	280	35	350	–	–	39	390
		RAMPS													
		GBA2	1	–	–	–	–	–	–	–	–	–	–	–	–
		GBB2		5	50	2	20	2	20	5	50	–	–	4	40
		GBD		3	30	2	20	2	20	3	30	–	–	11	110
		LOCAL ROADS													
		HAMPTON AVENUE	1	–	–	–	–	–	–	–	–	–	--	–	–
		PORT WASHINGTON ROAD		62	620	2	20	4	40	19	190	2	20	18	180
		SUBTOTAL	1		4,420		370		580		1,010		30		980
1000	2D	**MAINLINE**	134												
		IH 43 NB	1	149	19,966	15	2,010	24	3,216	25	3,350	1	134	35	4,690
		IH 43 SB		165	22,110	21	2,814	32	4,288	33	4,422	–	–	45	6,030
		RAMPS													
		GBA2		–	–	–	–	–	–	–	–	–	--	1	134
		GBD		3	402	2	268	2	268	3	402	–	–	10	1,340
		LOCAL ROADS													
		HAMPTON AVENUE	1	–	–	–	–	–	–	–	–	–	--	–	–
		PORT WASHINGTON ROAD		20	280	6	84	6	84	5	70	–	--	12	168
		SUBTOTAL	1		42,758		5,176		7,856		8,244		134		12,362

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*ADDITIONAL QUANTITIES FOUND ELSEWHERE

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TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES DAYS	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	643.0300 DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	643.0420 DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	643.0705 DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	643.0715 DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	643.0800 DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	643.0900 DAY
1000	3A	**MAINLINE**	60												
		IH 43 NB	1	147	8,820	13	780	22	1,320	25	1,500	1	60	34	2,040
		IH 43 SB		180	10,800	20	1,200	30	1,800	33	1,980	–	–	43	2,580
		RAMPS													
		GBA2		–	–	--	--	–	--	–	–	–	–	1	60
		GBD		3	180	2	120	2	120	3	180	–	–	9	540
		LOCAL ROADS													
		HAMPTON AVENUE	1	–	–	--	--	–	--	–	–	–	–	–	–
		PORT WASHINGTON ROAD		62	868	2	28	4	56	19	266	2	28	18	252
		SUBTOTAL	1		20,668		2,128		3,296		3,926		88		5,472
1000	3B	**MAINLINE**	18												
		IH 43 NB	1	182	3,276	14	252	24	432	25	450	1	18	32	576
		IH 43 SB		290	5,220	19	342	24	432	41	738	–	–	33	594
		RAMPS													
		GBA2		–	–	--	--	–	--	–	–	–	–	3	54
		GBB2		–	–	--	--	–	--	–	–	–	–	1	18
		GBD		3	54	2	36	2	36	3	54	–	–	12	216
		LOCAL ROADS													
		HAMPTON AVENUE	1	–	–	--	--	–	--	–	–	–	–	–	–
		PORT WASHINGTON ROAD		62	868	2	28	4	56	19	256	2	28	18	252
		SUBTOTAL	1		9,418		658		956		1,498		46		1,710

(CONTINUED ON NEXT SHEET)

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

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ID 1228-22-71
Revised Sheet 594
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TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES DAYS	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	DAY
1000	3C	**MAINLINE**	10												
		IH 43 NB		11	110	–	–	–	–	–	–	1	10	4	40
		SUBTOTAL			110		–		–		–		10		40
1000	4	**MAINLINE**	175												
		IH 43 NB		249	43,575	12	2,100	22	3,850	47	8,225	1	175	29	5,075
		IH 43 SB		140	24,500	12	2,100	18	3,150	34	5,950	–	–	34	5,950
		RAMPS													
		GBA2		19	3325	–	–	–	–	9	1575	–	–	3	525
		GBD		3	525	2	350	2	350	3	525	–	–	9	1,575
		LOCAL ROADS													
		HAMPTON AVENUE		104	18,200	14	2,450	14	2,450	18	3,150	2	350	35	6,125
		PORT WASHINGTON ROAD		27	4,725	1	175	2	350	9	1,575	1	175	11	1,925
		SUBTOTAL			94,850		7,175		10,150		21,000		700		21,175
1000	5	**MAINLINE**	16												
		IH 43 NB		193	3088	14	224	28	448	28	448	2	32	25	400
		IH 43 SB		159	2544	13	208	24	384	21	336	–	–	28	448
		RAMPS													
		HAA		–	–	–	–	–	–	–	–	–	–	2	32
		HAB		–	–	–	–	–	–	–	–	–	–	3	48
		LOCAL ROADS													
		GLENDALE AVE		6	96	13	208	26	416	–	–	–	–	10	160
		N GREEN BAY AVE		–	–	4	64	8	128	–	–	–	–	4	64
		SUBTOTAL			5,728		704		1,376		784		32		1,152
		DETOUR			–	–	–	–	–	–	–	–	–	443	173,310
		UNDISTRIBUTED			76,690	–	6,935	–	9,870	–	14,765	–	730	–	71,585
		PROJECT ID 1228-22-71 TOTAL			332,315		30,041		42,766		63,977		3,163		310,198

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*ADDITIONAL QUANTITIES FOUND ELSEWHERE

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET: 595	E

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : June 14, 1911 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1

TRAFFIC CONTROL ITEMS (CONTINUED)

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I # SIGNS	# CYCLES	EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II # SIGNS	# CYCLES	EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	REMARKS
		PROJECT ID 1228-22-71										
1000	1	**MAINLINE**	269									
		IH 43 NB		3	133	399	3	133	399	--	--	
		IH 43 SB		--	--	--	--	--	--	--	--	
		RAMPS										
		GBB2		--	--	--	--	--	--	--	--	
		HAB		--	--	--	--	--	--	--	--	
		LOCAL ROADS										
		PORT WASHINGTON ROAD		--	--	--	--	--	--	--	--	
		SUBTOTAL				399			399		--	
1000	2A	**MAINLINE**	90									
		IH 43 NB		2	1	2	1	6	1	6	4	360
		IH 43 SB		--	--	--	--	--	--	--	--	
		RAMPS										
		GBD		--	--	--	--	--	--	--	--	
		GBC		--	--	--	--	--	--	--	--	
		LOCAL ROADS										
		HAMPTON AVENUE		--	--	--	--	--	--	--	--	
		PORT WASHINGTON ROAD		--	--	--	--	--	--	--	--	
		SUBTOTAL				2		1	6		360	

SEE SDD 15D12-C FOR MORE INFORMATION ON PCMS MESSAGE AND PLACEMENT

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(CONTINUED ON NEXT SHEET)

TRAFFIC CONTROL ITEMS (CONTINUED)

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I # SIGNS	# CYCLES	EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II # SIGNS	# CYCLES	EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	REMARKS
1000	2B	**MAINLINE**	70									
		IH 43 NB		2	1	2	2	1	2	–	–	
		IH 43 SB		–	–	–	--	–	–	–	–	
		RAMPS										
		HAB		–	–	–	--	–	–	–	–	
		LOCAL ROADS										
		PORT WASHINGTON ROAD		–	–	–	--	–	–	–	–	
		SUBTOTAL				2			2		–	
1000	2C1	**MAINLINE**	42									
		IH 43 NB		2	1	2	1 6	1	6	4	168	SEE SDD 15D12-C FOR MORE INFORMATION ON PCMS MESSAGE AND PLACEMENT
		IH 43 SB		2	1	2	2	1	2	–	–	
		RAMPS										
		GBB2		–	–	–	--	–	–	–	–	
		GBD		–	–	–	--	–	–	–	–	
		HAB		–	–	–	--	–	–	–	–	
		LOCAL ROADS										
		HAMPTON AVENUE		–	–	–	--	–	–	–	–	
		PORT WASHINGTON ROAD		–	–	–	--	–	–	–	–	
		SUBTOTAL				4		1	8		168	

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(CONTINUED ON NEXT SHEET)

TRAFFIC CONTROL ITEMS (CONTINUED)

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I # SIGNS	# CYCLES	EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II # SIGNS	# CYCLES	EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	REMARKS
1000	2C2	**MAINLINE**	10									
		IH 43 NB		2	1	2	1	6	1	6	4	40	SEE SDD 15D12-C FOR MORE INFORMATION ON PCMS MESSAGE AND PLACEMENT
		IH 43 SB		2	1	2	2	1	2	–	–	
		RAMPS										
		GBA2		–	–	--	–	--	–	–	–	
		GBB2		–	–	--	–	--	–	–	–	
		GBD		–	–	--	–	--	–	–	–	
		LOCAL ROADS										
		HAMPTON AVENUE		–	–	--	–	--	–	–	–	
		PORT WASHINGTON ROAD		–	–	--	–	--	–	–	–	
		SUBTOTAL				4			1 8		40	
1000	2D	**MAINLINE**	134									
		IH 43 NB		2	1	2	1	6	1	6	4	536	SEE SDD 15D12-C FOR MORE INFORMATION ON PCMS MESSAGE AND PLACEMENT
		IH 43 SB		2	1	2	2	1	2	–	–	
		RAMPS										
		GBA2		–	–	--	–	--	–	–	–	
		GBD		–	–	--	–	--	–	–	–	
		LOCAL ROADS										
		HAMPTON AVENUE		–	–	--	–	--	–	–	–	
		PORT WASHINGTON ROAD		–	–	--	–	--	–	–	–	
		SUBTOTAL				4			1 8		536	

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(CONTINUED ON NEXT SHEET)

TRAFFIC CONTROL ITEMS (CONTINUED)

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I # SIGNS	# CYCLES	EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II # SIGNS	# CYCLES	EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	REMARKS
1000	3A	**MAINLINE**	60									
		IH 43 NB		2	1	2	1 6	1	6	4	240	SEE SDD 15D12-C FOR MORE INFORMATION ON PCMS MESSAGE AND PLACEMENT
		IH 43 SB		2	1	2	2	1	2	–	–	
		RAMPS										
		GBA2		–	–	--	–	--	–	–	–	
		GBD		–	–	--	–	--	–	–	–	
		LOCAL ROADS										
		HAMPTON AVENUE		–	–	--	–	--	–	–	–	
		PORT WASHINGTON ROAD		–	–	--	–	--	–	–	–	
		SUBTOTAL				4		1	8		240	
1000	3B	**MAINLINE**	18									
		IH 43 NB		2	1	2	1 6	1	6	4	72	SEE SDD 15D12-C FOR MORE INFORMATION ON PCMS MESSAGE AND PLACEMENT
		IH 43 SB		2	1	2	2	1	2	–	–	
		RAMPS										
		GBA2		–	–	--	–	--	–	–	–	
		GBB2		–	–	--	–	--	–	–	–	
		GBD		–	–	--	–	--	–	–	–	
		LOCAL ROADS										
		HAMPTON AVENUE		–	–	--	–	--	–	–	–	
		PORT WASHINGTON ROAD		–	–	--	–	--	–	–	–	
		SUBTOTAL				4		1	8		72	

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(CONTINUED ON NEXT SHEET)

TRAFFIC CONTROL ITEMS (CONTINUED)

CATEGORY	STAGE	LOCATION	NUMBER OF CLOSURES DAYS	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I # SIGNS	# CYCLES	EACH	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II # SIGNS	# CYCLES	EACH	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH**	DAY	REMARKS
1000	3C	**MAINLINE**	10									
		IH 43 NB		2	1	2	2	1	2	–	–	
		SUBTOTAL				2			2		–	
1000	4	**MAINLINE**	175									
		IH 43 NB		2	1	2	6	1	6	4	700	SEE SDD 15D12-C FOR MORE INFORMATION ON PCMS MESSAGE AND PLACEMENT
		IH 43 SB		2	1	2	2	1	2	–	–	
		RAMPS										
		GBA2		–	–	–	–	–	–	–	–	
		GBD		–	–	–	–	–	–	–	–	
		LOCAL ROADS										
		HAMPTON AVENUE		–	–	–	–	–	–	–	–	
		PORT WASHINGTON ROAD		–	–	–	–	–	–	–	–	
		SUBTOTAL				4		1	8		700	
1000	5	**MAINLINE**	16									
		IH 43 NB		–	–	–	4	1	4	4	64	SEE SDD 15D12-C FOR MORE INFORMATION ON PCMS MESSAGE AND PLACEMENT
		IH 43 SB		–	–	–	–	–	–	–	–	
		RAMPS										
		HAA		–	–	–	–	–	–	–	–	
		HAB		–	–	–	–	–	–	–	–	
		LOCAL ROADS										
		GLENDALE AVE		–	–	–	–	–	–	–	–	
		N GREEN BAY AVE		–	–	–	–	–	–	–	–	
		SUBTOTAL				–		1	4		64	
		DETOUR		–	–	–	–	–	–	–	–	
		UNDISTRIBUTED		10	8	80	20	8	160	–	655	
		PROJECT ID 1228-22-71 TOTAL				509			621		2,835	

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TEMPORARY PEDESTRIAN ACCOMMODATIONS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	NUMBER OF CLOSURES DAYS	* 643.0300 TRAFFIC CONTROL DRUMS EACH**	643.0300 DAY	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH**	643.0420 DAY	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH**	643.0705 DAY	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH**	643.0715 DAY	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH**	643.0800 DAY	* 643.0900 TRAFFIC CONTROL SIGNS EACH**	643.0900 DAY	644.1601 TEMPORARY PEDESTRIAN CURB RAMP EACH**	644.1601 DAY	SPV.0045.0001 TEMPORARY DETECTABLE WARNING FIELD EACH**	SPV.0045.0001 DAY
1000	1, 2A, 2B, 2C1, 2C2, 2D, 3A, 3B	**LOCAL ROADS**																				
1		W HAMPTON AVENUE	11+00HA	-	HA	1	542	85	46070	11	5962	22	11924	18	9756	1	542	37	20054	1	542	1	542
	1, 2D, 4	W GLENDALE AVENUE SOUTH SIDE	GD	-	GD	175	-	-	3	525	6	1050	-	-	-	-	11	1925	2	350	-	-
	1, 2D, 4	W GLENDALE AVENUE NORTH SIDE	GD	-	GD	175	-	-	3	525	6	1050	-	-	-	-	11	1925	2	350	-	-
		DETOURS																				
		OAK LEAF TRAIL	-	-	-	225	-	-	29	6525	58	13050	-	-	-	-	51	11475	-	-	-	-
		GLENDALE AVE	-	-	-	79	-	-	26	2054	52	4108	-	-	-	-	41	3239	-	-	-	-
		TOTAL				1		46070		15591		31182		9756		542		38618		1242		542

TEMPORARY PEDESTRIAN ACCOMMODATIONS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	* 603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	* 603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
1000	1, 2A, 2B, 2C1, 2C2, 2D, 3A, 3B	**LOCAL ROADS**							
1		W HAMPTON AVENUE	12+90HA	-	16+66HA	LT	1 949	949	366
	1, 2D, 4	W GLENDALE AVENUE SOUTH SIDE	10+61GD	-	14+20GD	RT	361	1082	-
	1, 2D, 4	W GLENDALE AVENUE NORTH SIDE	11+17GD	-	14+00GD	LT	-	852	-
		TOTAL					1 1310	2883	366

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*ADDITIONAL QUANTITIES FOUND ELSEWHERE

TEMPORARY PEDESTRIAN ACCOMMODATIONS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	649.0150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	649.0250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH LF	649.0960 TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH LF
1000	1, 2A, 2B, 2C1, 2C2, 2D, 3A, 3B	**LOCAL ROADS**						
1		W HAMPTON AVENUE	11+92HA	-	HA	1 938	260	224
	1, 2D, 4	W GLENDALE AVENUE SOUTH SIDE	GD	-	14+89GD	3135	-	-
	1, 2D, 4	W GLENDALE AVENUE NORTH SIDE	GD	-	14+96GD	3026	-	-
		TOTAL				1 7099	260	224

TEMPORARY PEDESTRIAN ACCOMMODATIONS

CATEGORY	STAGE	ROADWAY	* 465.0125 ASPHALTIC SURFACE TEMPORARY TON
1000	1, 2A, 2B, 2C1, 2C2, 2D, 3A, 3B	**LOCAL ROADS**	
1		W HAMPTON AVENUE	1
	1, 2D, 4	W GLENDALE AVENUE SOUTH SIDE	1
	1, 2D, 4	W GLENDALE AVENUE NORTH SIDE	2
		TOTAL	4

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TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5 FT LINE 37.5 FT SKIP WHITE LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5 FT LINE 37.5 FT SKIP WHITE LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5 FT LINE 37.5 FT SKIP YELLOW LF	649.0220 TEMPORARY MARKING LINE EPOXY 8-INCH 3FT LINE 9 FT SKIP WHITE LF	649.0220 TEMPORARY MARKING LINE EPOXY 8-INCH 3FT LINE 9 FT SKIP WHITE LF	649.0760 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I WHITE EACH	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH	649.0520 TEMPORARY MARKING ARROW EPOXY EACH	REMARKS
1000		**PROJECT ID 1228-22-71**													
	1	IH 43 NB	952+23	-	990+04	1,901	3,807	3,797	–	–	52	9,505	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		IH 43 SB	949+96	-	975+15	1,256	2,393	2,519	–	530	53	6,168	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				3,157	6,200	6,316	–	530	105	15,673	–	–	
	2A	IH 43 NB	941+32	-	IH 43	3,591	9,006	14,641	–	–	80	3,565	2	–	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				3,591	9,006	14,641	–	–	80	3,565	2	–	
	2B	IH 43 NB	937+00	-	IH 43	4,139	8,649	7,580	–	1,068	–	27,238	–	2	TYPE 5 ARROW, REMOVE IN STAGE 2C1
		SUBTOTAL				4,139	8,649	7,580	–	1,068	–	27,238	–	2	
	2C1	IH 43 NB	921+67	-	IH 43	2,123	8,934	13,802	–	–	80	16,700	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		IH 43 SB	921+67	-	IH 43	3,086	12,203	15,716	–	1,588	20	-	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				5,209	21,137	29,518	–	1,588	100	16,700			
	2C2	IH 43 SB	921+67	-	1016+87	2,831	13,018	10,526	–	2,698	30	24,655	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				2,831	13,018	10,526	–	2,698	30	24,655	–	–	
	2D	IH 43 NB	920+50	-	1015+61	1,611	5,998	5,575	–	636	20	13,184	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		IH 43 SB	920+50	-	1015+61	2,627	9,227	9,455	–	608	60	13,509	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				4,238	15,225	15,030	–	1,244	80	26,693	–	–	
	3A	IH 43 SB	926+40	-	680+00	1,376	4,681	5,384	–	1,261	–	11,441	–	–	
		SUBTOTAL				1,376	4,681	5,384	–	1,261	–	11,441	–	–	
	3B	IH 43 SB	926+38	-	1016+50	3,009	8,181	9,294	–	267	40	20,484	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				3,009	8,181	9,294	–	267	40	20,484	–	–	
	3C	IH 43 NB	925+00	-	IH 43	5,264	10,199	10,194	–	425	–	33,895	–	2	TYPE 5 ARROW, REMOVE IN STAGE 5
		IH 43 SB	925+00	-	IH 43	5,847	11,584	10,071	–	2,976	–	33,852	–	–	
		SUBTOTAL				11,111	21,783	20,265	–	3,401	–	67,747	–	2	
	4	IH 43 NB	920+50	-	IH 43	2,636	14,729	9,941	129	1,408	60	7,000	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		IH 43 SB	920+50	-	IH 43	3,133	10,808	15,735	–	2,445	30	23,326	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				5,769	25,537	25,676	129	3,853	90	30,326	–	–	
	5	IH 43 NB	925+00	-	IH 43	2,745	11,268	16,271	–	–	–	29,208	–	–	
		IH 43 SB	925+00	-	1016+87	3,810	7,920	9,609	–	4,366	–	21,339	–	–	
		SUBTOTAL				6,555	19,188	25,880	–	4,366	–	50,547	–	–	
		UNDISTRIBUTED				2,549	7,630	8,506	10	1,001	500	14,753	–	–	RAISED MARKERS FOR SHIFTING TAPERS
		PROJECT 1228-22-71 TOTAL					392,385			21,416	1,025	309,822	2	4	

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PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET: 604	E

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : June 14, 1911 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1

RECONSTRUCTING STRUCTURES

STAGE	LOCATION	STRUCTURE ID	STATION	OFFSET FT	EXISTING RIM ELEVATION	TO	PROPOSED RIM ELEVATION	611.0420 RECONSTRUCTING MANHOLES EACH	611.0430 RECONSTRUCTING INLETS EACH
2	**IH 43**								
		231	944+00	82' LT	698.98		700.02	---	1
		235	946+50	82' LT	693.46		694.50	---	1
		239	949+00	82' LT	686.14		687.18	---	1
		243	951+50	82' LT	677.84		678.88	---	1
		247	954+00	82' LT	668.93		669.97	---	1
		305	956+40	82' LT	663.15		664.19	---	1
		307	956+50	82' LT	663.00		664.04	---	1
	SUBTOTALS							---	7
4	**IH 43**								
		327	954+25	82' RT	663.70		666.54	1	---
		329	954+36	93' RT	661.09		665.18	1	---
		331	954+51	94' RT	660.60		661.45	1	---
	SUBTOTALS							3	---
	TOTALS							3	7

* VERIFY EXISTING RIM ELEVATION IN FIELD

APRON ENDWALLS AND PIPE GRATES

STAGE	ROADWAY	PIPE ID	ENDWALL ID	ENDWALL ELEVATION	ENDWALL STATION	ENDWALL OFFSET	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH EACH	522.1048 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH EACH	611.9800.S PIPE GRATES EACH	633.5200 MARKERS CULVERT END EACH
1	**IH 43**											
		P196	195	677.01	948+00	113' LT	--	1	--	--	1	1
		P222	221	666.37	951+00	107' LT	--	1	--	--	1	1
		PT295A	T295B	651.53	959+00	121' LT	1	--	--	--	--	1
		PT331E	T331F	646.00	962+01	151' RT	--	--	1	--	--	1
		P458	459	629.32	977+43	138' RT	--	--	1	--	--	1
		P906	907	615.70	1004+32	120' LT	--	--	--	1	--	1
	SUBTOTALS						1	2	2	1	2	6
2	**IH 43**											
		P334	335	648.23	955+36	118' RT	--	--	1	--	--	1
	SUBTOTALS						--	--	1	--	--	1
4	**IH 43**											
		P496	497	624.93	977+27	163' RT	--	1	--	--	--	1
	SUBTOTALS						--	1	--	--	--	1
	TOTALS						1	3	3	1	2	8

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STORM SEWER STRUCTURES												STORM SEWER PIPES													
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY
IH 43	295	1	959+00.19	85.3	LT	662.27	---	---	10.38	---	SEE PROPOSED DRAINAGE TABLE	PT295A	1	295	T295B	651.89	651.53	1.00	36	38	III	18	8	TO ENDWALL	8
IH 43	327	1	954+25.00	81.8	RT	663.70	---	---	15.15	---	SEE PROPOSED DRAINAGE TABLE	P328	1	327	329	---	---	---	---	---	---	48	---	SEE PROPOSED DRAINAGE TABLE	---
IH 43	329	1	954+36.21	92.6	RT	661.09	---	---	12.57	---	SEE PROPOSED DRAINAGE TABLE	P330	1	329	331	---	---	---	---	---	---	48	---	SEE PROPOSED DRAINAGE TABLE	---
IH 43	331	1	954+51.24	94.2	RT	660.60	---	---	12.09	---	SEE PROPOSED DRAINAGE TABLE	PT331A	1	331	T331B	648.51	648.13	0.30	128	133	III	30	69	--- (1)	69
IH 43	T331B	1	955+26.26	204.6	RT	660.92	MANHOLES 5-FT DIAMETER	J-SPECIAL	12.79	17	---	PT331C	1	T331B	T331D	648.13	646.38	0.30	585	590	III	30	317	---	334
IH 43	T331D	1	961+00.16	169.5	RT	651.16	MANHOLES 5-FT DIAMETER	J-SPECIAL	4.78	17	---	PT331E	1	T331D	T331F	646.38	646.02	0.35	101	104	III	30	55	TO ENDWALL	72

STORM SEWER STRUCTURE SUMMARY	
611.2005 MANHOLES 5-FT DIAMETER EACH	611.0535 MANHOLE COVERS TYPE J SPECIAL EACH
2 *	2 *

STORM SEWER PIPE SUMMARY	
608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH LF
38 *	827 *

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* ADDITIONAL QUANTITIES FOUND ELSEWHERE

[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

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STORM SEWER STRUCTURES												STORM SEWER PIPES														
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY
IH 43	123	1	937+68.71	50.0	LT	699.36	INLETS 4-FT DIAMETER	V	6.77	10	---	P124	1	123	125	692.59	692.39	0.50	40	44	III	18	9	---	19
IH 43	125	1	937+67.66	2.0	LT	699.07	INLETS 4-FT DIAMETER	V	6.68	10	---	P126	1	125	127	692.39	692.37	0.50	4	8	III	18	1	---	11
IH 43	127	1	937+67.68	2.0	RT	699.07	INLETS 4-FT DIAMETER	V	6.70	10	---	P128	1	127	129	692.37	692.00	0.76	49	53	III	18	11	---	21
IH 43	129	1	937+39.05	50.0	RT	698.02	INLETS 4-FT DIAMETER	V	6.02	10	---	P130	1	129	133	692.00	689.18	6.43	44	49	III	18	10	---	20
RAMP GBD	131	4	938+82.28	8.0	RT	695.28	INLETS 4-FT DIAMETER	HM	5.60	9	---	P132	4	131	133	689.68	688.99	0.50	138	143	III	15	25	---	34
RAMP GBD	133	4	937+47.61	33.7	LT	694.04	MANHOLES 6-FT DIAMETER	J-SPECIAL	5.80	14	---	P134	4	133	137	688.24	682.28	5.76	103	108	III	18	24	---	38
RAMP GBD	137	4	936+48.77	8.0	RT	689.32	INLETS 4-FT DIAMETER	HM	7.04	10	---	P138	4	137	139	682.28	675.65	3.53	240	244	IV	18	57	---	67
RAMP GBD	139	4	934+01.01	8.0	RT	680.89	INLETS 4-FT DIAMETER	HM	5.24	10	---	P140	4	139	PE141	675.65	675.05	3.50	21	25	IV	18	5	---	15
---	---	---	---	---	---	---	---	---	--	---	---	PE141	---	P140	---	675.05	---	---	---	---	---	18	---	EXIST PIPE INTERPOL ELEV	---
---	---	---	---	---	---	---	---	---	--	---	---	PE144	---	---	145	---	667.83	---	---	---	---	15	---	EXIST PIPE INTERPOL ELEV	---
RAMP GBD	145	1	934+51.74	81.7	LT	674.12	INLETS 4-FT DIAMETER	C	6.32	9	---	PE146	---	145	---	667.80	---	---	---	---	---	15	---	EXIST PIPE INTERPOL ELEV	9
RAMP GBD	161	4	931+59.35	8.0	RT	675.90	INLETS 4-FT DIAMETER	HM-S	6.11	9	---	P162	4	161	162A	669.79	669.69	0.50	20	24	III	15	4	---	13
RAMP GBD	162A	4	931+51.34	19.0	LT	676.37	INLETS 4-FT DIAMETER	HM-S	6.68	9	---	P162B	4	162A	E163	669.69	669.45	0.50	49	54	III	15	9	---	18
RAMP GBD	E163	---	930+98.47	11.1	LT	676.34	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
RAMP GBD	E165	---	931+13.66	45.7	LT	676.00	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
IH 43	181	4	941+50.00	83.3	RT	694.79	INLETS 2x2.5-FT	V	6.70	7	---	P182	2 & 4	181	183	688.09	687.69	0.50	79	82	III	18	19	---	26

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[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

STORM SEWER STRUCTURES												STORM SEWER PIPES														
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY	
IH 43	183A	2	941+42.68	2.0	LT	699.03	INLETS 4-FT DIAMETER	V	6.59	10	---	P183B	2	183A	183	692.44	692.40	1.00	4	8	III	18	1	---	11	1
IH 43	183	2	941+49.95	0.2	RT	698.95	MANHOLES 5-FT DIAMETER	B	11.76	15	---	P184	2	183	187	687.19	684.44	1.25	220	225	III	24	82	---	97	
IH 43	185	4	944+00.00	83.3	RT	691.68	INLETS 2x2.5-FT	V	6.65	7	---	P186	2 & 4	185	187	685.03	684.63	0.50	80	84	III	18	19	---	26	
IH 43	187A	2	943+75.00	9.5	LT	696.20	INLETS 4-FT DIAMETER	V	6.59	10	---	P187B	2	187A	187	689.61	689.52	1.00	9	13	III	18	2	---	12	1
IH 43	187	2	943+75.20	1.8	RT	695.63	MANHOLES 5-FT DIAMETER	B	21.99	15	---	P188	2	187	191	673.64	669.61	1.37	294	299	V	24	110	---	125	
IH 43	189	4	946+50.00	83.3	RT	685.73	INLETS 2x2.5-FT	V	6.64	7	---	P190	2 & 4	189	191	679.09	678.69	0.50	81	85	III	18	19	---	26	
IH 43	191A	2	946+75.00	13.3	LT	689.79	INLETS 4-FT DIAMETER	V	6.59	10	---	P191B	2	191A	191	683.20	683.09	1.00	12	16	III	18	3	---	13	1
IH 43	191	2	946+74.93	1.0	RT	689.00	MANHOLES 5-FT DIAMETER	B	19.39	15	---	P192	2	191	197	669.61	667.97	1.37	120	125	V	24	45	---	60	
---	---	---	---	---	---	---	---	---	--	---	---	P196	1 & 2	195	197	676.98	676.46	0.50	105	107	V	24	39	FROM ENDWALL	39	
IH 43	197	2	948+00.00	0.0	RT	685.35	MANHOLES 5-FT DIAMETER	B	17.38	15	---	P198	2	197	201	667.97	666.67	1.37	95	100	V	24	35	---	50	
IH 43	199A	4	945+10.00	93.8	RT	672.74	INLETS MEDIAN 1 GRATE	MS	3.11	8	---	P199B	4	199A	199C	669.63	668.73	0.50	180	183	III	15	32	---	40	
IH 43	199C	4	947+04.75	103.9	RT	675.76	MANHOLES 4-FT DIAMETER	J-SPECIAL	7.03	9	---	P199D	4	199C	199E	668.73	667.83	0.50	180	184	III	15	32	---	41	
IH 43	199E	4	949+00.00	91.5	RT	677.17	MANHOLES 4-FT DIAMETER	J-SPECIAL	9.34	9	---	P199F	4	199E	199	667.83	667.81	0.50	4	8	III	15	1	---	10	
IH 43	199	4	949+00.00	85.3	RT	678.12	INLETS 4-FT DIAMETER	V	10.56	10	---	P200	2 & 4	199	201	667.56	667.17	0.50	79	83	III	18	19	---	29	
IH 43	201A	2	949+00.00	13.3	LT	683.13	INLETS 4-FT DIAMETER	V	6.58	10	---	P201B	2	201A	201	676.55	676.44	1.00	11	15	III	18	3	---	13	1
IH 43	201	2	949+00.00	0.0	RT	682.37	MANHOLES 5-FT DIAMETER	B	15.70	15	---	P202	2	201	223	666.67	663.32	1.37	244	250	III	24	91	---	106	
IH 43	215	4	951+39.44	85.3	RT	671.74	INLETS 4-FT DIAMETER	V	6.21	12	---	P216	4	215	217	665.53	665.49	0.69	6	10	III	24	2	---	14	
IH 43	217	4	951+50.00	85.3	RT	671.49	MANHOLES 5-FT DIAMETER	V	6.52	15	---	P218	2 & 4	217	223	664.97	664.58	0.50	77	83	III	24	29	---	44	
---	---	---	---	---	---	---	---	---	--	---	---	P222	1 & 2	221	223	666.34	665.80	0.50	109	112	V	24	41	FROM ENDWALL	41	

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[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

Addendum No. 01
ID 1228-22-71
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April 1, 2021

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STORM SEWER STRUCTURES												STORM SEWER PIPES													
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY
IH 43	223A	2	951+58.46	13.3	LT	675.61	INLETS 4-FT DIAMETER	V	6.59	10	---	P223B	2	223A	223	669.02	668.90	1.00	12	17	III	18	3	---	13
IH 43	223	2	951+50.00	0.0	RT	674.88	MANHOLES 6-FT DIAMETER	B	12.06	20	---	P224	2	223	321	662.82	659.12	1.38	268	275	III	30	145	--- (1)	165
IH 43	231	1	944+00.00	83.3	LT	700.02	INLETS 2x2.5-FT	V	6.79	7	COVER PLATE & RECONSTRUCT	P232	1	231	233	693.23	693.17	2.00	3	6	III	18	1	---	8
IH 43	233	1	944+00.00	76.3	LT	699.76	MANHOLES 4-FT DIAMETER	J-SPECIAL	23.36	12	---	P234	1	233	237	676.40	674.15	0.87	258	262	V	24	96	---	108
IH 43	235	1	946+50.00	83.3	LT	694.50	INLETS 2x2.5-FT	V	6.79	7	COVER PLATE & RECONSTRUCT	P236	1	235	237	687.71	687.65	2.00	3	6	III	18	1	---	8
IH 43	237	1	946+50.00	76.3	LT	694.24	MANHOLES 4-FT DIAMETER	J-SPECIAL	20.09	12	---	P238	1	237	241	674.15	671.90	0.87	258	262	V	24	96	---	108
IH 43	239	1	949+00.00	83.3	LT	687.18	INLETS 2x2.5-FT	V	6.79	7	COVER PLATE & RECONSTRUCT	P240	1	239	241	680.39	680.33	2.00	3	6	III	18	1	---	8
IH 43	241	1	949+00.00	76.3	LT	686.91	MANHOLES 4-FT DIAMETER	J-SPECIAL	15.01	12	---	P242	1	241	245	671.90	670.61	0.50	258	262	III	24	96	---	108
IH 43	243	1	951+50.00	83.3	LT	678.88	INLETS 2x2.5-FT	V	6.71	7	COVER PLATE & RECONSTRUCT	P244	1	243	245	672.17	672.11	2.00	3	6	III	18	1	---	8
IH 43	245	1	951+50.00	76.3	LT	678.70	MANHOLES 4-FT DIAMETER	J-SPECIAL	8.09	12	---	P246	1	245	249	670.61	663.33	2.97	246	250	IV	24	92	---	104
IH 43	247	1	954+00.00	83.3	LT	669.97	INLETS 2x2.5-FT	V	6.08	7	COVER PLATE & RECONSTRUCT	P248	1	247	249	663.89	663.83	2.00	3	7	III	18	1	---	8
IH 43	249	1	954+00.00	75.8	LT	669.92	MANHOLES 5-FT DIAMETER	J-SPECIAL	6.59	15	---	P250	1 & 2	249	321	663.33	661.13	3.00	73	80	IV	24	27	---	42
---	---	---	---	---	---	---	---	---	--	---	---	PE250A	---	---	250B	---	656.41	---	---	---	---	18	---	EXIST PIPE INTERPOL ELEV	---
IH 43	250B	1	951+51.33	113.8	LT	666.86	MANHOLES 4-FT DIAMETER	J-SPECIAL	10.47	10	---	P250C	1 & 2	250B	250D	656.39	655.62	0.30	257	261	V	18	61	**	71
IH 43	250D	2	952+94.37	104.8	RT	663.50	MANHOLES 4-FT DIAMETER	J-SPECIAL	7.89	10	---	PE250E	---	250D	---	655.61	---	---	---	---	---	18	---	EXIST PIPE INTERPOL ELEV	10
RAMP HAA	251	3	966+22.59	21.6	LT	666.98	INLETS 4-FT DIAMETER	J-SPECIAL	8.35	12	---	P252	2	251	255	658.63	656.33	3.09	74	79	III	24	28	---	40

[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

STORM SEWER STRUCTURES												STORM SEWER PIPES														
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE[A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY	
IH 43	253A	3	966+55.53	3.5	RT	662.27	INLETS 4-FT DIAMETER	V	5.91	10	---	P253B	3	253A	253	656.36	656.32	1.00	4	8	IV	18	1	---	11	1
IH 43	253	3	966+50.00	0.0	RT	662.21	INLETS 4-FT DIAMETER	B	6.39	12	---	P254	3	253	255	655.82	655.58	0.50	48	52	IV	24	18	---	30	
IH 43	255	3	965+97.79	0.0	RT	663.20	MANHOLES 5-FT DIAMETER	B	7.62	15	---	P256	3	255	257B	655.58	654.61	0.50	193	198	III	24	72	---	87	
IH 43	257C	3	963+94.13	13.3	RT	666.52	INLETS 4-FT DIAMETER	V	6.59	10	---	P257D	3	257C	257B	659.93	659.89	1.00	4	8	III	18	1	---	11	1
IH 43	257	3	964+00.00	0.0	RT	665.83	INLETS 4-FT DIAMETER	B	6.59	10	---	P257A	3	257	257B	659.24	659.19	1.00	5	9	III	18	1	---	11	
IH 43	257B	3	964+00.00	9.3	RT	666.26	MANHOLES 5-FT DIAMETER	J-SPECIAL	11.65	15	---	P258	3	257B	259B	654.61	653.38	0.50	246	251	III	24	92	---	107	
IH 43	259C	3	961+55.87	13.3	RT	667.16	INLETS 4-FT DIAMETER	V	6.59	10	---	P259D	3	259C	259B	660.57	660.53	1.00	4	8	III	18	1	---	11	1
IH 43	259	3	961+50.00	0.0	RT	666.50	INLETS 4-FT DIAMETER	B	6.59	10	---	P259A	3	259	259B	659.91	659.86	1.00	5	9	III	18	1	---	11	
IH 43	259B	3	961+50.00	9.3	RT	666.93	MANHOLES 5-FT DIAMETER	J-SPECIAL	13.55	15	---	P260	3	259B	261	653.38	652.19	0.50	238	242	III	24	89	---	104	
IH 43	261A	3	959+03.37	13.3	RT	666.12	INLETS 4-FT DIAMETER	V	6.58	10	---	P261B	3	261A	261	659.54	659.50	1.00	4	8	III	18	1	---	11	1
IH 43	261	3	959+08.40	9.3	RT	665.98	MANHOLES 4-FT DIAMETER	J-SPECIAL	13.79	12	---	P262	3	261	301	652.19	652.16	0.50	7	13	III	24	3	---	15	
IH 43	267	3	966+50.05	85.5	LT	658.82	INLETS 2x2.5-FT	S	3.60	6	ROTATE STRUCTURE 90°	P268	3	267	269	655.22	655.05	0.30	56	58	IV	15	10	---	16	
IH 43	269	3	965+89.46	83.3	LT	660.08	INLETS 2x2.5-FT	S	5.03	6	ROTATE STRUCTURE 90°	P270	3	269	271	655.05	654.51	0.30	180	182	IV	15	32	---	38	
IH 43	271	1	964+00.00	83.3	LT	662.35	INLETS 2x2.5-FT	S	8.09	7	ROTATE STRUCTURE 90°	P272	3	271	273	654.26	654.24	0.30	8	10	III	18	2	---	9	
IH 43	273	1	963+89.62	83.3	LT	662.43	INLETS 2x2.5-FT	S	8.19	7	ROTATE STRUCTURE 90°	P274	3	273	283	654.24	653.90	0.30	113	115	III	18	27	---	34	
IH 43	283	1	962+69.81	83.3	LT	663.01	INLETS 2x2.5-FT	S	9.11	7	ROTATE STRUCTURE 90°	P284	1	283	285	653.90	653.56	0.30	113	115	III	18	27	---	34	
IH 43	285	1	961+50.00	83.3	LT	662.84	INLETS 2x2.5-FT	S	9.28	7	ROTATE STRUCTURE 90°	P286	1	285	287	653.56	653.22	0.30	114	116	III	18	27	---	34	
IH 43	287	1	960+29.87	83.3	LT	662.25	INLETS 2x2.5-FT	S	9.03	7	ROTATE STRUCTURE 90°	P288	1	287	289	653.22	653.20	0.30	8	10	III	18	2	---	9	
IH 43	289	1	960+19.48	83.3	LT	662.20	INLETS 2x2.5-FT	S	9.00	7	ROTATE STRUCTURE 90°	P290	1	289	297	653.20	652.87	0.30	112	116	III	18	26	---	33	
IH 43	293	1	958+90.00	85.3	LT	662.29	INLETS 4-FT DIAMETER	V	7.75	10	---	P294	1	293	295	654.54	654.51	0.50	6	10	III	18	1	---	11	
IH 43	295	1	958+99.99	85.3	LT	662.22	INLETS 4-FT DIAMETER	V	7.71	10	---	P296	1	295	297	654.51	654.49	1.00	2	7	III	18	1	---	11	
IH 43	297	2	959+00.00	76.3	LT	662.62	MANHOLES 6-FT DIAMETER	J-SPECIAL	10.75	20	---	P298	1	297	301	651.87	651.66	0.30	70	76	III	30	38	---	58	

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[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

STORM SEWER STRUCTURES												STORM SEWER PIPES													
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY
IH 43	301	2	959+00.00	0.0	RT	665.16	MANHOLES 7-FT DIAMETER	B	14.00	25	---	P302	1 & 2	301	303	651.16	650.73	0.30	144	150	III	36	107	---	132
IH 43	303	1	957+50.00	0.0	RT	664.42	MANHOLES 5-FT DIAMETER	B	13.70	19	---	P304	2	303	319	650.72	650.43	0.30	95	100	III	36	70	---	89
IH 43	305	1	956+40.00	83.3	LT	664.19	INLETS 2x2.5-FT	V	6.32	6	COVER PLATE & RECONSTRUCT	P306	2	305	307	657.87	657.72	2.00	8	10	III	12	1	---	7
IH 43	307	1	956+50.00	83.3	LT	664.04	INLETS 2x2.5-FT	V	6.82	7	COVER PLATE & RECONSTRUCT	P308	1	307	309	657.22	657.16	2.00	3	6	III	18	1	---	8
IH 43	309	2	956+50.00	76.3	LT	664.13	MANHOLES 4-FT DIAMETER	J-SPECIAL	7.47	12	---	P310	1	309	319	656.66	655.24	2.00	71	76	III	24	27	---	39
IH 43	319A	1	956+90.00	13.3	RT	665.43	INLETS 4-FT DIAMETER	V	6.59	10	---	P319B	1	319A	319C	658.84	658.79	0.50	11	15	III	18	3	---	13
IH 43	319C	1	956+75.00	13.3	RT	665.41	INLETS 4-FT DIAMETER	V	6.62	10	---	P319D	1	319C	319E	658.79	658.68	0.50	21	25	III	18	5	---	15
IH 43	319E	1	956+50.00	13.3	RT	665.43	INLETS 4-FT DIAMETER	V	6.75	10	---	P319F	1	319E	319	658.68	658.58	1.00	10	16	III	18	2	---	12
IH 43	319	1	956+50.00	0.0	RT	664.74	MANHOLES 6-FT DIAMETER	B	14.31	22	---	P320	1 & 2	319	321	650.43	649.77	0.30	218	225	III	36	161	---	183
IH 43	321A	4	954+34.56	13.3	LT	668.02	INLETS 4-FT DIAMETER	V	6.58	10	---	P321B	2	321A	321	661.44	661.32	1.00	12	18	III	18	3	---	13
IH 43	321	1	954+25.00	0.0	RT	667.49	MANHOLES 8-FT DIAMETER	B	18.72	35	---	P322	1	321	327	648.77	648.55	0.30	74	82	III	48	91	---	126
IH 43	325	4	954+15.00	85.3	RT	666.59	INLETS 4-FT DIAMETER	V	6.27	12	---	P326	4	325	327	660.32	660.27	1.00	5	10	III	24	2	---	14
IH 43	327	1	954+25.00	81.8	RT	666.54	MANHOLES 7-FT DIAMETER	J-SPECIAL	17.99	31	---	P328	1	327	329	648.55	648.52	0.30	9	16	III	48	11	---	42
IH 43	329	1	954+36.21	92.6	RT	665.18	MANHOLES 7-FT DIAMETER	J-SPECIAL	16.66	31	---	P330	1	329	331	648.52	648.49	0.30	9	15	III	48	11	---	42
IH 43	331	1	954+51.24	94.2	RT	661.45	MANHOLES 6-FT DIAMETER	J-SPECIAL	12.96	28	---	P332	2	331	333	648.49	648.27	0.30	72	79	III	48	89	---	117
IH 43	333	2	955+30.52	100.0	RT	653.65	MANHOLES 8-FT DIAMETER	J-SPECIAL	5.38	35	---	P334	2	333	335	648.27	648.25	0.30	7	11	III	48	8	TO ENDWALL	43
RAMP HAA	351	2	961+78.78	55.9	RT	650.50	POND OUTLET STRUCTURE	---	3.50	20	LAKE TOWER POND OUTLET STORM SEWER STRUCTURE. SEE CONSTRUCTION DETAIL.	P352	2	351	353	647.00	641.08	2.30	257	263	III	30	139	---	159
RAMP HAA	353	2	964+34.41	36.0	RT	645.41	MANHOLES 5-FT DIAMETER	C	4.48	17	---	P354	2	353	355	640.93	632.21	3.00	291	295	III	30	158	---	175
RAMP HAA	355	2	967+25.00	24.3	RT	637.99	INLETS 4-FT DIAMETER	C	5.78	14	---	P356	2	355	357	632.21	631.55	1.50	44	48	IV	30	24	---	38

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[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

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ID 1228-22-71
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April 1, 2021

Addendum No. 01
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Revised Sheet 627
April 1, 2021

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STORM SEWER STRUCTURES												STORM SEWER PIPES														
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY
RAMP HAA	357	2	967+71.74	14.1	RT	637.46	MANHOLES 4-FT DIAMETER	J-SPECIAL	7.06	14	---	P358	2	357	E359	630.40	630.02	1.50	25	30	IV	30	14	---	28
RAMP HAA	E359	---	968+00.43	4.9	RT	636.67	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---
IH 43	371	1	961+79.50	128.9	LT	640.84	INLETS MEDIAN 2 GRATE	MS	6.59	11	FLAT GRATES	P372	1	371	373	634.25	632.35	0.50	380	384	III	18	90	---	101
IH 43	373	1	965+82.56	93.9	LT	638.71	INLETS MEDIAN 1 GRATE	MS	6.36	9	FLAT GRATES	P374	1	373	375	632.35	631.92	0.50	87	90	III	18	20	---	29
IH 43	375	1	966+76.27	102.5	LT	638.00	MANHOLES 4-FT DIAMETER	J-SPECIAL	6.08	10	---	P376	1	375	E377	631.92	631.67	0.50	49	55	III	18	12	---	22
IH 43	E377	---	967+32.43	93.1	LT	636.92	---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---
RAMP HAB	401	2	969+00.05	10.5	LT	652.50	INLETS 2x2.5-FT	V	6.67	7	---	P402	3	401	403	645.83	645.07	1.00	76	79	III	18	18	---	25
IH 43	403	2	968+99.99	3.3	LT	656.78	INLETS 4-FT DIAMETER	V	12.11	12	---	P404	2	403	405	644.67	644.60	1.00	7	11	III	24	2	---	14
IH 43	405	2	969+00.00	3.3	RT	655.93	INLETS 4-FT DIAMETER	V	11.33	12	---	P406	2	405	407	644.60	643.98	1.00	62	66	III	24	23	---	35
IH 43	407	3	968+99.51	71.6	RT	659.50	MANHOLES 5-FT DIAMETER	J-SPECIAL	20.22	15	---	P408	1	407	419	639.28	636.76	1.00	252	256	IV	24	94	---	109
RAMP HAB	411	2	971+43.80	9.0	LT	646.45	INLETS 2x2.5-FT	V	6.85	7	---	P412	3	411	413	639.60	638.80	1.00	80	83	III	18	19	---	26
IH 43	413	2	971+50.01	3.3	LT	648.74	INLETS 4-FT DIAMETER	V	10.44	12	---	P414	2	413	417	638.30	638.23	1.00	7	11	III	24	2	---	14
IH 43	415	2	971+40.00	3.3	RT	649.20	INLETS 4-FT DIAMETER	V	6.60	10	---	P416	2	415	417	642.60	642.55	1.00	6	10	III	18	1	---	11
IH 43	417	1	971+49.99	3.3	RT	648.93	MANHOLES 5-FT DIAMETER	V	10.71	15	---	P418	1 & 2	417	419	638.22	637.61	1.00	61	66	III	24	23	---	38
IH 43	419	1	971+50.02	71.7	RT	650.84	MANHOLES 4-FT DIAMETER	J-SPECIAL	14.08	12	---	P420	1	419	421	636.76	633.95	1.00	281	285	III	24	105	---	117

[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

Addendum No. 01
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Revised Sheet 630
April 1, 2021

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STORM SEWER STRUCTURES												STORM SEWER PIPES														
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY
RAMP HAA	523	4	978+07.98	34.8	LT	628.66	INLETS 4-FT DIAMETER	H-S	4.89	9	---	P524	4	523	E535	623.77	623.60	0.50	32	38	IV	15	6	---	15
RAMP HAA	525	4	978+39.68	83.4	LT	629.67	INLETS 4-FT DIAMETER	H	5.48	9	---	P526	4	525	531	624.19	624.16	0.50	5	9	IV	15	1	---	10
RAMP HAA	527	4	978+45.92	83.1	LT	629.70	INLETS 4-FT DIAMETER	H	5.50	9	---	P528	4	527	529	624.20	624.18	0.50	5	9	IV	15	1	---	10
RAMP HAA	529	4	978+44.61	74.5	LT	629.58	INLETS 4-FT DIAMETER	H	5.40	9	---	P530	4	529	531	624.18	624.16	0.50	6	10	IV	15	1	---	10
RAMP HAA	531	4	978+39.02	74.2	LT	629.59	INLETS 4-FT DIAMETER	H	5.43	9	---	P532	4	531	E535	624.16	623.99	0.50	33	39	IV	15	6	---	15
RAMP HAA	E535	---	978+47.79	36.6	LT	629.39	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
RAMP HAB	551	2	976+79.04	12.0	LT	640.88	INLETS 2x2.5-FT	V	8.75	6	---	P552	2	551	E553	632.13	626.66	20.00	27	31	III	15	5	---	11
RAMP HAB	E553	---	976+98.23	34.9	LT	630.50	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
IH 43	E559	---	976+25.26	301.8	RT	629.67	---	---	---	---	---	P560	4	E559	561	625.45	625.42	0.50	6	10	IV	12	1	---	1
RAMP HAA	561	4	978+40.01	67.3	RT	629.57	INLETS 4-FT DIAMETER	H-S	4.15	8	---	P562	4	561	E563	625.42	625.33	0.55	16	21	IV	12	2	---	10
RAMP HAA	E563	---	978+32.82	48.3	RT	630.51	---	---	---	---	---	---	---	---	---	--	---	---	---	---	---	---	---	---	---
IH 43	599	1	982+85.50	79.8	RT	635.10	INLETS 4-FT DIAMETER	H	3.43	8	---	P600	1	599	601	631.67	631.36	1.00	31	35	IV	12	4	---	12
IH 43	601	1	982+46.19	82.4	RT	635.31	INLETS 4-FT DIAMETER	H	3.95	8	---	P602	1	601	603	631.36	631.25	1.00	11	15	IV	12	1	---	9
IH 43	603	1	982+34.95	82.6	RT	635.48	INLETS 4-FT DIAMETER	H	5.12	8	---	PE604	---	603	E607	630.36	---	---	---	---	---	12	---	EXIST PIPE INTERPOL ELEV	8
IH 43	605	1	982+49.13	179.4	RT	634.50	INLETS 4-FT DIAMETER	H	6.29	10	---	PE606	---	605	E607	628.21	---	---	---	---	---	18	---	EXIST PIPE INTERPOL ELEV	10

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[1] DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B] PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C] PLAN LENGTH SHOWN FOR PAY QUANTITY.

STORM SEWER STRUCTURES												STORM SEWER PIPES													
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY
IH 43	731	2	1001+58.76	0.0	RT	620.53	INLETS 4-FT DIAMETER	B	4.18	12	---	P732	2	731	733	616.35	616.32	0.50	7	11	IV	24	3	---	15
IH 43	733	2	1001+66.65	5.8	LT	621.17	INLETS 4-FT DIAMETER	V	4.85	12	---	P734	2	733	735	616.32	616.15	0.37	46	51	IV	24	17	---	29
IH 43	735	2	1002+00.31	45.5	LT	620.81	MANHOLES 6-FT DIAMETER	J-SPECIAL	4.66	20	---	P736	2	735	901	616.15	615.86	0.20	142	150	HE-IV	29x45	178	---	198
IH 43	781A	1	984+80.00	10.7	RT	655.85	INLETS 4-FT DIAMETER	V	6.59	10	---	P781B	1	781A	781C	649.26	649.04	1.00	21	26	III	18	5	---	15
IH 43	781C	1	984+80.00	10.7	LT	655.52	INLETS 4-FT DIAMETER	V	6.48	10	---	P781D	1	781C	781E	649.04	648.89	1.00	15	20	III	18	4	---	14
IH 43	781E	1	985+00.00	11.7	LT	655.25	INLETS 4-FT DIAMETER	V	6.36	10	---	P781F	1	781E	781	648.89	648.79	1.00	10	14	III	18	2	---	12
IH 43	781	1	985+00.00	0.0	RT	654.59	INLETS 4-FT DIAMETER	B	6.94	12	---	P782	1	781	783	647.65	647.31	0.50	68	73	III	24	26	---	38
IH 43	783	1	985+00.00	75.3	RT	654.69	MANHOLES 5-FT DIAMETER	HM	7.38	15	---	P784	1	783	787	647.31	641.17	2.52	243	248	III	24	91	---	106
IH 43	785A	1	987+50.00	13.3	LT	649.48	INLETS 4-FT DIAMETER	V	6.58	10	---	P785B	1	785A	785	642.90	642.78	1.00	11	15	III	18	3	---	13
IH 43	785	1	987+50.00	0.0	RT	648.99	INLETS 4-FT DIAMETER	B	7.48	12	---	P786	1	785	787	641.51	641.17	0.50	68	73	III	24	26	---	38
IH 43	787	1	987+50.00	75.3	RT	648.29	MANHOLES 5-FT DIAMETER	HM	7.12	15	---	P788	1	787	789	641.17	638.84	2.48	94	98	III	24	35	---	50
IH 43	789	1	988+50.00	75.3	RT	645.91	INLETS 4-FT DIAMETER	HM	7.07	12	---	P790	1	789	791	638.84	636.94	2.00	95	99	III	24	36	---	48
IH 43	791	1	989+50.00	75.3	RT	644.25	INLETS 4-FT DIAMETER	HM	7.31	12	---	P792	1	791	803	636.94	635.35	2.25	71	75	III	24	26	---	38
IH 43	801A	1	990+25.16	12.3	LT	643.01	INLETS 4-FT DIAMETER	V	6.59	10	---	P801B	1	801A	801	636.42	636.32	1.00	10	14	III	18	2	---	12
IH 43	801	1	990+25.00	0.0	RT	642.94	INLETS 4-FT DIAMETER	B	7.25	12	---	P802	1	801	803	635.69	635.35	0.50	68	73	III	24	26	---	38
IH 43	803	1	990+25.00	75.3	RT	643.02	MANHOLES 5-FT DIAMETER	HM	7.67	15	---	P804	1	803	805	635.35	629.84	2.62	210	215	III	24	79	---	94
IH 43	805	1	992+39.99	75.0	RT	639.40	INLETS 4-FT DIAMETER	HM	9.56	12	---	P806	1	805	809	629.84	629.70	2.50	6	10	III	24	2	---	14
IH 43	807A	2	992+35.00	13.0	RT	637.52	INLETS 4-FT DIAMETER	V	6.59	10	---	P807B	2	807A	807C	630.93	630.83	1.00	11	15	III	18	2	---	12
IH 43	807C	2	992+35.00	0.0	RT	637.04	MANHOLES 4-FT DIAMETER	J-SPECIAL	6.21	10	---	P807D	2	807C	807	630.83	630.73	1.00	10	15	III	18	2	---	12
IH 43	807	2	992+50.00	0.0	RT	636.61	MANHOLES 5-FT DIAMETER	B	6.57	15	---	P808	1	807	809	630.04	629.70	0.50	67	72	III	24	25	---	40
IH 43	809	1	992+50.00	74.8	RT	639.23	MANHOLES 5-FT DIAMETER	HM	9.53	15	---	P810	1	809	815	629.70	623.66	2.45	247	253	III	24	92	---	107
IH 43	811	2	993+75.00	0.0	RT	633.61	INLETS 4-FT DIAMETER	B	9.11	12	---	P812	1	811	813	624.50	623.90	0.50	121	125	III	24	45	---	57

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[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

Addendum No. 01
ID 1228-22-71
Revised Sheet 633
April 1, 2021

Addendum No. 01
ID 1228-22-71
Revised Sheet 634
April 1, 2021

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STORM SEWER STRUCTURES												STORM SEWER PIPES													
ROADWAY	STRUCTURE NO.	STRUCTURE STAGE	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH [1] (FT)	BACKFILL SLURRY CY	STRUCTURE COMMENTS	PIPE ID	PIPE STAGE	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE [A] %	PIPE LENGTH [B] (FT)	PLAN LENGTH [C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	BACKFILL SLURRY CY	PIPE COMMENTS	TOTAL BACKFILL SLURRY CY
IH 43	813	2	995+00.00	3.3	RT	631.08	MANHOLES 5-FT DIAMETER	V	7.18	15	---	P814	1	813	815	623.90	623.66	0.50	48	54	III	24	18	---	33
IH 43	815	1	995+00.00	62.9	RT	632.81	MANHOLES 7-FT DIAMETER	HM	9.15	19	---	P816	1	815	831	623.66	617.72	2.40	248	254	III	24	93	---	112
IH 43	831	1	997+50.00	56.0	RT	624.86	MANHOLES 6-FT DIAMETER	HM	7.56	20	---	P832	1	831	835	617.30	616.57	0.30	244	250	HE-IV	29x45	306	---	326
IH 43	833	1	1000+00.00	56.0	RT	620.59	INLETS 4-FT DIAMETER	V	3.83	10	---	P834	1	833	835	616.76	616.75	0.50	4	9	IV	18	1	---	11
IH 43	835	1	1000+00.00	45.5	RT	620.97	MANHOLES 6-FT DIAMETER	J-SPECIAL	4.40	20	---	P836	1	835	843	616.57	616.35	0.20	110	116	HE-IV	29x45	138	---	158
IH 43	837A	1	1000+50.00	63.2	RT	619.01	INLETS MEDIAN 2 GRATE	MS	2.18	11	---	P837B	1	837A	837	616.83	616.67	1.00	16	21	IV	18	4	---	15
IH 43	837	1	1000+69.26	56.0	RT	620.14	INLETS 4-FT DIAMETER	V	3.47	10	---	P838	1	837	841	616.67	616.54	0.30	43	47	IV	18	10	---	20
IH 43	839	1	1001+43.96	56.0	RT	620.36	INLETS 4-FT DIAMETER	V	3.81	10	---	P840	1	839	841	616.55	616.48	0.30	24	28	IV	18	6	---	16
IH 43	841	1	1001+16.28	56.0	RT	620.02	INLETS 4-FT DIAMETER	V	3.52	10	---	P842	1	841	843	616.50	616.49	0.30	4	9	IV	18	1	---	11
IH 43	843	1	1001+16.28	45.5	RT	620.44	MANHOLES 6-FT DIAMETER	J-SPECIAL	4.10	20	---	P844	1	843	851	616.34	616.19	0.20	77	83	HE-IV	29x45	96	---	116
IH 43	849	1	1002+07.27	62.1	RT	620.11	INLETS MEDIAN 2 GRATE	MS	3.82	11	---	P850	1	849	851	616.29	616.19	1.20	8	13	IV	18	2	---	13
IH 43	851	1	1002+07.76	49.4	RT	621.13	MANHOLES 6-FT DIAMETER	J-SPECIAL	4.94	22	---	P852	1	851	853	616.19	615.99	0.15	134	142	HE-IV	34x53	225	---	247
IH 43	853	2	1003+50.25	54.4	RT	623.34	MANHOLES 10-FT DIAMETER	V	7.35	37	---	P854	1	853	891	615.99	615.94	0.15	34	43	HE-IV	34x53	58	---	95
IH 43	871	2	1002+00.00	6.0	RT	620.85	INLETS 4-FT DIAMETER	V	4.43	12	---	P872	2	871	877	616.42	616.28	0.30	46	50	IV	24	17	---	29
IH 43	873	2	1002+30.93	0.0	RT	620.89	INLETS 4-FT DIAMETER	B	4.53	9	---	P874	2	873	875	616.36	616.31	0.30	16	20	IV	15	3	---	12

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[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

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STORM SEWER STRUCTURE SUMMARY

611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	SPV.0060.8002 MANHOLES 9-FT SPECIAL EACH	SPV.0060.8003 MANHOLES 10-FT SPECIAL EACH	611.3220 INLETS 2x2-FT EACH	611.3225 INLETS 2x2.5-FT EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	611.0535 MANHOLE COVERS TYPE J SPECIAL EACH	611.0606 INLET COVERS TYPE B EACH	611.0610 INLET COVERS TYPE BW EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.0627 INLET COVERS TYPE HM EACH	611.0636 INLET COVERS TYPE HM-S EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0642 INLET COVERS TYPE MS EACH	611.0651 INLET COVERS TYPE S EACH	611.0654 INLET COVERS TYPE V EACH
17	34 *	12	5	3	2	1	3	28	107	3	6	33 *	25	4	4	12	21	4	5	15	10	94
1									1			1				1			1			1

STORM SEWER PIPE SUMMARY

608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH LF	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH LF	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	608.0430 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 30-INCH LF	608.0448 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 48-INCH LF	608.0518 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 18-INCH LF	608.0524 STORM SEWER PIPE REINFORCED CONCRETE CLASS V 24-INCH LF	608.2424 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 24X38-INCH LF	608.2429 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH LF	608.2434 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 34X53-INCH LF	SPV.0090.8001 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 38X60-INCH LF
28	1301	2,346 *	5692	979 *	516	203	131	985	404	2034	78	47	261	1267	204	599	243	68
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* ADDITIONAL QUANTITIES FOUND ELSEWHERE

Addendum No. 01
ID 1228-22-71
Revised Sheet 636
April 1, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY:MILWAUKEE	DRAINAGE QUANTITIES	SHEET: 636	E

LIGHTING AND MISCELLANEOUS - FINAL

CATEGORY	STAGE	DESCRIPTION	LOCATION		652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	653.0135* PULL BOXES STEEL 24x36-INCH EACH	653.0140* PULL BOXES STEEL 24x42-INCH EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0108 CONCRETE BASES TYPE 8 EACH	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG LF	657.0210 TRANSFORMER BASES BREAKAWAY 15-17-INCH BOLT CIRCLE EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322* POLES TYPE 5-ALUMINUM EACH	657.0375 POLES TYPE A EACH	657.0380 POLES TYPE E EACH	657.0605 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 4-FT EACH	657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT EACH	657.0620 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 4-FT EACH
1100		ECA8	924+80.2	SM	--	--	--	--	--	120	--	--	--	--	--	--	--	--
		ECA7/FCA7	917+76.6	0.40'LT	--	--	--	--	--	390	--	--	--	--	--	--	--	--
		ECA6	GREEN BAY AVE BRIDGE		--	--	--	--	--	--	--	--	--	--	--	--	--	--
		FCA6	GREEN BAY AVE BRIDGE		--	--	--	--	--	--	--	--	--	--	--	--	--	--
		ECA5/FCA5	921+33.7	0.15'LT	--	--	--	--	--	390	--	--	--	--	--	--	--	--
		ECA4/FCA4	924+12.4	0.43'LT	--	--	--	--	--	390	--	--	--	--	--	--	--	--
		ECA3	CAPITOL DR BRIDGE		--	--	--	--	--	--	--	--	--	--	--	--	--	--
		FCA3	CAPITOL DR BRIDGE		--	--	--	--	--	--	--	--	--	--	--	--	--	--
		FCA1	924+69.2	260.19'RT	--	--	--	--	--	120	--	--	--	--	--	--	--	--
		ECA1	923+14.4	152.86'RT	--	--	--	--	--	120	--	--	--	--	--	--	--	--
		FCA2	920+55.5	84.50'RT	--	--	--	1	--	120	--	1	1	--	--	--	1	--
		EXLPB-CA-002	926+64.1	109.66'RT	1	--	--	--	--	--	--	--	--	--	--	--	--	--
		LPB-CA-1	927+93.7	93.29'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		LPB-CA-2	927+11.1	72.00'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		LPB-CA-3	927+10.9	63.32'LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		ACA1	927+01.1	72.00'RT	--	--	--	--	1	195	1	--	--	--	1	--	--	1
		BCA1	929+65.6	78.00'RT	1	--	--	--	1	195	1	--	--	--	1	--	--	1
		BCA4	926+98.9	63.13'LT	--	--	--	--	1	195	1	--	--	--	1	--	--	1
		ACA4	929+65.9	66.98'LT	--	--	--	--	1	195	1	--	--	--	1	--	--	1
		LPB-CA-4	931+88.3	124.29'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		ACA2	932+35.0	56.41'RT	--	--	--	--	1	195	1	--	--	--	1	--	--	1
		BCA2	934+99.9	57.25'RT	--	--	--	--	1	195	1	--	--	--	1	--	--	1
		LPB-CA-5	935+75.3	66.71'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		ACA3	937+59.9	57.00'RT	--	--	--	--	1	195	1	--	--	--	1	--	--	1
		BCA5	932+35.7	72.08'LT	--	--	--	--	1	195	1	--	--	--	1	--	--	1
		LPB-CA-6	934+16.8	111.44'LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		ACA5	935+00.1	57.00'LT	--	--	--	--	1	195	1	--	--	--	1	--	--	1
		LPB-CA-7	936+55.3	59.96'LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		BCA6	937+60.1	57.88'LT	--	--	--	--	1	195	1	--	--	--	1	--	--	1
		EXLPB-CA-22	935GBA+70.7	13.43'RT	1	--	--	--	--	--	--	--	--	--	--	--	--	--
		LPB-CA-11	935GBD+74.2	23.95'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		CCA2	932GBD+14.6	18.00'RT	--	--	--	1	--	195	--	1	1	--	--	--	1	--
		DCA2	934GBD+21.5	18.00'RT	--	--	--	1	--	195	--	1	1	--	--	--	1	--
		CCA3	936GBD+27.9	18.00'RT	--	--	--	1	--	195	--	1	1	--	--	--	1	--
		DCA3	938GBD+34.3	18.00'RT	--	--	--	1	--	195	--	1	1	--	--	--	1	--

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* ADDITIONAL QUANTITIES FOUND ELSEWHERE

(CONTINUED ON NEXT SHEET)

LIGHTING AND MISCELLANEOUS - FINAL (CONTINUED)

CATEGORY	STAGE	DESCRIPTION	LOCATION		659.0600.1001 UNDERDECK LIGHTING (B-40-1016) LS	659.0600.1002 UNDERDECK LIGHTING (B-40-1018) LS	659.1120* LUMINAIRE UTILITY LED B EACH	659.1125 LUMINAIRE UTILITY LED C EACH	659.1130 LUMINAIRE UTILITY LED D EACH	659.1215 LUMINAIRE UNDERDECK LED C EACH	SPV.0060.1008 LUMINAIRES REPLACE EXISTING HPS EACH	SPV.0060.1010 CONCRETE BASES TYPE B EACH	SPV.0060.1011 LUMINAIRES SIGN LED EACH	REMARKS
1100		ECA8	924+80.2	SM	--	--	--	--	--	--	--	--	1	S-40-42
		ECA7/FCA7	917+76.6	0.40'LT	--	--	--	--	2	--	2	--	--	
		ECA6	GREEN BAY AVE BRIDGE		--	--	--	--	--	3	3	--	--	UDL X3
		FCA6	GREEN BAY AVE BRIDGE		--	--	--	--	--	3	3	--	--	UDL X3
		ECA5/FCA5	921+33.7	0.15'LT	--	--	--	--	2	--	2	--	--	
		ECA4/FCA4	924+12.4	0.43'LT	--	--	--	--	2	--	2	--	--	
		ECA3	CAPITOL DR BRIDGE		--	--	--	--	--	2	2	--	--	UDL X2
		FCA3	CAPITOL DR BRIDGE		--	--	--	--	--	2	2	--	--	UDL X2
		FCA1	924+69.2	260.19'RT	--	--	--	1	--	--	1	--	--	
		ECA1	923+14.4	152.86'RT	--	--	--	1	--	--	1	--	--	
		FCA2	920+55.5	84.50'RT	--	--	--	1	--	--	--	--	--	
		EXLPB-CA-002	926+64.1	109.66'RT	--	--	--	--	--	--	--	--	--	
		LPB-CA-1	927+93.7	93.29'RT	--	--	--	--	--	--	--	--	--	
		LPB-CA-2	927+11.1	72.00'RT	--	--	--	--	--	--	--	--	--	
		LPB-CA-3	927+10.9	63.32'LT	--	--	--	--	--	--	--	--	--	
		ACA1	927+01.1	72.00'RT	--	--	--	--	1	--	--	--	--	
		BCA1	929+65.6	78.00'RT 1	--	--	--	--	1	--	--	--	--	
		BCA4	926+98.9	63.13'LT	--	--	--	--	1	--	--	--	--	
		ACA4	929+65.9	66.98'LT	--	--	--	--	1	--	--	--	--	
		LPB-CA-4	931+88.3	124.29'RT	--	--	--	--	--	--	--	--	--	
		ACA2	932+35.0	56.41'RT	--	--	--	--	1	--	--	--	--	
		BCA2	934+99.9	57.25'RT	--	--	--	--	1	--	--	--	--	
		LPB-CA-5	935+75.3	66.71'RT	--	--	--	--	--	--	--	--	--	
		ACA3	937+59.9	57.00'RT	--	--	--	--	1	--	--	--	--	
		BCA5	932+35.7	72.08'LT	--	--	--	--	1	--	--	--	--	
		LPB-CA-6	934+16.8	111.44'LT	--	--	--	--	--	--	--	--	--	
		ACA5	935+00.1	57.00'LT	--	--	--	--	1	--	--	--	--	
		LPB-CA-7	936+55.3	59.96'LT	--	--	--	--	--	--	--	--	--	
		BCA6	937+60.1	57.88'LT	--	--	--	--	1	--	--	--	--	
		EXLPB-CA-22	935GBA+70.7	13.43'RT	--	--	--	--	--	--	--	--	--	
		LPB-CA-11	935GBD+74.2	23.95'RT	--	--	--	--	--	--	--	--	--	
		CCA2	932GBD+14.6	18.00'RT	--	--	1	--	--	--	--	--	--	
		DCA2	934GBD+21.5	18.00'RT	--	--	1	--	--	--	--	--	--	
		CCA3	936GBD+27.9	18.00'RT	--	--	1	--	--	--	--	--	--	
		DCA3	938GBD+34.3	18.00'RT	--	--	1	--	--	--	--	--	--	

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LIGHTING AND MISCELLANEOUS - FINAL (CONTINUED)

CATEGORY	STAGE	DESCRIPTION	LOCATION		652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	653.0135* PULL BOXES STEEL 24x36-INCH EACH	653.0140* PULL BOXES STEEL 24x42-INCH EACH	654.0105 CONCRETE BASES TYPE 5 EACH	654.0108 CONCRETE BASES TYPE 8 EACH	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG LF	657.0210 TRANSFORMER BASES BREAKAWAY 15-17-INCH BOLT CIRCLE EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0322* POLES TYPE 5-ALUMINUM EACH	657.0375 POLES TYPE A EACH	657.0380 POLES TYPE E EACH	657.0605 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 4-FT EACH	657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 8-FT EACH	657.0620 LUMINAIRE ARMS SINGLE MEMBER 6-INCH CLAMP 4-FT EACH
1100		LPB-GL-7	953+79.0	97.55'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		LPB-GL-6	953+87.5	0.00'LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		FGL11	954+82.7	SM	--	--	--	--	--	195	1	--	--	1	--	--	--	1
		EGL11	956+64.2	SM	--	--	--	--	--	195	1	--	--	1	--	--	--	1
		FGL10	958+62.7	SM	--	--	--	--	--	195	1	--	--	1	--	--	--	1
		EGL10	960+56.3	SM	--	--	--	--	--	195	1	--	--	1	--	--	--	1
		EGL3/FGL3	961+41.6	0.00'LT	--	--	--	--	--	390	1	--	--	1	--	--	--	2
		EGL2/FGL2	964+08.1	0.00'LT	--	--	--	--	--	390	1	--	--	1	--	--	--	2
		EGL1/FGL1	966+73.3	0.26'LT	--	--	--	--	--	390	1	--	--	1	--	--	--	2
		LPB-GL-3	969+12.4	0.09'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		EGL16/FGL16	969+37.7	0.14'LT	--	--	--	--	--	390	1	--	--	1	--	--	--	2
		EGL17/FGL17	972+01.7	0.00'RT	--	--	--	--	--	390	1	--	--	1	--	--	--	2
		EGL18/FGL18	974+66.0	0.00'RT	--	--	--	--	--	390	1	--	--	1	--	--	--	2
		EGL19/FGL19	977+00.0	0.00'LT	--	--	--	--	--	390	1	--	--	1	--	--	--	2
		LPB-GL-10	977+15.6	0.00'LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		FGL20	980+11.0	SM	--	--	--	--	--	195	1	--	--	1	--	--	--	1
		EGL20	980+11.4	SM	--	--	--	--	--	195	1	--	--	1	--	--	--	1
		FGL21	982+35.5	SM	--	--	--	--	--	195	1	--	--	1	--	--	--	1
		EGL21	982+35.0	SM	--	--	--	--	--	195	1	--	--	1	--	--	--	1
		LPB-GL-1	968+46.1	110.91'LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		LPB-GL-2	969+12.7	103.47'LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		LPB-GL-3	969+12.4	0.09'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		HGL1	970HA B+79.7	19.00'LT	--	--	--	1	--	195	--	1	1	--	--	1	--	--
		JGL1 (1)	972HA B+89.5	19.00'LT	--	--	--	1	--	195	--	1	1	--	--	1	--	--
		HGL2	974HA B+99.5	21.00'LT	--	--	--	1	--	195	--	1	1	--	--	1	--	--
		JGL2	977HA B+03.8	16.49'LT	--	--	--	1	--	195	--	1	1	--	--	1	--	--
		HGL3	979HA B+11.9	SM	--	--	--	--	--	195	--	1	1	--	--	1	--	--
		JGL3	981HA B+19.8	16.48'LT	--	--	--	1	--	195	--	1	1	--	--	1	--	--
		LPB-GL-12	981HA B+11.6	18.48'LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		LPB-GL-13	981HA B+11.6	26.50'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		LPB-GL-14	14HA+33.4	38.90'RT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		LPB-GL-15	14HA+33.3	7.43'LT	--	--	1	--	--	--	--	--	--	--	--	--	--	--
		HGL4/JGL4	14HA+81.1	16.40'LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		HGL5/JGL5	15HA+51.2	16.49'LT	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		KGL1	963HA A+00.0	SM	--	--	--	--	--	120	--	1	1	--	--	1	--	--

* ADDITIONAL QUANTITIES FOUND ELSEWHERE

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LIGHTING AND MISCELLANEOUS - FINAL (CONTINUED)

CATEGORY	STAGE	DESCRIPTION	LOCATION		659.0600.1001 UNDERDECK LIGHTING (B-40-1016)	659.0600.1002 UNDERDECK LIGHTING (B-40-1018)	659.1120* LUMINAIRE UTILITY LED B	659.1125 LUMINAIRE UTILITY LED C	659.1130 LUMINAIRE UTILITY LED D	659.1215 LUMINAIRE UNDERDECK LED C	SPV.0060.1008 LUMINAIRES REPLACE EXISTING HPS	SPV.0060.1010 CONCRETE BASES TYPE B	SPV.0060.1011 LUMINAIRES SIGN LED	REMARKS
					LS	LS	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
1100		LPB-GL-7	953+79.0	97.55'RT	--	--	--	--	--	--	--	--	--	
		LPB-GL-6	953+87.5	0.00'LT	--	--	--	--	--	--	--	--	--	
		FGL11	954+82.7	SM	--	--	--	--	1	--	--	--	--	
		EGL11	956+64.2	SM	--	--	--	--	1	--	--	--	--	
		FGL10	958+62.7	SM	--	--	--	--	1	--	--	--	--	
		EGL10	960+56.3	SM	--	--	--	--	1	--	--	--	--	
		EGL3/FGL3	961+41.6	0.00'LT	--	--	--	--	2	--	--	1	--	
		EGL2/FGL2	964+08.1	0.00'LT	--	--	--	--	2	--	--	1	--	
		EGL1/FGL1	966+73.3	0.26'LT	--	--	--	--	2	--	--	1	--	
		LPB-GL-3	969+12.4	0.09'RT	--	--	--	--	--	--	--	--	--	
		EGL16/FGL16	969+37.7	0.14'LT	--	--	--	--	2	--	--	1	--	
		EGL17/FGL17	972+01.7	0.00'RT	--	--	--	--	2	--	--	1	--	
		EGL18/FGL18	974+66.0	0.00'RT	--	--	--	--	2	--	--	1	--	
		EGL19/FGL19	977+00.0	0.00'LT	--	--	--	--	2	--	--	1	--	
		LPB-GL-10	977+15.6	0.00'LT	--	--	--	--	--	--	--	--	--	
		FGL20	980+11.0	SM	--	--	--	--	1	--	--	--	--	
		EGL20	980+11.4	SM	--	--	--	--	1	--	--	--	--	
		FGL21	982+35.5	SM	--	--	--	--	1	--	--	--	--	
		EGL21	982+35.0	SM	--	--	--	--	1	--	--	--	--	
		LPB-GL-1	968+46.1	110.91'LT	--	--	--	--	--	--	--	--	--	
		LPB-GL-2	969+12.7	103.47'LT	--	--	--	--	--	--	--	--	--	
		LPB-GL-3	969+12.4	0.09'RT	--	--	--	--	--	--	--	--	--	
		HGL1 (1)	970HA B+79.7	19.00'LT	--	--	1	--	--	--	--	--	--	
		JGL1	972HA B+89.5	19.00'LT	--	--	1	--	--	--	--	--	--	
		HGL2	974HA B+99.5	21.00'LT	--	--	1	--	--	--	--	--	--	
		JGL2	977HA B+03.8	16.49'LT	--	--	1	--	--	--	--	--	--	
		HGL3	979HA B+11.9	SM	--	--	1	--	--	--	--	--	--	
		JGL3	981HA B+19.8	16.48'LT	--	--	1	--	--	--	--	--	--	
		LPB-GL-12	981HA B+11.6	18.48'LT	--	--	--	--	--	--	--	--	--	
		LPB-GL-13	981HA B+11.6	26.50'RT	--	--	--	--	--	--	--	--	--	
		LPB-GL-14	14HA+33.4	38.90'RT	--	--	--	--	--	--	--	--	--	
		LPB-GL-15	14HA+33.3	7.43'LT	--	--	--	--	--	--	--	--	--	
		HGL4/JGL4	14HA+81.1	16.40'LT	--	1	--	--	--	2	--	--	--	UDL ON B-40-1018
		HGL5/JGL5	15HA+51.2	16.49'LT	1	--	--	--	--	2	--	--	--	UDL ON B-40-1016
		KGL1	963HA A+00.0	SM	--	--	1	--	--	--	--	--	--	

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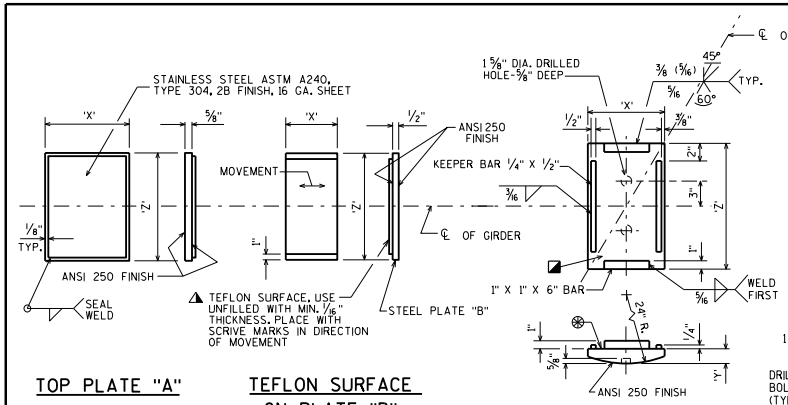
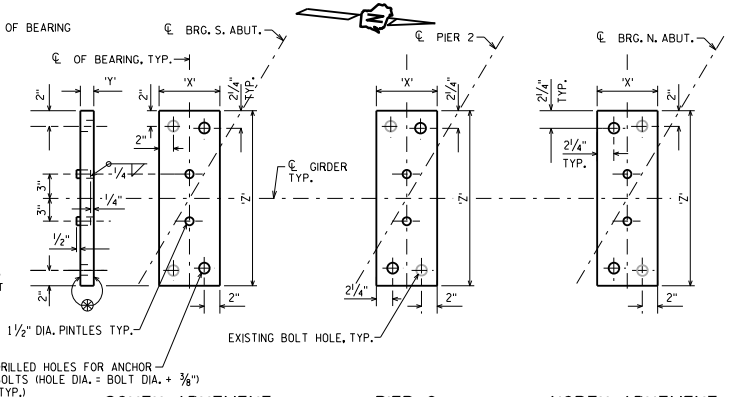


TOP PLATE "A"

TEFLON SURFACE ON PLATE "B"

ROCKER PLATE "C"



SOUTH ABUTMENT

PIER 2

NORTH ABUTMENT

MASONRY PLATE "D"

EXPANSION BEARING

	PLATE "A"		PLATE "B"		PLATE "C"			PLATE "D"			ANCHOR BOLT SIZE	NO. OF BRG'S REQ'D.	LOCATION
	'X'	'Z'	'X'	'Z'	'X'	'Y'	'Z'	'X'	'Y'	'Z'			
EXPAN. BEARING	11"	10 3/4"	7"	10 3/4"	9"	1 7/16"	1'-1"	7 3/4"	1 1/2"	1'-8 3/4"	(2) - 1 1/4" DIA. X 1'-5" LONG	14	S. ABUT.
	1'-1"	10 3/4"	9"	10 3/4"	11"	2 3/16"	1'-1"	9 3/4"	2"	1'-8 3/4"	(2) - 1 1/4" DIA. X 1'-5" LONG	14	PIER 2
	11"	10 3/4"	7"	10 3/4"	9"	1 7/16"	1'-1"	7 3/4"	1 1/2"	1'-8 3/4"	(2) - 1 1/4" DIA. X 1'-5" LONG	14	N. ABUT.

TABLE OF SHIM 'T' THICKNESS

GIRDERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14
S. ABUT.	-	3/8"	-	3/8"	5/8"	-	-	1/2"	-	-	-	-	-	-
PIER 2	-	3/8"	-	1/2"	-	-	-	3/8"	-	3/8"	-	-	-	-
N. ABUT.	-	1/2"	-	3/8"	-	-	-	3/8"	-	1/2"	-	-	-	-

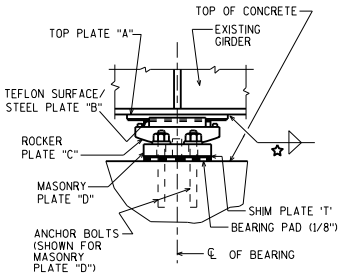
NOTE: PROVIDE SHIM PLATES "T" THE SAME PLAN LENGTH AND WIDTH DIMENSIONS AS MASONRY PLATE "D"

TABLE OF FILLET WELD SIZES

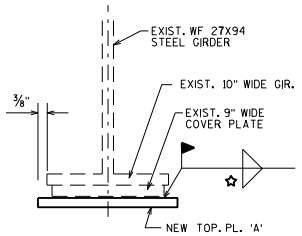
MATERIAL THICKNESS OF THICKER PART JOINED.	+ MIN. SIZE OF FILLET WELD
TO 1/2" INCLUSIVE	3/16"
OVER 1/2" TO 3/4"	1/4"
OVER 3/4" TO 1 1/2"	△ 5/16"
OVER 1 1/2"	△ 3/8"

+ EXCEPT THAT THE WELD SIZE SHALL NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

△ MIN. PASS SIZE IS 5/16"

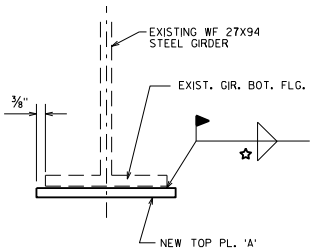


EXPANSION BEARING ASSEMBLY



BEARING REPLACEMENT SECTION DETAIL AT PIER 2

(TEFLON SURFACE, PLATES "B", "C", "D", SHIM PLATE, BEARING PAD, AND ANCHOR BOLTS OMITTED FOR CLARITY.)



BEARING REPLACEMENT SECTION DETAIL AT ABUTMENTS

(TEFLON SURFACE, PLATES "B", "C", "D", SHIM PLATE, BEARING PAD, AND ANCHOR BOLTS OMITTED FOR CLARITY.)

Addendum No. 01
ID 1228-22-71
Revised Sheet 1037
April 1, 2021

BEARING NOTES

⊛ FINISH THESE SURFACES TO ANSI 250 IF 'Y' DIMENSION IS GREATER THAN 2".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 36, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING STAINLESS STEEL SHEET, TEFLON SURFACE, PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES AND BEARING PADS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION B-40-116", EACH.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

ALL FINISHED SURFACES SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

PROVIDE 1/8" THICK BEARING PAD THE SAME SIZE AS MASONRY PLATE "D" FOR EACH BEARING.

ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. BOLT LENGTH TO BE 1'-5 FOR 1 1/4" DIA. BOLTS. PROJECT ANCHOR BOLTS, MASONRY PLATE "D" THICKNESS + 2 1/4", ABOVE TOP OF CONCRETE.

CHAMFER TOP OF PINTLES 1/8". DRILL HOLES FOR ALL PINTLES IN MASONRY PLATE "D" FOR A DRIVING FIT.

STEEL PINTLES SHALL CONFORM TO ASTM A449 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ROCKER PLATE "C" AND MASONRY PLATE "D" SHALL BE GALVANIZED. TOP PLATE "A" AND STEEL PLATE "B" SHALL BE SHOP PAINTED. USE A WELDABLE PRIMER ON TOP PLATE "A". DO NOT PAINT STAINLESS STEEL OR TEFLON SURFACES.

◪ PROVIDE A METHOD FOR HANDLING ROCKER PLATE "C" DURING GALVANIZING.

⚠ BOND STEEL PLATE "B" AND TEFLON WITH ADHESIVE MATERIAL MEETING REQUIREMENTS FOUND IN THE STANDARD SPECIFICATION.

AT INSTALLATION, ENSURE STAINLESS STEEL SLIDING FACE OF THE UPPER ELEMENT AND THE TFE SLIDING FACE OF THE LOWER ELEMENT HAVE THE SURFACE FINISH SPECIFIED AND ARE CLEAN AND FREE OF ALL DUST, MOISTURE, AND OTHER FOREIGN MATTER.

STATE PROJECT NUMBER

1228-22-71

3/30/21

NO.	DATE	REVISION	BY
⚠	3/30/21	BEARING PLATE DIMENSIONS	JJS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-116

DRAWN BY JJS | PLANS CK'D. SEW

EXPANSION REPLACEMENT BEARING DETAILS

SHEET 6

1037

SCALE = 1.00

8

8

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	110.000 STA	_____.____	_____.____
0004	201.0120 Clearing	356.000 ID	_____.____	_____.____
0006	201.0205 Grubbing	110.000 STA	_____.____	_____.____
0008	201.0220 Grubbing	356.000 ID	_____.____	_____.____
0010	203.0200 Removing Old Structure (station) 0001.936+43.30	LS	LUMP SUM	_____.____
0012	203.0200 Removing Old Structure (station) 0002.966+88	LS	LUMP SUM	_____.____
0014	203.0200 Removing Old Structure (station) 0003.946+50	LS	LUMP SUM	_____.____
0016	203.0200 Removing Old Structure (station) 0004.977+00HAB	LS	LUMP SUM	_____.____
0018	203.0200 Removing Old Structure (station) 0005.936+51	LS	LUMP SUM	_____.____
0020	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 0001.977+50	LS	LUMP SUM	_____.____
0022	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 0002.980+00	LS	LUMP SUM	_____.____
0024	204.0100 Removing Concrete Pavement	68,966.000 SY	_____.____	_____.____
0026	204.0109.S Removing Concrete Surface Partial Depth	386.000 SF	_____.____	_____.____
0028	204.0110 Removing Asphaltic Surface	12,866.000 SY	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0030	204.0120 Removing Asphaltic Surface Milling	15,072.000 SY	_____.____	_____.____
0032	204.0150 Removing Curb & Gutter	1,431.000 LF	_____.____	_____.____
0034	204.0155 Removing Concrete Sidewalk	1,290.000 SY	_____.____	_____.____
0036	204.0157 Removing Concrete Barrier	16,692.000 LF	_____.____	_____.____
0038	204.0165 Removing Guardrail	681.000 LF	_____.____	_____.____
0040	204.0170 Removing Fence	11,449.000 LF	_____.____	_____.____
0042	204.0195 Removing Concrete Bases	66.000 EACH	_____.____	_____.____
0044	204.0210 Removing Manholes	14.000 EACH	_____.____	_____.____
0046	204.0220 Removing Inlets	123.000 EACH	_____.____	_____.____
0048	204.0245 Removing Storm Sewer (size) 0001. 12-Inch	3,060.000 LF	_____.____	_____.____
0050	204.0245 Removing Storm Sewer (size) 0002. 15-Inch	1,508.000 LF	_____.____	_____.____
0052	204.0245 Removing Storm Sewer (size) 0003. 18-Inch	1,636.000 LF	_____.____	_____.____
0054	204.0245 Removing Storm Sewer (size) 0004. 21-Inch	59.000 LF	_____.____	_____.____
0056	204.0245 Removing Storm Sewer (size) 0005. 24-Inch	1,968.000 LF	_____.____	_____.____
0058	204.0245 Removing Storm Sewer (size) 0007. 30-Inch	204.000 LF	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	204.0250 Abandoning Manholes	4.000 EACH	_____._____	_____._____
0062	204.0280 Sealing Pipes	16.000 EACH	_____._____	_____._____
0064	204.0291.S Abandoning Sewer	149.000 CY	_____._____	_____._____
0066	204.9001.S Removing Advance Flasher Assemblies Type 1	1.000 EACH	_____._____	_____._____
0068	204.9060.S Removing (item description) 0002. Apron Endwall	2.000 EACH	_____._____	_____._____
0070	204.9060.S Removing (item description) 1001. Lighting Units	169.000 EACH	_____._____	_____._____
0072	204.9105.S Removing (item description) 0001. Traffic Signals IH-43 NB Off Ramp & Port Washington Rd	LS	LUMP SUM	_____._____
0074	204.9105.S Removing (item description) 0002. Loop Detector Wire and Lead-in Cable IH-43 NB Off Ramp&Port Washington Rd	LS	LUMP SUM	_____._____
0076	204.9105.S Removing (item description) 0003. Traffic Signals, IH-43 SB On Ramp & W. Hampton Ave.	LS	LUMP SUM	_____._____
0078	205.0100 Excavation Common	183,854.000 CY	_____._____	_____._____
0080	206.1000 Excavation for Structures Bridges (structure) 0001. B-40-1014	LS	LUMP SUM	_____._____
0082	206.1000 Excavation for Structures Bridges (structure) 0002. B-40-1016	LS	LUMP SUM	_____._____
0084	206.1000 Excavation for Structures Bridges (structure) 0003. B-40-1018	LS	LUMP SUM	_____._____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0086	206.1000 Excavation for Structures Bridges (structure) 0004. B-40-1019	LS	LUMP SUM	_____.____
0088	206.1000 Excavation for Structures Bridges (structure) 0005. B-40-1020	LS	LUMP SUM	_____.____
0090	206.1000 Excavation for Structures Bridges (structure) 0006. B-40-1021	LS	LUMP SUM	_____.____
0092	206.2000 Excavation for Structures Culverts (structure) 0001. C-40-111	LS	LUMP SUM	_____.____
0094	206.5000 Cofferdams (structure) 0001. B-40-1016	LS	LUMP SUM	_____.____
0096	206.5000 Cofferdams (structure) 0002. B-40-1018	LS	LUMP SUM	_____.____
0098	208.0100 Borrow	70,968.000 CY	_____.____	_____.____
0100	209.2500 Backfill Granular Grade 2	2,374.000 TON	_____.____	_____.____
0102	210.1500 Backfill Structure Type A	3,859.000 TON	_____.____	_____.____
0104	210.2500 Backfill Structure Type B	3,240.000 TON	_____.____	_____.____
0106	211.0200 Prepare Foundation for Concrete Pavement (project) 0001. 1228-22-71	LS	LUMP SUM	_____.____
0108	213.0100 Finishing Roadway (project) 0001. 1228-22-71	1.000 EACH	_____.____	_____.____
0110	305.0120 Base Aggregate Dense 1 1/4-Inch	54,922.000 TON	_____.____	_____.____
0112	312.0110 Select Crushed Material	97,793.000 TON	_____.____	_____.____
0114	312.0115 Select Crushed Material	16,710.000 CY	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0116	390.0403 Base Patching Concrete Shes	1,394.000 SY	_____.____	_____.____
0118	415.0090 Concrete Pavement 9-Inch	1,094.000 SY	_____.____	_____.____
0120	415.0100 Concrete Pavement 10-Inch	9,448.000 SY	_____.____	_____.____
0122	415.0125 Concrete Pavement 12 1/2-Inch	89,567.000 SY	_____.____	_____.____
0124	415.0410 Concrete Pavement Approach Slab	2,207.000 SY	_____.____	_____.____
0126	415.1080 Concrete Pavement HES 8-Inch	66.000 SY	_____.____	_____.____
0128	415.5110.S Concrete Pavement Joint Layout	1.000 LS	_____.____	_____.____
0130	416.0610 Drilled Tie Bars	2,860.000 EACH	_____.____	_____.____
0132	416.0620 Drilled Dowel Bars	2,609.000 EACH	_____.____	_____.____
0134	455.0605 Tack Coat	2,412.000 GAL	_____.____	_____.____
0136	460.2000 Incentive Density HMA Pavement	2,910.000 DOL	1.00000	2,910.00
0138	460.6224 HMA Pavement 4 MT 58-28 S	1,083.000 TON	_____.____	_____.____
0140	460.7223 HMA Pavement 3 HT 58-28 S	1,757.000 TON	_____.____	_____.____
0142	460.7424 HMA Pavement 4 HT 58-28 H	144.000 TON	_____.____	_____.____
0144	460.8424 HMA Pavement 4 SMA 58-28 H	1,366.000 TON	_____.____	_____.____
0146	465.0105 Asphaltic Surface	184.000 TON	_____.____	_____.____
0148	465.0125 Asphaltic Surface Temporary	5,264.000 TON	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0150	495.1000.S Cold patch	10.000 TON	_____.____	_____.____
0152	501.1000.S Ice Hot Weather Concreting	90,305.000 LB	_____.____	_____.____
0154	502.0100 Concrete Masonry Bridges	8,211.000 CY	_____.____	_____.____
0156	502.3101 Expansion Device	513.000 LF	_____.____	_____.____
0158	502.3200 Protective Surface Treatment	15,306.000 SY	_____.____	_____.____
0160	502.3210 Pigmented Surface Sealer	5,217.000 SY	_____.____	_____.____
0162	502.4205 Adhesive Anchors No. 5 Bar	260.000 EACH	_____.____	_____.____
0164	502.4206 Adhesive Anchors No. 6 Bar	476.000 EACH	_____.____	_____.____
0166	503.0137 Prestressed Girder Type I 36W-Inch	6,218.000 LF	_____.____	_____.____
0168	503.0172 Prestressed Girder Type I 72W-Inch	5,420.000 LF	_____.____	_____.____
0170	504.0100 Concrete Masonry Culverts	341.000 CY	_____.____	_____.____
0172	504.0500 Concrete Masonry Retaining Walls	3,858.000 CY	_____.____	_____.____
0174	505.0400 Bar Steel Reinforcement HS Structures	377,340.000 LB	_____.____	_____.____
0176	505.0600 Bar Steel Reinforcement HS Coated Structures	1,600,745.000 LB	_____.____	_____.____
0178	505.0800.S Bar Steel Reinforcement HS Stainless Structures	12,710.000 LB	_____.____	_____.____
0180	505.0904 Bar Couplers No. 4	16.000 EACH	_____.____	_____.____

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Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0182	505.0905 Bar Couplers No. 5	48.000 EACH	_____.____	_____.____
0184	505.0906 Bar Couplers No. 6	20.000 EACH	_____.____	_____.____
0186	506.0105 Structural Steel Carbon	55.000 LB	_____.____	_____.____
0188	506.2605 Bearing Pads Elastomeric Non-Laminated	196.000 EACH	_____.____	_____.____
0190	506.2610 Bearing Pads Elastomeric Laminated	28.000 EACH	_____.____	_____.____
0192	506.4000 Steel Diaphragms (structure) 0001. B-40-1014	3.000 EACH	_____.____	_____.____
0194	506.4000 Steel Diaphragms (structure) 0002. B-40-1016	72.000 EACH	_____.____	_____.____
0196	506.4000 Steel Diaphragms (structure) 0003. B-40-1018	72.000 EACH	_____.____	_____.____
0198	506.4000 Steel Diaphragms (structure) 0004. B-40-1019	18.000 EACH	_____.____	_____.____
0200	506.4000 Steel Diaphragms (structure) 0005. B-40-1020	22.000 EACH	_____.____	_____.____
0202	506.4000 Steel Diaphragms (structure) 0006. B-40-1021	6.000 EACH	_____.____	_____.____
0204	506.5000 Bearing Assemblies Fixed (structure) 0001. B-40-116	14.000 EACH	_____.____	_____.____
0206	506.6000 Bearing Assemblies Expansion (structure) 0001. B-40-116	42.000 EACH	_____.____	_____.____
0208	506.7050.S Removing Bearings (structure) 0001. B-40-116	56.000 EACH	_____.____	_____.____

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SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0210	509.0301 Preparation Decks Type 1	40.000 SY	_____.____	_____.____
0212	509.0302 Preparation Decks Type 2	25.000 SY	_____.____	_____.____
0214	509.0505.S Cleaning Decks to Reapply Concrete Masonry Overlay	1,384.000 SY	_____.____	_____.____
0216	509.1000 Joint Repair	106.000 SY	_____.____	_____.____
0218	509.1500 Concrete Surface Repair	105.000 SF	_____.____	_____.____
0220	509.2000 Full-Depth Deck Repair	15.000 SY	_____.____	_____.____
0222	509.2500 Concrete Masonry Overlay Decks	79.000 CY	_____.____	_____.____
0224	509.9005.S Removing Concrete Masonry Deck Overlay (structure) 0001. B-40-116	1,384.000 SY	_____.____	_____.____
0226	509.9050.S Cleaning Parapets	260.000 LF	_____.____	_____.____
0228	511.1100 Temporary Shoring	15,730.000 SF	_____.____	_____.____
0230	511.1200 Temporary Shoring (structure) 0001. B-40-1016	1,180.000 SF	_____.____	_____.____
0232	511.1200 Temporary Shoring (structure) 0002. B-40-1018	1,325.000 SF	_____.____	_____.____
0234	511.1200 Temporary Shoring (structure) 0003. B-40-1020	1,925.000 SF	_____.____	_____.____
0236	516.0500 Rubberized Membrane Waterproofing	590.000 SY	_____.____	_____.____
0238	516.0610.S Sheet Membrane Waterproofing for Top Slab (structure) 4000. C-40-111	400.000 SY	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0240	517.1800.S Structure Repainting Recycled Abrasive (structure) 0001. B-40-116	LS	LUMP SUM	_____.____
0242	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 0001. B-40-116	LS	LUMP SUM	_____.____
0244	517.6001.S Portable Decontamination Facility	1.000 EACH	_____.____	_____.____
0246	520.8000 Concrete Collars for Pipe	29.000 EACH	_____.____	_____.____
0248	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	1.000 EACH	_____.____	_____.____
0250	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	3.000 EACH	_____.____	_____.____
0252	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	3.000 EACH	_____.____	_____.____
0254	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	1.000 EACH	_____.____	_____.____
0256	531.1100 Concrete Masonry Ancillary Structures Type NS	148.000 CY	_____.____	_____.____
0258	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	11,844.000 LB	_____.____	_____.____
0260	531.1160 Steel Reinforcement HS Coated Ancillary Structures Type NS	14,250.000 LB	_____.____	_____.____
0262	531.2024 Drilling Shaft 24-Inch	18.000 LF	_____.____	_____.____
0264	531.2030 Drilling Shaft 30-Inch	24.000 LF	_____.____	_____.____
0266	531.2036 Drilling Shaft 36-Inch	186.000 LF	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0268	531.4050 Foundation Camera Pole 50-FT	1.000 EACH	_____.____	_____.____
0270	531.8990 Anchor Assemblies Poles on Structures	30.000 EACH	_____.____	_____.____
0272	532.5020 Butterfly 2-Chord NS (structure) 0001. S-40-3022	1.000 EACH	_____.____	_____.____
0274	532.5020 Butterfly 2-Chord NS (structure) 0002. S-40-3023	1.000 EACH	_____.____	_____.____
0276	532.6010 Truss Cantilever 4-Chord Type I (structure) 0001. S-40-3018	1.000 EACH	_____.____	_____.____
0278	532.6010 Truss Cantilever 4-Chord Type I (structure) 0002. S-40-3019	1.000 EACH	_____.____	_____.____
0280	532.6020 Truss Cantilever 4-Chord Type II (structure) 0003. S-40-3020	1.000 EACH	_____.____	_____.____
0282	532.6020 Truss Cantilever 4-Chord Type II (structure) 0004. S-40-3021	1.000 EACH	_____.____	_____.____
0284	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0001. N-40-94	10,172.000 SF	_____.____	_____.____
0286	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0002. N-40-95	15,382.000 SF	_____.____	_____.____
0288	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0003. N-40-96	6,359.000 SF	_____.____	_____.____
0290	550.0500 Pile Points	234.000 EACH	_____.____	_____.____
0292	550.1100 Piling Steel HP 10-Inch X 42 Lb	4,035.000 LF	_____.____	_____.____
0294	550.1120 Piling Steel HP 12-Inch X 53 Lb	3,750.000 LF	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0296	601.0322 Concrete Curb & Gutter 22-Inch	169.000 LF	_____.____	_____.____
0298	601.0331 Concrete Curb & Gutter 31-Inch	361.000 LF	_____.____	_____.____
0300	601.0409 Concrete Curb & Gutter 30-Inch Type A	2,861.000 LF	_____.____	_____.____
0302	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	2,133.000 LF	_____.____	_____.____
0304	601.0600 Concrete Curb Pedestrian	461.000 LF	_____.____	_____.____
0306	602.0410 Concrete Sidewalk 5-Inch	18,880.000 SF	_____.____	_____.____
0308	602.0415 Concrete Sidewalk 6-Inch	3,851.000 SF	_____.____	_____.____
0310	602.0505 Curb Ramp Detectable Warning Field Yellow	338.000 SF	_____.____	_____.____
0312	603.0105 Concrete Barrier Single-Faced 32-Inch	2,894.000 LF	_____.____	_____.____
0314	603.1142 Concrete Barrier Type S42	14,198.000 LF	_____.____	_____.____
0316	603.1156 Concrete Barrier Type S56	775.000 LF	_____.____	_____.____
0318	603.1342 Concrete Barrier Type S42B	50.000 LF	_____.____	_____.____
0320	603.1442 Concrete Barrier Type S42C	1,304.000 LF	_____.____	_____.____
0322	603.1456 Concrete Barrier Type S56C	482.000 LF	_____.____	_____.____
0324	603.3113 Concrete Barrier Transition Type NJ32SF to S36	3.000 EACH	_____.____	_____.____
0326	603.3535 Concrete Barrier Transition Type S36 to S42	3.000 EACH	_____.____	_____.____

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0328	603.3559 Concrete Barrier Transition Type S42 to S56	7.000 EACH	_____.____	_____.____
0330	603.8000 Concrete Barrier Temporary Precast Delivered	39,700.000 LF	_____.____	_____.____
0332	603.8125 Concrete Barrier Temporary Precast Installed	44,276.000 LF	_____.____	_____.____
0334	604.0400 Slope Paving Concrete	839.000 SY	_____.____	_____.____
0336	604.0500 Slope Paving Crushed Aggregate	2,130.000 SY	_____.____	_____.____
0338	606.0200 Riprap Medium	65.000 CY	_____.____	_____.____
0340	606.0300 Riprap Heavy	1,390.000 CY	_____.____	_____.____
0342	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	28.000 LF	_____.____	_____.____
0344	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	1,301.000 LF	_____.____	_____.____
0346	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	2,384.000 LF	_____.____	_____.____
0348	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	5,692.000 LF	_____.____	_____.____
0350	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	1,806.000 LF	_____.____	_____.____
0352	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	516.000 LF	_____.____	_____.____
0354	608.0348 Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	203.000 LF	_____.____	_____.____

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0356	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	131.000 LF	_____.____	_____.____
0358	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	985.000 LF	_____.____	_____.____
0360	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	404.000 LF	_____.____	_____.____
0362	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	2,034.000 LF	_____.____	_____.____
0364	608.0430 Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	78.000 LF	_____.____	_____.____
0366	608.0448 Storm Sewer Pipe Reinforced Concrete Class IV 48-Inch	47.000 LF	_____.____	_____.____
0368	608.0518 Storm Sewer Pipe Reinforced Concrete Class V 18-Inch	261.000 LF	_____.____	_____.____
0370	608.0524 Storm Sewer Pipe Reinforced Concrete Class V 24-Inch	1,267.000 LF	_____.____	_____.____
0372	608.2424 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	204.000 LF	_____.____	_____.____
0374	608.2429 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	599.000 LF	_____.____	_____.____
0376	608.2434 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	243.000 LF	_____.____	_____.____
0378	611.0430 Reconstructing Inlets	7.000 EACH	_____.____	_____.____
0380	611.0535 Manhole Covers Type J-Special	35.000 EACH	_____.____	_____.____

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0382	611.0606 Inlet Covers Type B	25.000 EACH	_____.____	_____.____
0384	611.0610 Inlet Covers Type BW	4.000 EACH	_____.____	_____.____
0386	611.0612 Inlet Covers Type C	4.000 EACH	_____.____	_____.____
0388	611.0624 Inlet Covers Type H	12.000 EACH	_____.____	_____.____
0390	611.0627 Inlet Covers Type HM	21.000 EACH	_____.____	_____.____
0392	611.0636 Inlet Covers Type HM-S	4.000 EACH	_____.____	_____.____
0394	611.0639 Inlet Covers Type H-S	5.000 EACH	_____.____	_____.____
0396	611.0642 Inlet Covers Type MS	15.000 EACH	_____.____	_____.____
0398	611.0651 Inlet Covers Type S	10.000 EACH	_____.____	_____.____
0400	611.0654 Inlet Covers Type V	94.000 EACH	_____.____	_____.____
0402	611.2004 Manholes 4-FT Diameter	17.000 EACH	_____.____	_____.____
0404	611.2005 Manholes 5-FT Diameter	36.000 EACH	_____.____	_____.____
0406	611.2006 Manholes 6-FT Diameter	12.000 EACH	_____.____	_____.____
0408	611.2007 Manholes 7-FT Diameter	5.000 EACH	_____.____	_____.____
0410	611.2008 Manholes 8-FT Diameter	3.000 EACH	_____.____	_____.____
0412	611.3004 Inlets 4-FT Diameter	107.000 EACH	_____.____	_____.____
0414	611.3220 Inlets 2x2-FT	3.000 EACH	_____.____	_____.____

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0416	611.3225 Inlets 2x2.5-FT	28.000 EACH	_____.____	_____.____
0418	611.3901 Inlets Median 1 Grate	3.000 EACH	_____.____	_____.____
0420	611.3902 Inlets Median 2 Grate	6.000 EACH	_____.____	_____.____
0422	611.8120.S Cover Plates Temporary	7.000 EACH	_____.____	_____.____
0424	611.9800.S Pipe Grates	2.000 EACH	_____.____	_____.____
0426	612.0106 Pipe Underdrain 6-Inch	16,159.000 LF	_____.____	_____.____
0428	612.0406 Pipe Underdrain Wrapped 6-Inch	8,120.000 LF	_____.____	_____.____
0430	614.0805 Crash Cushions Permanent Low Maintenance	2.000 EACH	_____.____	_____.____
0432	614.0905 Crash Cushions Temporary	8.000 EACH	_____.____	_____.____
0434	614.2300 MGS Guardrail 3	284.000 LF	_____.____	_____.____
0436	614.2500 MGS Thrie Beam Transition	197.100 LF	_____.____	_____.____
0438	614.2610 MGS Guardrail Terminal EAT	4.000 EACH	_____.____	_____.____
0440	616.0206 Fence Chain Link 6-FT	11,434.000 LF	_____.____	_____.____
0442	616.0329 Gates Chain Link (width) 0001. 6-FT	1.000 EACH	_____.____	_____.____
0444	616.0329 Gates Chain Link (width) 0002. 12-FT	9.000 EACH	_____.____	_____.____
0446	619.1000 Mobilization	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0448	620.0300 Concrete Median Sloped Nose	506.000 SF	_____.____	_____.____
0450	623.0200 Dust Control Surface Treatment	134,678.000 SY	_____.____	_____.____
0452	624.0100 Water	753.000 MGAL	_____.____	_____.____
0454	627.0200 Mulching	2,766.000 SY	_____.____	_____.____
0456	628.1104 Erosion Bales	21.000 EACH	_____.____	_____.____
0458	628.1504 Silt Fence	19,906.000 LF	_____.____	_____.____
0460	628.1520 Silt Fence Maintenance	19,906.000 LF	_____.____	_____.____
0462	628.1905 Mobilizations Erosion Control	33.000 EACH	_____.____	_____.____
0464	628.1910 Mobilizations Emergency Erosion Control	33.000 EACH	_____.____	_____.____
0466	628.2004 Erosion Mat Class I Type B	16,439.000 SY	_____.____	_____.____
0468	628.2027 Erosion Mat Class II Type C	82,765.000 SY	_____.____	_____.____
0470	628.6510 Soil Stabilizer Type B	1.000 ACRE	_____.____	_____.____
0472	628.7005 Inlet Protection Type A	595.000 EACH	_____.____	_____.____
0474	628.7010 Inlet Protection Type B	16.000 EACH	_____.____	_____.____
0476	628.7015 Inlet Protection Type C	98.000 EACH	_____.____	_____.____
0478	628.7020 Inlet Protection Type D	697.000 EACH	_____.____	_____.____
0480	628.7504 Temporary Ditch Checks	15.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0482	628.7570 Rock Bags	500.000 EACH	_____.____	_____.____
0484	629.0210 Fertilizer Type B	38.000 CWT	_____.____	_____.____
0486	630.0120 Seeding Mixture No. 20	2,428.000 LB	_____.____	_____.____
0488	630.0200 Seeding Temporary	2,500.000 LB	_____.____	_____.____
0490	630.0500 Seed Water	1,346.000 MGAL	_____.____	_____.____
0492	633.5200 Markers Culvert End	8.000 EACH	_____.____	_____.____
0494	634.0618 Posts Wood 4x6-Inch X 18-FT	58.000 EACH	_____.____	_____.____
0496	634.0622 Posts Wood 4x6-Inch X 22-FT	24.000 EACH	_____.____	_____.____
0498	634.0816 Posts Tubular Steel 2x2-Inch X 16-FT	11.000 EACH	_____.____	_____.____
0500	635.0200 Sign Supports Structural Steel HS	8,350.000 LB	_____.____	_____.____
0502	637.1220 Signs Type I Reflective SH	2,090.500 SF	_____.____	_____.____
0504	637.2210 Signs Type II Reflective H	1,000.665 SF	_____.____	_____.____
0506	637.2230 Signs Type II Reflective F	224.500 SF	_____.____	_____.____
0508	638.2101 Moving Signs Type I	1.000 EACH	_____.____	_____.____
0510	638.2102 Moving Signs Type II	33.000 EACH	_____.____	_____.____
0512	638.2601 Removing Signs Type I	15.000 EACH	_____.____	_____.____
0514	638.2602 Removing Signs Type II	75.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0516	638.3000 Removing Small Sign Supports	56.000 EACH	_____.____	_____.____
0518	638.3100 Removing Structural Steel Sign Supports	12.000 EACH	_____.____	_____.____
0520	640.1303.S Pond Liner Clay	1,839.000 CY	_____.____	_____.____
0522	643.0300 Traffic Control Drums	378,385.000 DAY	_____.____	_____.____
0524	643.0420 Traffic Control Barricades Type III	45,632.000 DAY	_____.____	_____.____
0526	643.0705 Traffic Control Warning Lights Type A	73,948.000 DAY	_____.____	_____.____
0528	643.0715 Traffic Control Warning Lights Type C	73,733.000 DAY	_____.____	_____.____
0530	643.0800 Traffic Control Arrow Boards	3,705.000 DAY	_____.____	_____.____
0532	643.0900 Traffic Control Signs	348,816.000 DAY	_____.____	_____.____
0534	643.0910 Traffic Control Covering Signs Type I	621.000 EACH	_____.____	_____.____
0536	643.0920 Traffic Control Covering Signs Type II	509.000 EACH	_____.____	_____.____
0538	643.1000 Traffic Control Signs Fixed Message	283.500 SF	_____.____	_____.____
0540	643.1050 Traffic Control Signs PCMS	2,835.000 DAY	_____.____	_____.____
0542	643.1100.S Dynamic Late Merge System	545.000 DAY	_____.____	_____.____
0544	643.4100.S Traffic Control Interim Lane Closure	2,000.000 EACH	_____.____	_____.____
0546	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0548	644.1601 Temporary Pedestrian Curb Ramp	1,242.000 DAY	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0550	644.1810 Temporary Pedestrian Barricade	366.000 LF	_____.____	_____.____
0552	645.0111 Geotextile Type DF Schedule A	378.000 SY	_____.____	_____.____
0554	645.0120 Geotextile Type HR	2,380.000 SY	_____.____	_____.____
0556	645.0220 Geogrid Type SR	33,854.000 SY	_____.____	_____.____
0558	646.1020 Marking Line Epoxy 4-Inch	1,490.000 LF	_____.____	_____.____
0560	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	53,495.000 LF	_____.____	_____.____
0562	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	11,187.000 LF	_____.____	_____.____
0564	646.3020 Marking Line Epoxy 8-Inch	587.000 LF	_____.____	_____.____
0566	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	9,871.000 LF	_____.____	_____.____
0568	646.5020 Marking Arrow Epoxy	9.000 EACH	_____.____	_____.____
0570	646.5120 Marking Word Epoxy	2.000 EACH	_____.____	_____.____
0572	646.5220 Marking Symbol Epoxy	2.000 EACH	_____.____	_____.____
0574	646.6120 Marking Stop Line Epoxy 18-Inch	245.000 LF	_____.____	_____.____
0576	646.6220 Marking Yield Line Epoxy 18-Inch	15.000 EACH	_____.____	_____.____
0578	646.7120 Marking Diagonal Epoxy 12-Inch	5,310.000 LF	_____.____	_____.____
0580	646.7220 Marking Chevron Epoxy 24-Inch	1,004.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0582	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	955.000 LF	_____.____	_____.____
0584	646.8120 Marking Curb Epoxy	240.000 LF	_____.____	_____.____
0586	646.8220 Marking Island Nose Epoxy	6.000 EACH	_____.____	_____.____
0588	646.9000 Marking Removal Line 4-Inch	1,187.000 LF	_____.____	_____.____
0590	646.9010 Marking Removal Line Water Blasting 4-Inch	309,822.000 LF	_____.____	_____.____
0592	646.9200 Marking Removal Line Wide	136.000 LF	_____.____	_____.____
0594	646.9300 Marking Removal Special Marking	2.000 EACH	_____.____	_____.____
0596	649.0120 Temporary Marking Line Epoxy 4-Inch	392,385.000 LF	_____.____	_____.____
0598	649.0150 Temporary Marking Line Removable Tape 4-Inch	7,099.000 LF	_____.____	_____.____
0600	649.0220 Temporary Marking Line Epoxy 8-Inch	21,416.000 LF	_____.____	_____.____
0602	649.0250 Temporary Marking Line Removable Tape 8-Inch	260.000 LF	_____.____	_____.____
0604	649.0760 Temporary Marking Raised Pavement Marker Type I	1,025.000 EACH	_____.____	_____.____
0606	649.0960 Temporary Marking Removable Mask Out Tape 6-Inch	224.000 LF	_____.____	_____.____
0608	652.0125 Conduit Rigid Metallic 2-Inch	969.000 LF	_____.____	_____.____
0610	652.0210 Conduit Rigid Nonmetallic Schedule 40 1-Inch	349.000 LF	_____.____	_____.____

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0612	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	23,644.000 LF	_____.____	_____.____
0614	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,991.000 LF	_____.____	_____.____
0616	652.0605 Conduit Special 2-Inch	52.000 LF	_____.____	_____.____
0618	652.0615 Conduit Special 3-Inch	951.000 LF	_____.____	_____.____
0620	652.0700.S Install Conduit into Existing Item	7.000 EACH	_____.____	_____.____
0622	652.0800 Conduit Loop Detector	1,433.000 LF	_____.____	_____.____
0624	653.0135 Pull Boxes Steel 24x36-Inch	7.000 EACH	_____.____	_____.____
0626	653.0140 Pull Boxes Steel 24x42-Inch	47.000 EACH	_____.____	_____.____
0628	653.0220 Junction Boxes 18x6x6-Inch	21.000 EACH	_____.____	_____.____
0630	653.0222 Junction Boxes 18x12x6-Inch	36.000 EACH	_____.____	_____.____
0632	653.0905 Removing Pull Boxes	64.000 EACH	_____.____	_____.____
0634	654.0101 Concrete Bases Type 1	6.000 EACH	_____.____	_____.____
0636	654.0102 Concrete Bases Type 2	4.000 EACH	_____.____	_____.____
0638	654.0105 Concrete Bases Type 5	12.000 EACH	_____.____	_____.____
0640	654.0106 Concrete Bases Type 6	1.000 EACH	_____.____	_____.____
0642	654.0108 Concrete Bases Type 8	13.000 EACH	_____.____	_____.____

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0644	654.0110 Concrete Bases Type 10	1.000 EACH	_____.____	_____.____
0646	654.0120 Concrete Bases Type 10-Special	1.000 EACH	_____.____	_____.____
0648	654.0217 Concrete Control Cabinet Bases Type 9 Special	1.000 EACH	_____.____	_____.____
0650	654.0224 Concrete Control Cabinet Bases Type L24	1.000 EACH	_____.____	_____.____
0652	654.0230 Concrete Control Cabinet Bases Type L30	4.000 EACH	_____.____	_____.____
0654	655.0148 Cable In Duct 4-8 AWG	1,666.000 LF	_____.____	_____.____
0656	655.0230 Cable Traffic Signal 5-14 AWG	1,094.000 LF	_____.____	_____.____
0658	655.0240 Cable Traffic Signal 7-14 AWG	1,222.000 LF	_____.____	_____.____
0660	655.0260 Cable Traffic Signal 12-14 AWG	659.000 LF	_____.____	_____.____
0662	655.0320 Cable Type UF 2-10 AWG Grounded	353.000 LF	_____.____	_____.____
0664	655.0510 Electrical Wire Traffic Signals 12 AWG	40.000 LF	_____.____	_____.____
0666	655.0515 Electrical Wire Traffic Signals 10 AWG	9,167.000 LF	_____.____	_____.____
0668	655.0610 Electrical Wire Lighting 12 AWG	22,258.000 LF	_____.____	_____.____
0670	655.0620 Electrical Wire Lighting 8 AWG	119,785.000 LF	_____.____	_____.____
0672	655.0625 Electrical Wire Lighting 6 AWG	2,108.000 LF	_____.____	_____.____
0674	655.0700 Loop Detector Lead In Cable	4,577.000 LF	_____.____	_____.____

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0676	655.0800 Loop Detector Wire	4,478.000 LF	_____.____	_____.____
0678	655.0900 Traffic Signal EVP Detector Cable	560.000 LF	_____.____	_____.____
0680	656.0200 Electrical Service Meter Breaker Pedestal (location) 0001. IH-43 NB Off Ramp & Port Washington Rd	LS	LUMP SUM	_____.____
0682	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1001. HL-40-CA	LS	LUMP SUM	_____.____
0684	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1002. HL-40-GL	LS	LUMP SUM	_____.____
0686	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1003. HL-40-CT	LS	LUMP SUM	_____.____
0688	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1004. HL-40-BP	LS	LUMP SUM	_____.____
0690	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1005. TA1	LS	LUMP SUM	_____.____
0692	656.0500 Electrical Service Breaker Disconnect Box (location) 2001. EX-CCTV-40-0076	LS	LUMP SUM	_____.____
0694	657.0100 Pedestal Bases	4.000 EACH	_____.____	_____.____
0696	657.0210 Transformer Bases Breakaway 15-17 Inch Bolt Circle	51.000 EACH	_____.____	_____.____
0698	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	26.000 EACH	_____.____	_____.____
0700	657.0305 Poles Type 2	2.000 EACH	_____.____	_____.____
0702	657.0310 Poles Type 3	2.000 EACH	_____.____	_____.____

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0704	657.0322 Poles Type 5-Aluminum	21.000 EACH	_____.____	_____.____
0706	657.0327 Poles Type 6-Aluminum	1.000 EACH	_____.____	_____.____
0708	657.0375 Poles Type A	38.000 EACH	_____.____	_____.____
0710	657.0380 Poles Type E	13.000 EACH	_____.____	_____.____
0712	657.0405 Traffic Signal Standards Aluminum 3.5-FT	1.000 EACH	_____.____	_____.____
0714	657.0420 Traffic Signal Standards Aluminum 13-FT	3.000 EACH	_____.____	_____.____
0716	657.0605 Luminaire Arms Single Member 4 1/2-Inch Clamp 4-FT	17.000 EACH	_____.____	_____.____
0718	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	2.000 EACH	_____.____	_____.____
0720	657.0615 Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	5.000 EACH	_____.____	_____.____
0722	657.0620 Luminaire Arms Single Member 6-Inch Clamp 4-FT	66.000 EACH	_____.____	_____.____
0724	658.0171 Traffic Signal Face 1S 12-Inch	2.000 EACH	_____.____	_____.____
0726	658.0173 Traffic Signal Face 3S 12-Inch	10.000 EACH	_____.____	_____.____
0728	658.0174 Traffic Signal Face 4S 12-Inch	1.000 EACH	_____.____	_____.____
0730	658.0416 Pedestrian Signal Face 16-Inch	4.000 EACH	_____.____	_____.____
0732	658.0500 Pedestrian Push Buttons	5.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0734	658.5069 Signal Mounting Hardware (location) 0001. IH-43 NB Off Ramp & Port Washington Rd	LS	LUMP SUM	_____.____
0736	658.5069 Signal Mounting Hardware (location) 0002. IH 43 SB On Ramp & W. Hampton Ave.	LS	LUMP SUM	_____.____
0738	659.0600 Underdeck Lighting (location) 1001. B-40-1016	LS	LUMP SUM	_____.____
0740	659.0600 Underdeck Lighting (location) 1002. B-40-1018	LS	LUMP SUM	_____.____
0742	659.1120 Luminaires Utility LED B	26.000 EACH	_____.____	_____.____
0744	659.1125 Luminaires Utility LED C	5.000 EACH	_____.____	_____.____
0746	659.1130 Luminaires Utility LED D	88.000 EACH	_____.____	_____.____
0748	659.1205 Luminaires Underdeck LED A	8.000 EACH	_____.____	_____.____
0750	659.1215 Luminaires Underdeck LED C	18.000 EACH	_____.____	_____.____
0752	659.2124 Lighting Control Cabinets 120/240 24-Inch	1.000 EACH	_____.____	_____.____
0754	659.2230 Lighting Control Cabinets 240/480 30-Inch	4.000 EACH	_____.____	_____.____
0756	670.0100 Field System Integrator 0001. Signals	LS	LUMP SUM	_____.____
0758	670.0100 Field System Integrator 2001. FTMS	LS	LUMP SUM	_____.____
0760	670.0200 ITS Documentation 0001. Signals	LS	LUMP SUM	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0762	670.0200 ITS Documentation 2001. FTMS	LS	LUMP SUM	_____.____
0764	671.0132 Conduit HDPE 3-Duct 2-Inch	5,150.000 LF	_____.____	_____.____
0766	671.0232 Conduit HDPE Directional Bore 3-Duct 2-Inch	2,070.000 LF	_____.____	_____.____
0768	673.0105 Communication Vault Type 1	13.000 EACH	_____.____	_____.____
0770	673.0225.S Install Pole Mounted Cabinet	1.000 EACH	_____.____	_____.____
0772	674.0200 Cable Microwave Detector	1,525.000 LF	_____.____	_____.____
0774	674.0300 Remove Cable	12,440.000 LF	_____.____	_____.____
0776	675.0100 Install Controller Ramp Meter Processor Assembly	1.000 EACH	_____.____	_____.____
0778	675.0300 Install Mounted Controller Microwave Detector Assembly	7.000 EACH	_____.____	_____.____
0780	677.0150 Install Camera Pole 50-FT	1.000 EACH	_____.____	_____.____
0782	677.0200 Install Camera Assembly	1.000 EACH	_____.____	_____.____
0784	677.9051.S Removing 50-FT Camera Pole	1.000 EACH	_____.____	_____.____
0786	677.9200.S Removing CCTV Camera	1.000 EACH	_____.____	_____.____
0788	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	530.000 LF	_____.____	_____.____
0790	678.0072 Install Fiber Optic Cable Outdoor Plant 72-CT	8,235.000 LF	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0792	678.0200 Fiber Optic Splice Enclosure	1.000 EACH	_____.____	_____.____
0794	678.0300 Fiber Optic Splice	448.000 EACH	_____.____	_____.____
0796	678.0400 Fiber Optic Termination	18.000 EACH	_____.____	_____.____
0798	678.0500 Communication System Testing 0001. Signals	LS	LUMP SUM	_____.____
0800	678.0500 Communication System Testing 2001. FTMS	LS	LUMP SUM	_____.____
0802	678.0600 Install Ethernet Switches	5.000 EACH	_____.____	_____.____
0804	690.0150 Sawing Asphalt	100.000 LF	_____.____	_____.____
0806	690.0250 Sawing Concrete	13,340.000 LF	_____.____	_____.____
0808	715.0415 Incentive Strength Concrete Pavement	30,696.000 DOL	1.00000	30,696.00
0810	715.0502 Incentive Strength Concrete Structures	75,528.000 DOL	1.00000	75,528.00
0812	715.0603 Incentive Strength Concrete Barrier	9,918.000 DOL	1.00000	9,918.00
0814	715.0710 Optimized Aggregate Gradation Incentive	132,102.000 DOL	1.00000	132,102.00
0816	740.0440 Incentive IRI Ride	22,791.000 DOL	1.00000	22,791.00
0818	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	1,400.000 HRS	5.00000	7,000.00
0820	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	17,280.000 HRS	5.00000	86,400.00

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0822	SPV.0045 Special 0001. Temporary Detectable Warning Field	542.000 DAY	_____.____	_____.____
0824	SPV.0060 Special 0001. Concrete Barrier Transition Type G1	1.000 EACH	_____.____	_____.____
0826	SPV.0060 Special 0002. Concrete Barrier Transition Type G2	1.000 EACH	_____.____	_____.____
0828	SPV.0060 Special 0003. Marking Contrast Epoxy Special Marking Arrow	11.000 EACH	_____.____	_____.____
0830	SPV.0060 Special 0004. Marking Contrast Epoxy Special Marking Word	6.000 EACH	_____.____	_____.____
0832	SPV.0060 Special 0006. Baseline CPM Progress Schedule	1.000 EACH	_____.____	_____.____
0834	SPV.0060 Special 0007. Monthly CPM Progess Schedule Updates	36.000 EACH	_____.____	_____.____
0836	SPV.0060 Special 0008. Concrete Barrier Transition Type M1	2.000 EACH	_____.____	_____.____
0838	SPV.0060 Special 0120. Mobilizations Emergency Pavement Repair	10.000 EACH	_____.____	_____.____
0840	SPV.0060 Special 0603. Exposing Existing Infrastructure Paved Area	5.000 EACH	_____.____	_____.____
0842	SPV.0060 Special 0604. Exposing Existing Infrastructure Unpaved Area	5.000 EACH	_____.____	_____.____
0844	SPV.0060 Special 0910. Traffic Control Close-Open Freeway Entrance Ramp	400.000 EACH	_____.____	_____.____
0846	SPV.0060 Special 0916. Traffic Control Local Road Lane Closure	100.000 EACH	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0848	SPV.0060 Special 0940. Emergency Response To Traffic Incident Involving Conc Barrier Temporary	40.000 EACH	_____.____	_____.____
0850	SPV.0060 Special 0945. Emergency Response To Traffic Incident Involving Crash Cushions	10.000 EACH	_____.____	_____.____
0852	SPV.0060 Special 1003. Wood Pole Lighting 60-Foot	48.000 EACH	_____.____	_____.____
0854	SPV.0060 Special 1004. Wood Poles 60-Foot	3.000 EACH	_____.____	_____.____
0856	SPV.0060 Special 1005. Removing Poles Wood 60-Foot and Floodlights	48.000 EACH	_____.____	_____.____
0858	SPV.0060 Special 1006. Removing Poles Wood 60-Foot	3.000 EACH	_____.____	_____.____
0860	SPV.0060 Special 1007. Luminaires Floodlight 400W HPS	51.000 EACH	_____.____	_____.____
0862	SPV.0060 Special 1008. Luminaires Replace Existing HPS	43.000 EACH	_____.____	_____.____
0864	SPV.0060 Special 1009. Removing Electrical Service Meter Breaker Pedestal Lighting	4.000 EACH	_____.____	_____.____
0866	SPV.0060 Special 1010. Concrete Bases Type B	15.000 EACH	_____.____	_____.____
0868	SPV.0060 Special 1011. Luminaires Sign LED	1.000 EACH	_____.____	_____.____
0870	SPV.0060 Special 1012. Luminaires Tunnel Lighting LED	8.000 EACH	_____.____	_____.____
0872	SPV.0060 Special 1014. Junction Boxes 4x4x4-Inch	8.000 EACH	_____.____	_____.____
0874	SPV.0060 Special 2000. Removing Electrical Service Meter Breaker Pedestral	1.000 EACH	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0876	SPV.0060 Special 2001. Removing Controller Cabinet	2.000 EACH	_____.____	_____.____
0878	SPV.0060 Special 2002. Removing Controller Cabinet Base	2.000 EACH	_____.____	_____.____
0880	SPV.0060 Special 2004. Removing Ramp Control Signal Assebly Sidemount	2.000 EACH	_____.____	_____.____
0882	SPV.0060 Special 2005. Removing Communication Vault	6.000 EACH	_____.____	_____.____
0884	SPV.0060 Special 2006. Removing Electrical Service Breaker Disconnect Box	1.000 EACH	_____.____	_____.____
0886	SPV.0060 Special 2013. Ground Rod	2.000 EACH	_____.____	_____.____
0888	SPV.0060 Special 2020. Signal Assembly Ramp Control Sidemount	2.000 EACH	_____.____	_____.____
0890	SPV.0060 Special 2022. Signal Assembly Advance Flasher Type 1	1.000 EACH	_____.____	_____.____
0892	SPV.0060 Special 2023. Communication Vault Adjustment	1.000 EACH	_____.____	_____.____
0894	SPV.0060 Special 2024. Installing Portable Video Surveillance System	1.000 EACH	_____.____	_____.____
0896	SPV.0060 Special 2025. Temporary 5.8 GHZ Ethernet Bridge	1.000 EACH	_____.____	_____.____
0898	SPV.0060 Special 2026. Refocus Vehicle Detector Assembly	10.000 EACH	_____.____	_____.____
0900	SPV.0060 Special 3001. Install Poles Type 9	1.000 EACH	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0902	SPV.0060 Special 3002. Install Poles Type 9 Special	1.000 EACH	_____.____	_____.____
0904	SPV.0060 Special 3003. Install Monotube Arms 30-FT	1.000 EACH	_____.____	_____.____
0906	SPV.0060 Special 3004. Install Monotube Arms 40-FT Special	1.000 EACH	_____.____	_____.____
0908	SPV.0060 Special 4000. Embedded Galvanic Anodes	175.000 EACH	_____.____	_____.____
0910	SPV.0060 Special 4001. Ultrasonic Impact Treatment Procedure	84.000 EACH	_____.____	_____.____
0912	SPV.0060 Special 4002. Anchor Assemblies Noise Barrier Structures R-40-712	9.000 EACH	_____.____	_____.____
0914	SPV.0060 Special 4003. Anchor Assemblies Noise Barrier Structures R-40-713	64.000 EACH	_____.____	_____.____
0916	SPV.0060 Special 4004. Anchor Assemblies Noise Barrier Structures B-40-1020	13.000 EACH	_____.____	_____.____
0918	SPV.0060 Special 4005. Maintenance Doors	1.000 EACH	_____.____	_____.____
0920	SPV.0060 Special 6001. Sign Support Special Mounting	8.000 EACH	_____.____	_____.____
0922	SPV.0060 Special 7001. Adjusting Water Boxes	4.000 EACH	_____.____	_____.____
0924	SPV.0060 Special 7002. Adjusting Water Manholes	2.000 EACH	_____.____	_____.____
0926	SPV.0060 Special 8002. Manholes 9-FT Special	2.000 EACH	_____.____	_____.____
0928	SPV.0060 Special 8003. Manholes 10-FT Special	1.000 EACH	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0930	SPV.0060 Special 8004. Pipe Connection to Existing Structure	9.000 EACH	_____.____	_____.____
0932	SPV.0060 Special 8005. Removing Bulkhead	15.000 EACH	_____.____	_____.____
0934	SPV.0060 Special 8006. Lake Tower Pond Outlet Storm Sewer Structure	1.000 EACH	_____.____	_____.____
0936	SPV.0060 Special 8007. Oak Leaf Pond Outlet Storm Sewer Structure	1.000 EACH	_____.____	_____.____
0938	SPV.0060 Special 8008. Slip-In Check Valve for 36-Inch Diameter Pipe	1.000 EACH	_____.____	_____.____
0940	SPV.0060 Special 8009. Slip-In Check Valve for 48-Inch Diameter Pipe	1.000 EACH	_____.____	_____.____
0942	SPV.0075 Special 0001. Pavement Cleanup Project (1228-22-71)	1,500.000 HRS	_____.____	_____.____
0944	SPV.0090 Special 0001. Concrete Curb & Gutter 4-Inch Sloped 60-Inch Type A	3,455.000 LF	_____.____	_____.____
0946	SPV.0090 Special 0002. Concrete Barrier Type S42C Special	133.000 LF	_____.____	_____.____
0948	SPV.0090 Special 1001. Cable Aerial Aluminum 6 AWG Quadruplex	7,589.000 LF	_____.____	_____.____
0950	SPV.0090 Special 1002. Cable Aerial Aluminum 6 AWG Triplex	1,255.000 LF	_____.____	_____.____
0952	SPV.0090 Special 3000. Fiber Optic Warning Tape	46.000 LF	_____.____	_____.____
0954	SPV.0090 Special 4000. Removing Existing Steel Piling	80.000 LF	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0956	SPV.0090 Special 4010. Remove Existing Timber Piling	360.000 LF	_____.____	_____.____
0958	SPV.0090 Special 8001. Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class IV 38x60-	68.000 LF	_____.____	_____.____
0960	SPV.0090 Special 8025. Pipe Underdrain Exploration	100.000 LF	_____.____	_____.____
0962	SPV.0090 Special 8026. Storm Sewer Lateral Exploration	100.000 LF	_____.____	_____.____
0964	SPV.0090 Special 8027. Precast Trench Drain	267.000 LF	_____.____	_____.____
0966	SPV.0105 Special 0001. Survey Project (1228-22-71)	LS	LUMP SUM	_____.____
0968	SPV.0105 Special 0002. Temporary Causeway	LS	LUMP SUM	_____.____
0970	SPV.0105 Special 1001. Maintenance of Lighting System	LS	LUMP SUM	_____.____
0972	SPV.0105 Special 1002. Lighting System Intergrator	LS	LUMP SUM	_____.____
0974	SPV.0105 Special 3000. Trnspt & Inst State Furn Traffic Sig Cabinet IH-43 NB Off Ramp & Port Wash	LS	LUMP SUM	_____.____
0976	SPV.0105 Special 3001. Trnspt & Inst State Furn Radar Detect Sys IH-43 NB Off Ramp & Port Wash	LS	LUMP SUM	_____.____
0978	SPV.0105 Special 3002. Trnspt Traffic Sig & Inter Lighting Materials IH-43 NB Off Ramp &Port Wash	LS	LUMP SUM	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0980	SPV.0105 Special 3003. Trnspt & Inst State Furn EVP Heads IH-43 NB Off Ramp & Port Wash	LS	LUMP SUM	_____.____
0982	SPV.0105 Special 3004. Install Fiber Optic Communications in Cabinet S40-1207	LS	LUMP SUM	_____.____
0984	SPV.0105 Special 4000. Removing Sign Bridge S-40-381	LS	LUMP SUM	_____.____
0986	SPV.0105 Special 4001. Removing Sign Bridge S-40-383	LS	LUMP SUM	_____.____
0988	SPV.0105 Special 4002. Removing Sign Bridge S-40-803	LS	LUMP SUM	_____.____
0990	SPV.0105 Special 4003. Removing Sign Bridge S-40-848	LS	LUMP SUM	_____.____
0992	SPV.0105 Special 4004. Removing Sign Bridge S-40-849	LS	LUMP SUM	_____.____
0994	SPV.0105 Special 4005. Removing Sign Bridge S-40-981	LS	LUMP SUM	_____.____
0996	SPV.0105 Special 4006. Removing Sign Bridge S-40-228	LS	LUMP SUM	_____.____
0998	SPV.0105 Special 4007. Removing Sign Bridge S-40-229	LS	LUMP SUM	_____.____
1000	SPV.0105 Special 8001. Control of Water Storm Sewer	LS	LUMP SUM	_____.____
1002	SPV.0105 Special 8002. Dewatering for Detention Basin Construction	LS	LUMP SUM	_____.____
1004	SPV.0135 Special 0110. Field Office Special	35.000 MON	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1006	SPV.0135 Special 0601. Vibration Monitoring	32.000 MON	_____.____	_____.____
1008	SPV.0165 Special 4000. Removing Loose Concrete	420.000 SF	_____.____	_____.____
1010	SPV.0165 Special 4001. Temporary Wall Wire Faced Mechanically Stabilized Earth	25,124.000 SF	_____.____	_____.____
1012	SPV.0165 Special 4002. Wall Concrete Panel Mechanically Stabilized Earth R-40-706	12,118.000 SF	_____.____	_____.____
1014	SPV.0165 Special 4003. Wall Concrete Panel Mechanically Stabilized Earth R-40-707	16,073.000 SF	_____.____	_____.____
1016	SPV.0165 Special 4004. Wall Concrete Panel Mechanically Stabilized Earth R-40-709	5,489.000 SF	_____.____	_____.____
1018	SPV.0165 Special 4005. Wall Concrete Panel Mechanically Stabilized Earth R-40-710	2,600.000 SF	_____.____	_____.____
1020	SPV.0165 Special 4006. Wall Concrete Panel Mechanically Stabilized Earth R-40-711	1,520.000 SF	_____.____	_____.____
1022	SPV.0165 Special 4007. Wall Concrete Panel Mechanically Stabilized Earth R-40-712	9,520.000 SF	_____.____	_____.____
1024	SPV.0165 Special 4008. Wall Concrete Panel Mechanically Stabilized Earth R-40-713	36,500.000 SF	_____.____	_____.____
1026	SPV.0180 Special 0301. Topsoil Special	59,939.000 SY	_____.____	_____.____
1028	SPV.0195 Special 0001. Management of Contaminated Soil and Contaminated Sediment	15,431.000 TON	_____.____	_____.____
1030	SPV.0195 Special 4000. Select Crushed Material for Travel Corridor	30.000 TON	_____.____	_____.____
1032	611.0420 Reconstructing Manholes	3.000 EACH	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1034	649.0520 Temporary Marking Arrow Epoxy	4.000 EACH	_____.____	_____.____
	Section: 0001		Total:	_____.____
			Total Bid:	_____.____

Wisconsin Department of Transportation

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

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

April 9, 2021

NOTICE TO ALL CONTRACTORS:

Proposal #26: 1228-22-71, WISC 2021228
North-South Freeway
Capitol Drive to 2100' N of Hampton Ave.
IH-43
Milwaukee County

Letting of April 13, 2021

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

Special Provisions:

Revised Special Provisions	
Article No.	Description
3	Prosecution and Progress

Added Special Provisions	
Article No.	Description
172	Basic Traffic Queue Warning System, Item 643.1205.S.
173	Waterway Buoys, Item SPV.0045.0002.
174	Removing Municipal Lighting Units, Item SPV.0060.1013.
175	Salvage Municipal Lighting Units, Item SPV.0060.1014.
176	Install Salvaged Municipal Lighting Unit, Item SPV.0060.1015.

Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
205.0100	Excavation Common	CY	183,854	14,047	197,901
208.0100	Borrow	CY	70,968	9,250	80,218
312.0110	Select Crushed Material	TON	97,793	31,749	129,542
606.0200	Riprap Medium	CY	65	23	88
627.0200	Mulching	SY	2,766	716	3,482
628.1504	Silt Fence	LF	19,906	1,413	21,319
628.1520	Silt Fence Maintenance	LF	19,906	1,413	21,319

628.2004	Erosion Mat Class I Type B	SY	16,439	52,594	69,033
628.2027	Erosion Mat Class II Type C	SY	82,765	-37,060	45,705
628.7005	Inlet Protection Type A	EACH	595	-89	506
628.7020	Inlet Protection Type D	EACH	697	-90	607
628.7504	Temporary Ditch Checks	LF	15	1,072	1,087
629.0210	Fertilizer Type B	CWT	38	3	41
630.0120	Seeding Mixture No. 20	LB	2,428	188	2,616
630.0500	Seed Water	MGAL	1,346	348	1,694
646.9010	Marking Removal Line Water Blasting 4-inch	LF	309,822	11,052	320,874
649.0120	Temporary Marking Line Epoxy 4-inch	LF	392,385	15,153	407,538
649.0760	Temporary Marking Raised Pavement Marker Type 1	EACH	1,025	337	1,362
SPV.0180.0301	Topsoil Special	SY	59,939	15,508	75,447

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
603.8500	Anchoring Concrete Barrier Temporary Precast	LF	0	23,935	23,935
603.8505	Anchoring Concrete Barrier Temporary Precast On Bridge Decks	LF	0	1,811	1,811
618.0100	Maintenance and Repair of Haul Roads (1228-22-71)	EACH	0	1	1
629.0205	Fertilizer Type A	CWT	0	5	5
630.0140	Seeding Mixture No. 40	LB	0	338	338
643.1200.S	Portable Automated Real-Time Traffic Queue Warning System	DAY	0	455	455
645.0130	Geotextile Type R	SY	0	66	66
SPV.0045.0002	Water Buoys	DAY	0	25,194	25,194

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Old Quantity	Revised Quantity	Proposal Total
312.0115	Select Crushed Material	CY	16,710	-16,710	0

Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
180-194	Erosion Control
361, 363, 364	TC Stage 1
374, 375, 382	TC, Stage 2
402, 403, 407C	TC, Stage 2C1
413, 415,	TC, Stage 2C2

416, 420C	
425-429, 431-433, 433C	TC Stage 2D, Added Note for QWS
438-439	TC Stage 3A, Added raised pavement markers and solid centerline
441-442	TC Stage 3A, Added raised pavement markers and solid centerline
446C	TC Stage 3A, Added Note for QWS
453	TC Stage 3B, Added raised pavement markers and solid centerline
460C	TC Stage 3B, Added Note for QWS
474	TC Stage 4, Added Note for nighttime closure on Ramp GBA2
477-478	TC Stage 4, Added raised pavement markers and solid centerline
483-484	TC Stage 4, Added raised pavement markers and solid centerline
485C	TC Stage 4, Added raised pavement markers and Note for QWS
498C	TC Stage 5, Added Note for QWS
507-509	Temporary Causeways, Updated typical width of causeway and removed fingers to Ramp HAB
566	Roadway MQ's, Updated earthwork table to include the Oak Leaf Pond, and corrected calculation error.
567-568	Roadway MQ's, Updated quantities to be included in Ton item
581-587	Roadway MQ's, Updated erosion control quantities to reflect plan updates
602	Roadway MQ's, Added item for anchoring barrier
604-605	Traffic Control MQ's, Updated Temp Pavement Markings and added QWS

Added Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
64A	Construction Details, Added construction detail for Temporary Settling Basin
179A, 185A, 185B	Erosion Control Stage 1, Sheets added to keep consistent with other stages
509A	Waterway Marker Placement, Added sheet to display placement of waterway markers
580A	Roadway MQ's, Added two new items and Stage 1 MQ table for erosion control items
602A	Roadway MQ's, Added item for anchoring barrier

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

1228-22-71

April 9, 2021

Special Provisions

3. Prosecution and Progress.

Add the following to the end *of section titled* **I Local Street Work Restrictions***:*

The Oak Leaf Trail may be closed for intermittently for a total of approximately 10 weeks in order to demolish the existing bridge, set girders, and pour the concrete deck. During that time, trail traffic will be detoured per the plan. Keep the Oak Leaf trail open to trail traffic via temporary trail or on-street accommodations at all other times. Notify Milwaukee County in advance of closure.

Add the following after paragraph 2 *of Section* **J All Work Restrictions***:*

Complete all work necessary to remove the Temporary Causeways in the Milwaukee River and restore the site by December 14, 2022.

172. Basic Traffic Queue Warning System, Item 643.1205.S.

A Description

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

B Materials

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

B.1 Portable Traffic Sensors (PTS)

Provide PTS that are nonintrusive and capable of capturing vehicle speed in mph. Integrate each sensor with a modem to communicate with the automated system manager.

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

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

B.3 Automated System Manager (ASM)

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

B.4 System Communications

Ensure Basic Traffic QWS communications meet the following requirements:

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

B.5 System Acceptance

Submit vendor verification to the engineer and Bureau of Traffic Operations (DOTBTOworkzone@dot.wi.gov) 14 calendar days before the pre-construction meeting that the system will adequately perform the functions specified in this special provision. Adequate verification includes past successful performance of the system, literature and references from successful use of the system by other agencies, and/or demonstration of the system.

Provide contact information for a designated representative responsible for monitoring the performance of the system and for making modifications to the operational settings as the engineer directs. Provide all testing and calibration equipment.

C Construction

C.1 General

Install and reposition Basic Traffic Queue Warning System per plan or as the engineer directs. Provide plan to the engineer and Bureau of Traffic Operations (DOTBTOworkzone@dot.wi.gov) 14 calendar days before the pre-construction meeting.

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

Install PTS at the following locations:

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

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

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

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

Number the devices in chronological order so they are visible from the shoulder with 6-inch white high reflective sheeting.

Provide technical personnel for all system calibration, operation, maintenance, and timely on-call support services.

Promptly correct the system within 24 hours of becoming aware of a deficiency in the operation or individual part of the system. A minimum of three days before deployment, place the Basic Traffic QWS and demonstrate to the Department that the Basic Traffic QWS is operational.

Maintain the Basic Traffic QWS for the duration of the project. Ensure the system operates continuously (24 hours, 7 days a week) in the automated mode throughout the duration of the project.

Remove the system upon completion.

C.2 Reports

Provide an electronic copy of a weekly summary report of all data via email to the engineer. Ensure the report includes, at a minimum, the average speed per sensor, time in congestive state per sensor and number of triggers per day.

C.3 Meetings

Attend mandatory in-person pre-construction meetings with the department. Attend additional meetings as deemed necessary by the department. These meetings may be held in person or via teleconference, as scheduled by the department.

C.4 Programming

C.4.1 General

Program the Basic Traffic QWS to ensure that the following general operations are performed:

1. Provide a password protected login to the ASM, website and all other databases.
2. Automatic setting of the FBS to reflect current traffic flow status updated every 60 seconds for congestion. Ensure to remove a congestion message when 180 seconds of average traffic speeds above the current level are observed, or utilize a customized frequency as determined by the engineer.
3. The FBS activate based on pre-determined speed thresholds from the next downstream sensor.
    - FBS #3 shall activate based on traffic speeds at the PTS located within the lane closure taper.
    - FBS #2 shall activate based on traffic speeds at the PTS located approximately 1 mile upstream of lane closure taper, or at FBS #3.
    - FBS #1 shall activate based on traffic speeds at the PTS located 2 miles upstream of lane closure taper, or at FBS #2.
4. Provide real-time data from the ASM to a website with a full color mapping feature and refresh every 60 seconds. Make data on website available to the department staff at all times for the duration of the work zone activity. Ensure website includes:
    - Vehicle speeds
    - FBS triggers
    - Device locations
5. Archive all traffic data in a Microsoft Excel format with date and time stamps.
6. Configure the website to quantify system failures which includes communication disruption between any devices in the system configuration, FBS malfunctioning, PTS malfunction, loss of power, low battery, etc.
7. Automatically generate and send an email alert any time a user specified queue is detected by the system.
8. Ensure the system autonomously restarts in case of any power failure.

C.4.2 System Operation Strategy

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

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

Free Flow:

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

Slow or Stopped Traffic:

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

C.5 Calibration and Testing

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

Send email of successful calibration and testing to the engineer.

D Measurement

The department will measure Basic Traffic Queue Warning System by the day, acceptably completed, measured as each complete system per roadway.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.1205.S	Basic Traffic Queue Warning System	DAY

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

Failure to correct a deficiency to the FBS, PTS, or ASM within 24 hours after notification from the engineer or the department will result in a one-day deduction of the measured quantity for each day in which the deficiency is not corrected.

Failure to correct the website within 24 hours after notification from the engineer will result in a 10% reduction of the day quantity for each day the website is down.

The engineer will have sole discretion to assess the deductions for an improperly working Basic Traffic QWS.

stp-643-046 (20210113)

173. Waterway Buoys, Item SPV.0045.0002.

A Description

This special provision describes furnishing, placing, maintaining, and removing waterway buoys, anchorages, flashing lights, and all other materials associated with this item, according to the pertinent requirements of the Wisconsin Department of Natural Resources. These requirements may be obtained on the internet at the following address:

https://dnr.wi.gov/topic/boat/ordinances.html

B Materials

Furnish buoys that are cylindrical in shape with a 7-inch minimum diameter and that extend a minimum of 36 inches above the waterline. Provide buoys of colors, markings and messages as shown in the plan and as specified in the Waterway Marker Permit and a flashing light adorning the buoy. Light colors shall be as shown in the plan or as specified in the Waterway Marker Permit.

C Construction

Place buoys as shown on the plan and as approved by the engineer. Place waterway buoys in the water prior to any in-stream work (demolition or construction), and keep in place until such work is completed and all in-water obstructions such as falsework are completely removed. Locations of navigation ways may need to be adjusted from that shown in the plans as directed by the engineer.

D Measurement

The department will measure Waterway Buoys by the day for the days which they are in the water, not to exceed the number of days for which the contractor is performing in-stream or overhead work. Acceptance of the waterway buoys and their placement shall be at the discretion of the engineer.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.0002	*Waterway Buoy*	*DAY*

Payment is full compensation for furnishing, placing, maintaining, removing, and for furnishing all labor, tools, equipment and incidentals necessary to complete the work.

174. Removing Municipal Lighting Units, Item SPV.0060.1013.

A Description
This special provision describes the removing lighting units as the plans show, conforming to standard spec 204, and as follows.

B Materials
Removed poles, breakaway devices, arms, and luminaires to be returned to City of Glendale. Contractor shall coordinate with the City Department of Public Works for removed pole, breakaway devices, arms, and luminaires drop off location.
All other removed material shall become the property of the contractor and be disposed off the project site.

C Construction
Remove Municipal lighting units consisting of pole, arm, luminaire, lamp, wires, breakaway device, and associated hardware and appurtenances.
No removal work will be permitted without approval from the Engineer. Removal shall start as soon as the temporary lighting or permanent lighting, as applicable, is placed in approved operation. An inspection and approval by the Engineer will take place before any associated proposed permanent or temporary lighting is approved for operation.

D Measurement
The Department will measure Removing Lighting Units by each individual unit removed, acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1013	Removing Municipal Lighting Units	Each

175. Salvage Municipal Lighting Units, Item SPV.0060.1014.

A Description
This special provision describes salvaging an existing Municipal Lighting Units according to standard spec 655, 656, and 657, the Wisconsin Electrical Code, as shown on the plans and as hereinafter provided.

B Materials
Materials included are:

- Municipal Light Pole, Arms, and Luminaires.

C Construction
Remove pole at the location shown in the plans, or as directed by the engineer. Store the pole, arms, and luminaires in a safe and secure location until reinstalled on the project. Maintain all materials in a condition suitable for reutilization. Replace all items damaged during construction operations.

Electrical work under this item shall be completed by a journeyman electrician or be completed under the supervision of a journeyman electrician. Legal status or standing as a journeyman electrician shall be certified or otherwise documented to the engineer before any electrical work may begin.

D Measurement
The department will measure Salvage Municipal Lighting Units by each individual unit, acceptably removed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1014	Salvage Municipal Lighting Units	Each

Payment is full compensation for removal and storage of the municipal light pole, arms and luminaires; disconnecting all wiring connections; removing all conduit connections; for any necessary restoration, including backfill, topsoil, and seeding.

176. Install Salvaged Municipal Lighting Unit, Item SPV.0060.1015.

A Description

This special provision describes installing a salvaged Municipal Lighting Units and all necessary mounting hardware, according to standard spec 655, 656, and 657, the Wisconsin Electrical Code, as shown on the plans and as hereinafter provided.

B Materials

Materials included are:

- Municipal Light Pole, Arms and Luminaires.
- Installation Hardware

C Construction

Transport the salvaged pole, arms, and luminaires from its stored location to the project site. Install the salvaged pole and base as shown in the plans.

Electrical work under this item shall be completed by a journeyman electrician or be completed under the supervision of a journeyman electrician. Legal status or standing as a journeyman electrician shall be certified or otherwise documented to the engineer before any electrical work may begin.

D Measurement

The department will measure Install Salvaged Municipal Lighting Units by each individual unit, acceptably installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.1015	Install Salvaged Municipal Lighting Units	Each

Payment is full compensation for transportation of the salvaged Municipal Pole, Arms and Luminaires to the project location; installation of the Municipal Pole, Arms and Luminaires; furnishing all necessary hardware; making all wiring connections and conduit connections; and for any necessary restoration, including backfill, topsoil, and seeding.

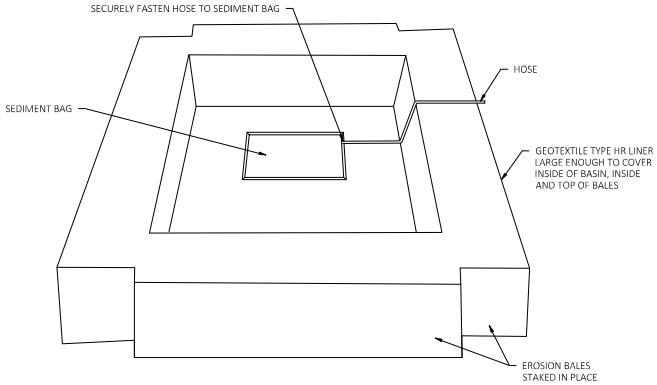
Schedule of Items
Attached, dated April 9, 2021, are the revised Schedule of Items Pages 1 – 37.

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

Revised: 180-194, 361, 363, 364, 374, 375, 382, 402, 403, 407C, 413, 415, 416, 420C, 425-429, 431-433, 433C, 438-439, 441-442, 446C, 453, 460C, 474, 477-478, 483-484, 485C, 498C, 507-509, 566, 567-568, 581-587, 602, 604-605

Added: 64A, 179A, 185A, 185B, 509A, 580A, 602A

END OF ADDENDUM

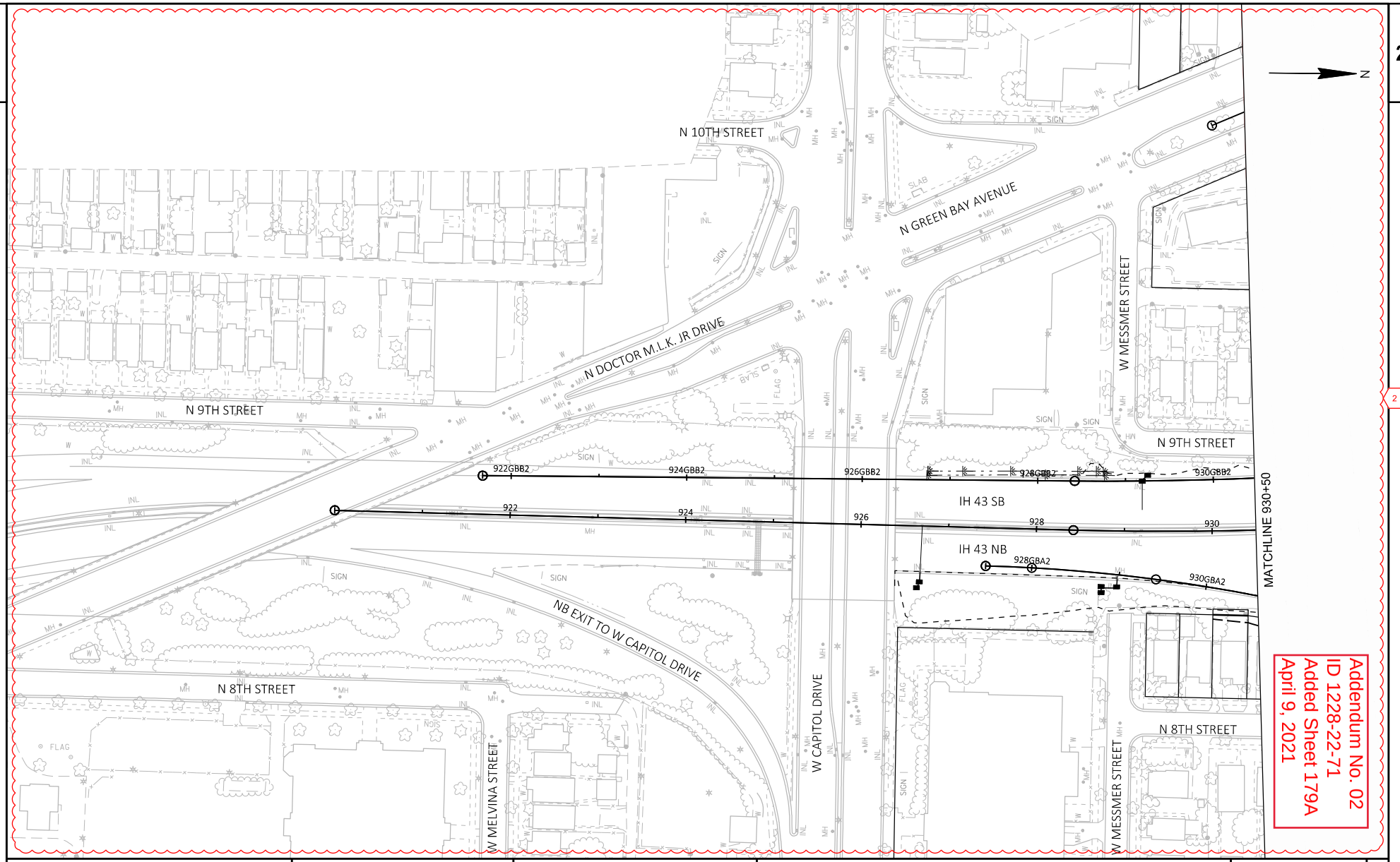


TEMPORARY SETTLING BASIN DETAIL

NOTES

1. CONTRACTOR SHALL PUMP TURBID WATER FROM EXCAVATION TO SEDIMENT BAG PLACED INSIDE FABRIC LINED STAKED BALE ENCLOSURE PRIOR TO DISCHARGING TO DITCHES/INLETS/WETLANDS OR WATERWAYS.
2. SEDIMENT BAG TO BE PLACED IN AN UPLAND VEGETATED AREA OR EQUIVALENT LOCATION APPROVED BY THE ENGINEER.
3. BASIN TO BE KEPT LESS THAN 10% FULL OF SEDIMENT. GEOTEXTILE FABRIC AND SEDIMENTS TO BE DISPOSED BY THE CONTRACTOR OFF OF THE PROJECT SITE.
4. TEMPORARY SETTLING BASIN AND SEDIMENT BAG TO BE INCIDENTAL TO CONTRACT.
5. SEDIMENT BAG, BALES AND FABRIC TO BE REPLACED AS NECESSARY AND IS INCIDENTAL TO CONTRACT.
6. SIZE TO BE DETERMINED BY THE CONTRACTOR AS PART OF THE ECIP SUBMITTAL.

Addendum No. 02
ID 1228-22-71
Added Sheet 64A
April 9, 2021



Addendum No. 02
ID 1228-22-71
Added Sheet 179A
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 179A	E

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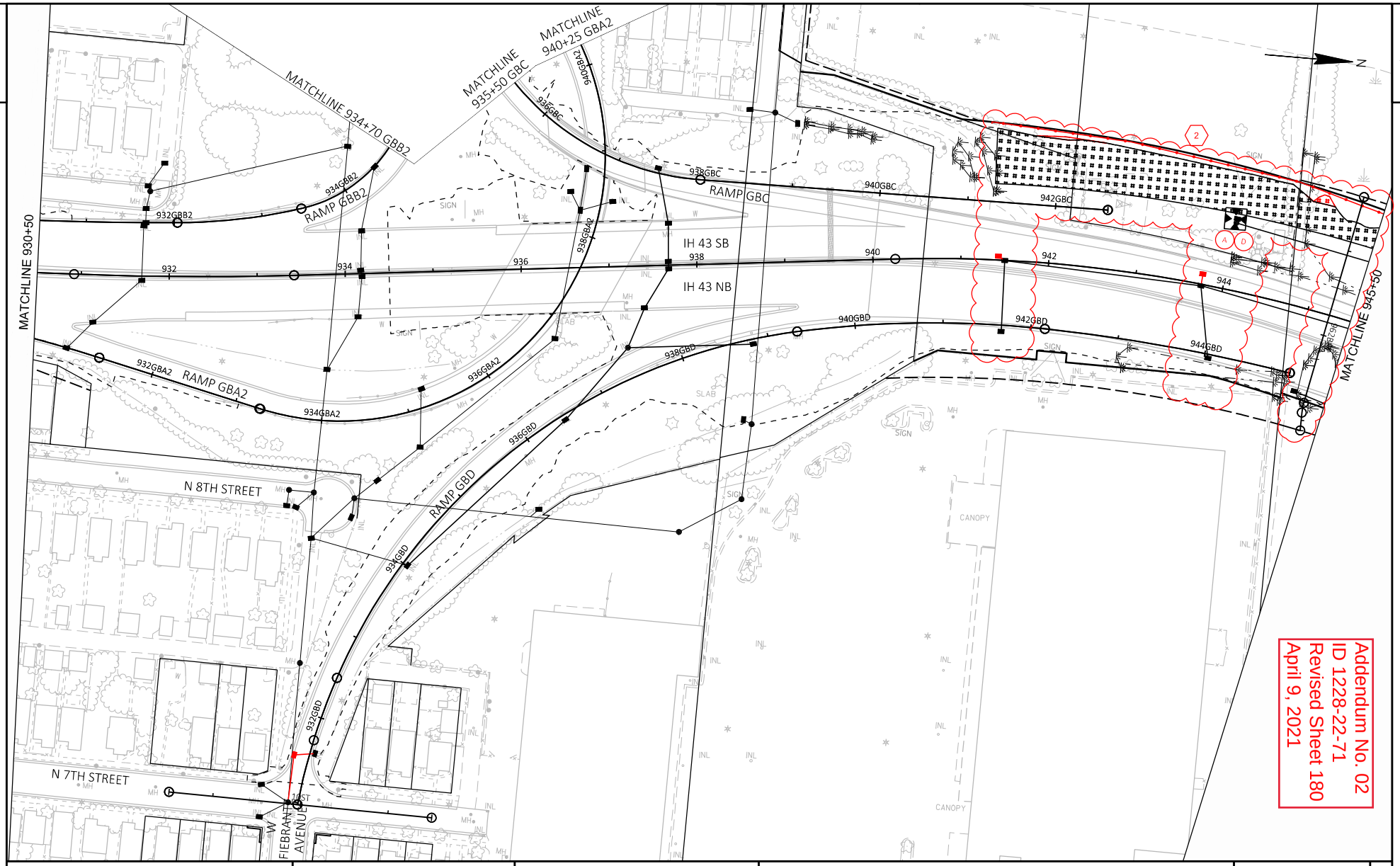
WISDOT/CADDS SHEET 42



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 180	E

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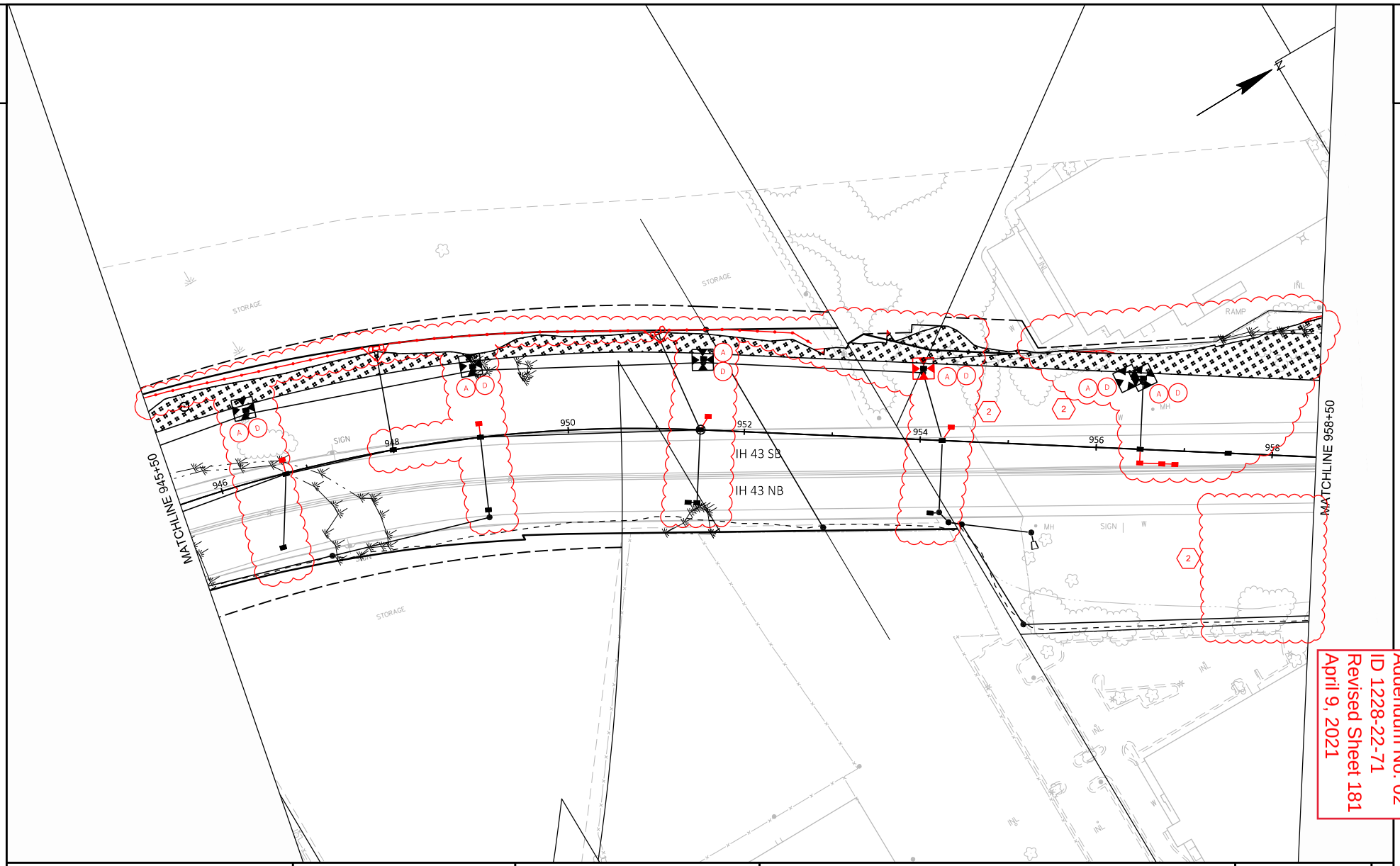

Addendum No. 02
ID 1228-22-71
Revised Sheet 181
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 181	E

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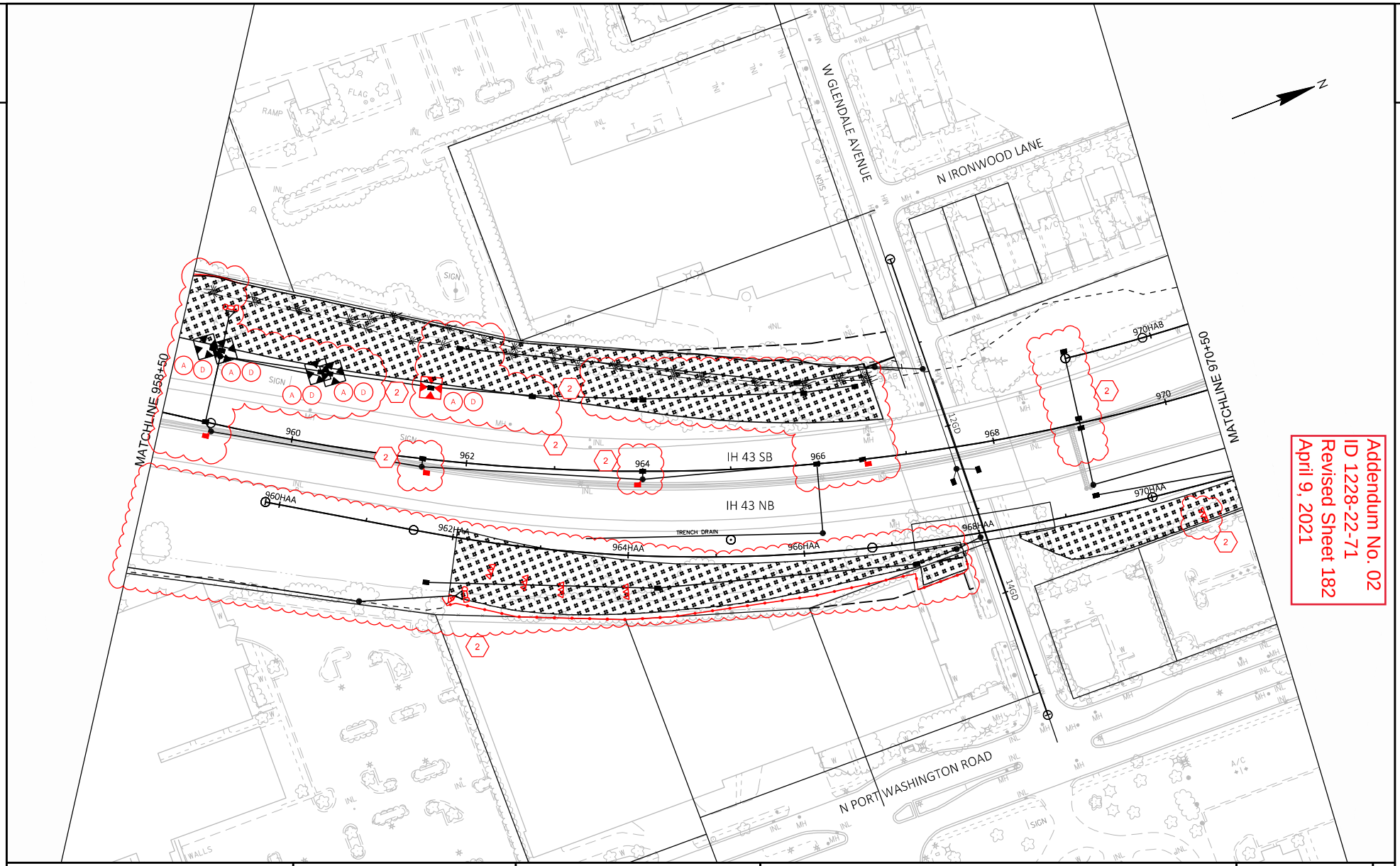

Addendum No. 02
ID 1228-22-71
Revised Sheet 182
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 182	E

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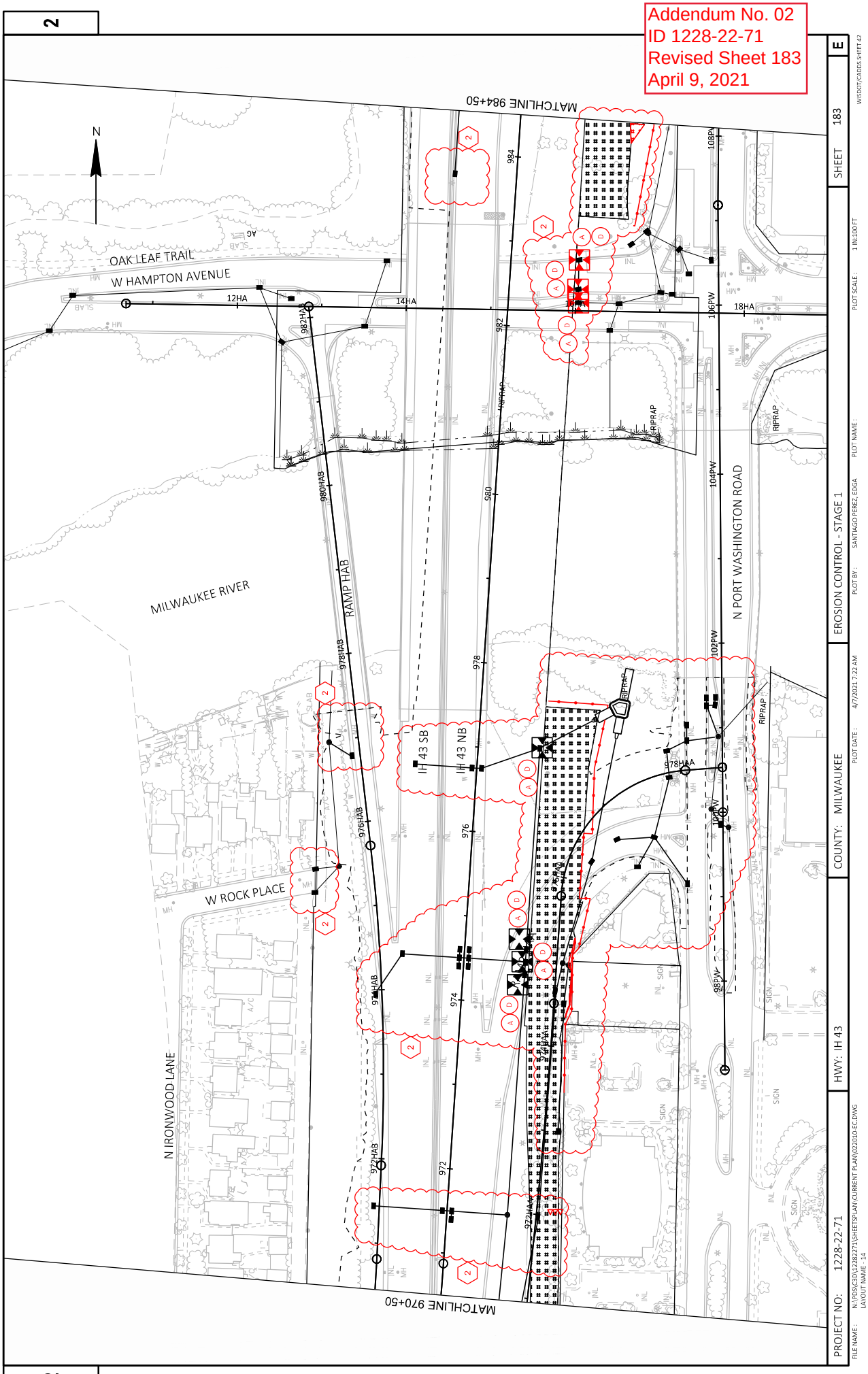
WISDOT/CADDS SHEET 42

Addendum No. 02
ID 1228-22-71
Revised Sheet 183
April 9, 2021



PROJECT NO: 1228-22-71 | HWY: IH 43 | COUNTY: MILWAUKEE | EROSION CONTROL - STAGE 1 | SHEET 183 | E

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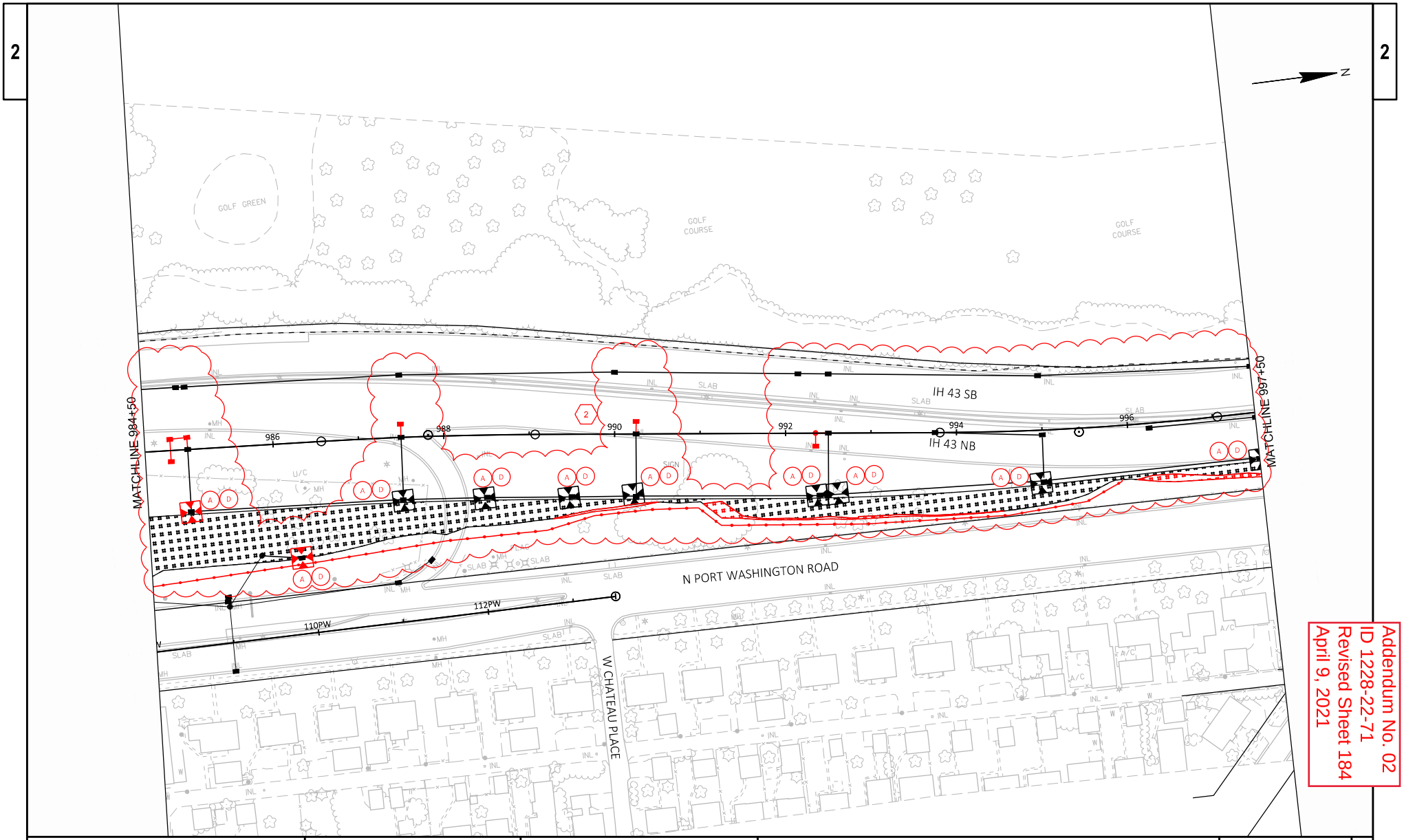

Addendum No. 02
ID 1228-22-71
Revised Sheet 184
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 184	E

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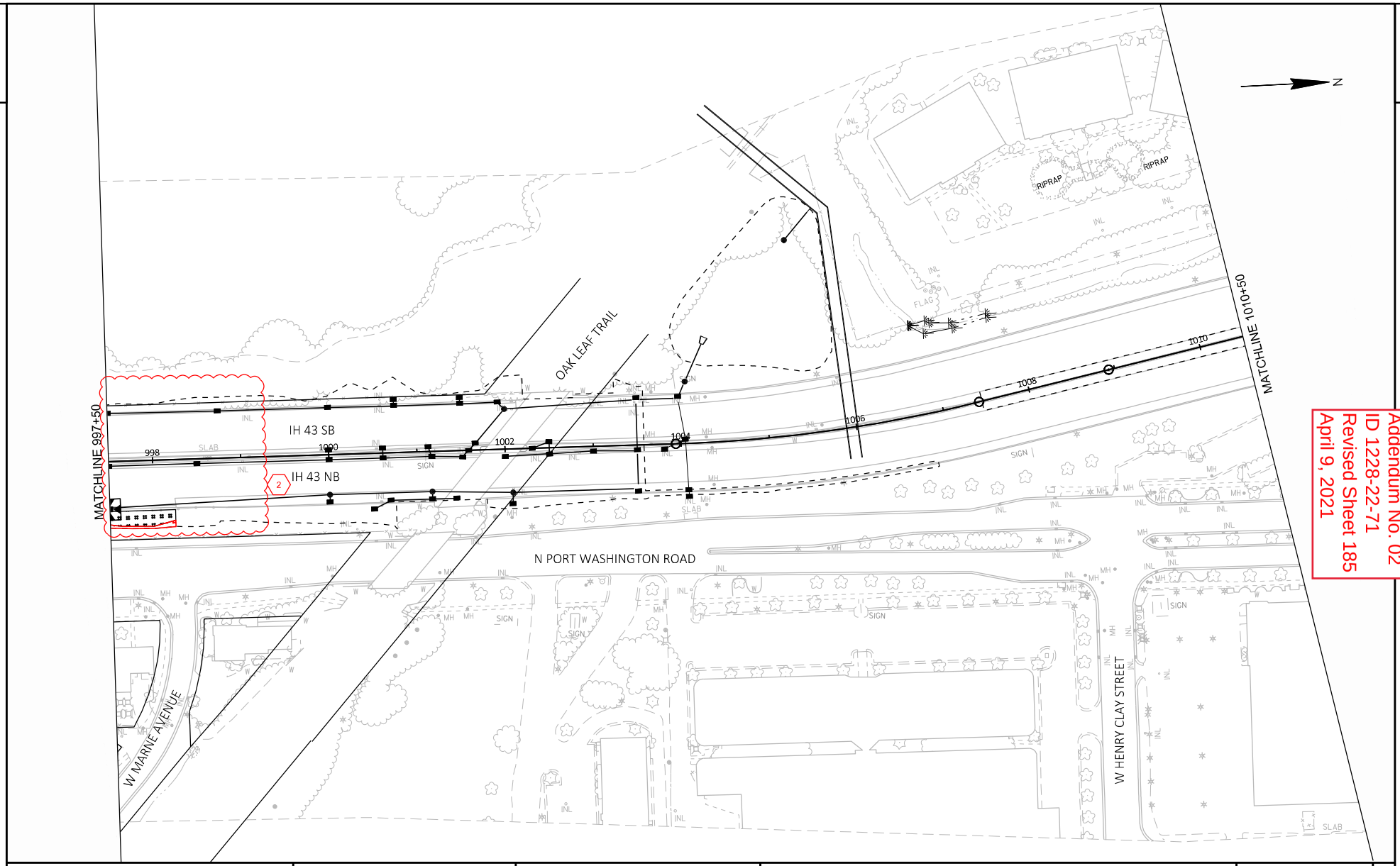

Addendum No. 02
ID 1228-22-71
Revised Sheet 185
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 185	E

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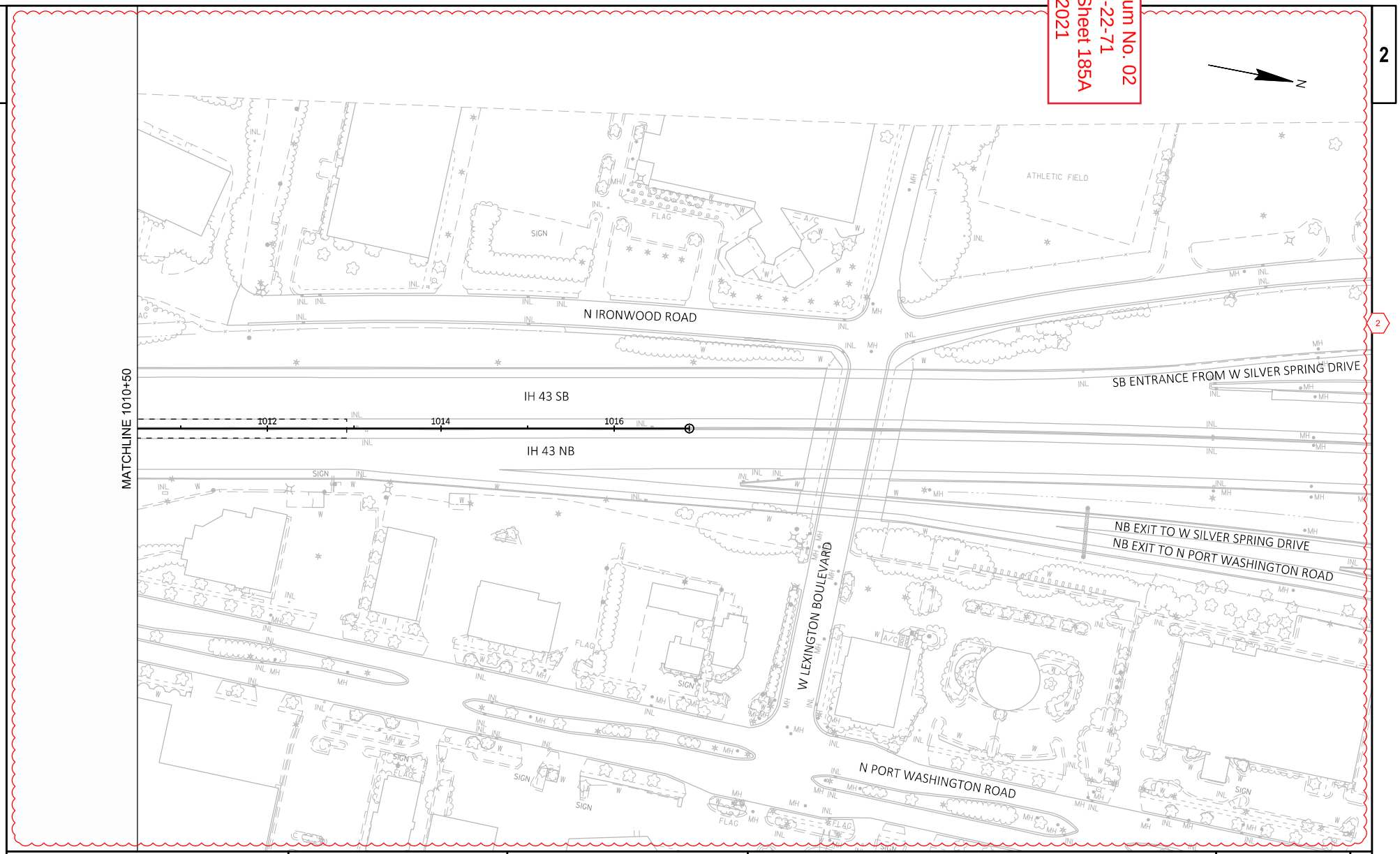
Addendum No. 02
ID 1228-22-71
Added Sheet 185A
April 9, 2021



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 1	SHEET 185A	E

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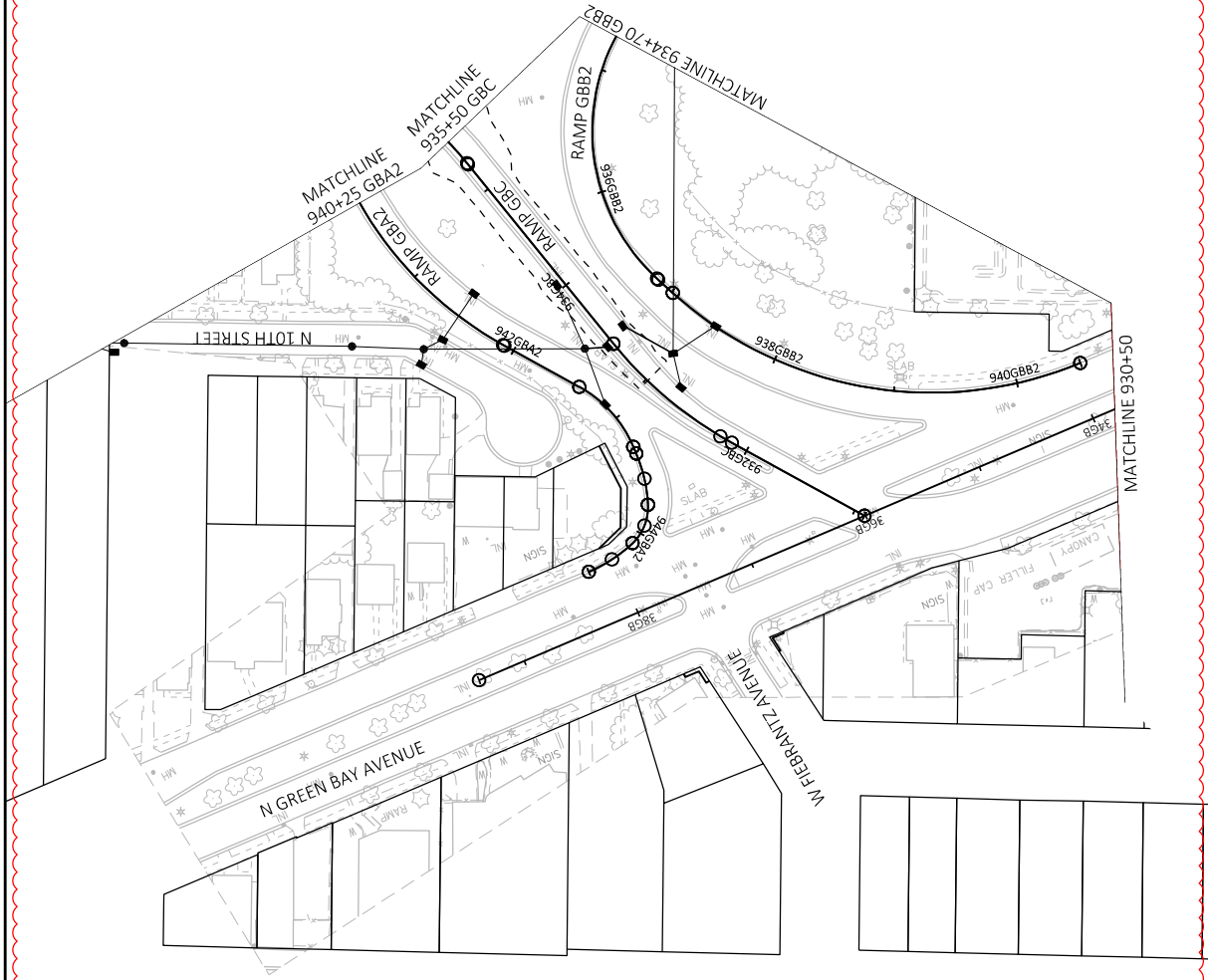
Addendum No. 02
ID 1228-22-71
Added Sheet 185B
April 9, 2021



PROJECT NO: 1228-22-71
HWY: IH 43
COUNTY: MILWAUKEE
EROSION CONTROL - STAGE 1
SHEET 185B
E

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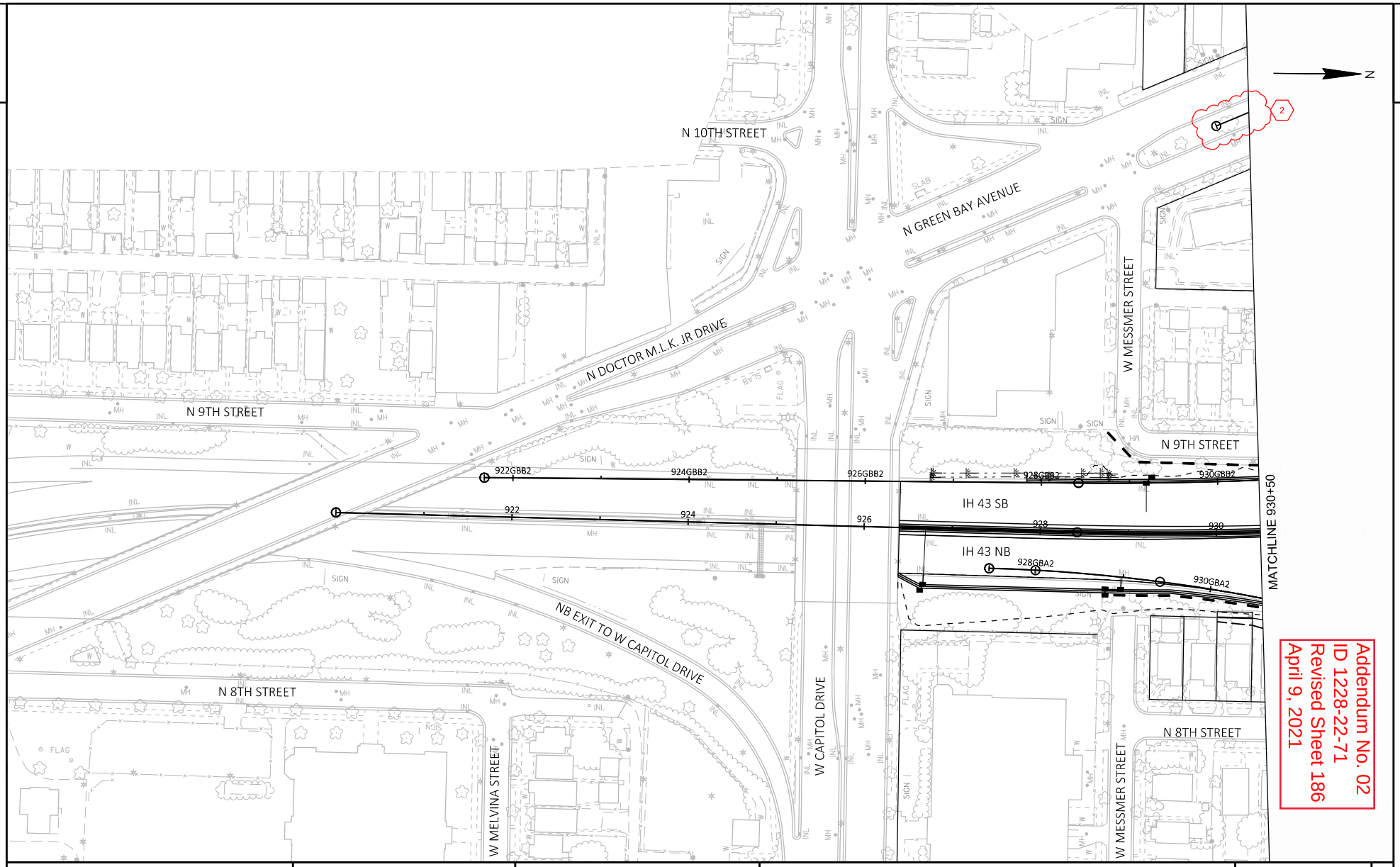
WISDOT/CADDS SHEET 42



Addendum No. 02
ID 1228-22-71
Revised Sheet 186
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 186	E

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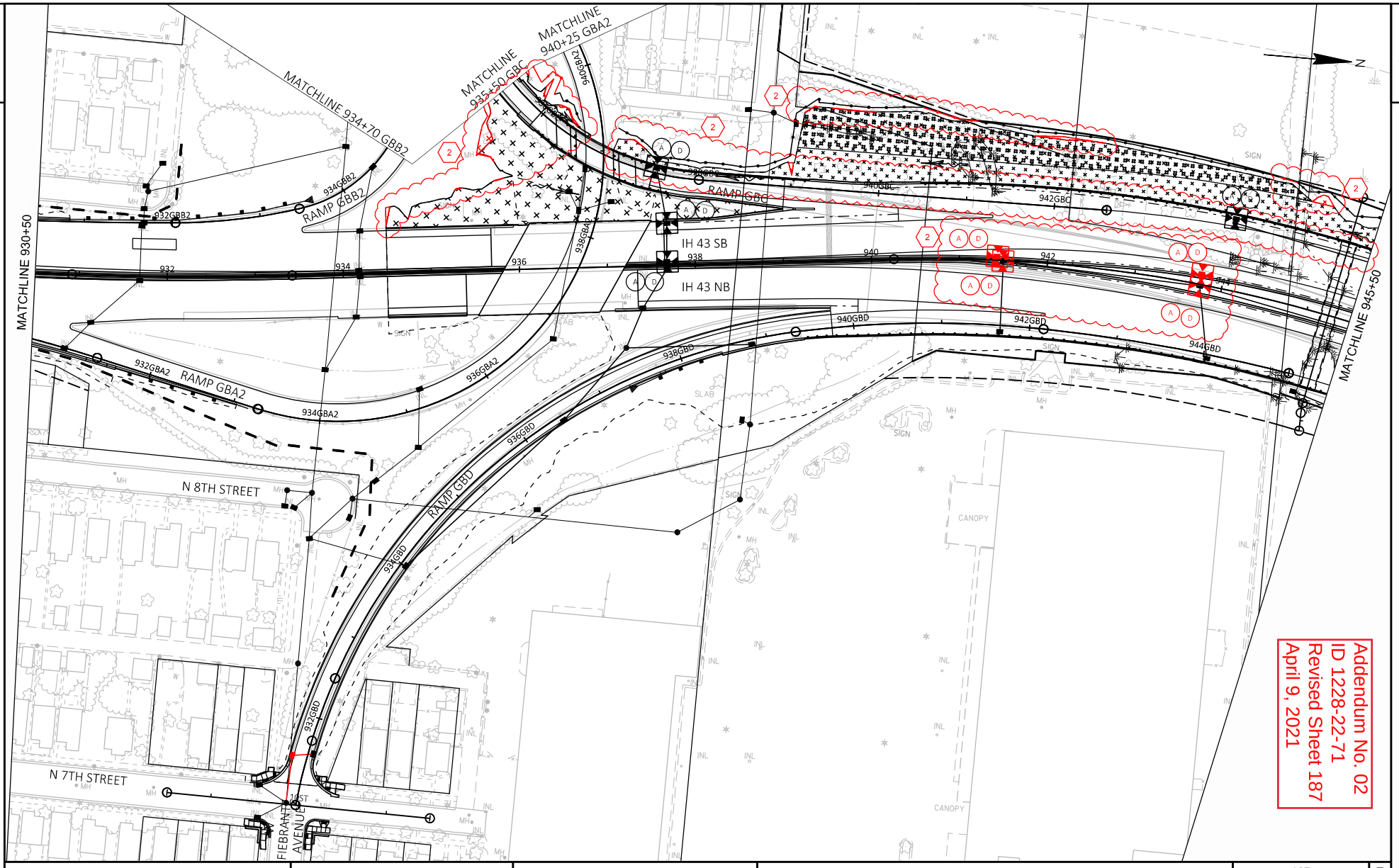

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 187	E

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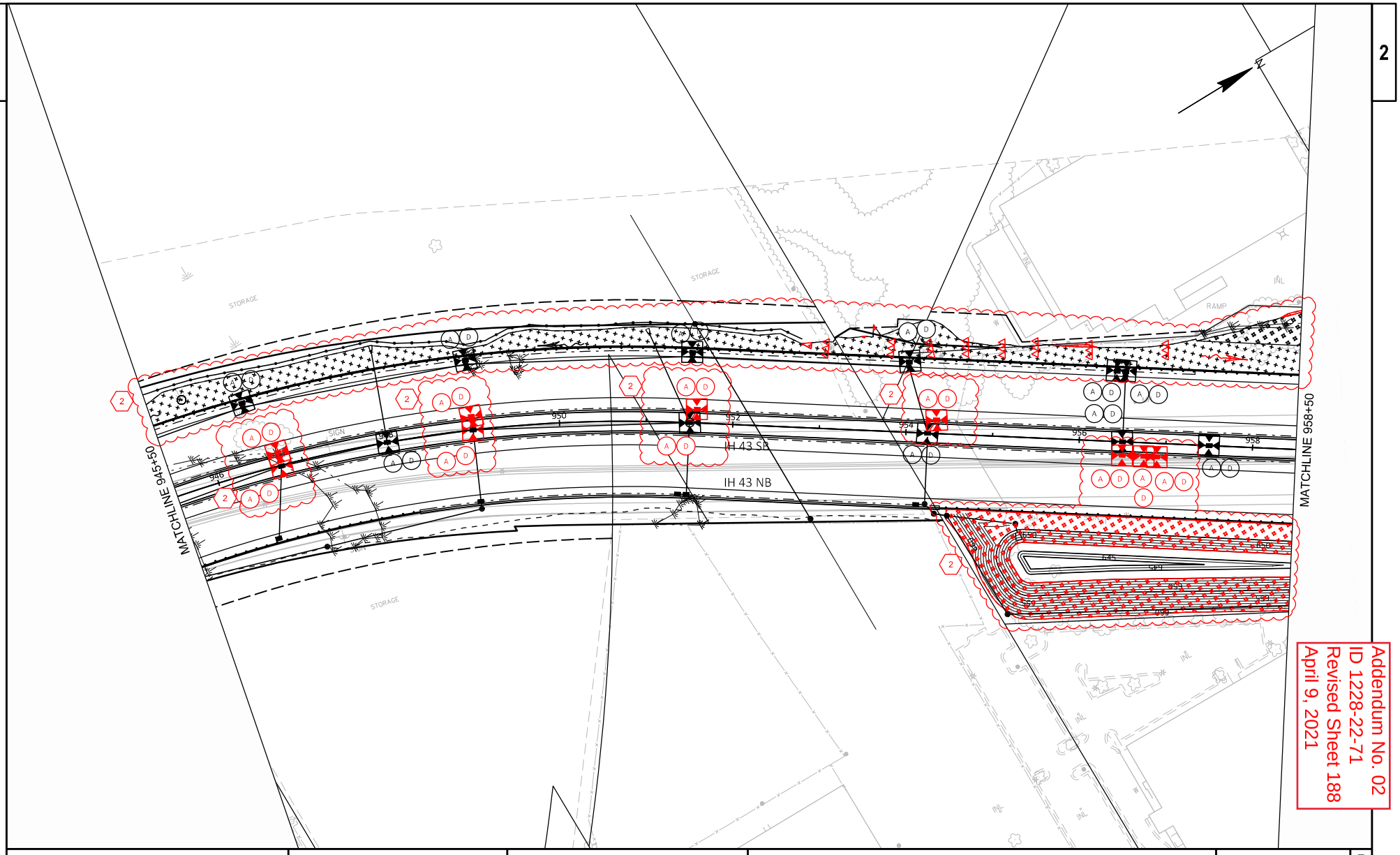
2
2
MATCHLINE 945+50
MATCHLINE 958+50
IH 43 SB
IH 43 NB
STORAGE
STORAGE
STORAGE
SIGN
RAMP
946
948
950
952
954
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968
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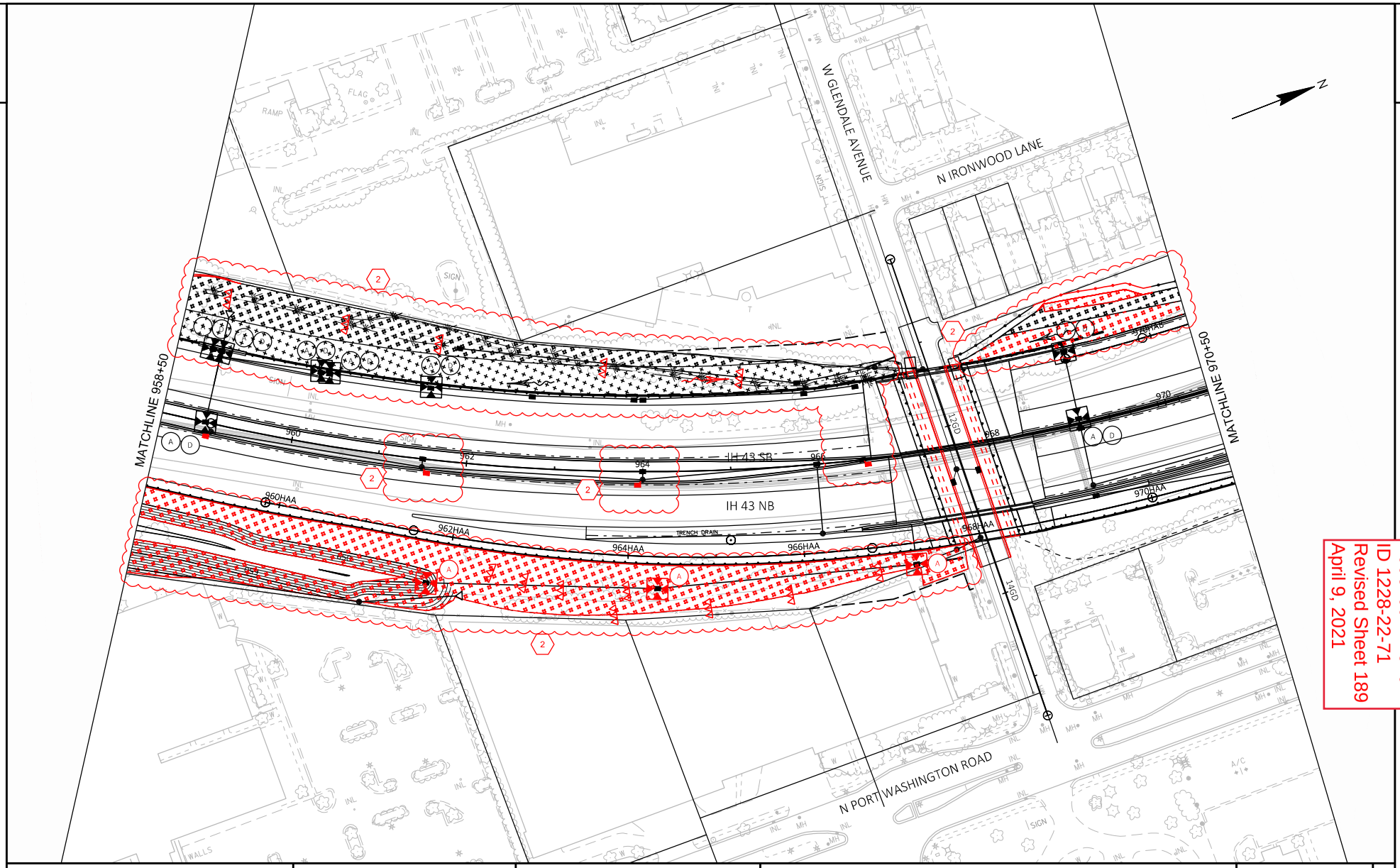

Addendum No. 02
ID 1228-22-71
Revised Sheet 189
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 189	E

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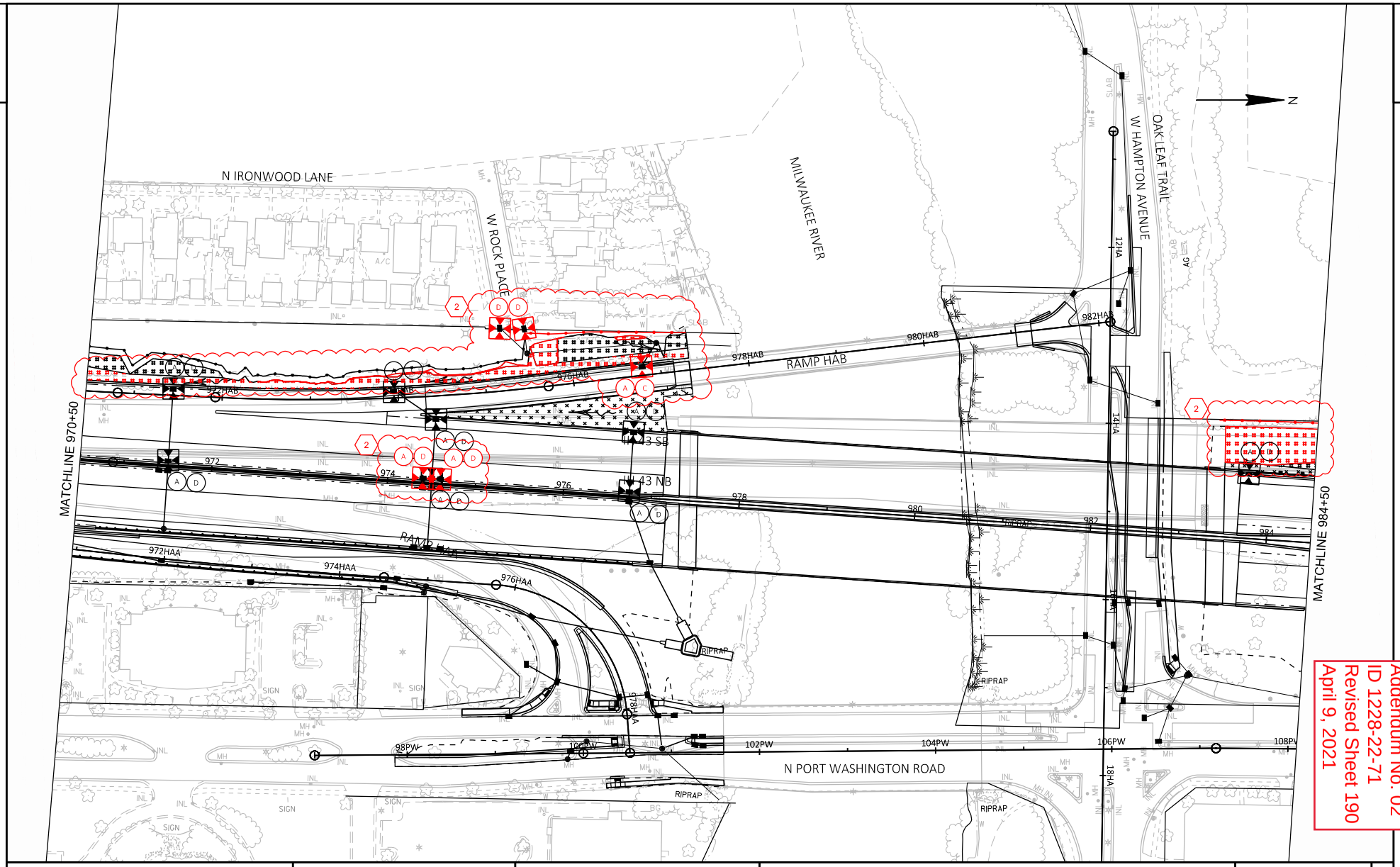
WISDOT/CADDS SHEET 42

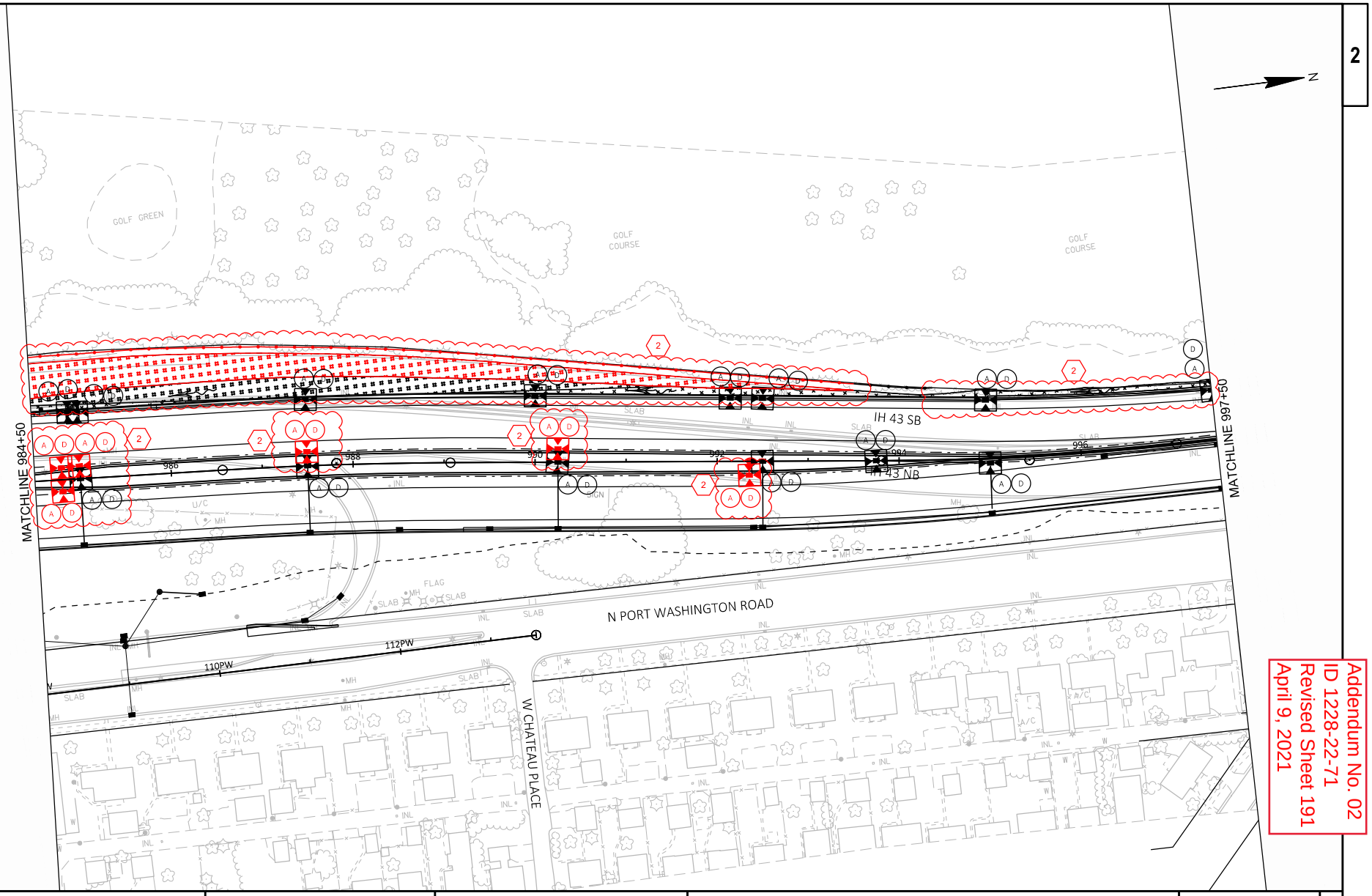


Addendum No. 02
ID 1228-22-71
Revised Sheet 190
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 190	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\022019-EC.DWG
LAYOUT NAME - 23
PLOT DATE : 4/7/2021 6:08 PM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

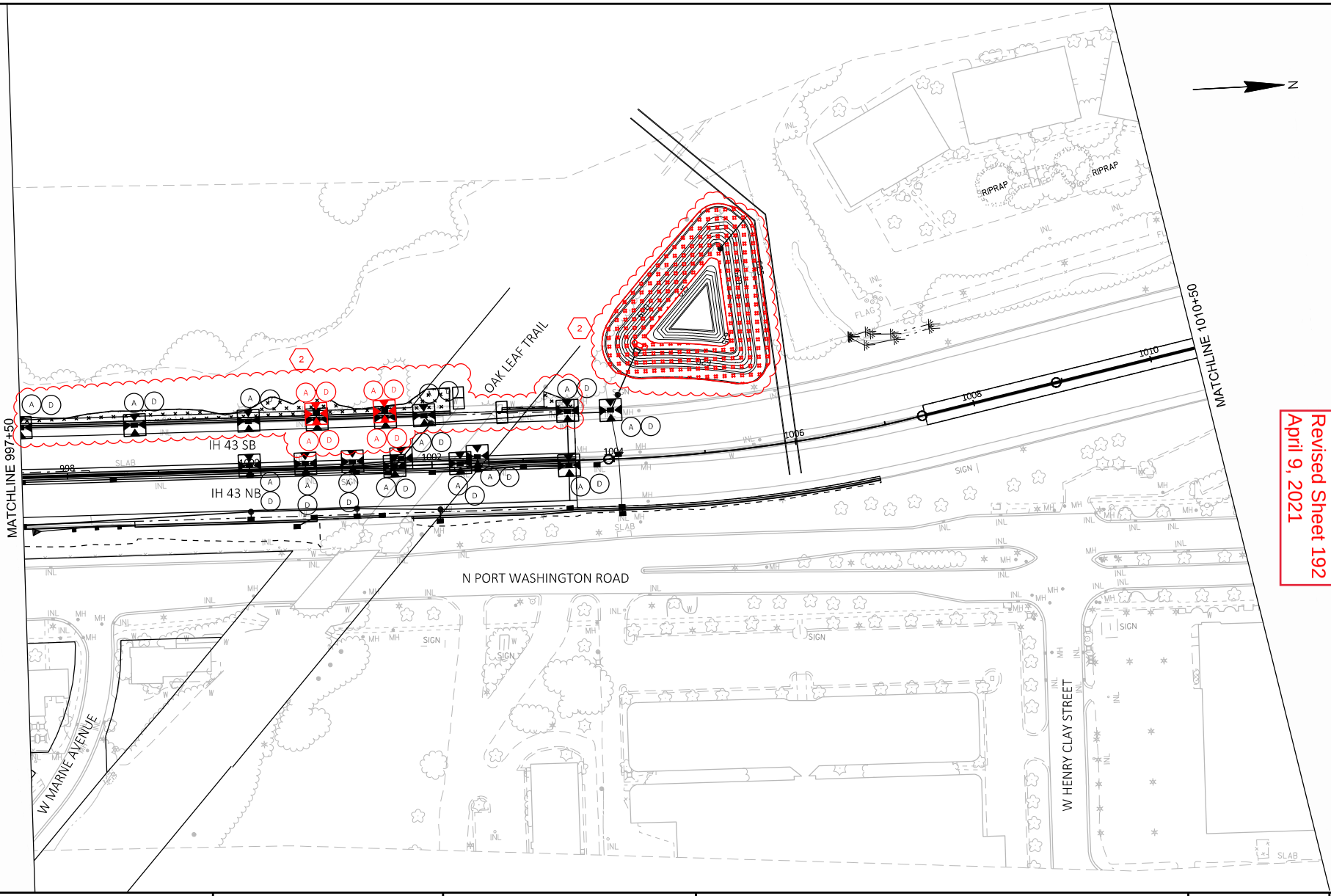
WISDOT/CADDS SHEET 42



Addendum No. 02
ID 1228-22-71
Revised Sheet 191
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 191	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\022019-EC.DWG
LAYOUT NAME - 24
PLOT DATE : 4/7/2021 6:09 PM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 192
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 192	E

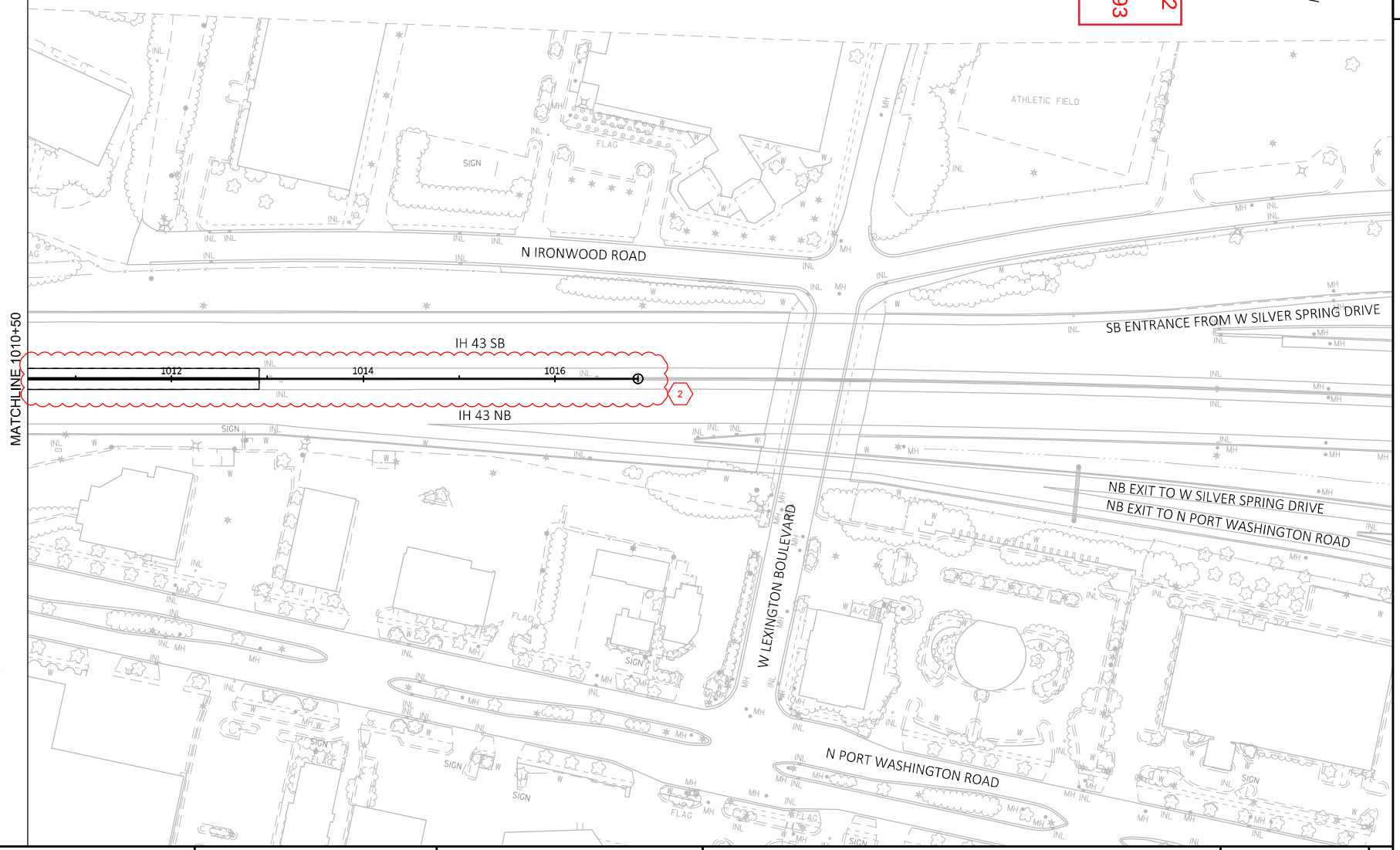
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\022019-EC.DWG
LAYOUT NAME - 25
PLOT DATE : 4/7/2021 6:10 PM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

Addendum No. 02
ID 1228-22-71
Revised Sheet 193
April 9, 2021

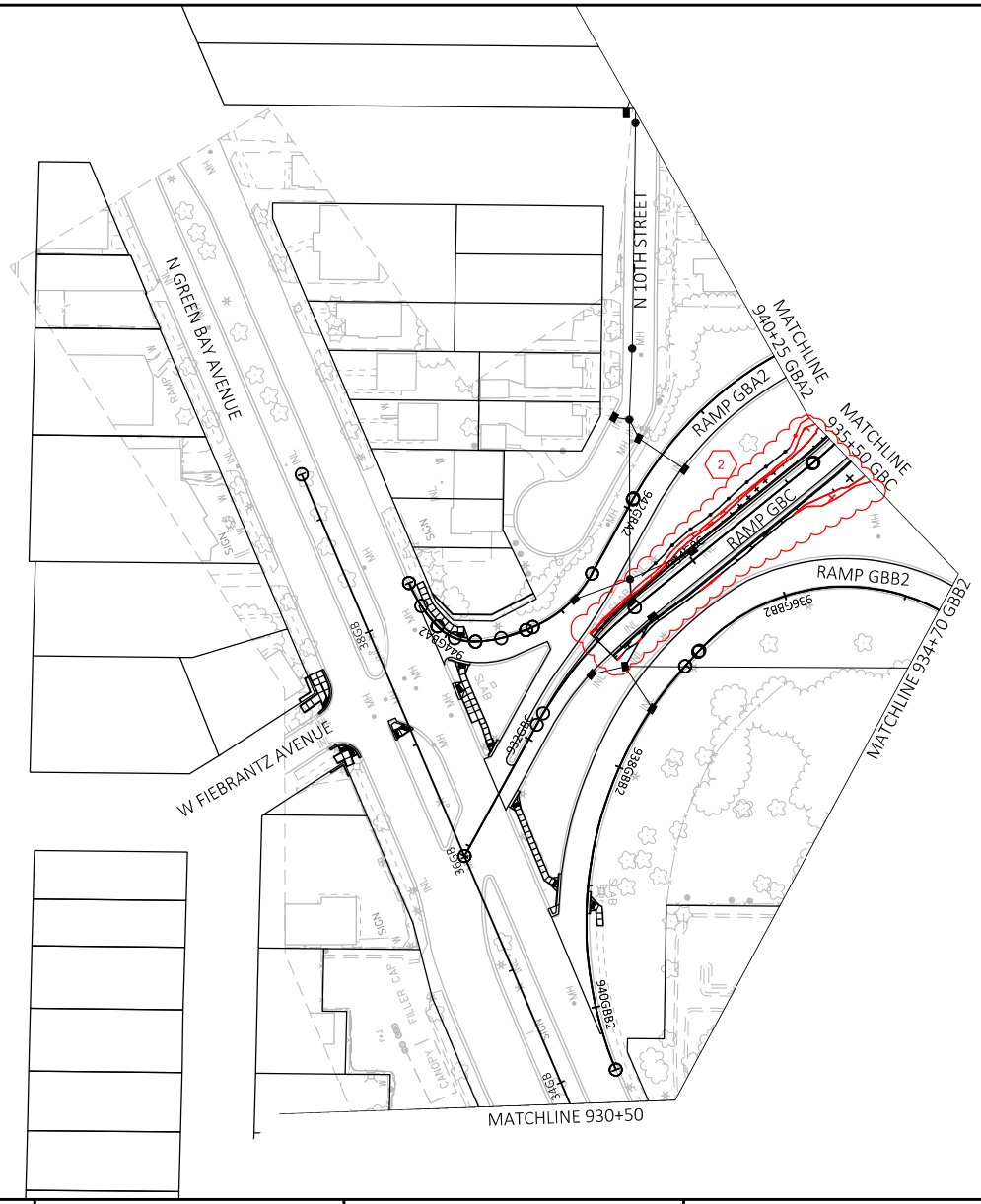
2

2



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 193	E

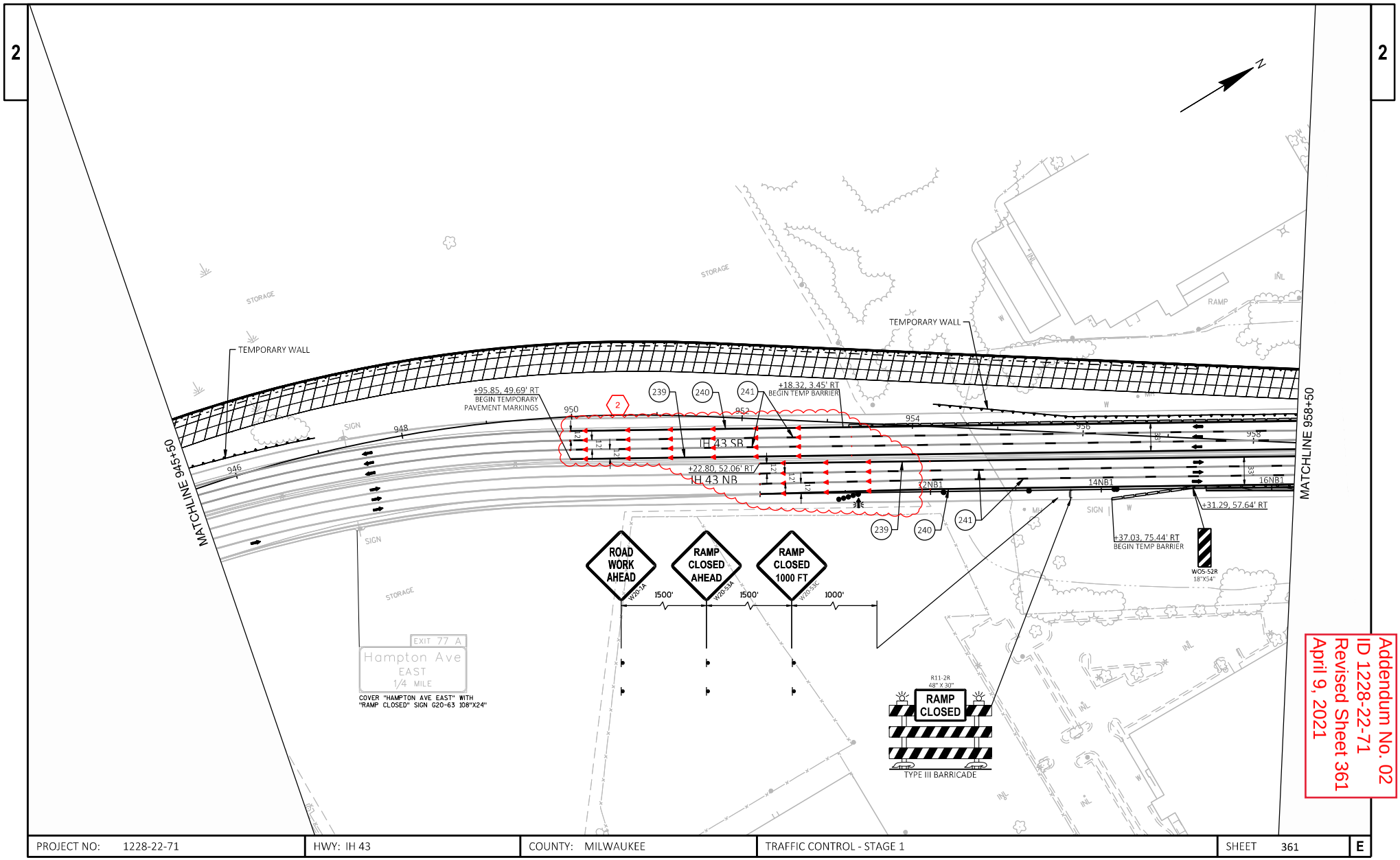
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\022019-EC.DWG
LAYOUT NAME - 26
PLOT DATE : 4/7/2021 6:10 PM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 194
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	EROSION CONTROL - STAGE 2	SHEET 194	E

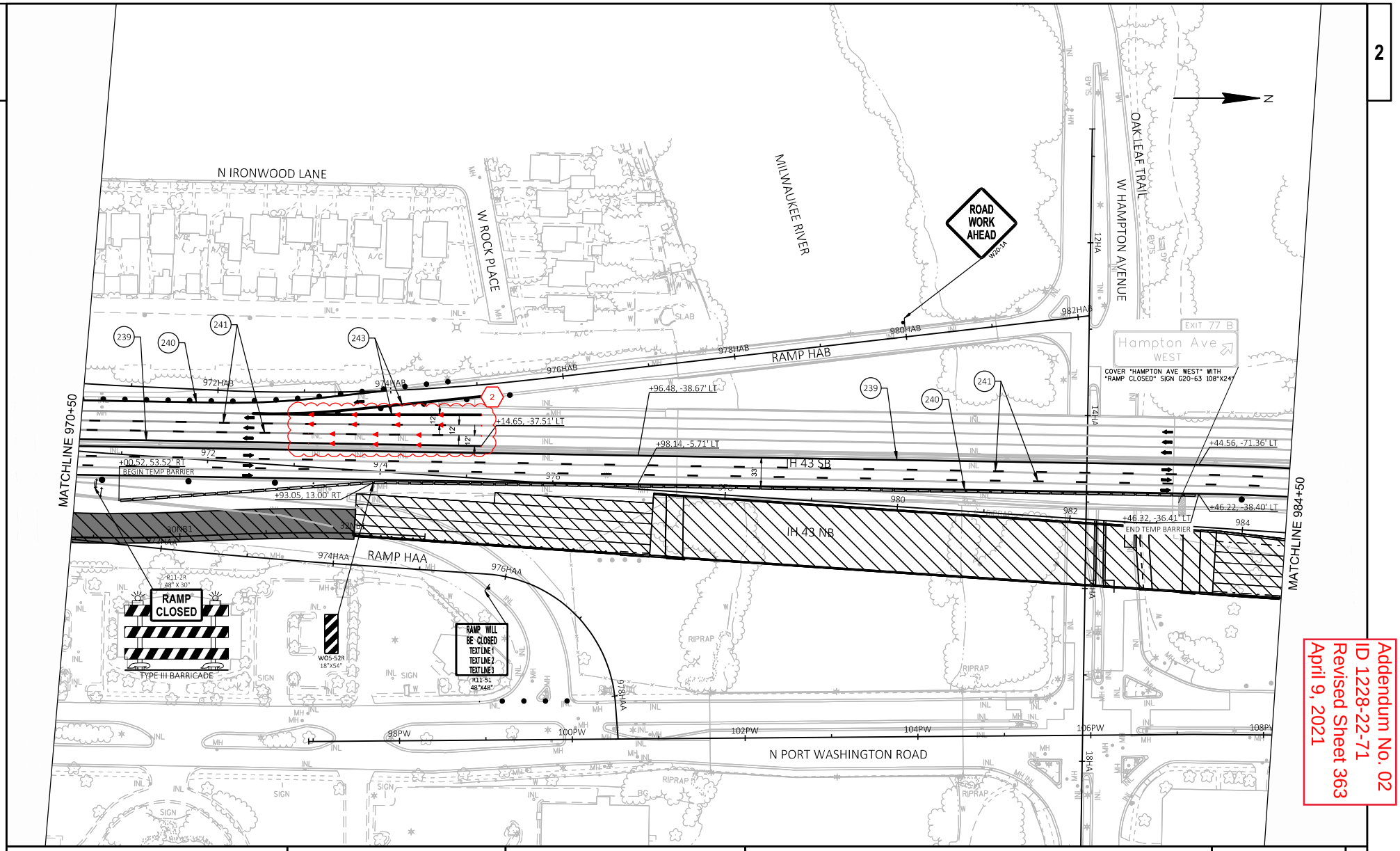
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\022019-EC.DWG
LAYOUT NAME - 27
PLOT DATE : 4/7/2021 6:11 PM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



Addendum No. 02
ID 1228-22-71
Revised Sheet 361
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 361	E

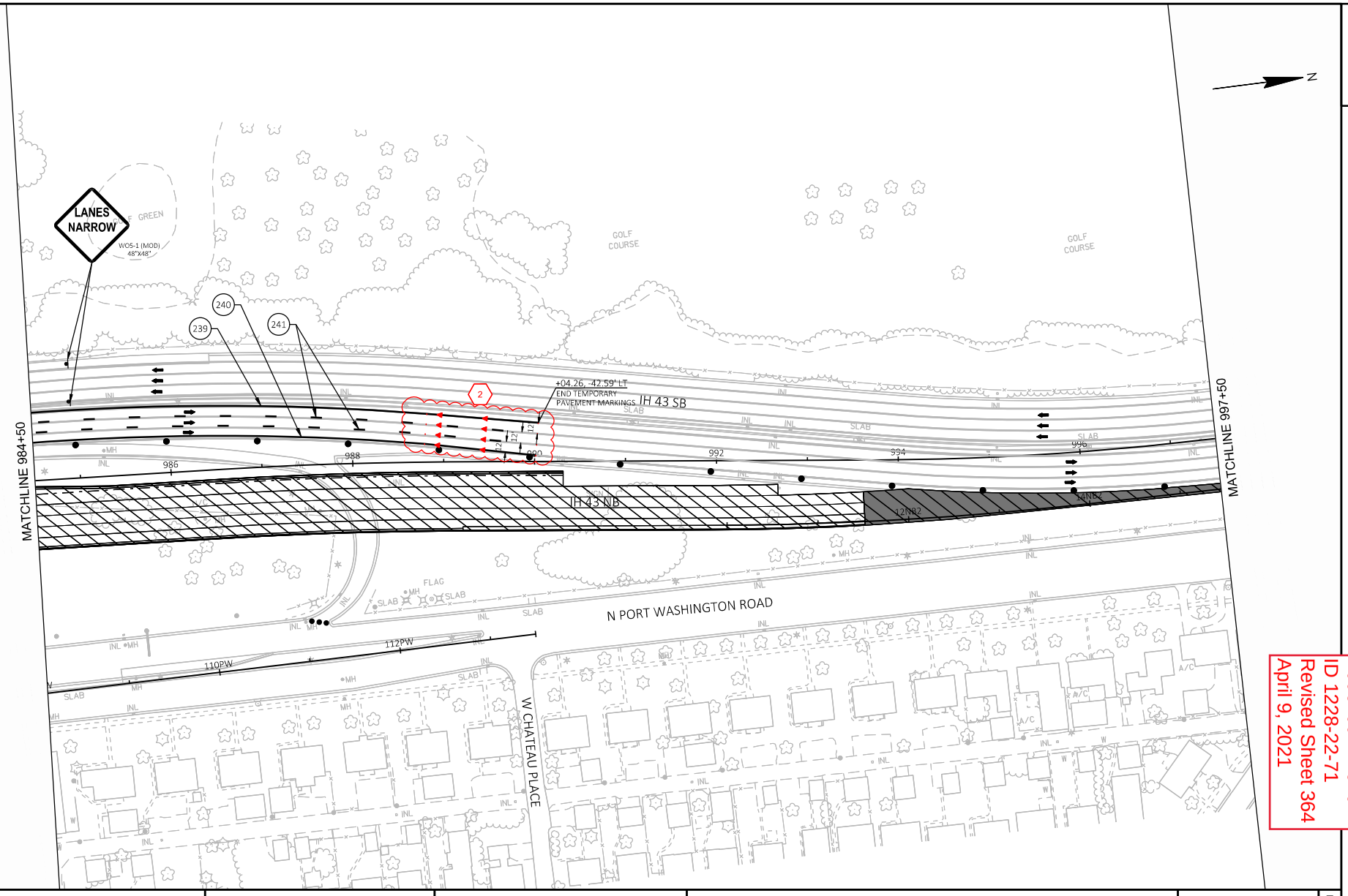
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST1-3ST.DWG
LAYOUT NAME - 03
PLOT DATE : 4/6/2021 5:56 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



Addendum No. 02
ID 1228-22-71
Revised Sheet 363
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 363	E

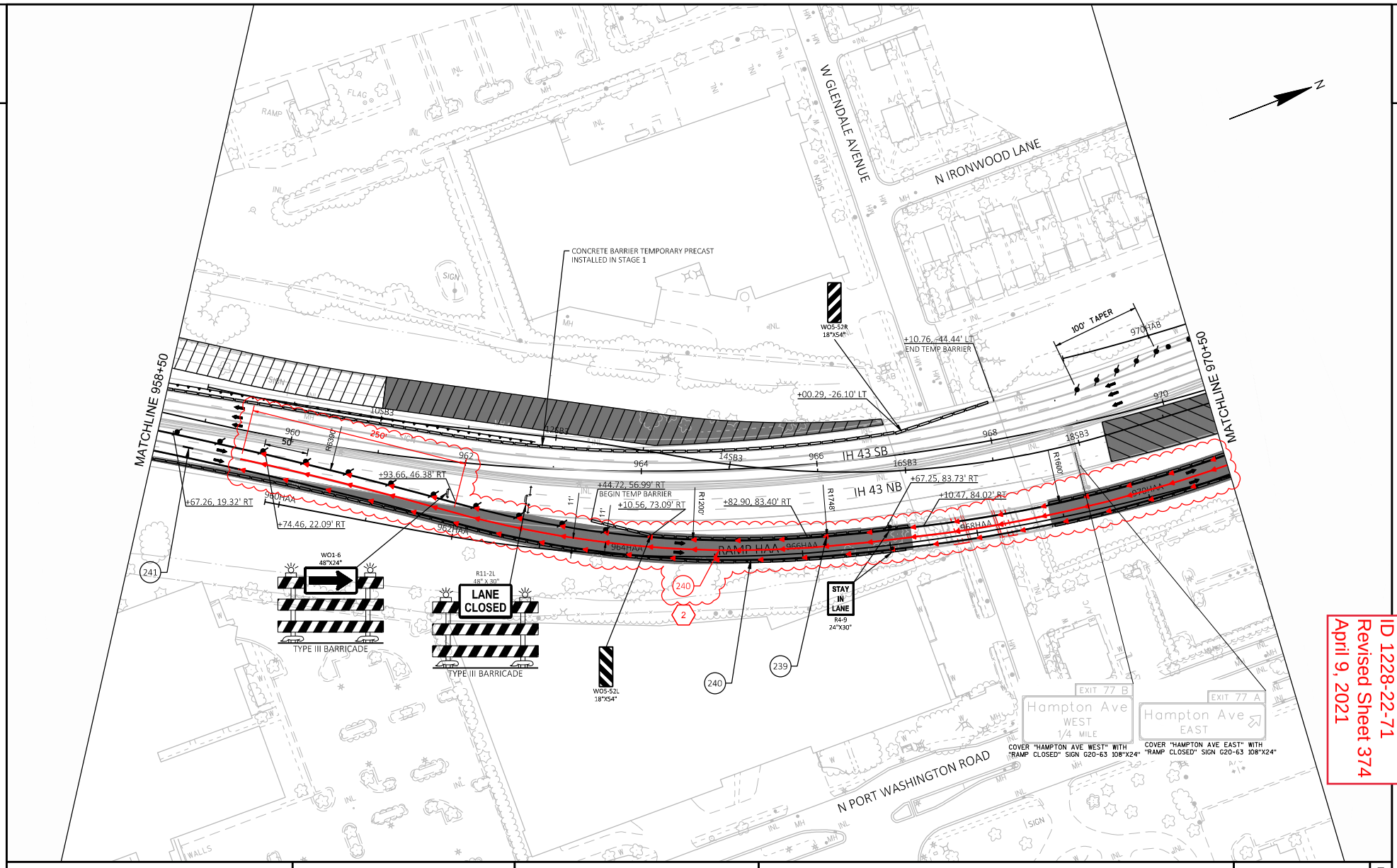
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST1-3ST.DWG
LAYOUT NAME - 05
PLOT DATE : 4/6/2021 6:19 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 364
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SHEET 364	E

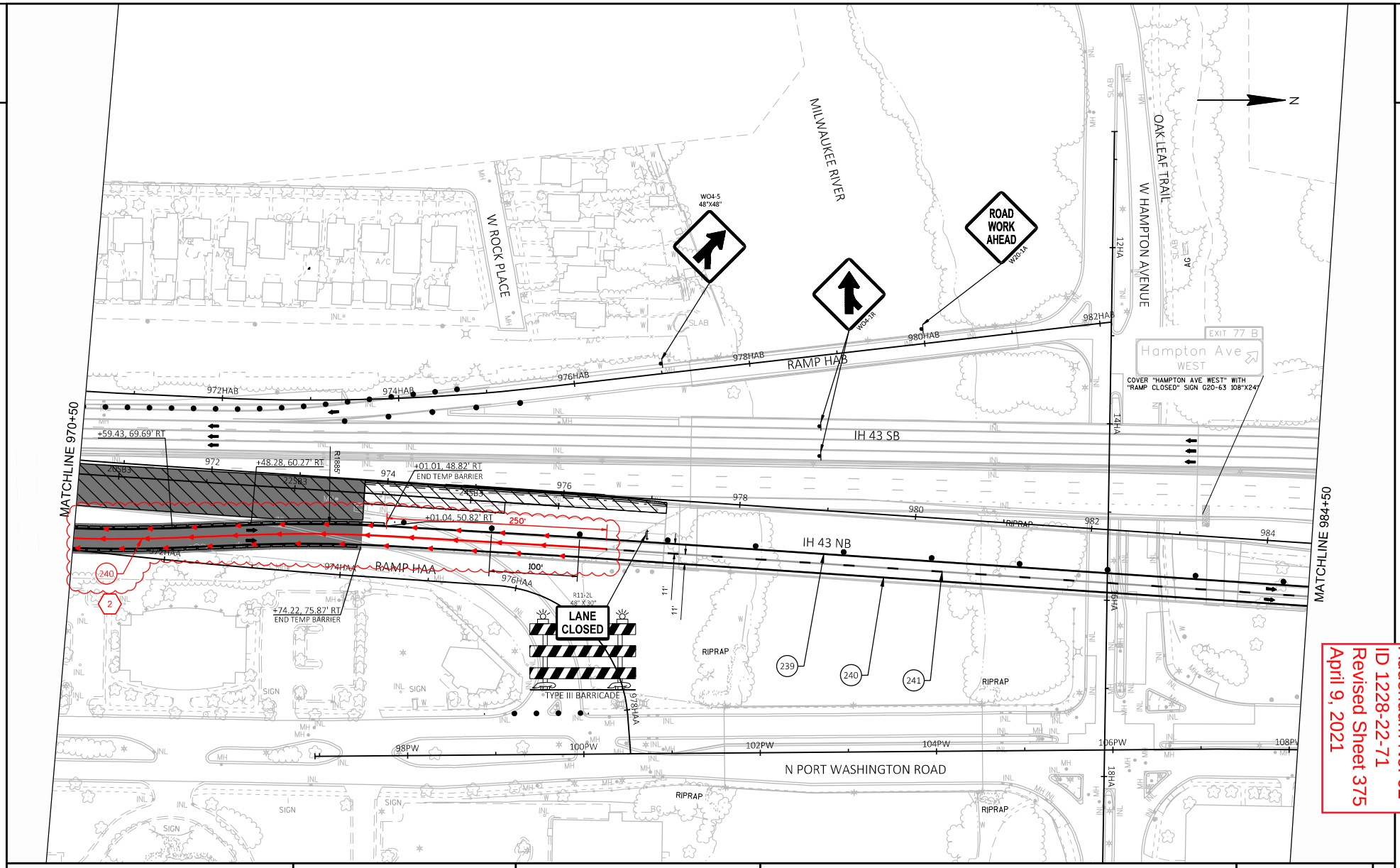
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST1-3ST.DWG
LAYOUT NAME - 06
PLOT DATE : 4/6/2021 6:20 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 374
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 374	E

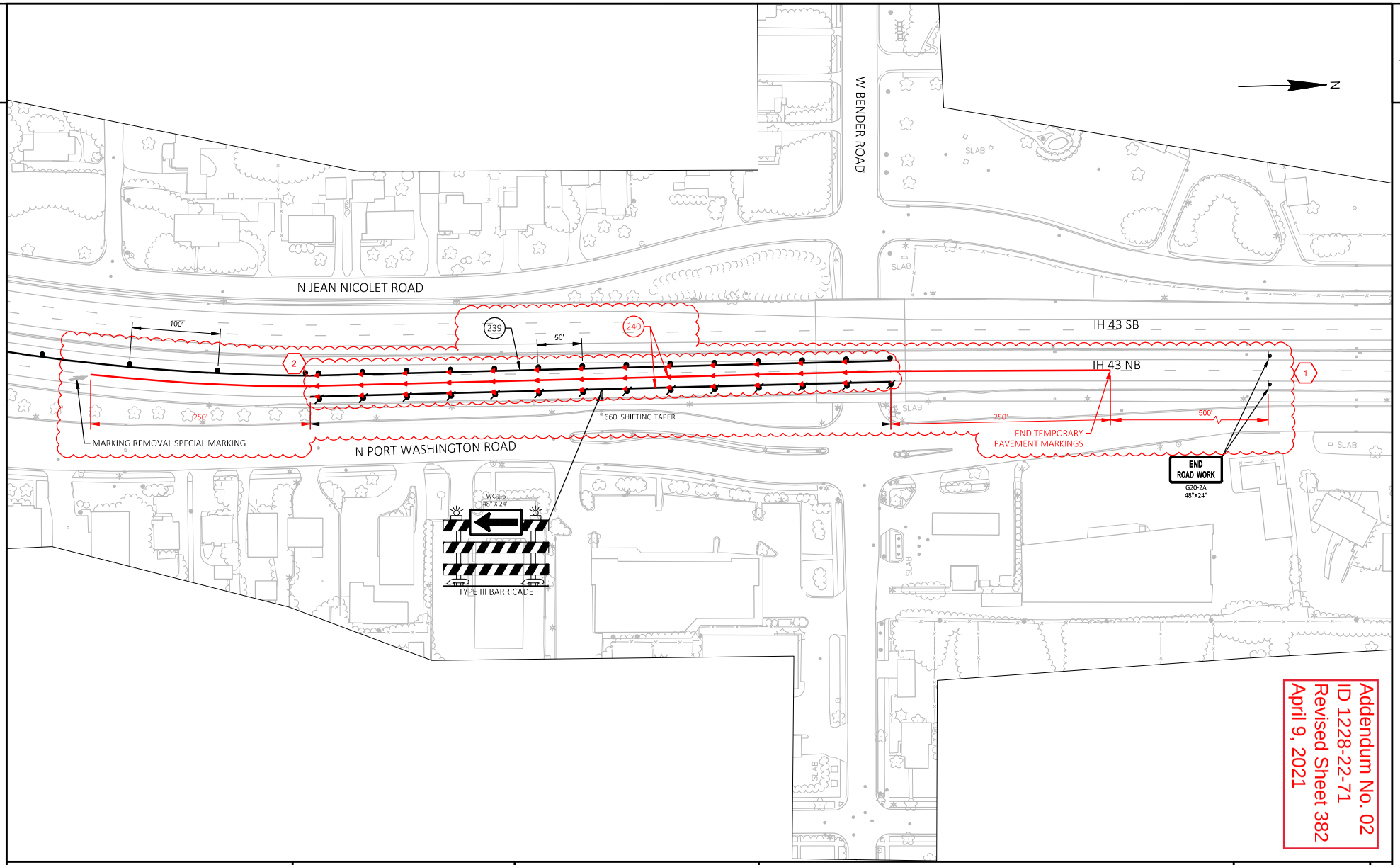
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2A-3ST.DWG
LAYOUT NAME - 04
PLOT DATE : 4/7/2021 2:44 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 375
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 375	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2A-3ST.DWG
LAYOUT NAME - 05
PLOT DATE : 4/7/2021 2:45 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

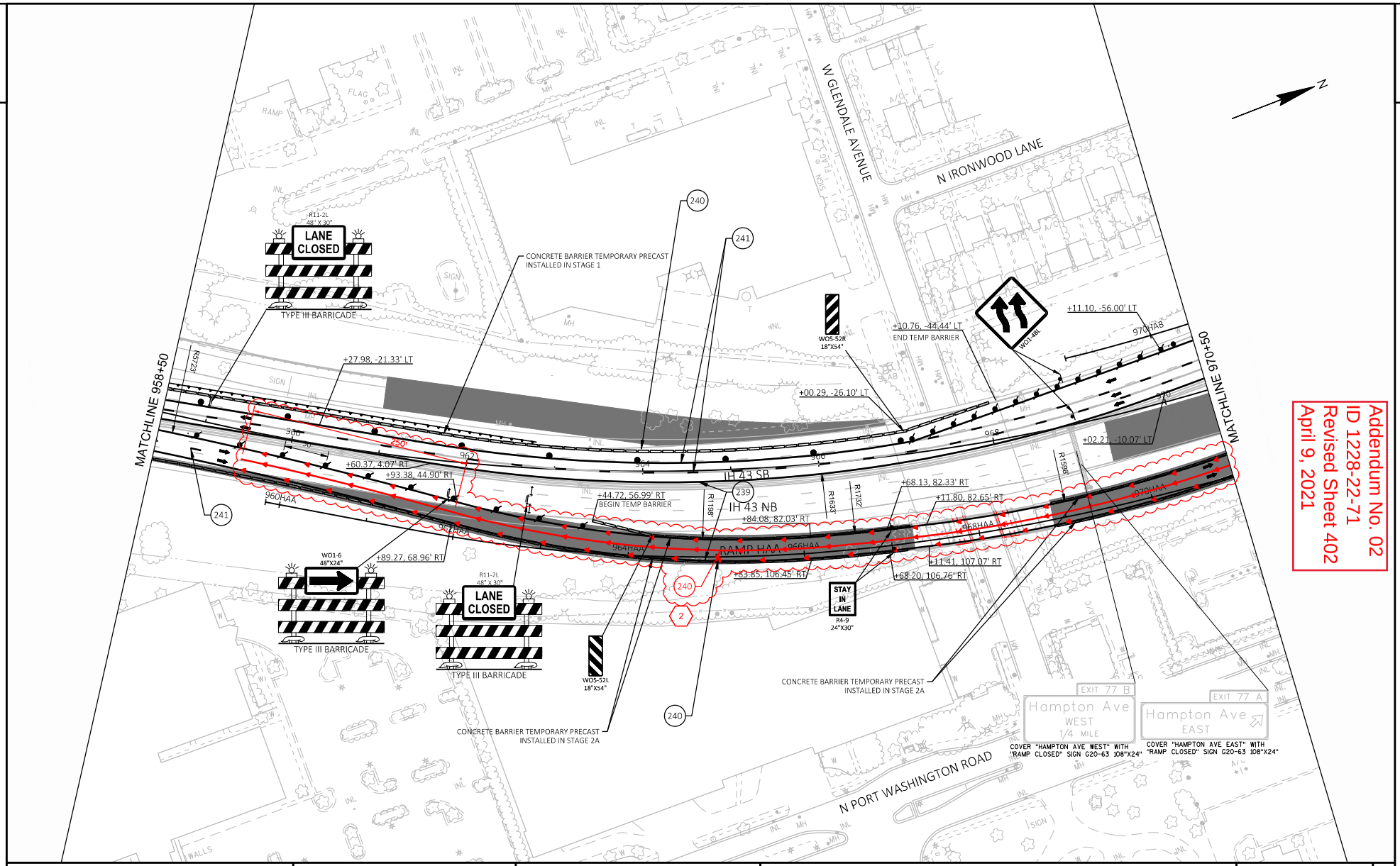


PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2A	SHEET 382	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2A-3ST.DWG
LAYOUT NAME - 12

PLOT DATE : 4/7/2021 2:28 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

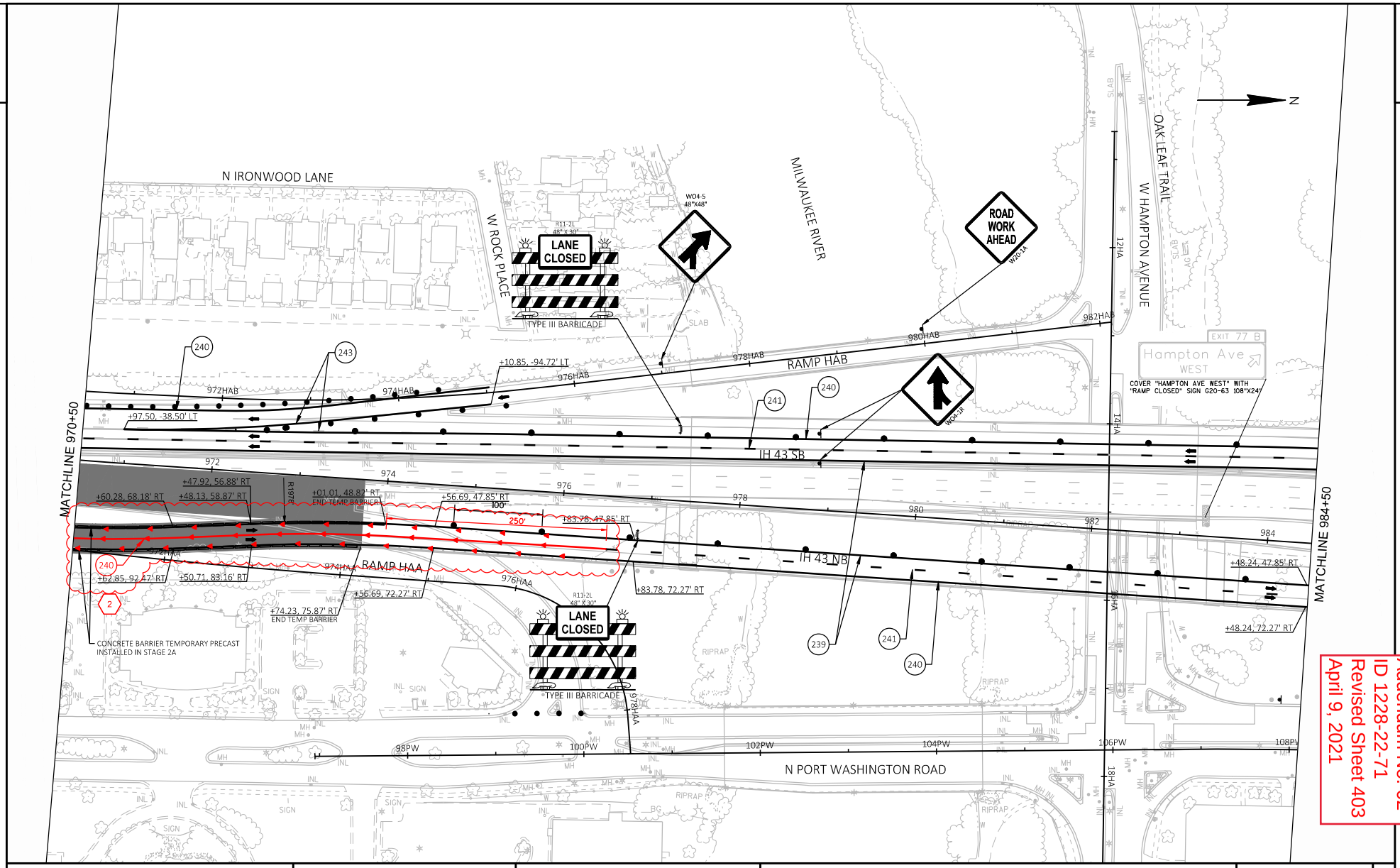


Addendum No. 02
ID 1228-22-71
Revised Sheet 402
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C1	SHEET 402	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C1-3ST.DWG
LAYOUT NAME - 04
PLOT DATE : 4/7/2021 4:46 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

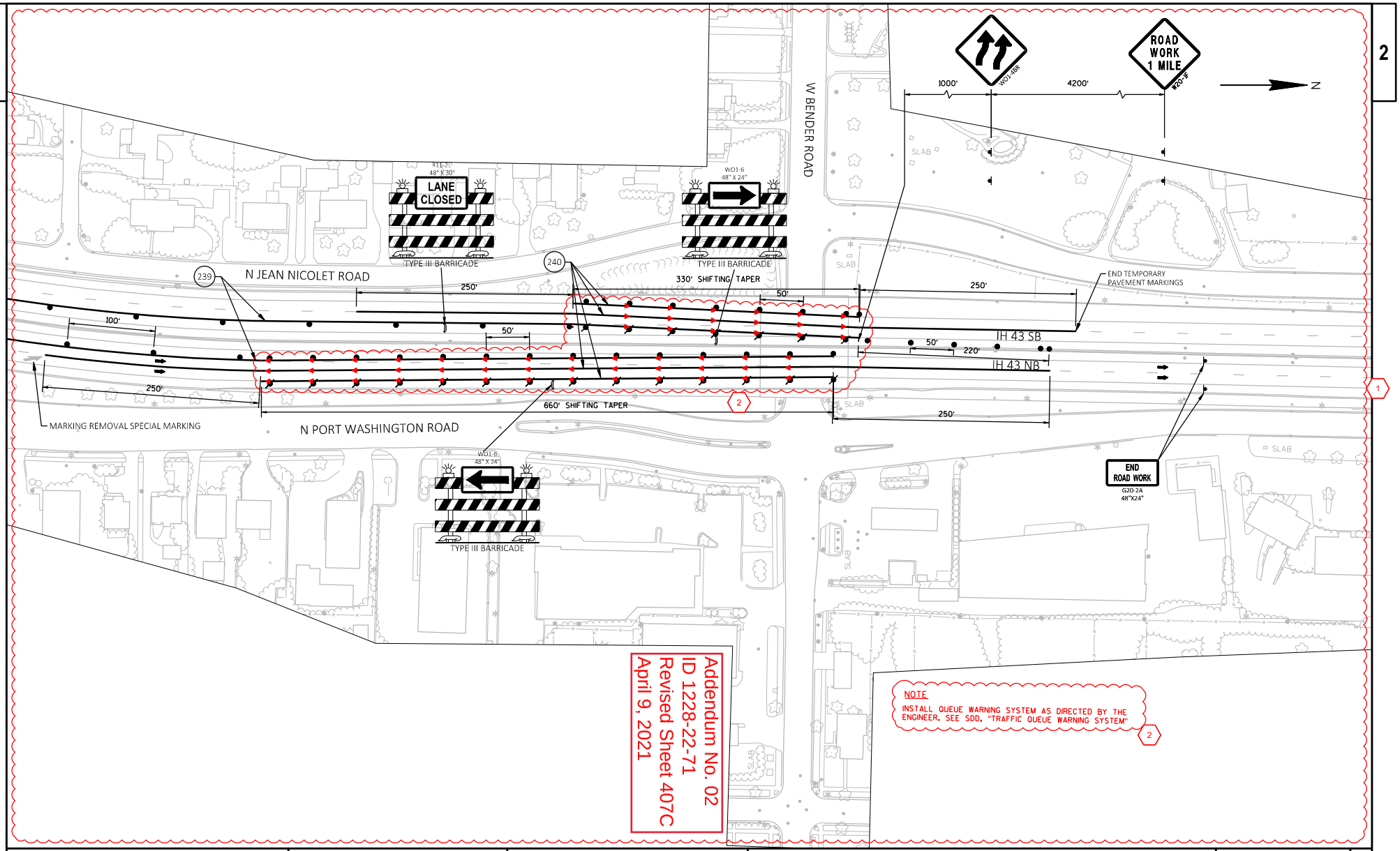
WISDOT/CADDS SHEET 42



Addendum No. 02
ID 1228-22-71
Revised Sheet 403
April 9, 2021

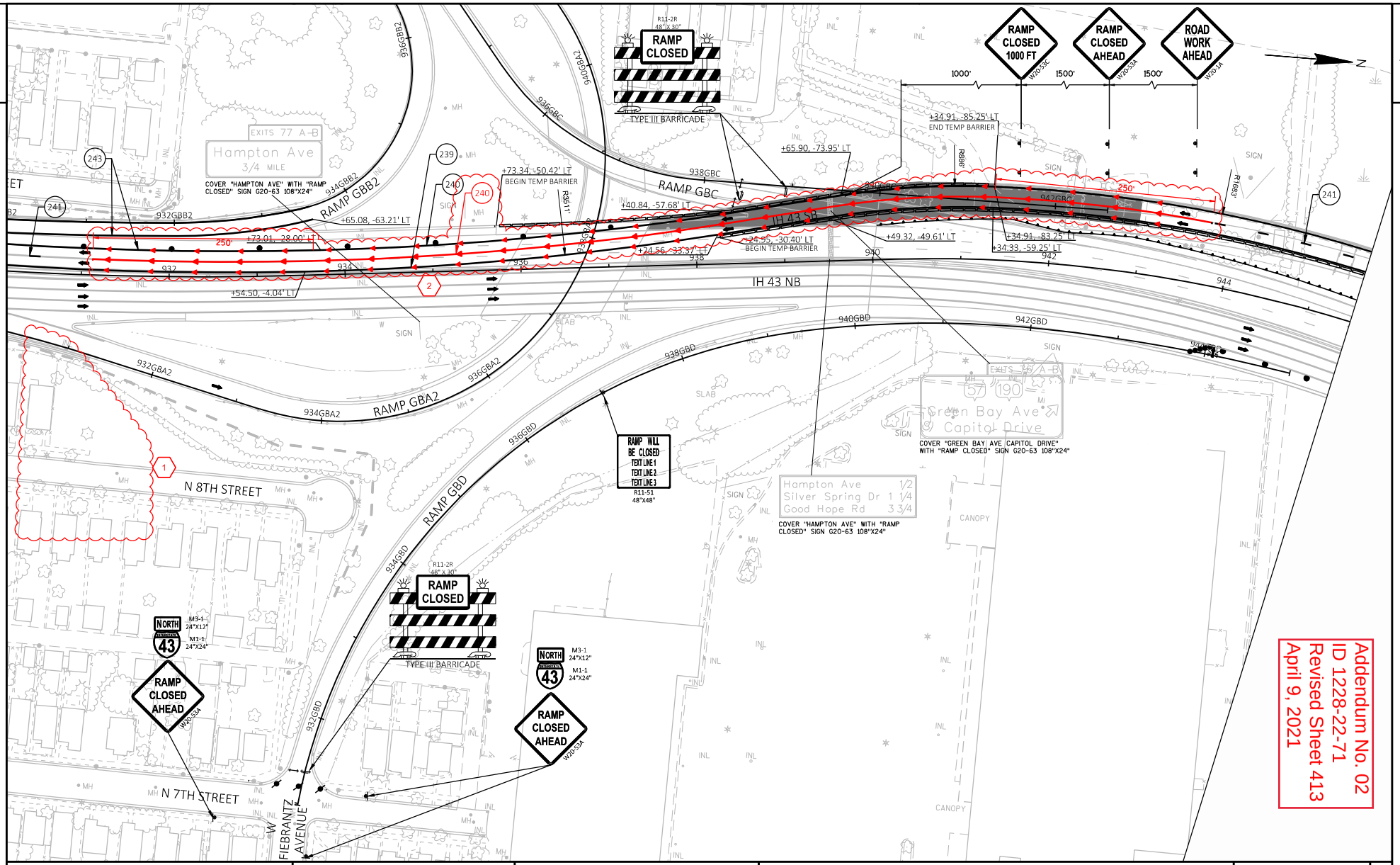
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C1	SHEET 403	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C1-3ST.DWG
LAYOUT NAME - 05
PLOT DATE : 4/7/2021 4:47 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C1	SHEET 407C	E

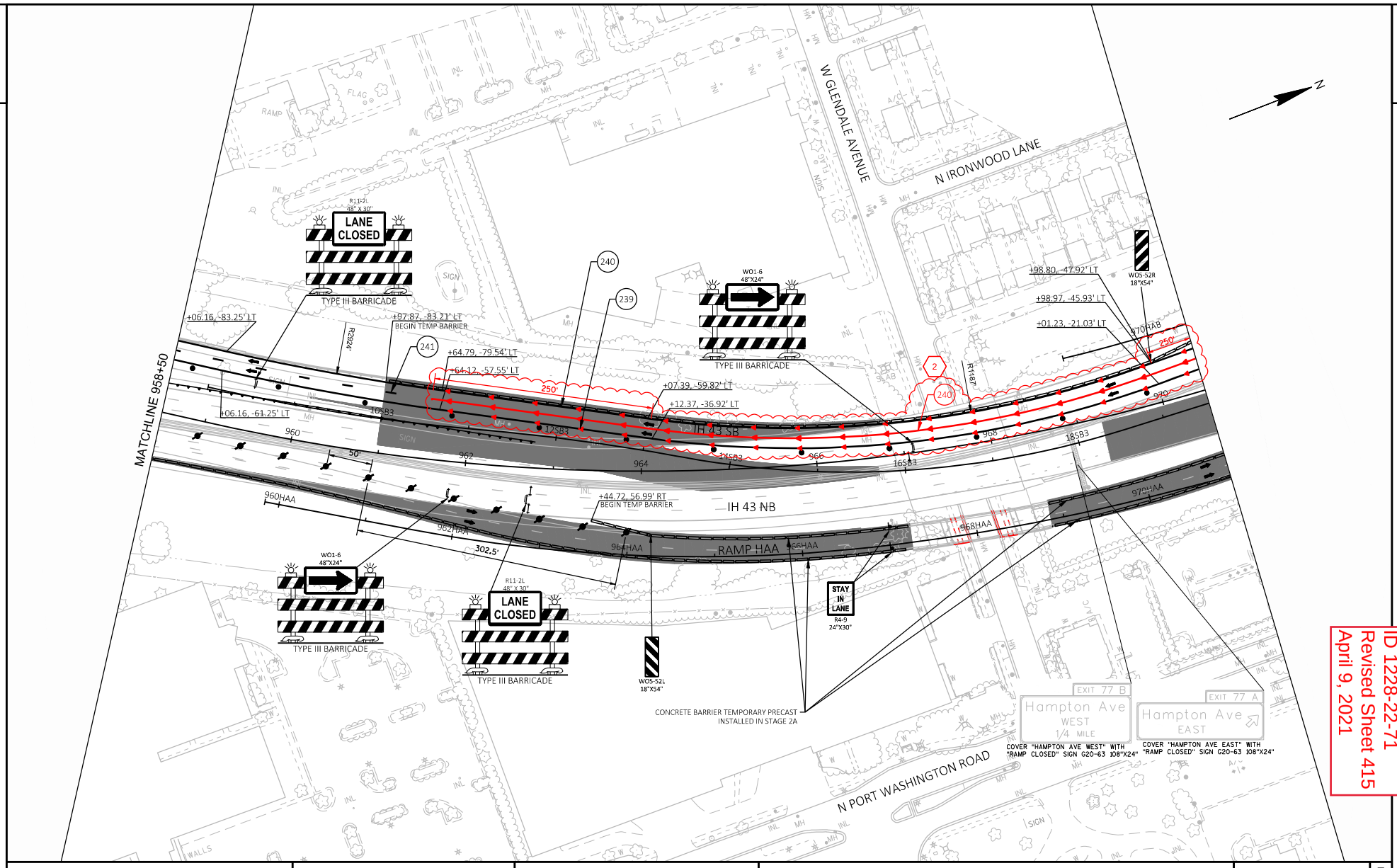
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C1-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 4/8/2021 12:05 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



Addendum No. 02
ID 1228-22-71
Revised Sheet 413
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 413	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 02
PLOT DATE : 4/7/2021 11:50 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



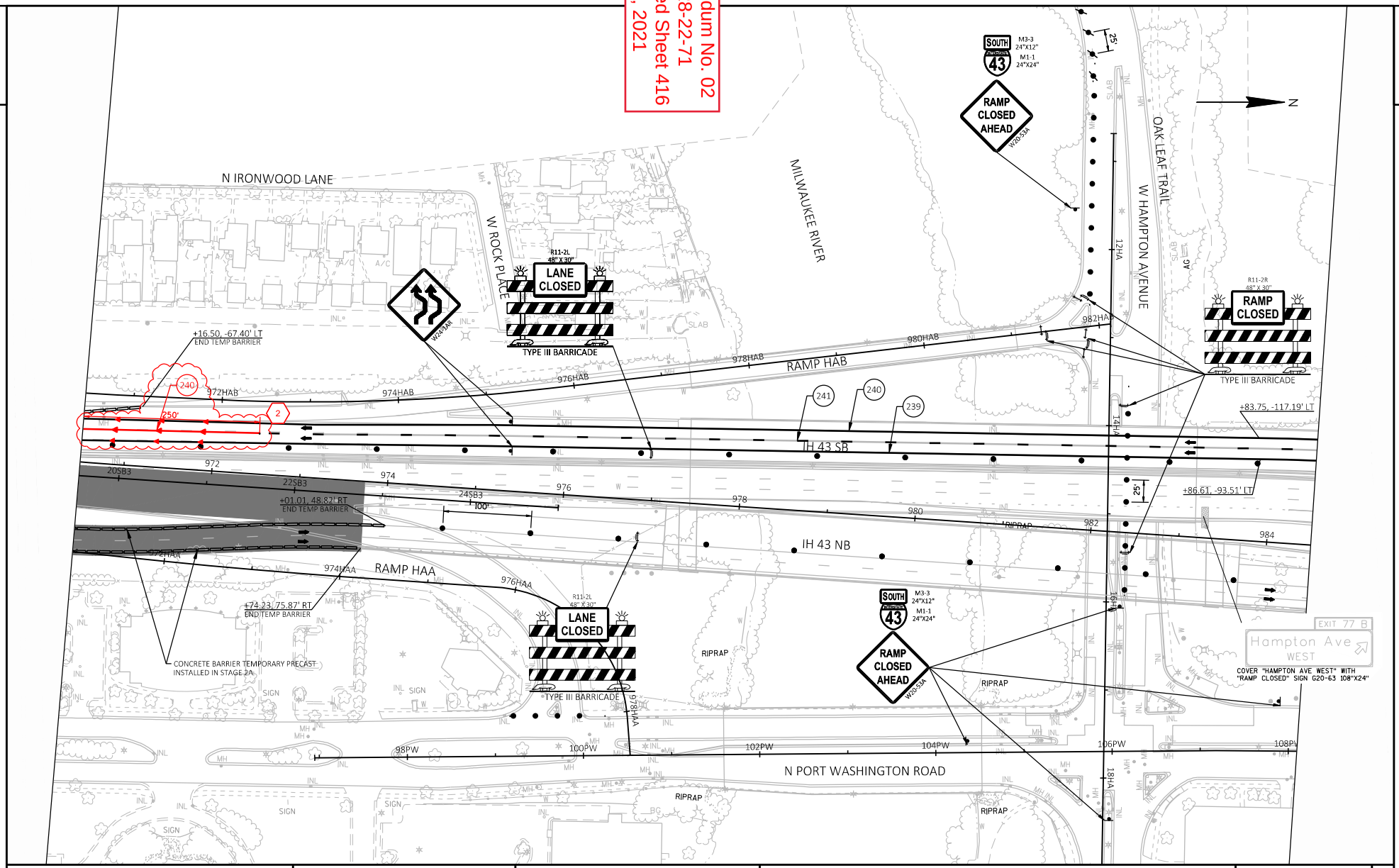
Addendum No. 02
ID 1228-22-71
Revised Sheet 415
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 415	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 04
PLOT DATE : 4/7/2021 11:58 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

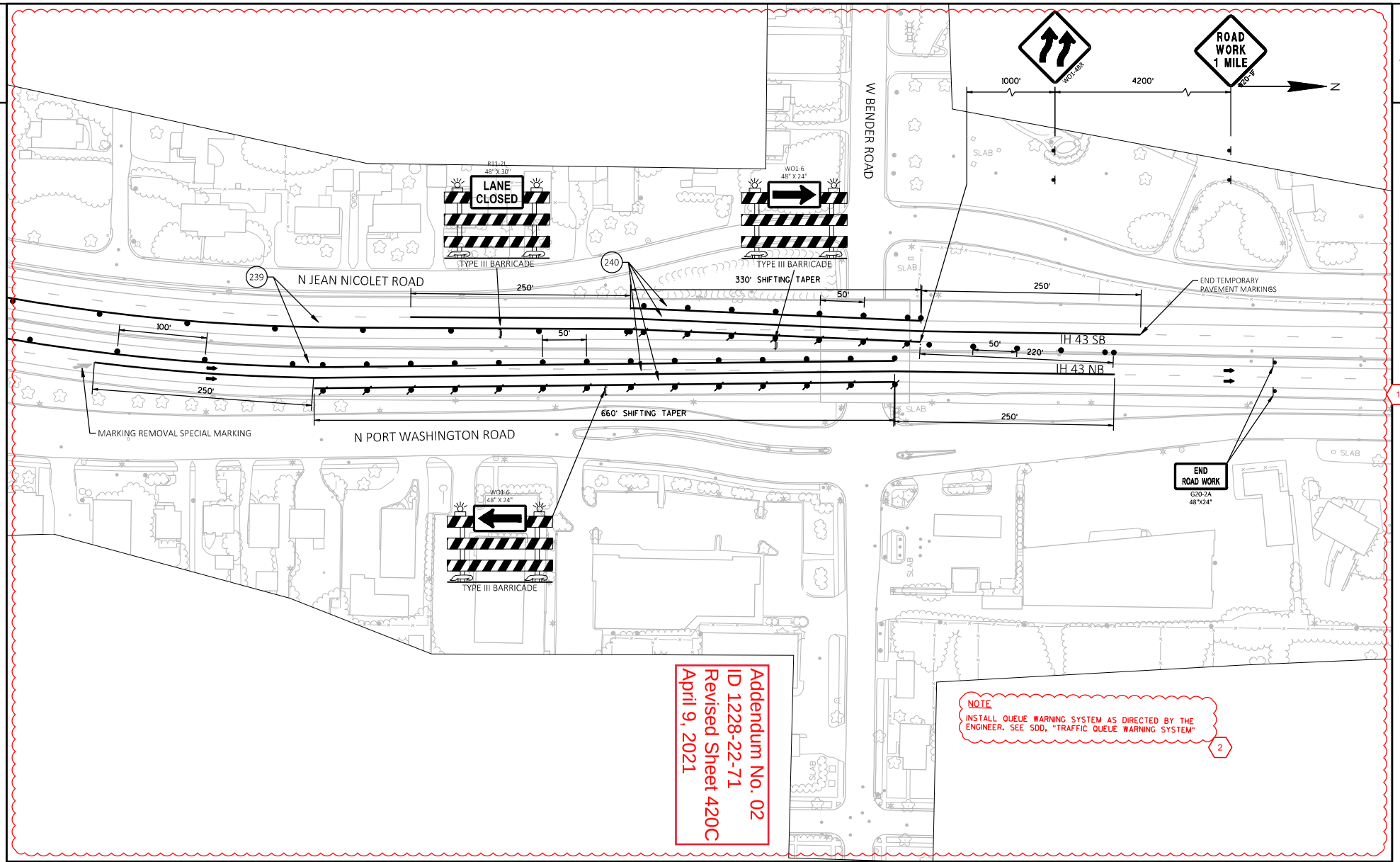
WISDOT/CADDS SHEET 42

Addendum No. 02
ID 1228-22-71
Revised Sheet 416
April 9, 2021



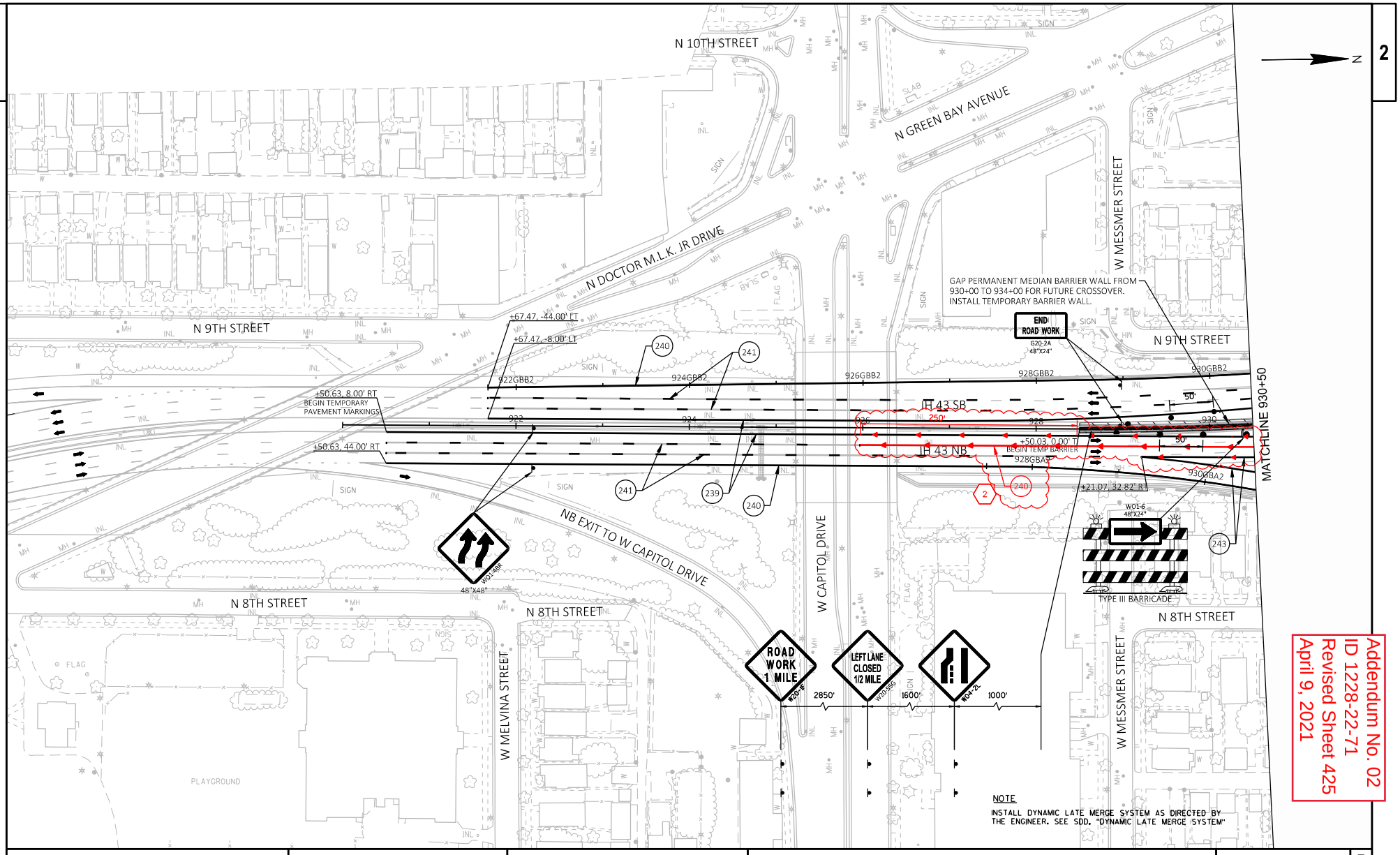
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 416	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 05
PLOT DATE : 4/7/2021 11:59 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C2	SHEET 420C	E

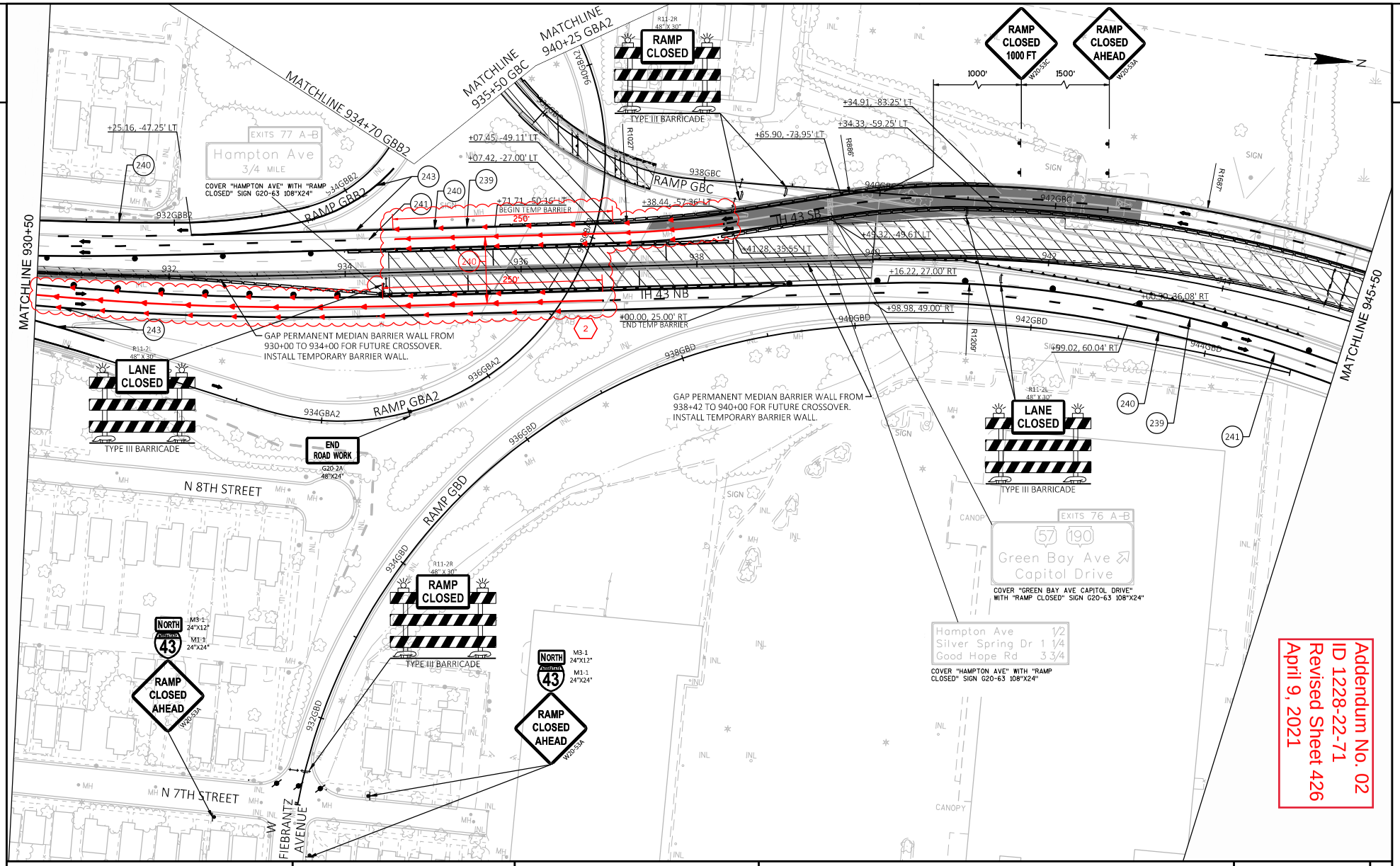
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2C2-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 4/8/2021 12:10 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



Addendum No. 02
ID 1228-22-71
Revised Sheet 425
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 425	E

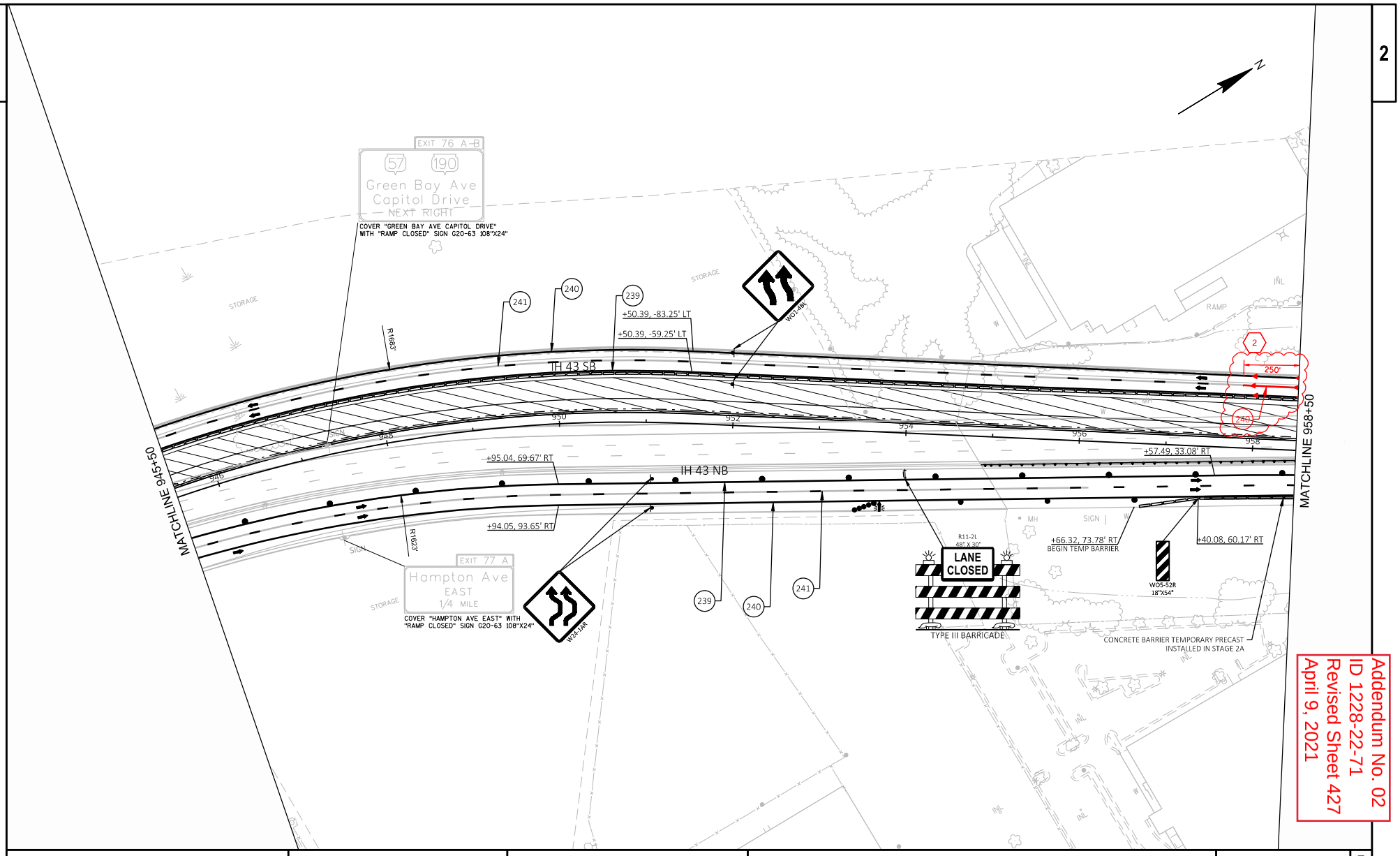
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 01
PLOT DATE : 4/8/2021 1:22 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



Addendum No. 02
ID 1228-22-71
Revised Sheet 426
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 426	E

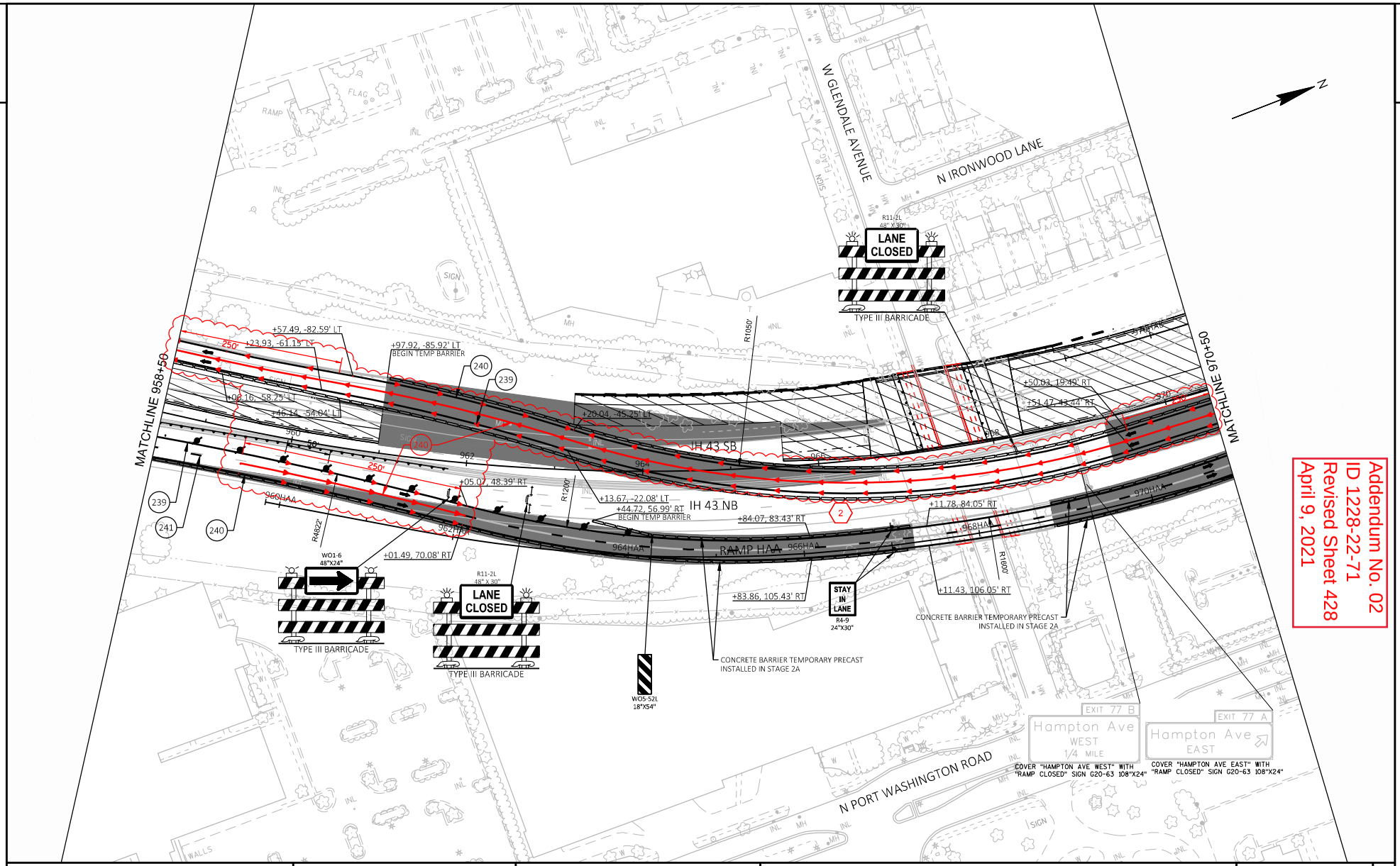
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 02
PLOT DATE : 4/8/2021 1:23 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 427
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 427	E

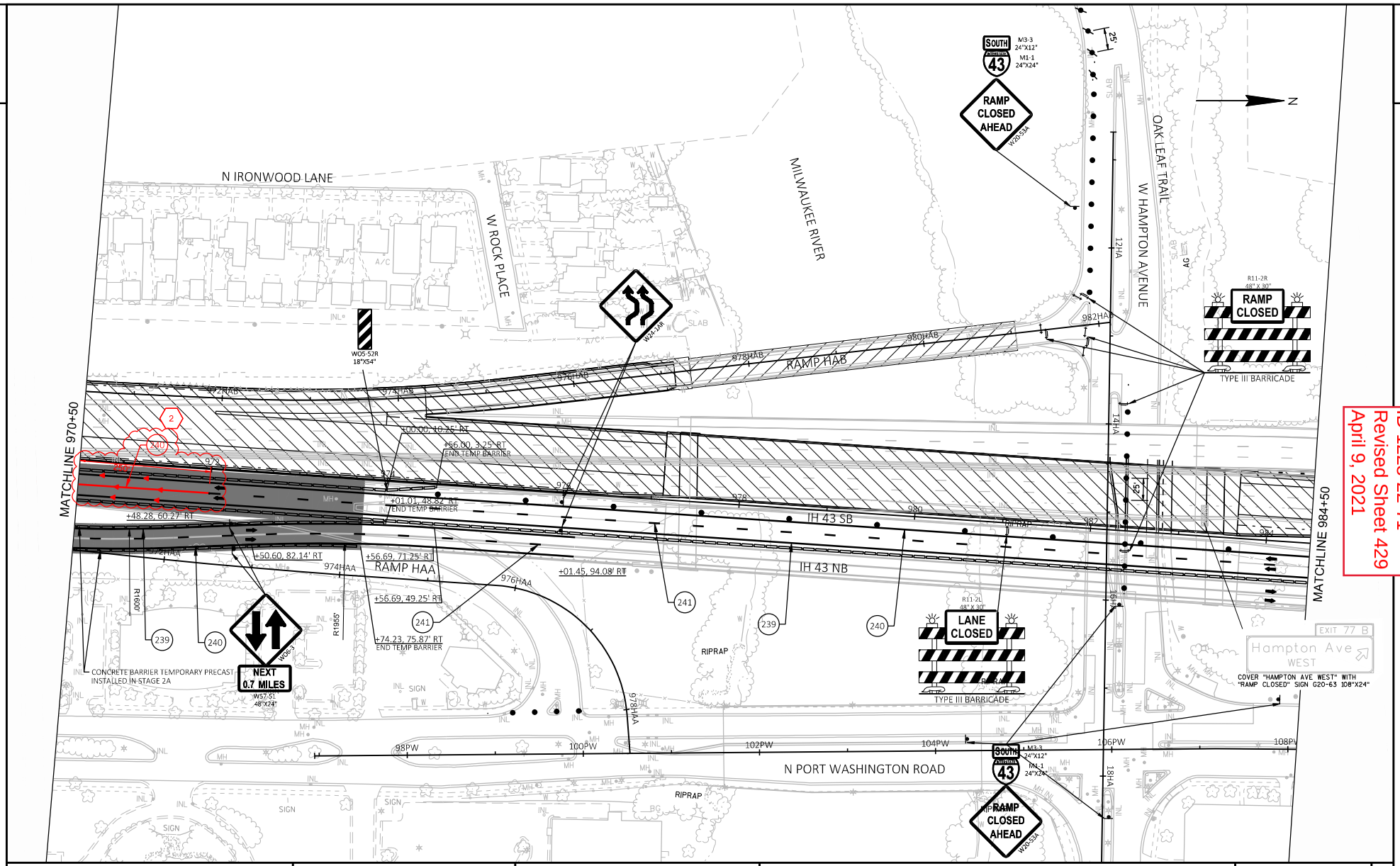
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 03
PLOT DATE : 4/8/2021 1:24 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 428
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 428	E

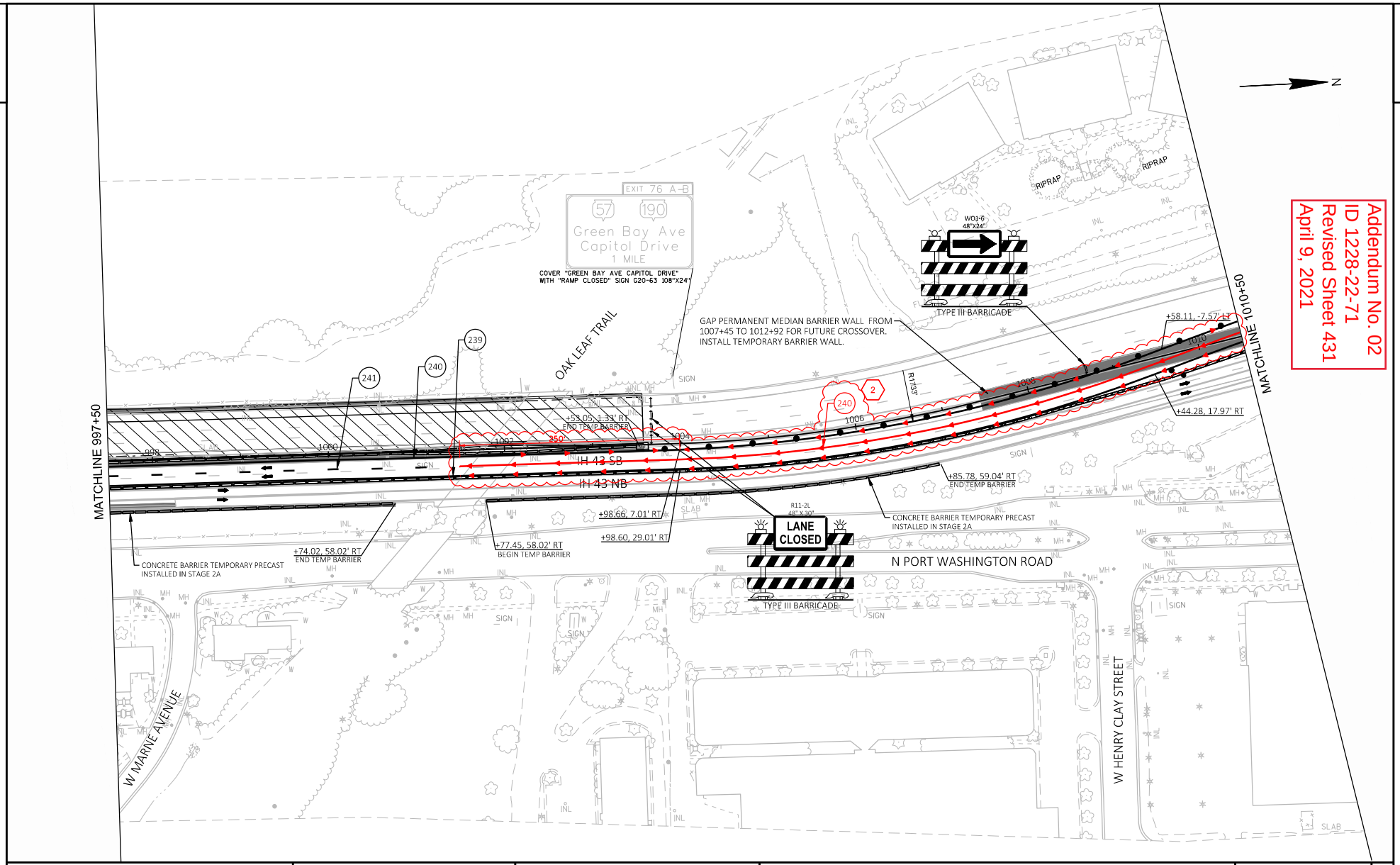
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 04
PLOT DATE : 4/8/2021 1:25 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 429
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 429	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 05
PLOT DATE : 4/8/2021 1:25 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

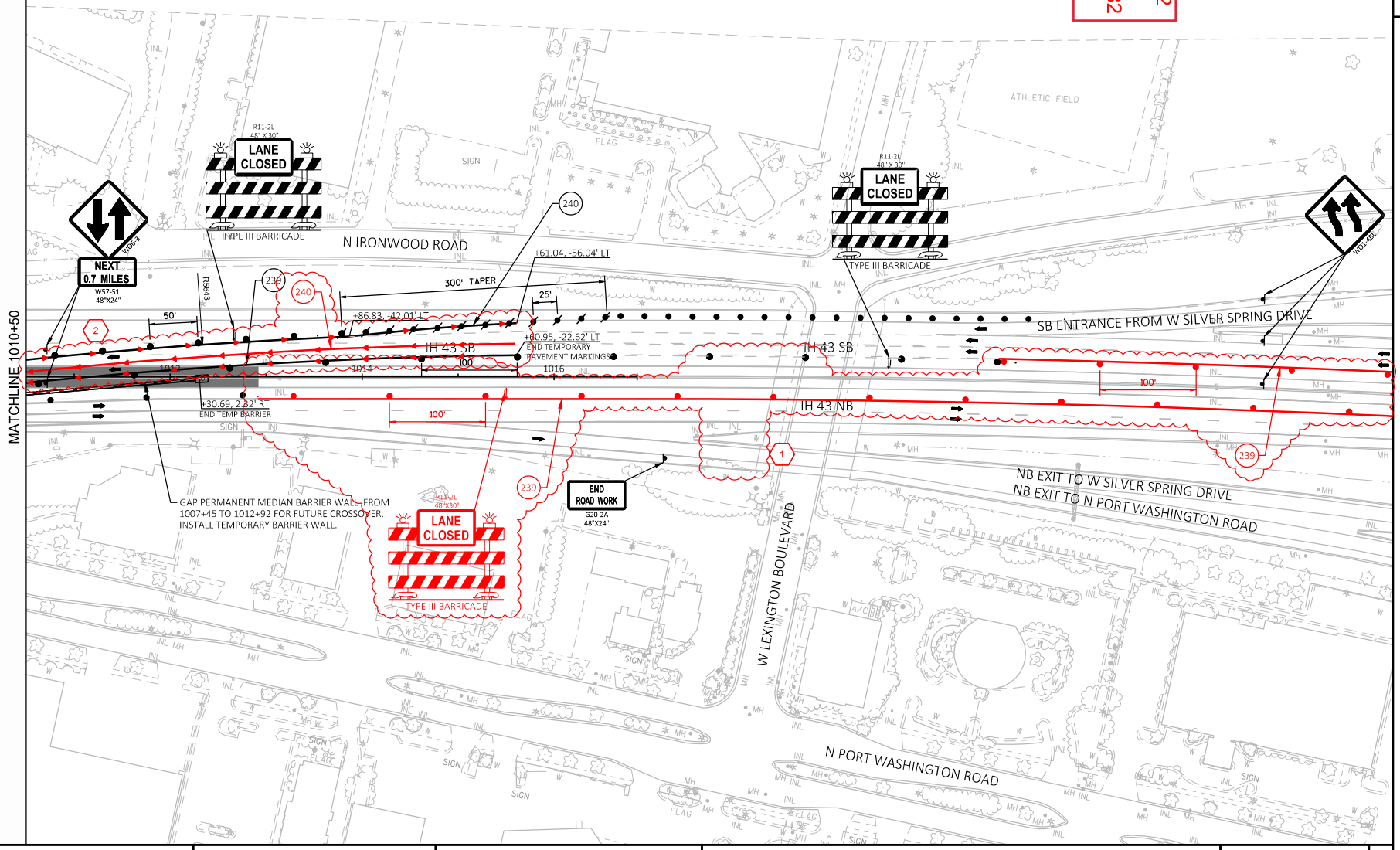


Addendum No. 02
ID 1228-22-71
Revised Sheet 431
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 431	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 07
PLOT DATE : 4/8/2021 1:31 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

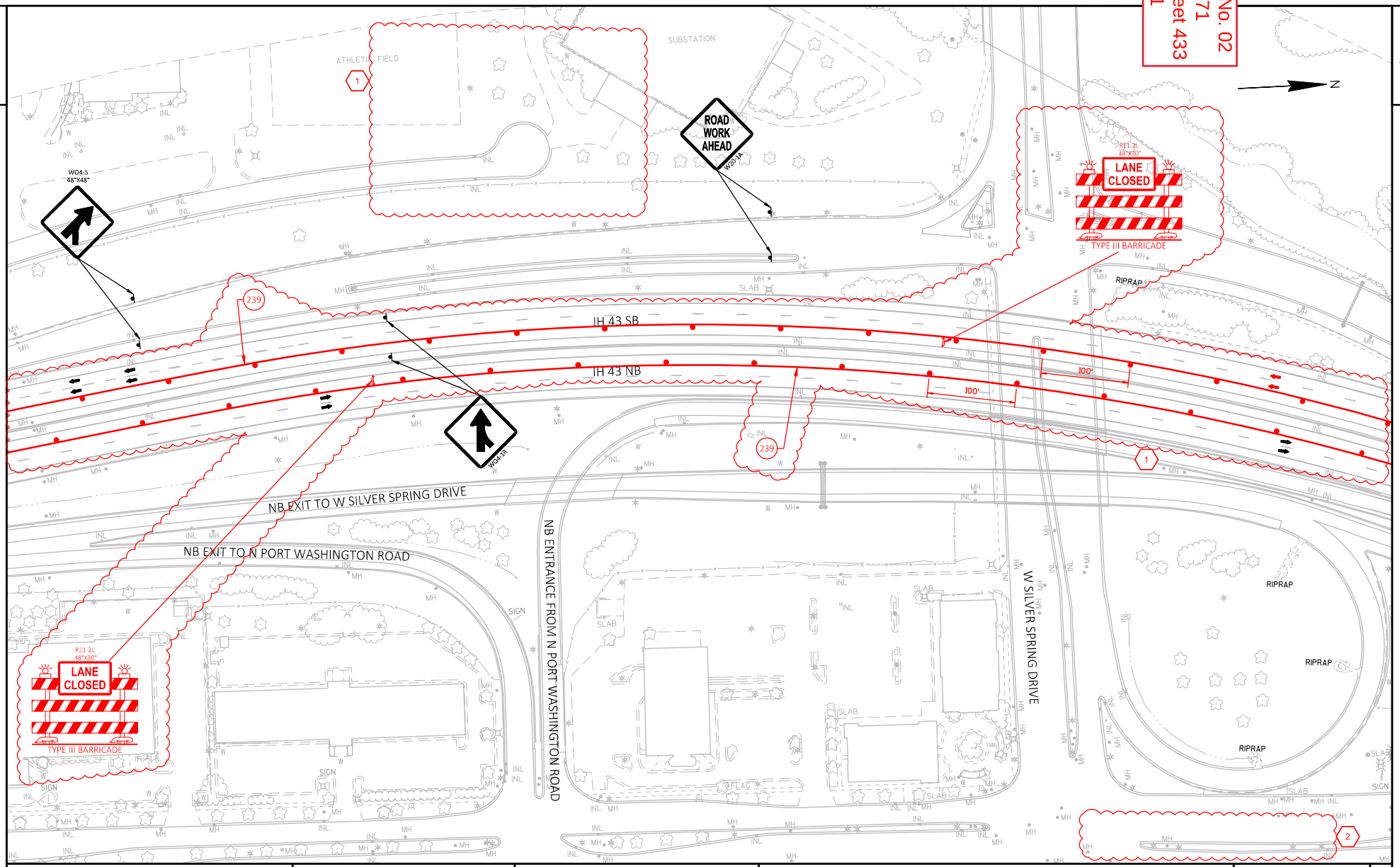
Addendum No. 02
ID 1228-22-71
Revised Sheet 432
April 9, 2021



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 432	E

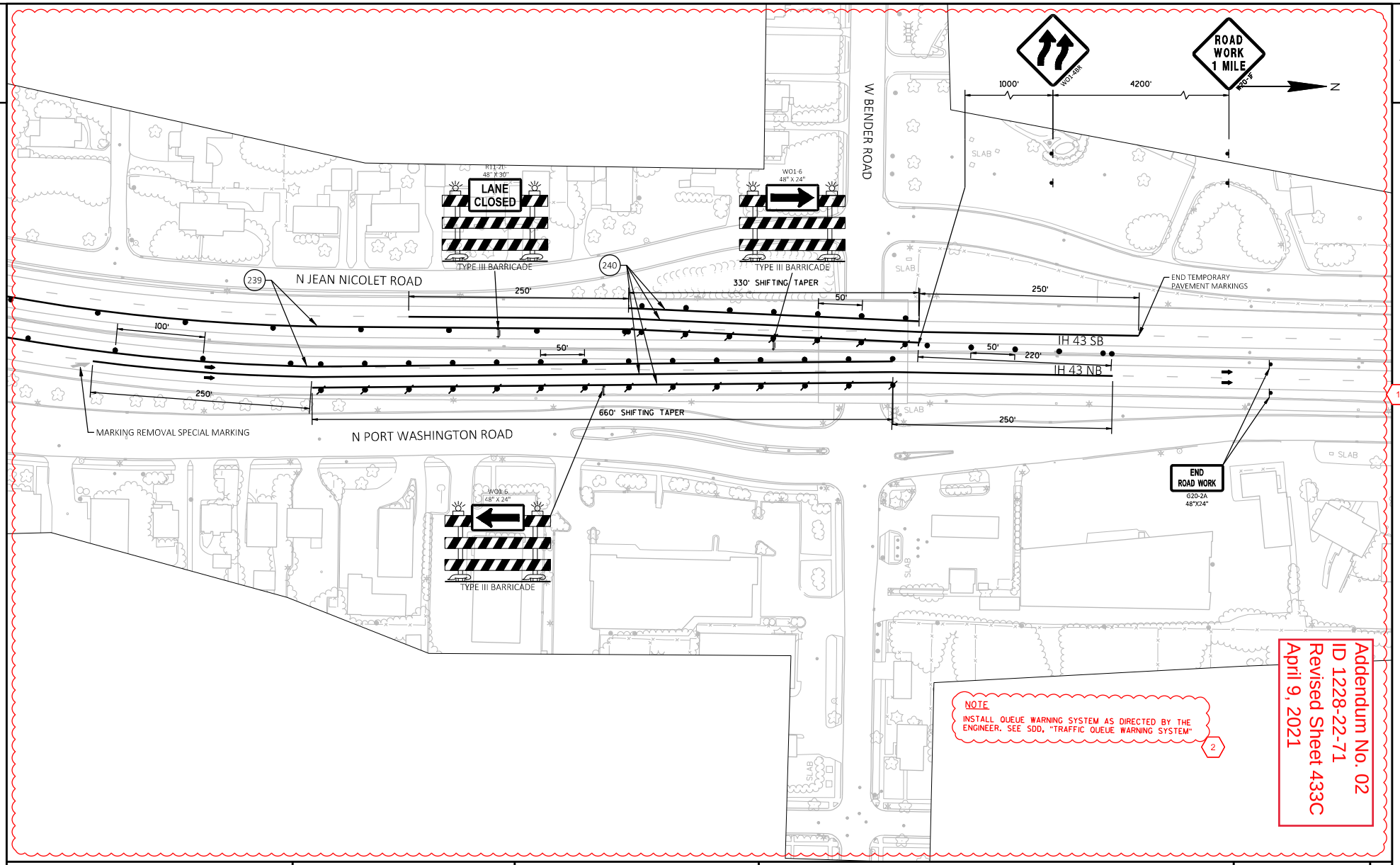
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 08
PLOT DATE : 4/8/2021 1:32 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

Addendum No. 02
ID 1228-22-71
Revised Sheet 433
April 9, 2021



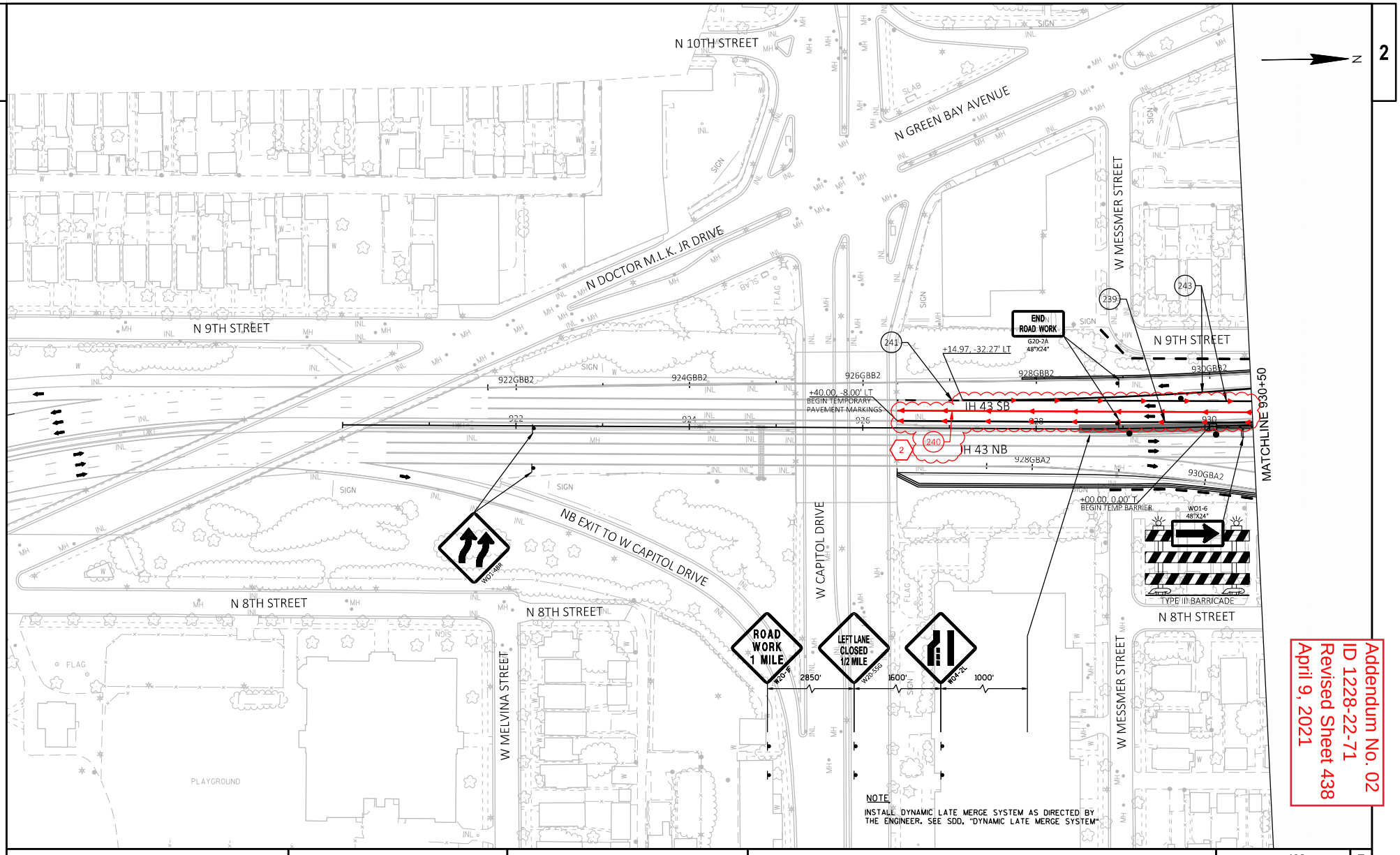
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 433	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 09
PLOT DATE : 4/8/2021 12:47 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2D	SHEET 433C	E

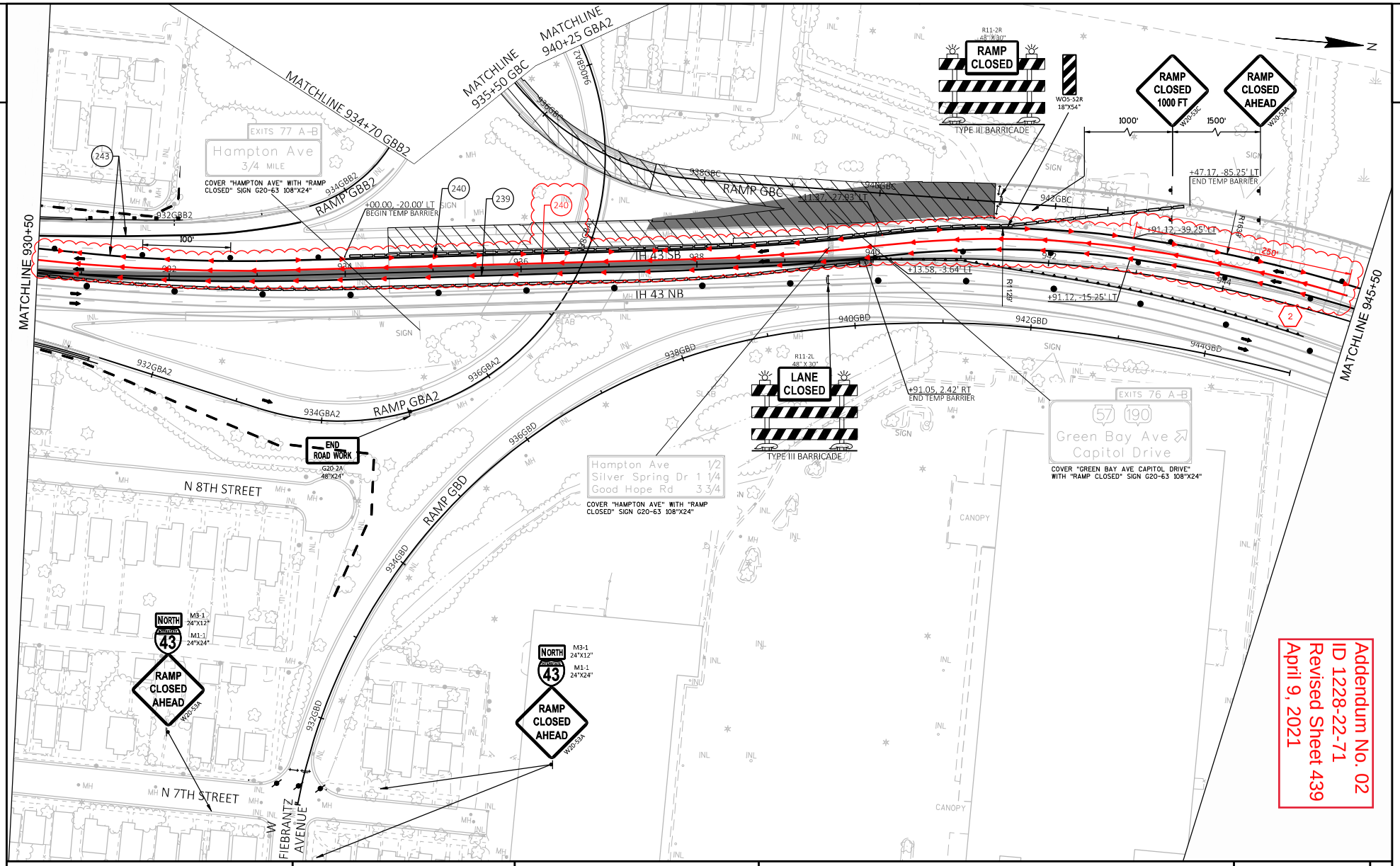
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST2D-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 4/8/2021 12:45 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



Addendum No. 02
ID 1228-22-71
Revised Sheet 438
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 438	E

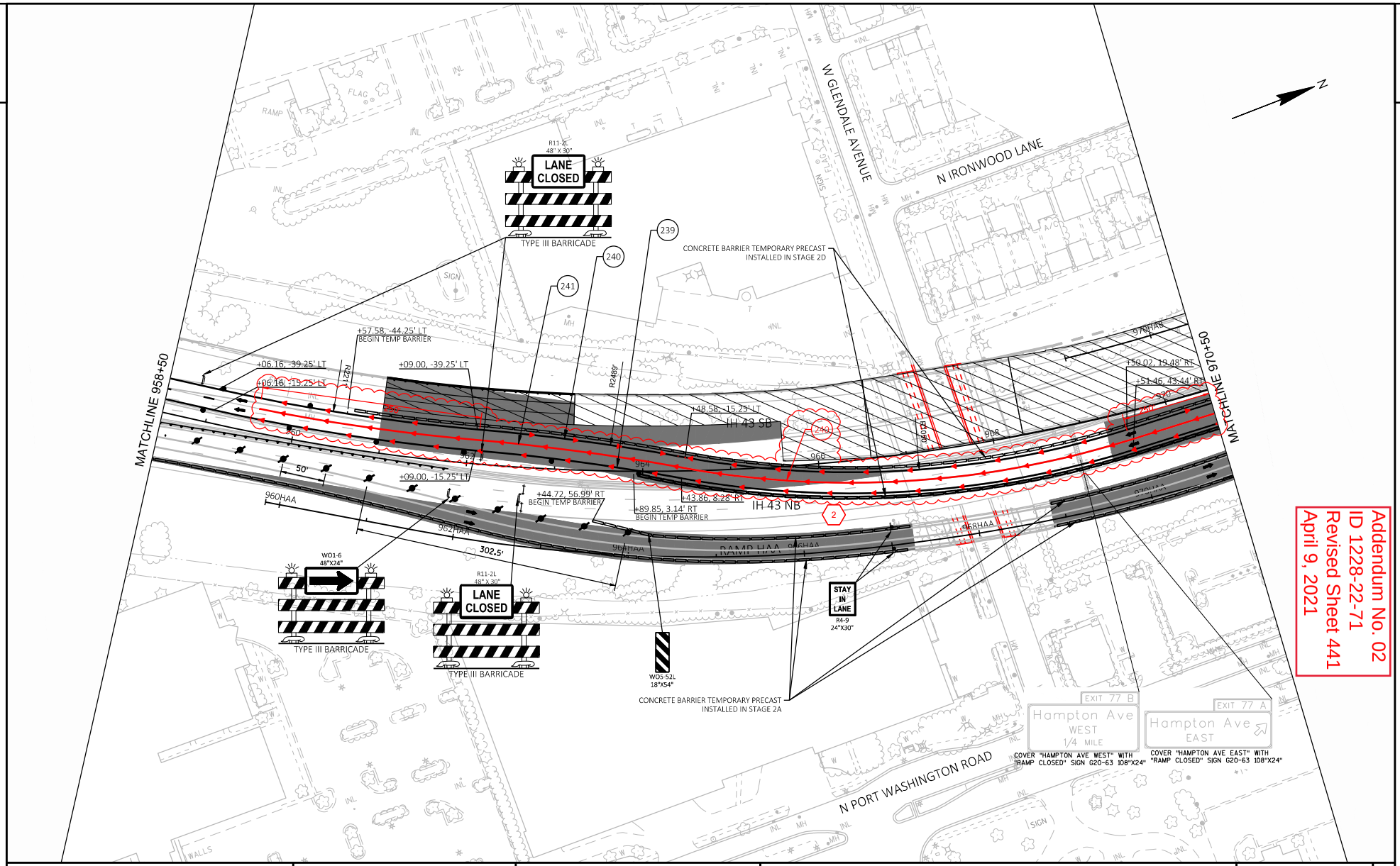
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 01
PLOT DATE : 4/8/2021 2:04 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 439
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 439	E

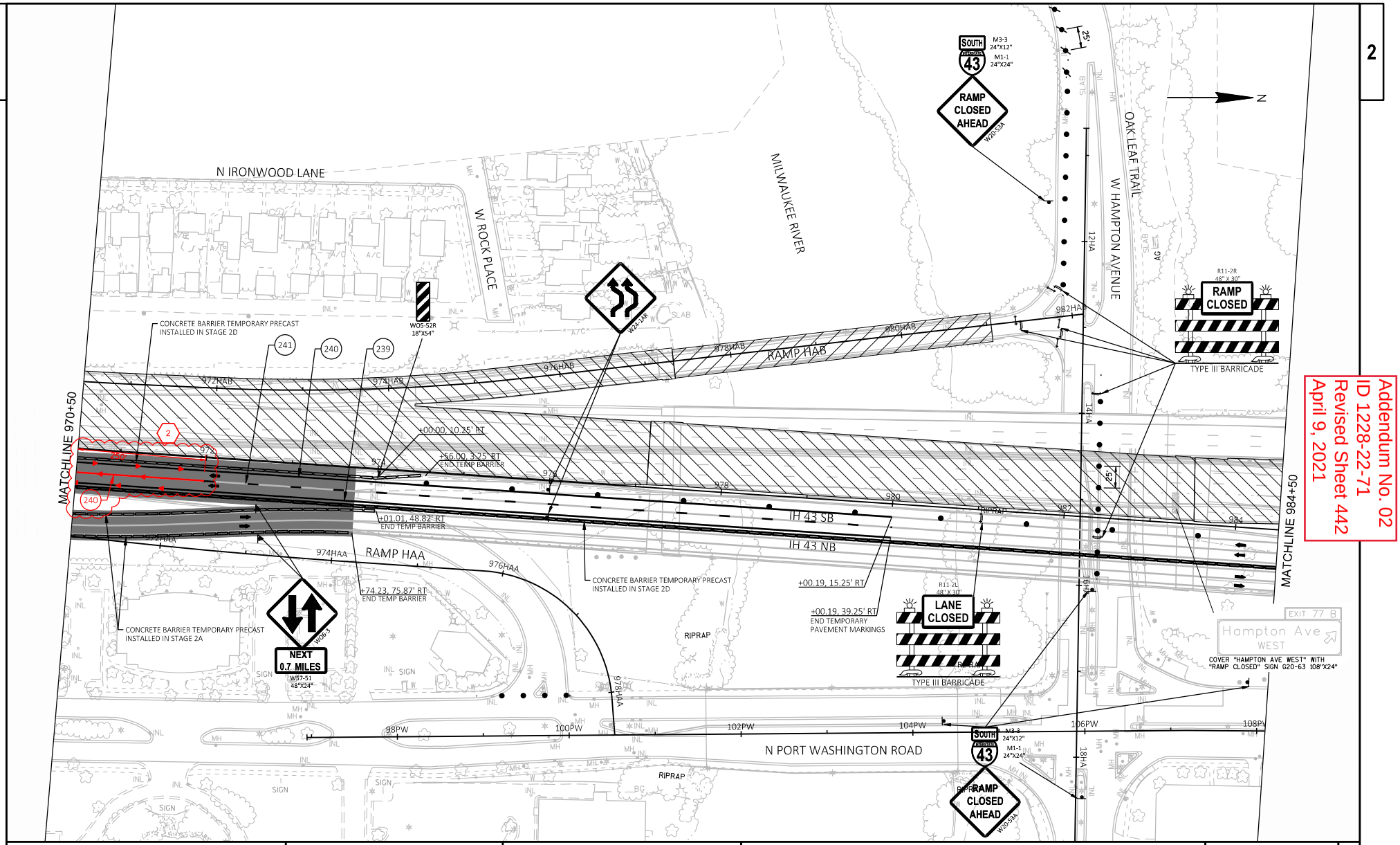
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 02
PLOT DATE : 4/8/2021 2:05 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 441
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 441	E

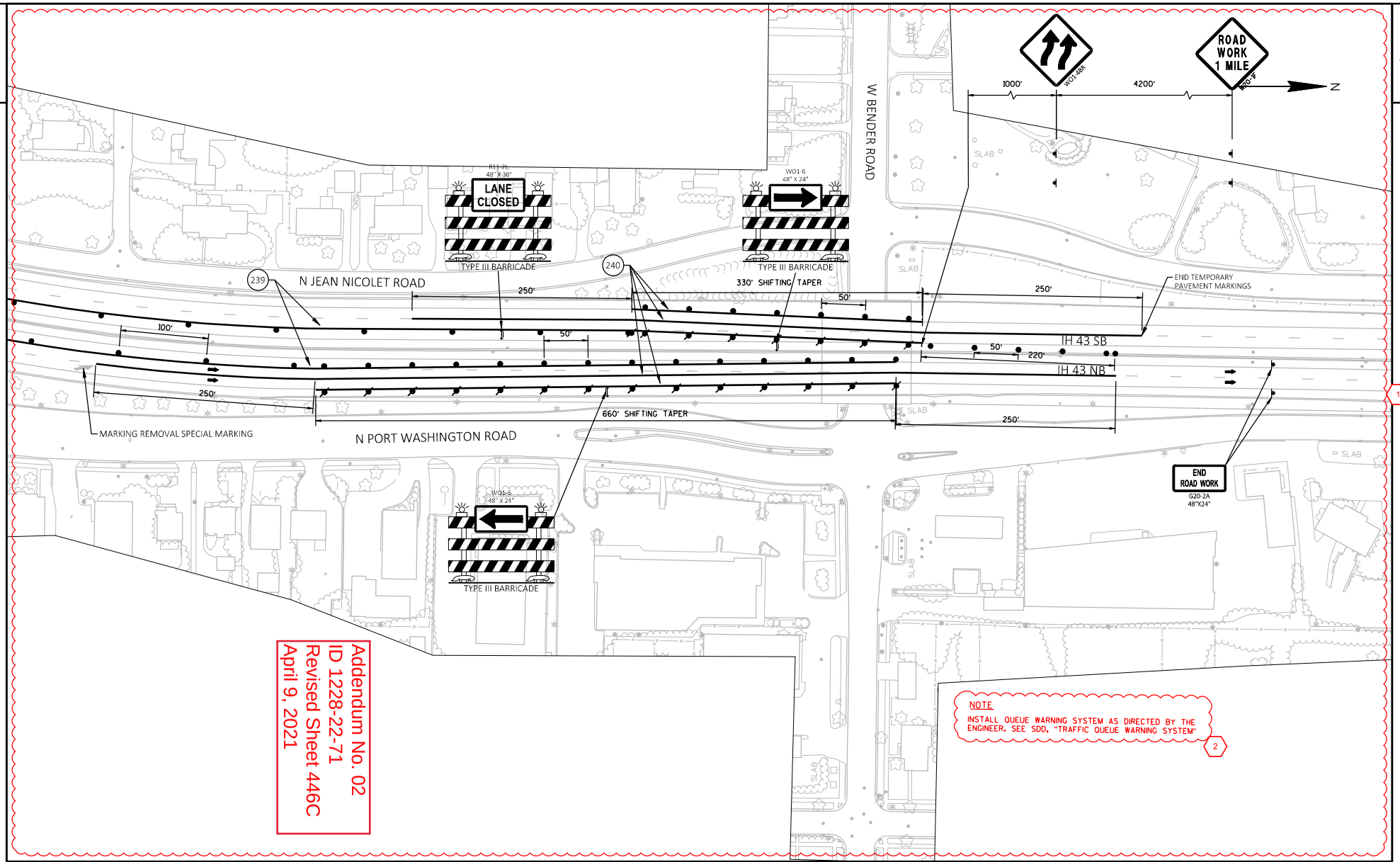
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 04
PLOT DATE : 4/8/2021 2:06 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



Addendum No. 02
ID 1228-22-71
Revised Sheet 442
April 9, 2021

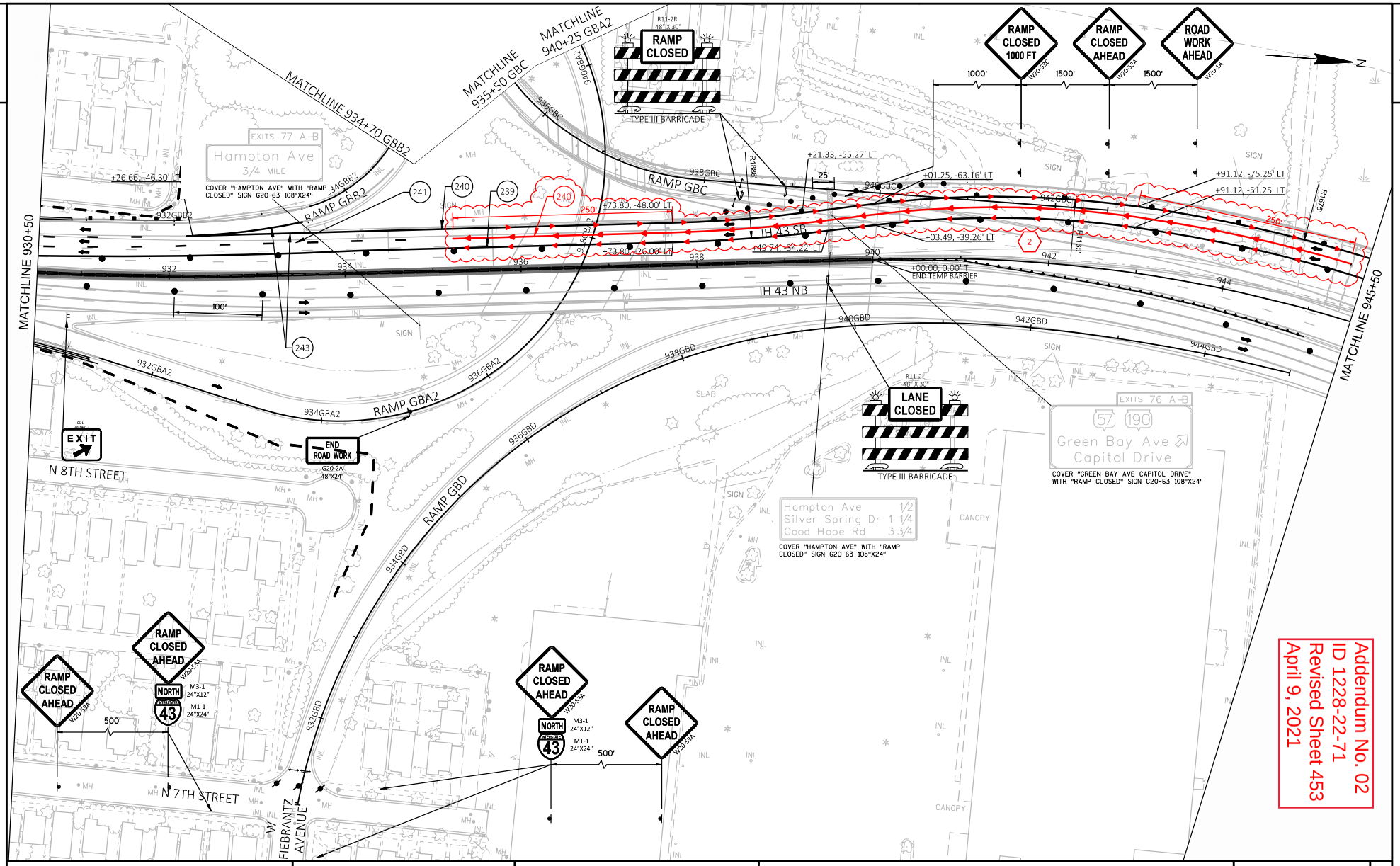
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 442	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 05
PLOT DATE : 4/8/2021 2:07 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT



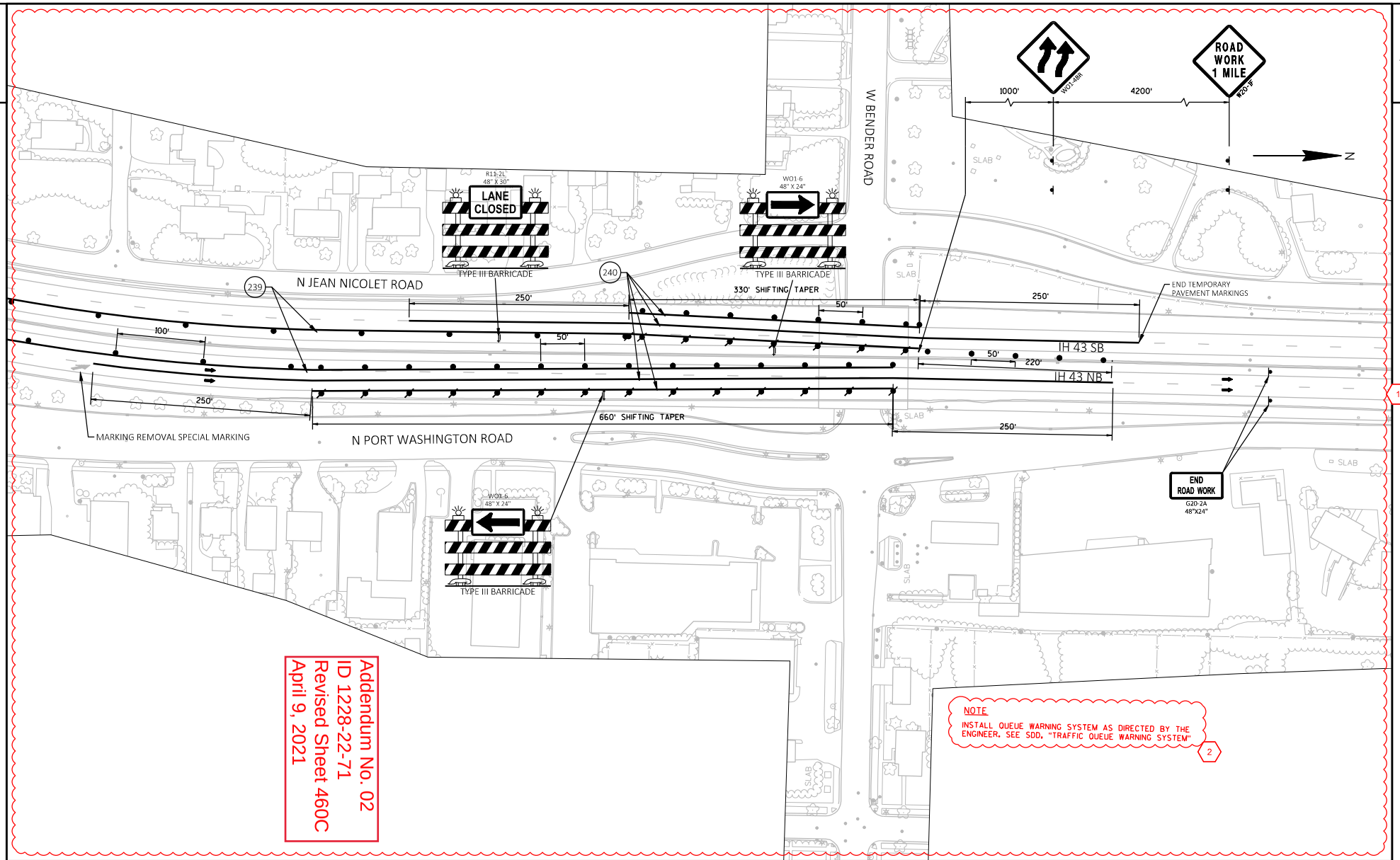
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3A	SHEET 446C	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3A-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 4/8/2021 12:16 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 453	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3B-3ST.DWG
LAYOUT NAME - 02
PLOT DATE : 4/8/2021 2:23 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

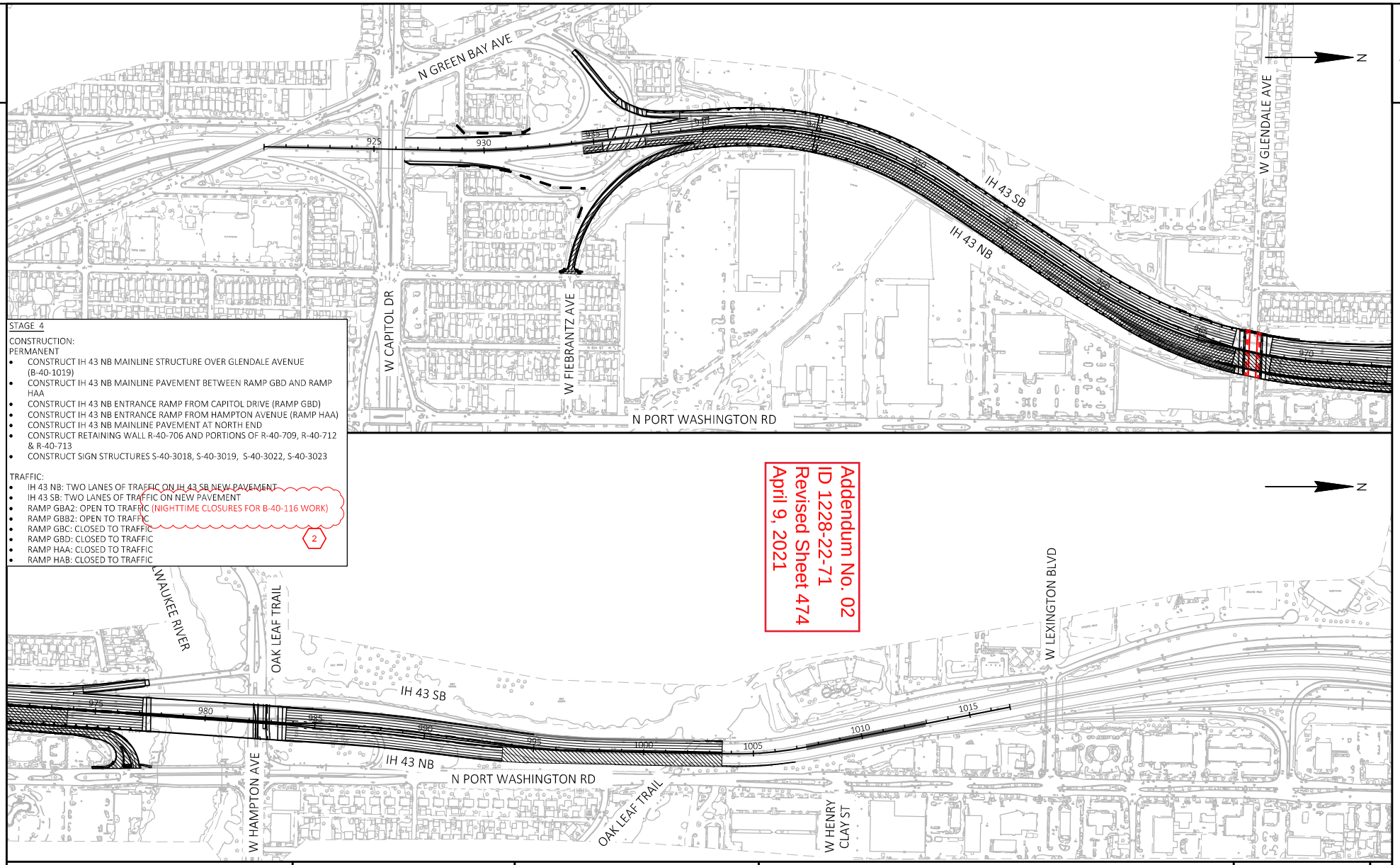


PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 3B	SHEET 460C	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST3B-3ST.DWG
LAYOUT NAME - 12

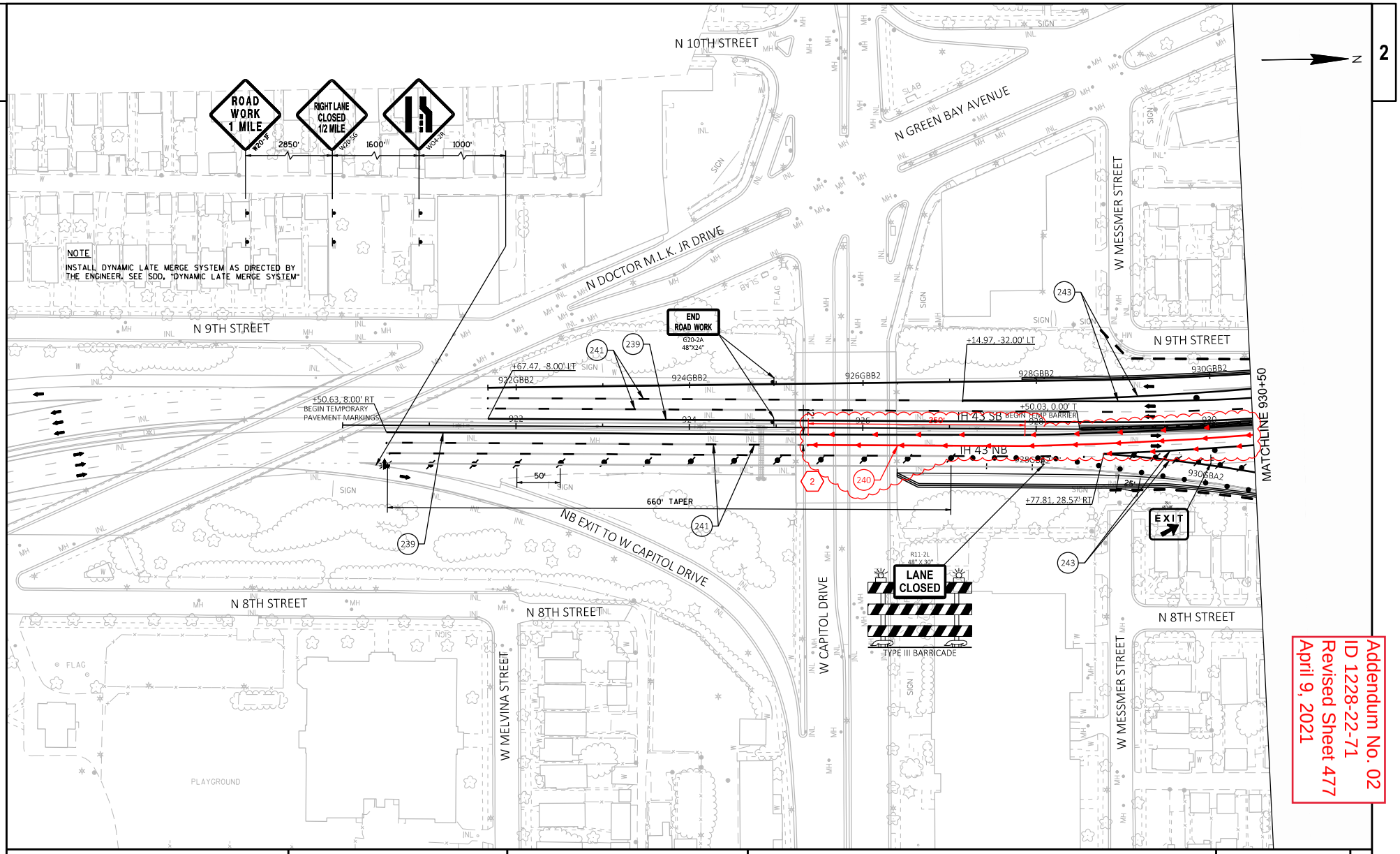
PLOT DATE : 4/8/2021 12:22 PM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 1228-22-71	HWY: IH43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - OVERVIEW STAGE 4	SHEET 474	E

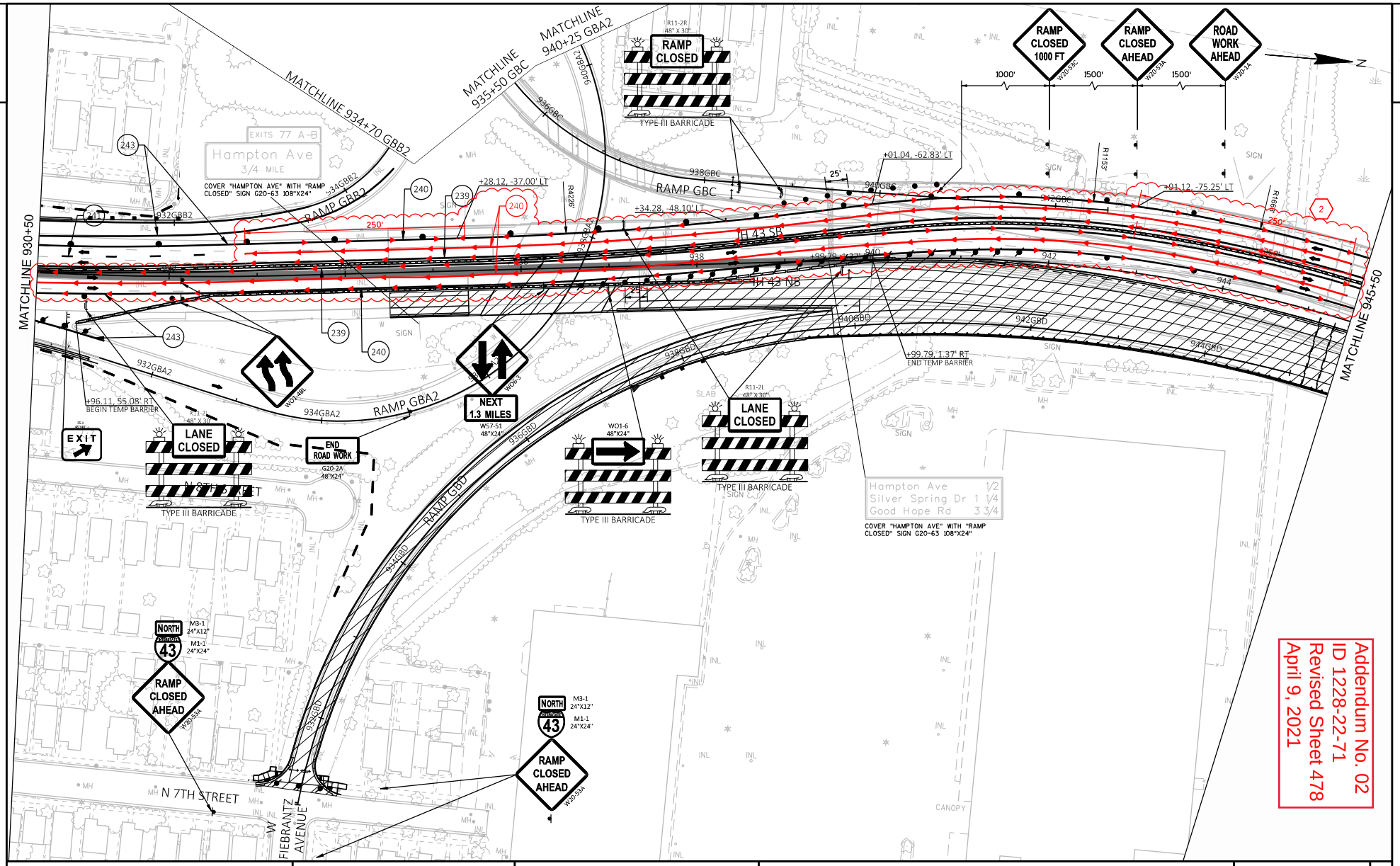
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-1OV.DWG
LAYOUT NAME - OVERVIEW
PLOT DATE : 4/7/2021 10:40 AM PLOT BY : JELACIC, JOSEPH C PLOT NAME : PLOT SCALE : 1 IN: 400 FT
WISDOT/CADDS SHEET 44



Addendum No. 02
ID 1228-22-71
Revised Sheet 477
April 9, 2021

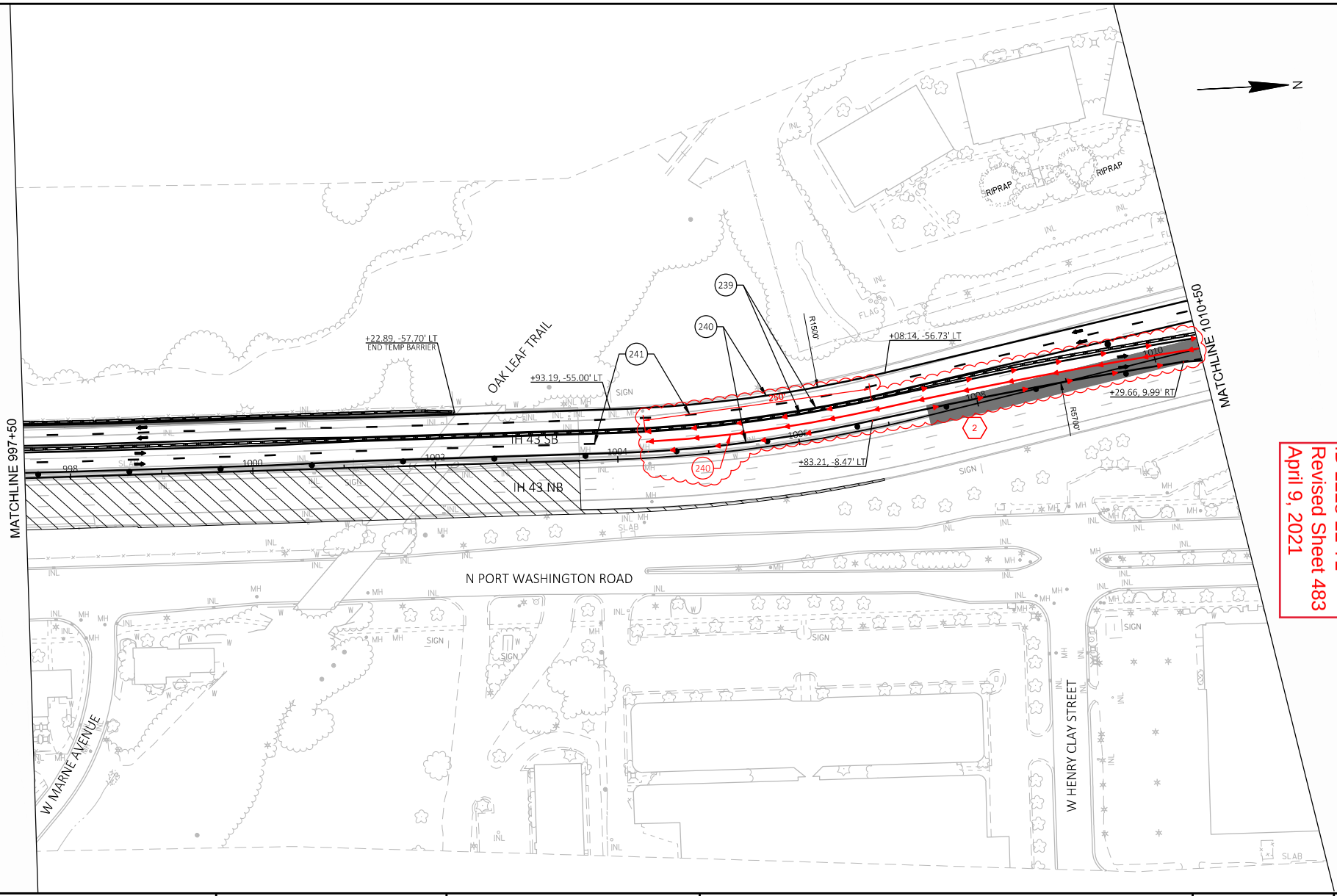
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 477	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-3ST.DWG
LAYOUT NAME - 01
PLOT DATE : 4/8/2021 3:21 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 478	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-3ST.DWG
LAYOUT NAME - 02
PLOT DATE : 4/8/2021 3:21 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

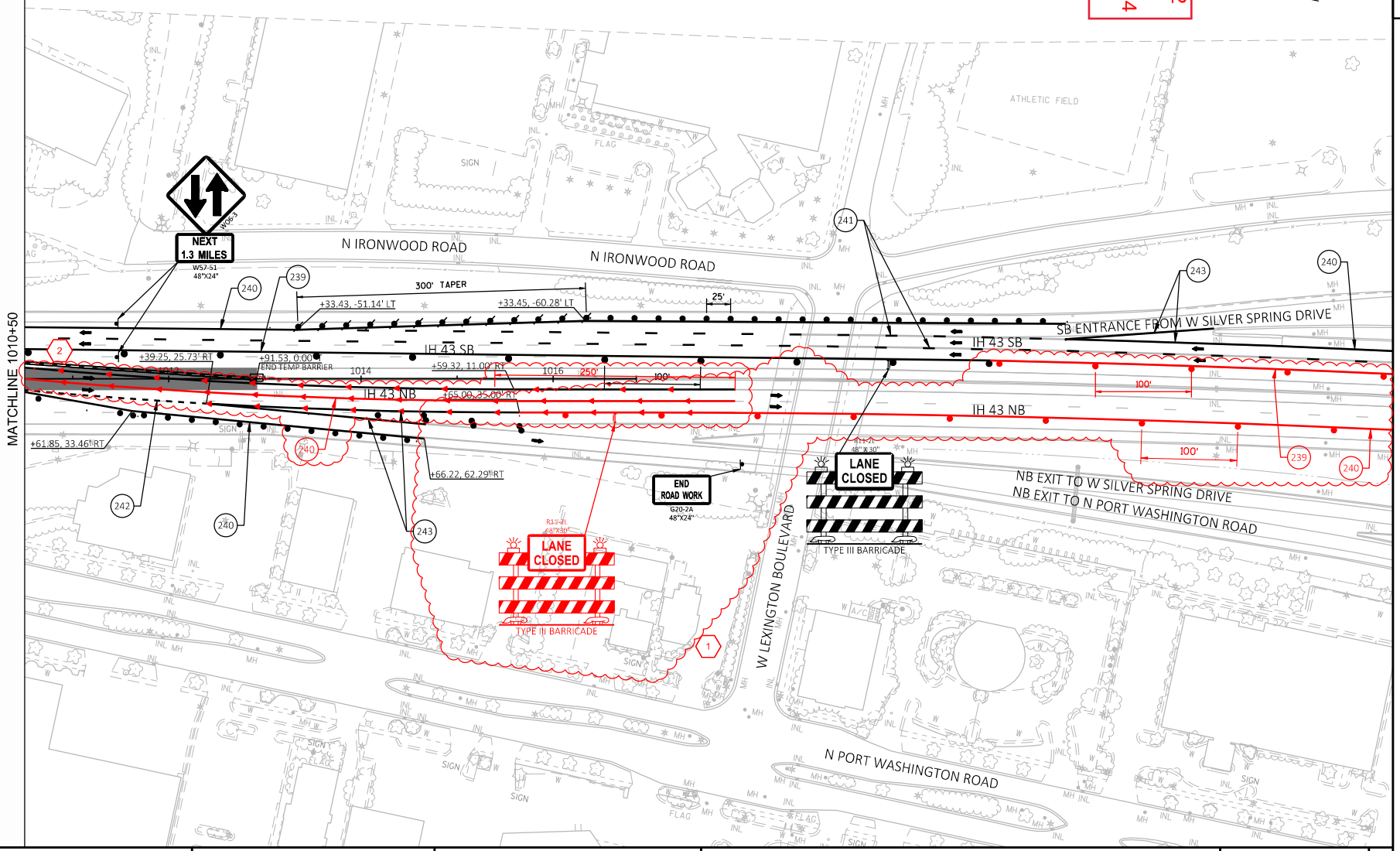


Addendum No. 02
ID 1228-22-71
Revised Sheet 483
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 483	E

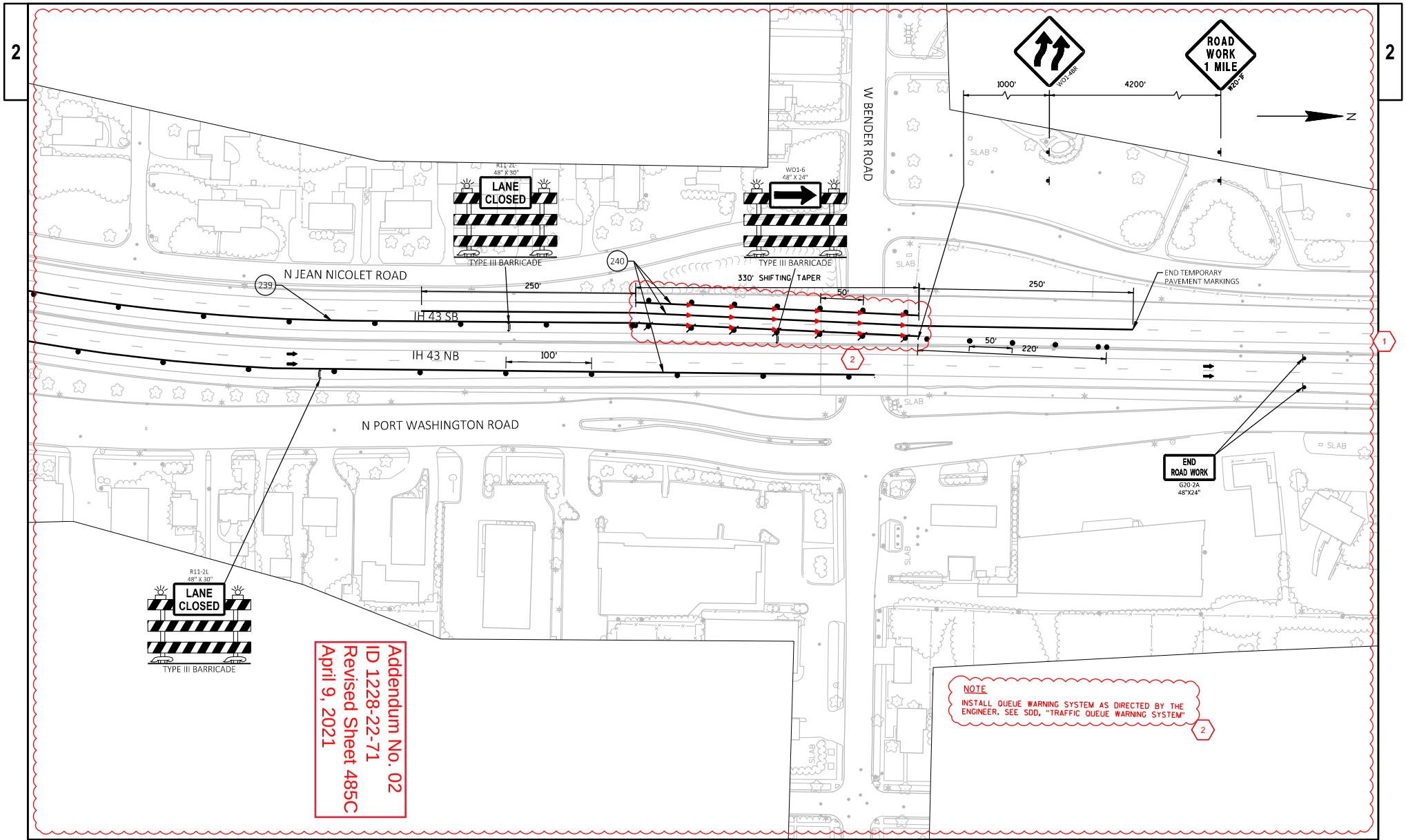
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-3ST.DWG
LAYOUT NAME - 07
PLOT DATE : 4/8/2021 2:50 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

Addendum No. 02
ID 1228-22-71
Revised Sheet 484
April 9, 2021



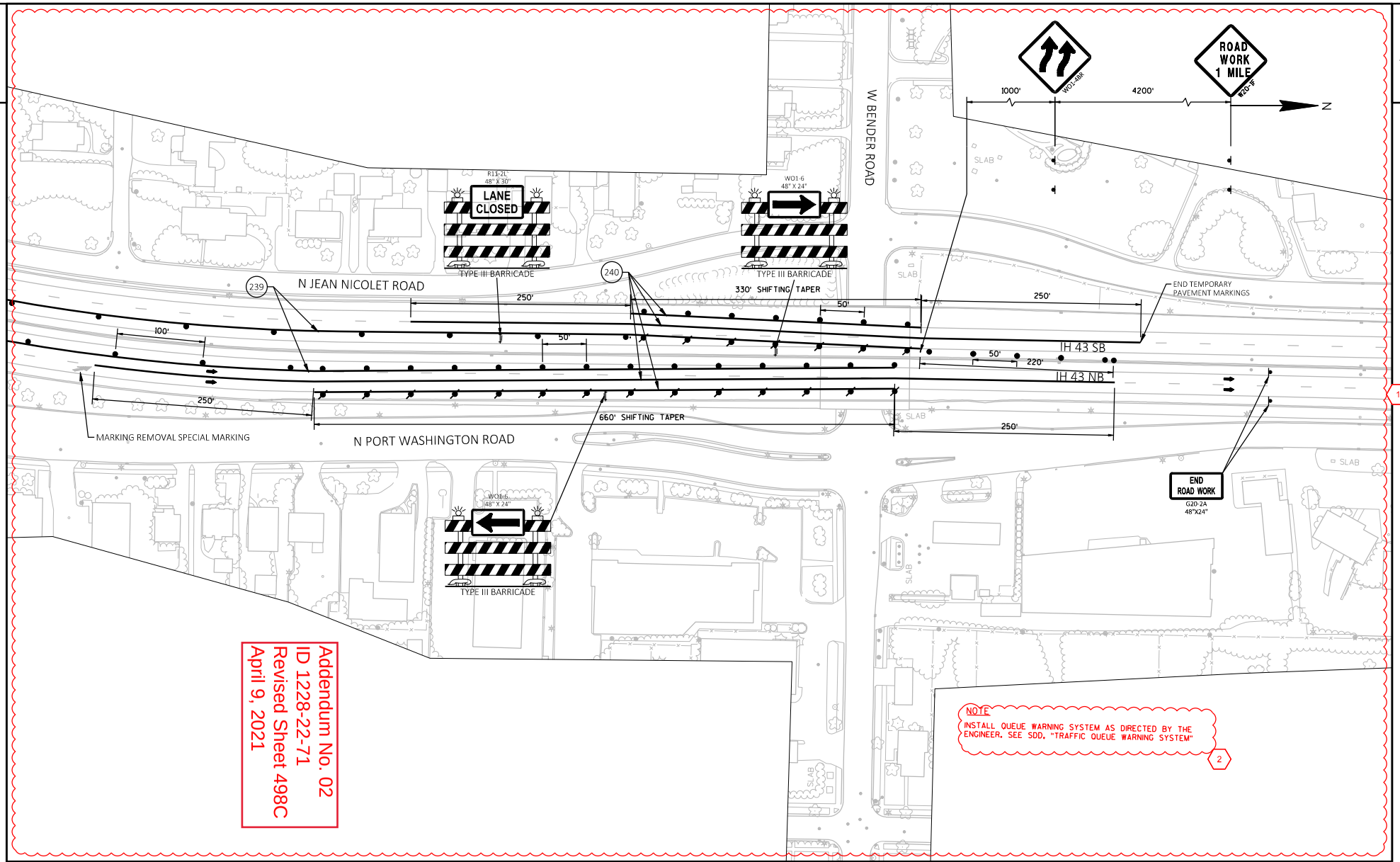
PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 484	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-3ST.DWG
LAYOUT NAME - 08
PLOT DATE : 4/8/2021 2:51 AM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 4	SHEET 485C	E

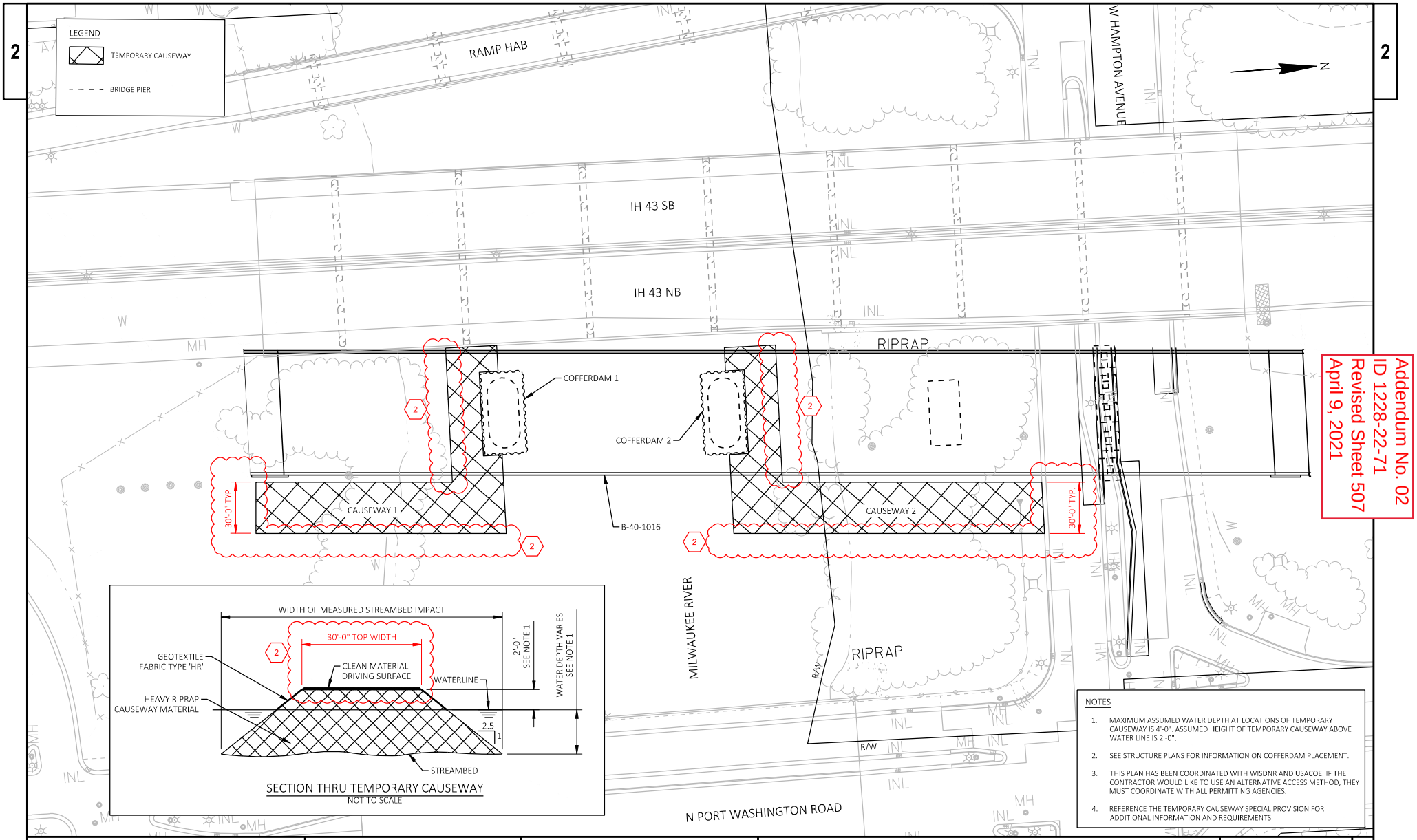
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST4-35T.DWG
LAYOUT NAME - 12
PLOT DATE : 4/8/2021 12:27 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : ##########



Addendum No. 02
ID 1228-22-71
Revised Sheet 498C
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 5	SHEET 498C	E

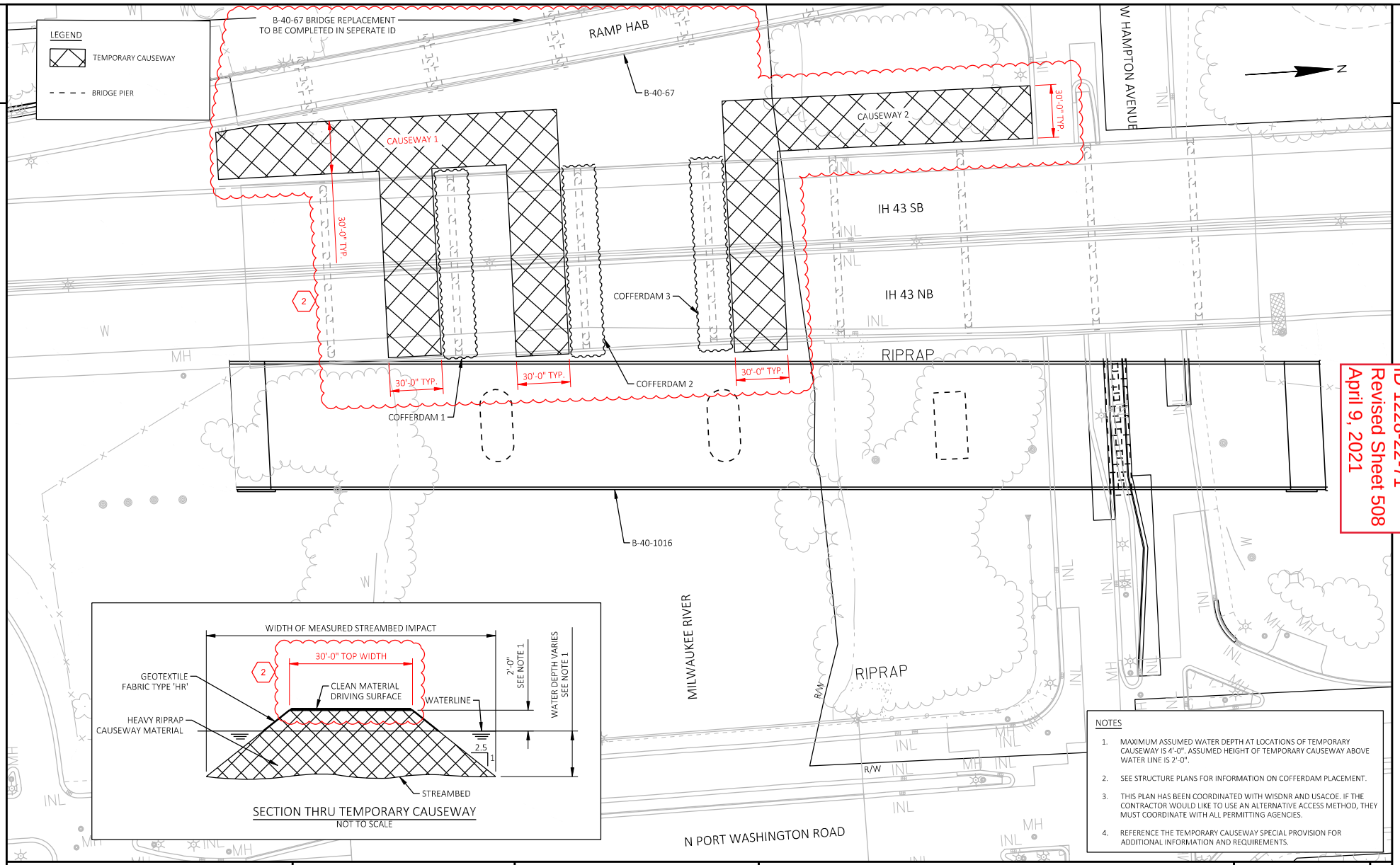
FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST5-3ST.DWG
LAYOUT NAME - 12
PLOT DATE : 4/8/2021 12:33 PM
PLOT BY : JELACIC, JOSEPH C
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



Addendum No. 02
ID 1228-22-71
Revised Sheet 507
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY CAUSEWAYS - STAGE 1	SHEET 507	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST9A_TEMP CAUSEWAY-3ST.DWG
LAYOUT NAME - 01
PLOT DATE : 4/5/2021 8:40 AM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 42

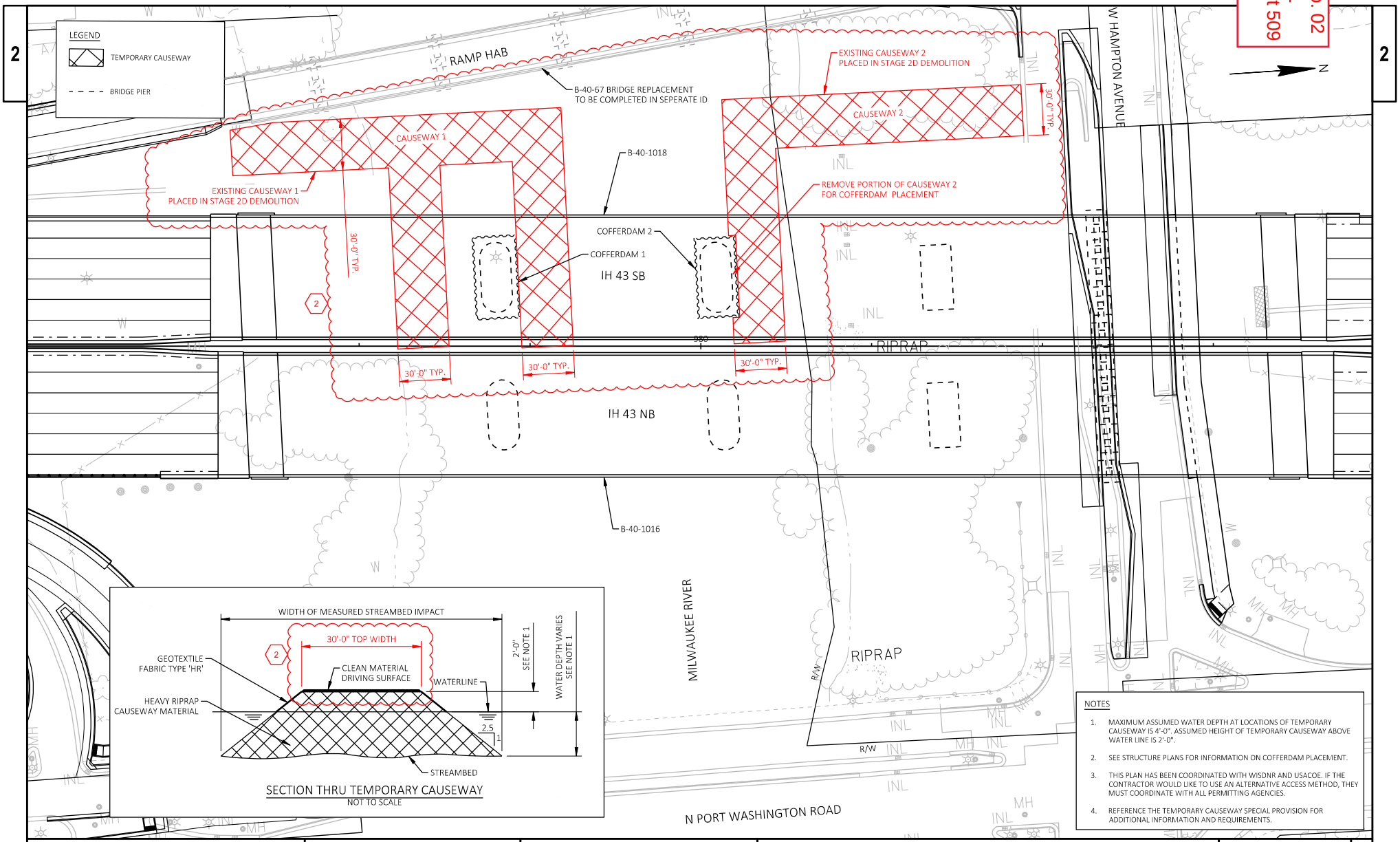


Addendum No. 02
ID 1228-22-71
Revised Sheet 508
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY CAUSEWAYS - STAGE 2D DEMOLITION	SHEET 508	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST9B_TEMP CAUSEWAY-3ST.DWG
LAYOUT NAME - 01
PLOT DATE : 4/5/2021 8:41 AM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:50 FT

Addendum No. 02
ID 1228-22-71
Revised Sheet 509
April 9, 2021

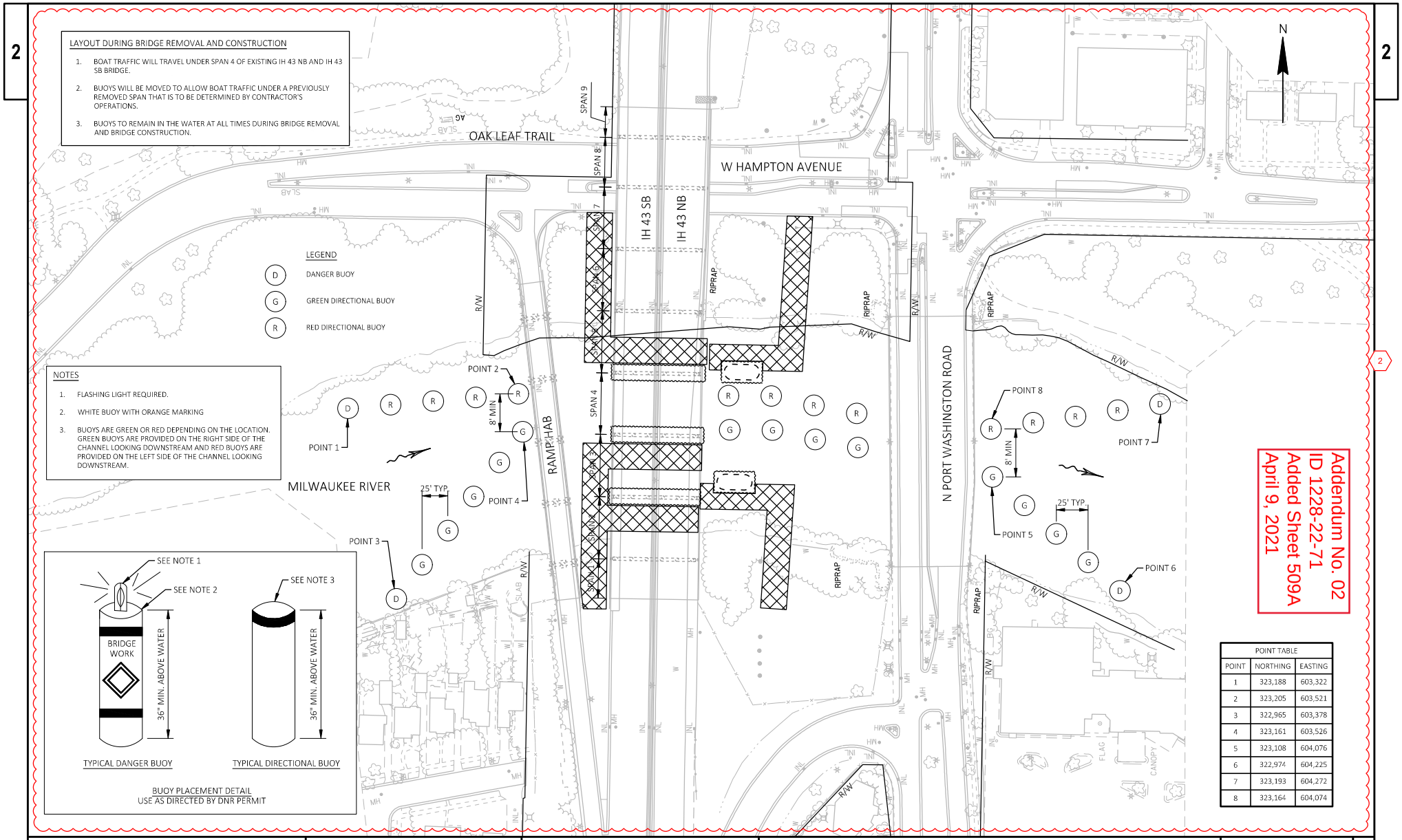


NOTES

1. MAXIMUM ASSUMED WATER DEPTH AT LOCATIONS OF TEMPORARY CAUSEWAY IS 4'-0". ASSUMED HEIGHT OF TEMPORARY CAUSEWAY ABOVE WATER LINE IS 2'-0".
2. SEE STRUCTURE PLANS FOR INFORMATION ON COFFERDAM PLACEMENT.
3. THIS PLAN HAS BEEN COORDINATED WITH WISDNR AND USACOE. IF THE CONTRACTOR WOULD LIKE TO USE AN ALTERNATIVE ACCESS METHOD, THEY MUST COORDINATE WITH ALL PERMITTING AGENCIES.
4. REFERENCE THE TEMPORARY CAUSEWAY SPECIAL PROVISION FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	TEMPORARY CAUSEWAYS - STAGE 2D BRIDGE CONSTRUCTION	SHEET 509	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST9C_TEMP CAUSEWAY-3ST.DWG
LAYOUT NAME - 01
PLOT DATE : 4/5/2021 8:44 AM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:50 FT



POINT TABLE		
POINT	NORTHING	EASTING
1	323,188	603,322
2	323,205	603,521
3	322,965	603,378
4	323,161	603,526
5	323,108	604,076
6	322,974	604,225
7	323,193	604,272
8	323,164	604,074

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	WATERWAY MARKER PLACEMENT	SHEET 509A	E

FILE NAME : N:\PDS\C3D\12282271\SHEETSPLAN\CURRENT PLAN\026001-ST9D_WATERWAY MARKERS.DWG
LAYOUT NAME - 01
PLOT DATE : 4/8/2021 11:02 AM
PLOT BY : SANTIAGO PEREZ, EDGA
PLOT NAME :
PLOT SCALE : 1 IN:100 FT

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1) CUT (2)	205.0100 COMMON EXCAVATION (1) EBS EXCAVATION (3)	SALVAGED/UNUSABLE PAVEMENT MATERIAL (4)	SPV.0195.0001 MANAGEMENT OF CONTAMINATED SOIL AND CONTAMINATED SEDIMENT (TON)	AVAILABLE MATERIAL (5)	UNEXPANDED FILL	EXPANDED FILL (13) FACTOR 1.10	MASS ORDINATE +/- (14)	WASTE	208.0100 BORROW	COMMENT
DIVISION 1						TON - CY*1.7							
1	926+40 TO 993+62	IH 43 NB	3,634	0	522	0	3,112	33,522	36,874	-33,762	0	33,762	
1	942+43 TO 960+98	IH 43 SB	22,109	0	85	15,431	31,101	32,212	35,433	-4,332	0	4,332	
1	15+23 TO 32+00	NB1	1,702	0	301	0	1,401	9,315	10,247	-8,846	0	8,846	
1	11+52 TO 16+20	NB2	653	0	89	0	564	304	334	230	230	0	
1	11+88 TO 17+53	SB2	2,632	0	133	0	2,499	2,640	2,904	-405	0	405	
DIVISION 1 SUBTOTAL			30,730	0	1,130	15,431	38,677	77,993	85,792	-47,115	230	47,345	
DIVISION 2													
2A	973+75 TO 994+00	IH 43 NB	1,122	0	534	0	588	285	314	275	275	0	
2A	18+32 TO 2279	SB3	853	0	954	0	-101	985	1,084	-1,185	0	1,185	
2C1	997+06 TO 1012+92	IH 43 NB/SB	696	0	696	0	0	0	0	0	0	0	
2C1	10+47 TO 16+04	SB1	882	0	289	0	593	13,835	15,219	-14,626	0	14,626	
2C2	10+00 TO 15+69	SB3	4,740	0	862	0	3,878	24	26	3,852	3,852	0	
2D	934+50 TO 939+50	IH 43 NB	964	0	199	0	765	959	1,055	-290	0	290	
2D	934+50 TO 1003+58	IH 43 SB	41,556	0	11,316	0	30,240	40,122	44,134	-13,894	0	13,894	
2D	932+98 TO 937+42	RAMP GBC	1,036	0	375	0	661	228	251	410	410	0	
2D	971+93 TO 977+33	RAMP HAB	868	0	679	0	189	660	726	-537	0	537	
2D	1003+90 TO 1005+90	OAK LEAF POND	6,133	0	0	0	6,133	0	0	6,133	6,133	0	
DIVISION 2 SUBTOTAL			58,850	0	15,904	0	42,946	57,098	62,808	-19,862	10,669	30,531	
DIVISION 3													
3A	934+50 TO 963+20	IH 43 SB	2,962	0	421	0	2,541	112	123	2,418	2,418	0	
3A	937+42 TO 941+28	RAMP GBC	1,998	0	641	0	1,357	1,507	1,658	-301	0	301	
3B	934+50 TO 965+60	IH 43 SB	2,299	0	978	0	1,321	20	22	1,299	1,299	0	
DIVISION 3 SUBTOTAL			7,259	0	2,040	0	5,219	1,639	1,803	3,416	3,717	301	
DIVISION 4													
4	936+90 TO 1006+83	IH 43 NB	88,002	0	6,752	0	81,250	33,834	37,217	44,033	44,033	0	
4	931+33 TO 942+16	RAMP GBD	3,222	0	902	0	2,320	3,965	4,362	-2,042	0	2,042	
4	961+51 TO 978+08	RAMP HAA	9,210	0	2,010	0	7,200	2,790	3,069	4,131	4,131	0	
DIVISION 4 SUBTOTAL			100,434	0	9,664	0	90,770	40,589	44,648	46,122	48,164	2,042	
DIVISION 5													
5	1007+45 TO 1012+92	IH 43 NB/SB	628	0	628	0	0	0	0	0	0	0	
DIVISION 5 SUBTOTAL			628	0	628	0	0	0	0	0	0	0	
GRAND TOTAL			197,901	0	29,366	15,431	177,612	177,319	195,051	-17,439	62,779	80,218	

2

2

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT BORROW MATERIAL. NOTE: THIS IS DESIGNERS CHOICE, CAN BE BACKFILLED WITH BORROW, OR CUT AS WELL.

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(13) EXPANDED FILL FACTOR = 1.10

DEPENDING ON SELECTIONS: **EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR**

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR

OR EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR

(14) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

Addendum No. 02
ID 1228-22-71
Revised Sheet 566
April 9, 2021

CATEGORY 1000 UNLESS OTHERWISE NOTED

BASE AGGREGATE ITEMS

STAGE	ROADWAY	STATION	TO	STATION	* 305.0120 BASE AGGREGATE DENSE 1 1/4 INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	312.0115 SELECT CRUSHED MATERIAL CY
	MAINLINE						
	IH 43 NB TEMPORARY						
1		15+25	-	25+03	1670	5586	-
1		26+64	-	32+02	1520	5073	-
1		11+52	-	16+20	530	1767	-
	IH 43 SB TEMPORARY						
1		10+47	-	14+36	1030	3458	-
1		11+85	-	17+53	1360	4541	-
2A		10+00	-	15+69	1590	5301	-
2C		18+30	-	22+79	1800	6023	-
	SUBTOTAL				9500	31749	-
ALL	**MAINLINE**						
	IH 43 NB						
		926+40	-	934+50	445	-	-
		934+50	-	935+83	183	462	-
		937+08	-	967+10	9483	24024	-
		968+20	-	977+36	2490	6308	-
		983+52	-	1003+58	5123	12979	-
	IH 43 SB						
		926+40	-	934+50	285	-	-
		934+50	-	935+95	240	608	-
		937+20	-	966+93	9099	23050	-
		968+06	-	977+32	2935	7436	-
		983+48	-	1003+58	5132	13000	-
		1007+45	-	1012+92	223	-	-
	SUBTOTAL				35638	87867	-

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*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

BASE AGGREGATE ITEMS (CONTINUED)

STAGE	ROADWAY	STATION	TO	STATION	* 305.0120 BASE AGGREGATE DENSE 1 1/4 INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	312.0115 SELECT CRUSHED MATERIAL CY
ALL	**RAMPS**						
	RAMP GBC						
		932+98 GBC	-	936+04 GBC	360	911	-
		937+42 GBC	-	938+93 GBC	176	447	-
	RAMP GBD						
		931+09 GBD	-	939+75 GBD	1067	2702	-
	RAMP HAA						
		968+66 HAA	-	978+10 HAA	1571	3980	-
	RAMP HAB						
		974+31 HAB	-	977+15 HAB	402	1018	-
		981+23 HAB	-	981+91 HAB	105	267	-
	SUBTOTAL				3681	9325	-
ALL	**LOCAL ROADS**						
	W HAMPTON AVENUE						
		10+74 HA	-	17+04 HA	300	-	-
	N GREEN BAY AVENUE						
		35+17 GB	-	37+86 GB	28	-	-
	N PORT WASHINGTON ROAD						
		97+86 PW	-	101+59 PW	236	-	-
		110+35 PW	-	111+35 PW	35	-	-
	N 7TH STREET						
		9+56 ST	-	10+36 ST	7	-	-
	SUBTOTAL				606	-	-
	TOTAL				49425	128941	-

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*ADDITIONAL QUANTITIES FOUND ELSEWHERE
CATEGORY 1000 UNLESS OTHERWISE NOTED

WATERWAY MARKERS

STAGE	LOCATION	NUMBER OF CLOSURES DAYS	SPV.0045.0002 WATERWAY BUOYS EACH	SPV.0045.0002 WATERWAY BUOYS DAY
1	B-40-1016	127	78	9,906
2B	DEMO NB OVER RIVER	70	78	5,460
2D	DEMO SB OVER RIVER/B-40-1018	126	78	9,828
	TOTAL			25,194

MAINTENANCE AND REPAIR

STAGE	LOCATION	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (1228-22-71) EACH
ALL	PROJECT 1228-22-71	1
	TOTAL	1

EROSION CONTROL ITEMS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	* 606.0200 RIPRAP MEDIUM CY	645.0130 GEOTEXTILE TYPE R SY	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.6510 SOIL STABILIZER TYPE B ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH
1	**PROJECT ID 1228-22-71**														
	MAINLINE														
	IH 43														
		941+29	-	966+79	LT	8	22	–	1,260	1,260	--	--	--	--	--
		983+28	-	995+89	RT	–	–	–	1,284	1,284	--	--	--	--	--
	RAMPS														
	HAA														
		962+00	-	967+82	LT/RT	4	11	–	641	641	–	–	–	80	–
		968+45	-	977+52	LT/RT	–	–	–	547	547	–	–	–	32	–
	SUBTOTAL					12	33	–	3,732	3,732	–	–	–	112	–

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Added Sheet 580A
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*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

EROSION CONTROL ITEMS (CONTINUED)

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	606.0200 * RIPRAP MEDIUM CY	645.0130 GEOTEXTILE TYPE R SY	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.6510 SOIL STABILIZER TYPE B ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH
2	**PROJECT ID 1228-22-71**														
	MAINLINE														
	IH 43														
		937+17	-	967+25	LT	–	–	1	1,735	1,735	--	--	--	520	--
		954+50	-	967+49	RT	–	–	--	--	--	–	–	0.40	440	–
		983+38	-	1005+91	LT	6	18	2	1,109	1,109	--	--	0.12	--	--
	RAMPS														
	GBA2														
		928+00	-	934+00	LT/RT	–	–	--	--	–	–	–	–	–	–
		934+00	-	944+00	LT/RT	–	–	--	--	–	–	–	–	–	–
	GBB2														
		922+00	-	934+00	LT/RT	–	–	--	--	–	–	–	–	–	–
		934+00	-	940+00	LT/RT	–	–	--	--	–	–	–	–	–	–
	GBD														
		930+97	-	945+00	LT/RT	–	–	--	--	–	–	–	–	–	–
	GBC														
		933+60	-	936+41	LT/RT	–	–	2	312	312	–	–	–	--	–
	HAA														
		960+00	-	970+00	LT/RT	–	–	--	--	–	–	–	–	–	–
		970+00	-	979+00	LT/RT	–	–	--	--	–	–	–	–	–	–
	HAB														
		967+64	-	977+33	LT/RT	–	–	1	1016	1,016	–	–	–	--	–
	LOCAL ROADS														
	N PORT WASHINGTON ROAD														
		97+00	-	113+00	LT/RT	–	–	--	--	–	–	–	–	–	–
	W HAMPTON AVENUE														
		13+00	-	18+00	LT/RT	–	–	--	--	–	–	–	–	–	–
	SUBTOTAL					6	18	6	4,172	4,172	–	–	0.52	960	–

(CONTINUED ON NEXT SHEET)

*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

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EROSION CONTROL ITEMS (CONTINUED)

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	* 606.0200 RIPRAP MEDIUM CY	645.0130 GEOTEXTILE TYPE R SY	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.6510 SOIL STABILIZER TYPE B ACRE	628.7504 TEMPORARY DITCH CHECKS LF	628.7570 ROCK BAGS EACH
4	**PROJECT ID 1228-22-71**														
	MAINLINE														
	IH 43														
		922+00	-	960+00	LT/RT	–	–	–	1,485	1,485	--	--	--	--	--
		960+00	-	1000+00	LT/RT	–	–	2	1,721	1,721	--	--	--	--	--
		1000+00	-	1016+00	LT/RT	–	–	–	261	261	--	--	--	--	--
	RAMPS														
	GBA2														
		928+00	-	934+00	LT/RT	–	–	–	–	–	–	–	–	–	–
		934+00	-	944+00	LT/RT	–	–	–	–	–	–	–	–	–	–
	GBB2														
		922+00	-	934+00	LT/RT	–	–	–	–	–	–	–	–	–	–
		934+00	-	940+00	LT/RT	–	–	–	–	–	–	–	–	–	–
	GBD														
		930+97	-	945+00	LT/RT	–	–	4	2168	2168	–	–	–	–	–
	GBC														
		931+00	-	943+00	LT/RT	–	–	–	–	–	–	–	–	–	–
	HAA														
		960+00	-	970+00	LT/RT	–	–	2	860	860	–	–	–	–	–
		970+00	-	979+00	LT/RT	–	–	2	2000	2,000	–	–	–	–	–
	HAB														
		969+00	-	982+00	LT/RT	–	–	–	–	–	–	–	–	–	–
	LOCAL ROADS														
	N PORT WASHINGTON ROAD					–	–								
		97+00	-	113+00	LT/RT	–	–	–	–	–	–	–	–	–	–
	W HAMPTON AVENUE														
		13+00	-	18+00	LT/RT	–	–	–	–	–	–	–	–	–	–
	SUBTOTAL					–	–	10	8,495	8,495	–	–	–	–	–
	PROJECT ID 1228-22-71 UNDISTRIBUTED					5	15	5	4,920	4,920	33	33	0.48	15	500
	PROJECT ID 1228-22-71 TOTAL					23	66	21	21,319	21,319	33	33	1	1,087	500
	CONTRACT TOTAL					23	66	21	21,319	21,319	33	33	1	1,087	500

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ID 1228-22-71
Revised Sheet 582
April 9, 2021

*ADDITIONAL QUANTITIES FOUND ELSEWHERE
CATEGORY 1000 UNLESS OTHERWISE NOTED

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ID 1228-22-71
Revised Sheet 583
April 9, 2021

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INLET PROTECTION ITEMS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
1	**PROJECT ID 1228-22-71**								
	MAINLINE								
	IH 43								
		922+00	-	960+00	LT/RT	13	3	--	42
		960+00	-	1000+00	LT/RT	25	–	–	67
		1000+00	-	1016+00	LT/RT	6	–	–	30
	RAMPS								
	GBA2								
		928+00	-	934+00	LT/RT	–	–	--	1
		934+00	-	944+00	LT/RT	3	–	2	5
	GBB2								
		922+00	-	934+00	LT/RT	2	–	--	4
		934+00	-	940+00	LT/RT	–	–	--	–
	GBD								
		930+97	-	945+00	LT/RT	1	3	1	6
	GBC								
		931+00	-	943+00	LT/RT	1	1	–	2
	HAA								
		960+00	-	970+00	LT/RT	–	–	–	–
		970+00	-	979+00	LT/RT	1	–	–	3
	HAB								
		969+00	-	982+00	LT/RT	–	–	--	2
	LOCAL ROADS								
	N PORT WASHINGTON ROAD								
		97+00	-	113+00	LT/RT	1	1	14	2
	W HAMPTON AVENUE								
		13+00	-	18+00	LT/RT	3	4	7	8
	SUBTOTAL					56	12	24	172

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INLET PROTECTION ITEMS (CONTINUED)

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
2	**PROJECT ID 1228-22-71**								
	MAINLINE								
	IH 43								
		922+00	-	960+00	LT/RT	30	–	–	30
		960+00	-	1000+00	LT/RT	38	–	–	35
		1000+00	-	1016+00	LT/RT	14	–	–	14
	RAMPS								
	GBA2								
		928+00	-	934+00	LT/RT	--	–	–	–
		934+00	-	944+00	LT/RT	--	–	–	–
	GBB2								
		922+00	-	934+00	LT/RT	--	–	–	–
		934+00	-	940+00	LT/RT	--	–	–	–
	GBD								
		930+97	-	945+00	LT/RT	--	–	–	–
	GBC								
		931+00	-	943+00	LT/RT	1	–	–	1
	HAA								
		960+00	-	970+00	LT/RT	--	–	–	–
		970+00	-	979+00	LT/RT	--	–	–	–
	HAB								
		969+00	-	982+00	LT/RT	2	2	–	2	2
	LOCAL ROADS								
	N PORT WASHINGTON ROAD								
		97+00	-	113+00	LT/RT	–	--	–	–
	W HAMPTON AVENUE								
		13+00	-	18+00	LT/RT	–	--	–	–
	SUBTOTAL					85	–	2	82

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(CONTINUED ON NEXT SHEET)

*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

INLET PROTECTION ITEMS (CONTINUED)

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
4	**PROJECT ID 1228-22-71**								
	MAINLINE								
	IH 43								
		922+00	-	960+00	LT/RT	46	–	--	46
		960+00	-	1000+00	LT/RT	101	–	–	119
		1000+00	-	1016+00	LT/RT	37	–	--	37
	RAMPS								
	GBA2								
		928+00	-	934+00	LT/RT	–	–	--	–
		934+00	-	944+00	LT/RT	–	–	--	–
	GBB2								
		922+00	-	934+00	LT/RT	–	–	--	–
		934+00	-	940+00	LT/RT	–	–	--	–
	GBD								
		930+97	-	945+00	LT/RT	15	–	12	3
	GBC								
		931+00	-	943+00	LT/RT	3	–	3	–
	HAA								
		960+00	-	970+00	LT/RT	16	–	7	6
		970+00	-	979+00	LT/RT	9	–	8	1
	HAB								
		969+00	-	982+00	LT/RT	2	–	1	1
	LOCAL ROADS								
	N PORT WASHINGTON ROAD								
		97+00	-	113+00	LT/RT	15	–	14	–
	W HAMPTON AVENUE								
		13+00	-	18+00	LT/RT	4	–	4	–
	SUBTOTAL					248	–	49	213
	UNDISTRIBUTED					117	4	23	140
	PROJECT ID 1228-22-71 TOTAL					506	16	98	607
	CONTRACT TOTAL					506	16	98	607

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ID 1228-22-71
Revised Sheet 584
April 9, 2021

*ADDITIONAL QUANTITIES FOUND ELSEWHERE
CATEGORY 1000 UNLESS OTHERWISE NOTED

RESTORATION ITEMS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	627.0200 MULCHING SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	629.0205 FERTILIZER TYPE A CWT	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	SPV.0180.0301 TOPSOIL SPECIAL SY
1	**PROJECT ID 1228-22-71**														
	MAINLINE														
	IH 43														
		941+36	-	966+79	LT	–	12041	–	–	–	–	--	--	–	--
	2	961+97	-	977+53	RT	–	7863	–	–	–	–	--	--	–	--
		983+35	-	998+24	RT	–	5096	–	–	–	–	--	--	–	--
	RAMPS														
	GBA2														
		928+00	-	934+00	LT/RT	–	–	–	–	–	–	--	--	–	--
		934+00	-	944+00	LT/RT	–	–	–	–	–	–	--	--	–	--
	GBB2														
		922+00	-	934+00	LT/RT	–	–	–	–	–	–	--	--	–	--
		934+00	-	940+00	LT/RT	–	–	–	–	–	–	--	--	–	--
								2			2				
	GBD														
		930+97	-	945+00	LT/RT	–	–	–	–	–	–	--	--	–	--
	GBC														
		931+00	-	943+00	LT/RT	–	–	–	–	–	–	--	--	–	--
	HAA														
		960+00	-	970+00	LT/RT	–	–	–	–	–	–	--	--	–	--
		970+00	-	979+00	LT/RT	–	–	–	–	–	–	--	--	–	--
	HAB														
		969+00	-	982+00	LT/RT	–	–	–	–	–	–	--	--	–	--
	LOCAL ROADS														
	N PORT WASHINGTON ROAD														
		97+00	-	113+00	LT/RT	–	–	–	–	–	–	--	--	–	--
	W HAMPTON AVENUE														
		13+00	-	18+00	LT/RT	–	–	–	–	–	–	--	--	–	--
	SUBTOTAL					–	2 25000	–	–	–	–	--	--	–	--

(CONTINUED ON NEXT SHEET)

*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

Addendum No. 02
ID 1228-22-71
Revised Sheet 585
April 9, 2021

RESTORATION ITEMS (CONTINUED)

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	627.0200 MULCHING SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	629.0205 FERTILIZER TYPE A CWT	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	SPV.0180.0301 TOPSOIL SPECIAL SY
2	**PROJECT ID 1228-22-71**														
	MAINLINE														
	IH 43														
		937+11	-	967+08	LT	–	4,379	10,727	–	10	612	–	–	339	15,106
		954+50	-	967+49	RT	–	8,971	–	4	2	118	245	–	201	8,971
		983+45	-	1005+91	LT	–	6,011	1,377	1	3	206	93	–	166	7,388
	RAMPS														
	GBA2														
		928+00	-	934+00	LT/RT	–	–	–	–	0	0	–	–	0	0
		934+00	-	944+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	GBB2														
		922+00	-	934+00	LT/RT	–	–	–	–	0	0	–	–	0	0
		934+00	-	940+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	GBD														
		930+97	-	945+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	GBC														
		932+98	-	938+93	LT/RT	–	–	2,830	–	2	115	–	–	64	2,830
	HAA														
		960+00	-	970+00	LT/RT	–	–	–	–	0	0	–	–	0	0
		970+00	-	979+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	HAB														
		967+78	-	977+33	LT/RT	–	2,585	755	–	2	135	–	–	75	3,340
	LOCAL ROADS														
	N PORT WASHINGTON ROAD														
		97+00	-	113+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	W HAMPTON AVENUE														
		13+00	-	18+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	SUBTOTAL					0	21946	15689	5	19	1186	338	0	845	37635

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*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

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ID 1228-22-71
Revised Sheet 586
April 9, 2021

RESTORATION ITEMS (CONTINUED)

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	627.0200 MULCHING SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2027 EROSION MAT CLASS II TYPE C SY	629.0205 FERTILIZER TYPE A CWT	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	SPV.0180.0301 TOPSOIL SPECIAL SY
4	**PROJECT ID 1228-22-71**														
	MAINLINE														
	IH 43														
		922+00	-	960+00	LT/RT	–	2,651	5,124	–	5	315	–	–	175	7,775
		960+00	-	1000+00	LT/RT	–	1,375	4,168	–	3	224	–	–	124	5,543
		1000+00	-	1016+00	LT/RT	–	–	218	–	0	9	–	–	5	218
	RAMPS							2			2				
	GBA2														
		928+00	-	934+00	LT/RT	–	–	–	–	0	0	–	–	0	0
		934+00	-	944+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	GBB2														
		922+00	-	934+00	LT/RT	–	–	–	–	0	0	–	–	0	0
		934+00	-	940+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	GBD														
		930+97	-	945+00	LT/RT	–	620	3,933	–	3	184	–	–	102	4,553
	GBC														
		931+00	-	943+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	HAA														
		960+00	-	970+00	LT/RT	–	1,510	3,714	–	1	94	–	–	52	2,312
		970+00	-	979+00	LT/RT	–	–	2,312	–	0	0	–	–	0	0
	HAB														
		969+00	-	982+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	LOCAL ROADS														
	N PORT WASHINGTON ROAD														
		97+00	-	113+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	W HAMPTON AVENUE														
		13+00	-	18+00	LT/RT	–	–	–	–	0	0	–	–	0	0
	SUBTOTAL					0	6156	19469	–	13	826	–	0	458	20401
	UNDISTRIBUTED				2	3482	15931	10547	–	9	604	–	2500	391	17411
	PROJECT ID 1228-22-71 TOTAL					3,482	69,033	45,705	5	41	2,616	338	2,500	1,694	75,447
	CONTRACT TOTAL					3,482	69,033	45,705	5	41	2,616	338	2,500	1,694	75,447

Addendum No. 02
ID 1228-22-71
Revised Sheet 587
April 9, 2021

*ADDITIONAL QUANTITIES FOUND ELSEWHERE CATEGORY 1000 UNLESS OTHERWISE NOTED

TEMPORARY CONCRETE BARRIER ITEMS

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	OFFSET	603.8000* CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125* CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	603.8500 ANCHORING CONCRETE BARRIER TEMPORARY PRECAST LF	603.8505 ANCHORING CONCRETE BARRIER TEMPORARY PRECAST ON BRIDGE DECKS LF
1000		**PROJECT ID 1228-22-71**								
	1	IH 43 NB								
			925+83	-	930+91	RT	512	512	512	0
			956+37	-	963+95	RT	770	770	770	0
			971+01	-	983+46	LT/RT	1250	1250	676	574
		IH 43 SB								
			927+69	-	933+58	LT	582	582	582	0
			953+18	-	968+11	LT/RT	1484	1484	1357	127
		SUBTOTAL					4,598	4,598	3,897	701
	2A	IH 43 NB								
			956+66	-	966+96	RT	1063	1063	1063	0
			963+45	-	966+96	RT	365	365	365	0
			968+50	-	973+74	RT	537	537	537	0
			968+50	-	974+01	RT	561	561	561	0
			989+07	-	994+69	RT	575	575	0	0
			993+64	-	1000+74	RT	717	717	717	0
			1001+77	-	1006+86	RT	519	519	519	0
		SUBTOTAL					4,337	4,337	3,762	0
	2B	IH 43 NB								
			958+80	-	963+45	RT	475	475	475	0
			993+60	-	995+87	RT	227	227	227	0
		SUBTOTAL					702	702	702	0
	2C1	IH 43 SB								
			937+05	-	941+85	LT	484	484	443	41
		SUBTOTAL					484	484	443	41
	2C2	IH 43 SB								
			935+73	-	941+35	LT	571	571	431	140
			938+25	-	954+96	LT	1713	1713	482	0
			960+98	-	971+17	LT	1001	1001	871	130
		SUBTOTAL					3285	3285	1784	270
	2D	IH 43 NB								
			928+50	-	939+00	RT	1051	1051	913	138
		IH 43 SB								
			934+00	-	938+35	LT	442	442	304	138
			938+30	-	1012+31	LT/RT	7470	7470	4107	130
			960+98	-	974+56	LT/RT	1,362	1,362	1,231	131
			995+09	-	1003+53	LT	844	844	844	0
		SUBTOTAL					11,169	11,169	7,399	537

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Addendum No. 02
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April 9, 2021

(CONTINUED ON NEXT SHEET)

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : June 14, 1911 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1

TEMPORARY CONCRETE BARRIER ITEMS (CONTINUED)

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	OFFSET	603.8000 * CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 * CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	603.8500 ANCHORING CONCRETE BARRIER TEMPORARY PRECAST LF	603.8505 ANCHORING CONCRETE BARRIER TEMPORARY PRECAST ON BRIDGE DECKS LF
1000		**PROJECT ID 1228-22-71**								
	3A	IH 43 NB								
			930+00	-	939+91	RT	91	993	519	0
		IH 43 SB								
			934+00	-	943+47	LT	521	963	0	0
			960+58	-	964+41	LT	379	379	208	131
		SUBTOTAL					991	2,335	727	131
	3B	IH 43 NB								
			930+00	-	940+00	0'	9	1,000	869	131
			1007+45	-	1012+95	0'	550	550	550	0
		SUBTOTAL					559	1,550	1,419	131
	3C	IH 43 NB								
			961+93	-	966+71	RT	482	482	482	0
			969+25	-	973+74	RT	449	449	449	0
			969+28	-	973+74	RT	446	446	446	0
			995+00	-	997+06	RT	–	206	206	0
		SUBTOTAL					1,377	1,583	1,583	0
	4	IH 43 NB/SB								
			928+50	-	1012+92	LT/RT	8,442	8,442	1,500	0
			930+96	-	940+00	RT	910	910	0	0
			995+00	-	1002+23	LT	719	719	719	0
		SUBTOTAL					10,071	10,071	2,219	–
	5	IH 43 NB								
			1006+41	-	1012+91	RT	652	652	0	0
		IH 43 SB								
			1007+45	-	1013+72	LT	165	627	0	0
		SUBTOTAL					817	1,279	0	0
		PROJECT ID 1228-22-71 TOTAL					38,390	41,393	23,935	1,811

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Addendum No. 02
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Added Sheet 602A
April 9, 2021

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

TEMPORARY PAVEMENT MARKING ITEMS

CATEGORY	STAGE	LOCATION	STATION	TO	STATION	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH 12.5 FT LINE 37.5 FT SKIP WHITE LF	649.0120 WHITE LF	649.0120 YELLOW LF	649.0220 TEMPORARY MARKING LINE EPOXY 8-INCH 3FT LINE 9 FT SKIP WHITE LF	649.0220 WHITE LF	649.0760 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I WHITE EACH	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH	649.0520 TEMPORARY MARKING ARROW EPOXY EACH	REMARKS
1000		**PROJECT ID 1228-22-71**													
	1	IH 43 NB	952+23	-	990+04	1,901	3,807	3,797	–	–	32	9,505	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		IH 43 SB	949+96	-	975+15	1,256	2,393	2,519	–	530	48	6,168	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				3,157	6,200	6,316	–	530	80	15,673	–	--	
	2A	IH 43 NB	941+32	-	IH 43	3,154	10,756	14,641	–	–	147	3,565	2	--	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				3,154	10,756	14,641	–	–	147	3,565	2	--	
	2B	IH 43 NB	937+00	-	IH 43	4,139	8,649	7,580	–	1,068	–	28,551	–	2	TYPE 5 ARROW, REMOVE IN STAGE 2C1
		SUBTOTAL				4,139	8,649	7,580	–	1,068	–	28,551	–	2	
	2C1	IH 43 NB	921+67	-	IH 43	1,686	10,684	13,802	–	–	147	16,700	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		IH 43 SB	921+67	-	IH 43	3,086	12,203	15,716	–	1,588	21	-	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				4,772	22,887	29,518	–	1,588	168	16,700			
	2C2	IH 43 SB	921+67	-	1016+87	2,241	15,379	10,526	–	2,698	144	24,655	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				2,241	15,379	10,526	–	2,698	144	24,655	–	--	
	2D	IH 43 NB	920+50	-	1015+61	1,271	7,358	5,575	–	636	78	13,380	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		IH 43 SB	920+50	-	1015+61	1,825	12,435	9,455	–	608	198	15,915	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				3,096	19,793	15,030	–	1,244	276	29,295	–	--	
	3A	IH 43 SB	926+40	-	680+00	588	7,834	5,384	–	1,261	190	13,806	–	--	
		SUBTOTAL				588	7,834	5,384	–	1,261	190	13,806	–	--	
	3B	IH 43 SB	926+38	-	1016+50	2,752	9,209	9,294	–	267	63	21,255	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				2,752	9,209	9,294	–	267	63	21,255	–	--	
	3C	IH 43 NB	925+00	-	IH 43	5,264	10,199	10,194	–	425	–	33,895	–	2	TYPE 5 ARROW, REMOVE IN STAGE 5
		IH 43 SB	925+00	-	IH 43	5,847	11,584	10,071	–	2,976	–	33,852	–	--	
		SUBTOTAL				11,111	21,783	20,265	–	3,401	–	67,747	–	2	
	4	IH 43 NB	920+50	-	IH 43	1,795	18,095	9,941	129	1,408	195	9,525	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		IH 43 SB	920+50	-	IH 43	2,816	12,074	15,735	–	2,445	99	24,276	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		SUBTOTAL				4,611	30,169	25,676	129	3,853	294	33,801	–	--	
	5	IH 43 NB	925+00	-	IH 43	2,745	11,268	15,271	–	–	–	29,208	–	--	
		IH 43 SB	925+00	-	1016+87	3,810	7,920	9,609	–	4,366	–	21,339	–	--	
		SUBTOTAL				6,555	19,188	25,880	–	4,366	–	50,547	–	--	
		UNDISTRIBUTED				2,309	8,592	8,506	10	1,001	–	15,280	–	--	RAISED MARKERS FOR SHIFTING TAPERS
		PROJECT 1228-22-71 TOTAL					407,538			21,416	1,362	320,874	2	4	

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Revised Sheet 604
April 9, 2021

PROJECT NO: 1228-22-71	HWY: IH 43	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET: 604	E

FILE NAME : N:\PDS\...\030200_mq.pptx PLOT DATE : June 14, 1911 PLOT BY : A.R.H. PLOT NAME : PLOT SCALE : 1:1

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	SIGN NO.	NUMBER REQUIRED	SIZE LENGTH FT	SIZE WIDTH FT	SIGN AREA SF	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	SIGN MESSAGE
1000	FM-01	1	10.5	7.5	78.75	78.75	I-43 RAMP CLOSED TO GREEN BAY AVE CAPITOL DR XX-XX USE EXIT 78
	FM-02	1	10.5	6.0	63	63	I-43 RAMP CLOSED TO HAMPTON AVE XX-XX USE EXIT 76A
	FM-03	1	10.5	7.5	78.75	78.75	I-43 RAMP CLOSED TO GREEN BAY AVE CAPITOL DR XX-XX USE EXIT 77A
	FM-04	3	10.5	2.0	21	63	BEGINS XXX-XX
	TOTAL					283.5	

TRAFFIC CONTROL

CATEGORY	LOCATION	643.5000 TRAFFIC CONTROL EACH
1000	**PROJECT ID 1228-22-71**	1
	TOTAL:	1

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ID 1228-22-71
Revised Sheet 605
April 9, 2021

DYNAMIC LATE MERGE SYSTEM (DLMS). TRAFFIC QUEUE WARNING SYSTEM (QWS)

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CATEGORY	LOCATION	STAGE	DISTANCE MILES	643.1100.S DYNAMIC LATE MERGE SYSTEM DAY	643.1200.S PORTABLE AUTOMATED REAL-TIME TRAFFIC QUEUE WARNING SYSTEM DAY
1000	IH 43 NB	2A, 2C1, 2C2, 2D, 3A, 3B, 4, 5	2	545	0
	IH 43 SB	2C1, 2C2, 2D, 3A, 3B, 4, 5	2	0	455
PROJECT ID 1228-22-71 TOTAL				545	455

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TRAFFIC CONTROL CLOSURES

CATEGORY	ROADWAY	643.4100.S TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	SPV.0060.0910 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH	SPV.0060.0916 TRAFFIC CONTROL LOCAL ROAD LANE CLOSURE EACH
1000	IH 43	2,000	400	100
	TOTAL:	2,000	400	100

EMERGENCY RESPONSE TO TRAFFIC INCIDENT

CATEGORY	ROADWAY	SPV.0060.0940 EMERGENCY RESPONSE TO TRAFFIC INCIDENT INVOLVING CONCRETE BARRIER TEMPORARY EACH	SPV.0060.0945 EMERGENCY RESPONSE TO TRAFFIC INCIDENT INVOLVING CRASH CUSHIONS EACH
1000	PROJECT 1228-22-71	40	10
	PROJECT ID 1228-22-71 TOTAL	40	10

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	110.000 STA	_____.____	_____.____
0004	201.0120 Clearing	356.000 ID	_____.____	_____.____
0006	201.0205 Grubbing	110.000 STA	_____.____	_____.____
0008	201.0220 Grubbing	356.000 ID	_____.____	_____.____
0010	203.0200 Removing Old Structure (station) 0001. 936+43.30	LS	LUMP SUM	_____.____
0012	203.0200 Removing Old Structure (station) 0002. 966+88	LS	LUMP SUM	_____.____
0014	203.0200 Removing Old Structure (station) 0003. 946+50	LS	LUMP SUM	_____.____
0016	203.0200 Removing Old Structure (station) 0004. 977+00HAB	LS	LUMP SUM	_____.____
0018	203.0200 Removing Old Structure (station) 0005. 936+51	LS	LUMP SUM	_____.____
0020	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 0001. 977+50	LS	LUMP SUM	_____.____
0022	203.0600.S Removing Old Structure Over Waterway With Minimal Debris (station) 0002. 980+00	LS	LUMP SUM	_____.____
0024	204.0100 Removing Concrete Pavement	68,966.000 SY	_____.____	_____.____
0026	204.0109.S Removing Concrete Surface Partial Depth	386.000 SF	_____.____	_____.____
0028	204.0110 Removing Asphaltic Surface	12,866.000 SY	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0030	204.0120 Removing Asphaltic Surface Milling	15,072.000 SY	_____.____	_____.____
0032	204.0150 Removing Curb & Gutter	1,431.000 LF	_____.____	_____.____
0034	204.0155 Removing Concrete Sidewalk	1,290.000 SY	_____.____	_____.____
0036	204.0157 Removing Concrete Barrier	16,692.000 LF	_____.____	_____.____
0038	204.0165 Removing Guardrail	681.000 LF	_____.____	_____.____
0040	204.0170 Removing Fence	11,449.000 LF	_____.____	_____.____
0042	204.0195 Removing Concrete Bases	66.000 EACH	_____.____	_____.____
0044	204.0210 Removing Manholes	14.000 EACH	_____.____	_____.____
0046	204.0220 Removing Inlets	123.000 EACH	_____.____	_____.____
0048	204.0245 Removing Storm Sewer (size) 0001. 12-Inch	3,060.000 LF	_____.____	_____.____
0050	204.0245 Removing Storm Sewer (size) 0002. 15-Inch	1,508.000 LF	_____.____	_____.____
0052	204.0245 Removing Storm Sewer (size) 0003. 18-Inch	1,636.000 LF	_____.____	_____.____
0054	204.0245 Removing Storm Sewer (size) 0004. 21-Inch	59.000 LF	_____.____	_____.____
0056	204.0245 Removing Storm Sewer (size) 0005. 24-Inch	1,968.000 LF	_____.____	_____.____
0058	204.0245 Removing Storm Sewer (size) 0007. 30-Inch	204.000 LF	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	204.0250 Abandoning Manholes	4.000 EACH	_____._____	_____._____
0062	204.0280 Sealing Pipes	16.000 EACH	_____._____	_____._____
0064	204.0291.S Abandoning Sewer	149.000 CY	_____._____	_____._____
0066	204.9001.S Removing Advance Flasher Assemblies Type 1	1.000 EACH	_____._____	_____._____
0068	204.9060.S Removing (item description) 0002. Apron Endwall	2.000 EACH	_____._____	_____._____
0070	204.9060.S Removing (item description) 1001. Lighting Units	169.000 EACH	_____._____	_____._____
0072	204.9105.S Removing (item description) 0001. Traffic Signals IH-43 NB Off Ramp & Port Washington Rd	LS	LUMP SUM	_____._____
0074	204.9105.S Removing (item description) 0002. Loop Detector Wire and Lead-in Cable IH-43 NB Off Ramp&Port Washington Rd	LS	LUMP SUM	_____._____
0076	204.9105.S Removing (item description) 0003. Traffic Signals, IH-43 SB On Ramp & W. Hampton Ave.	LS	LUMP SUM	_____._____
0078	205.0100 Excavation Common	197,901.000 CY	_____._____	_____._____
0080	206.1000 Excavation for Structures Bridges (structure) 0001. B-40-1014	LS	LUMP SUM	_____._____
0082	206.1000 Excavation for Structures Bridges (structure) 0002. B-40-1016	LS	LUMP SUM	_____._____
0084	206.1000 Excavation for Structures Bridges (structure) 0003. B-40-1018	LS	LUMP SUM	_____._____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0086	206.1000 Excavation for Structures Bridges (structure) 0004. B-40-1019	LS	LUMP SUM	_____.____
0088	206.1000 Excavation for Structures Bridges (structure) 0005. B-40-1020	LS	LUMP SUM	_____.____
0090	206.1000 Excavation for Structures Bridges (structure) 0006. B-40-1021	LS	LUMP SUM	_____.____
0092	206.2000 Excavation for Structures Culverts (structure) 0001. C-40-111	LS	LUMP SUM	_____.____
0094	206.5000 Cofferdams (structure) 0001. B-40-1016	LS	LUMP SUM	_____.____
0096	206.5000 Cofferdams (structure) 0002. B-40-1018	LS	LUMP SUM	_____.____
0098	208.0100 Borrow	80,218.000 CY	_____.____	_____.____
0100	209.2500 Backfill Granular Grade 2	2,374.000 TON	_____.____	_____.____
0102	210.1500 Backfill Structure Type A	3,859.000 TON	_____.____	_____.____
0104	210.2500 Backfill Structure Type B	3,240.000 TON	_____.____	_____.____
0106	211.0200 Prepare Foundation for Concrete Pavement (project) 0001. 1228-22-71	LS	LUMP SUM	_____.____
0108	213.0100 Finishing Roadway (project) 0001. 1228-22-71	1.000 EACH	_____.____	_____.____
0110	305.0120 Base Aggregate Dense 1 1/4-Inch	54,922.000 TON	_____.____	_____.____
0112	312.0110 Select Crushed Material	129,542.000 TON	_____.____	_____.____
0116	390.0403 Base Patching Concrete Shes	1,394.000 SY	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0118	415.0090 Concrete Pavement 9-Inch	1,094.000 SY	_____.____	_____.____
0120	415.0100 Concrete Pavement 10-Inch	9,448.000 SY	_____.____	_____.____
0122	415.0125 Concrete Pavement 12 1/2-Inch	89,567.000 SY	_____.____	_____.____
0124	415.0410 Concrete Pavement Approach Slab	2,207.000 SY	_____.____	_____.____
0126	415.1080 Concrete Pavement HES 8-Inch	66.000 SY	_____.____	_____.____
0128	415.5110.S Concrete Pavement Joint Layout	1.000 LS	_____.____	_____.____
0130	416.0610 Drilled Tie Bars	2,860.000 EACH	_____.____	_____.____
0132	416.0620 Drilled Dowel Bars	2,609.000 EACH	_____.____	_____.____
0134	455.0605 Tack Coat	2,412.000 GAL	_____.____	_____.____
0136	460.2000 Incentive Density HMA Pavement	2,910.000 DOL	1.00000	2,910.00
0138	460.6224 HMA Pavement 4 MT 58-28 S	1,083.000 TON	_____.____	_____.____
0140	460.7223 HMA Pavement 3 HT 58-28 S	1,757.000 TON	_____.____	_____.____
0142	460.7424 HMA Pavement 4 HT 58-28 H	144.000 TON	_____.____	_____.____
0144	460.8424 HMA Pavement 4 SMA 58-28 H	1,366.000 TON	_____.____	_____.____
0146	465.0105 Asphaltic Surface	184.000 TON	_____.____	_____.____
0148	465.0125 Asphaltic Surface Temporary	5,264.000 TON	_____.____	_____.____
0150	495.1000.S Cold patch	10.000 TON	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0152	501.1000.S Ice Hot Weather Concreting	90,305.000 LB	_____.____	_____.____
0154	502.0100 Concrete Masonry Bridges	8,211.000 CY	_____.____	_____.____
0156	502.3101 Expansion Device	513.000 LF	_____.____	_____.____
0158	502.3200 Protective Surface Treatment	15,306.000 SY	_____.____	_____.____
0160	502.3210 Pigmented Surface Sealer	5,217.000 SY	_____.____	_____.____
0162	502.4205 Adhesive Anchors No. 5 Bar	260.000 EACH	_____.____	_____.____
0164	502.4206 Adhesive Anchors No. 6 Bar	476.000 EACH	_____.____	_____.____
0166	503.0137 Prestressed Girder Type I 36W-Inch	6,218.000 LF	_____.____	_____.____
0168	503.0172 Prestressed Girder Type I 72W-Inch	5,420.000 LF	_____.____	_____.____
0170	504.0100 Concrete Masonry Culverts	341.000 CY	_____.____	_____.____
0172	504.0500 Concrete Masonry Retaining Walls	3,858.000 CY	_____.____	_____.____
0174	505.0400 Bar Steel Reinforcement HS Structures	377,340.000 LB	_____.____	_____.____
0176	505.0600 Bar Steel Reinforcement HS Coated Structures	1,600,745.000 LB	_____.____	_____.____
0178	505.0800.S Bar Steel Reinforcement HS Stainless Structures	12,710.000 LB	_____.____	_____.____
0180	505.0904 Bar Couplers No. 4	16.000 EACH	_____.____	_____.____
0182	505.0905 Bar Couplers No. 5	48.000 EACH	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0184	505.0906 Bar Couplers No. 6	20.000 EACH	_____.____	_____.____
0186	506.0105 Structural Steel Carbon	55.000 LB	_____.____	_____.____
0188	506.2605 Bearing Pads Elastomeric Non-Laminated	196.000 EACH	_____.____	_____.____
0190	506.2610 Bearing Pads Elastomeric Laminated	28.000 EACH	_____.____	_____.____
0192	506.4000 Steel Diaphragms (structure) 0001. B-40-1014	3.000 EACH	_____.____	_____.____
0194	506.4000 Steel Diaphragms (structure) 0002. B-40-1016	72.000 EACH	_____.____	_____.____
0196	506.4000 Steel Diaphragms (structure) 0003. B-40-1018	72.000 EACH	_____.____	_____.____
0198	506.4000 Steel Diaphragms (structure) 0004. B-40-1019	18.000 EACH	_____.____	_____.____
0200	506.4000 Steel Diaphragms (structure) 0005. B-40-1020	22.000 EACH	_____.____	_____.____
0202	506.4000 Steel Diaphragms (structure) 0006. B-40-1021	6.000 EACH	_____.____	_____.____
0204	506.5000 Bearing Assemblies Fixed (structure) 0001. B-40-116	14.000 EACH	_____.____	_____.____
0206	506.6000 Bearing Assemblies Expansion (structure) 0001. B-40-116	42.000 EACH	_____.____	_____.____
0208	506.7050.S Removing Bearings (structure) 0001. B-40-116	56.000 EACH	_____.____	_____.____
0210	509.0301 Preparation Decks Type 1	40.000 SY	_____.____	_____.____

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0212	509.0302 Preparation Decks Type 2	25.000 SY	_____.____	_____.____
0214	509.0505.S Cleaning Decks to Reapply Concrete Masonry Overlay	1,384.000 SY	_____.____	_____.____
0216	509.1000 Joint Repair	106.000 SY	_____.____	_____.____
0218	509.1500 Concrete Surface Repair	105.000 SF	_____.____	_____.____
0220	509.2000 Full-Depth Deck Repair	15.000 SY	_____.____	_____.____
0222	509.2500 Concrete Masonry Overlay Decks	79.000 CY	_____.____	_____.____
0224	509.9005.S Removing Concrete Masonry Deck Overlay (structure) 0001. B-40-116	1,384.000 SY	_____.____	_____.____
0226	509.9050.S Cleaning Parapets	260.000 LF	_____.____	_____.____
0228	511.1100 Temporary Shoring	15,730.000 SF	_____.____	_____.____
0230	511.1200 Temporary Shoring (structure) 0001. B-40-1016	1,180.000 SF	_____.____	_____.____
0232	511.1200 Temporary Shoring (structure) 0002. B-40-1018	1,325.000 SF	_____.____	_____.____
0234	511.1200 Temporary Shoring (structure) 0003. B-40-1020	1,925.000 SF	_____.____	_____.____
0236	516.0500 Rubberized Membrane Waterproofing	590.000 SY	_____.____	_____.____
0238	516.0610.S Sheet Membrane Waterproofing for Top Slab (structure) 4000. C-40-111	400.000 SY	_____.____	_____.____
0240	517.1800.S Structure Repainting Recycled Abrasive (structure) 0001. B-40-116	 LS	LUMP SUM	_____.____

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0242	517.4500.S Negative Pressure Containment and Collection of Waste Materials (structure) 0001. B-40-116	LS	LUMP SUM	_____.____
0244	517.6001.S Portable Decontamination Facility	1.000 EACH	_____.____	_____.____
0246	520.8000 Concrete Collars for Pipe	29.000 EACH	_____.____	_____.____
0248	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	1.000 EACH	_____.____	_____.____
0250	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	3.000 EACH	_____.____	_____.____
0252	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	3.000 EACH	_____.____	_____.____
0254	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	1.000 EACH	_____.____	_____.____
0256	531.1100 Concrete Masonry Ancillary Structures Type NS	148.000 CY	_____.____	_____.____
0258	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	11,844.000 LB	_____.____	_____.____
0260	531.1160 Steel Reinforcement HS Coated Ancillary Structures Type NS	14,250.000 LB	_____.____	_____.____
0262	531.2024 Drilling Shaft 24-Inch	18.000 LF	_____.____	_____.____
0264	531.2030 Drilling Shaft 30-Inch	24.000 LF	_____.____	_____.____
0266	531.2036 Drilling Shaft 36-Inch	186.000 LF	_____.____	_____.____
0268	531.4050 Foundation Camera Pole 50-FT	1.000 EACH	_____.____	_____.____

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0270	531.8990 Anchor Assemblies Poles on Structures	30.000 EACH	_____.____	_____.____
0272	532.5020 Butterfly 2-Chord NS (structure) 0001. S-40-3022	1.000 EACH	_____.____	_____.____
0274	532.5020 Butterfly 2-Chord NS (structure) 0002. S-40-3023	1.000 EACH	_____.____	_____.____
0276	532.6010 Truss Cantilever 4-Chord Type I (structure) 0001. S-40-3018	1.000 EACH	_____.____	_____.____
0278	532.6010 Truss Cantilever 4-Chord Type I (structure) 0002. S-40-3019	1.000 EACH	_____.____	_____.____
0280	532.6020 Truss Cantilever 4-Chord Type II (structure) 0003. S-40-3020	1.000 EACH	_____.____	_____.____
0282	532.6020 Truss Cantilever 4-Chord Type II (structure) 0004. S-40-3021	1.000 EACH	_____.____	_____.____
0284	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0001. N-40-94	10,172.000 SF	_____.____	_____.____
0286	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0002. N-40-95	15,382.000 SF	_____.____	_____.____
0288	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0003. N-40-96	6,359.000 SF	_____.____	_____.____
0290	550.0500 Pile Points	234.000 EACH	_____.____	_____.____
0292	550.1100 Piling Steel HP 10-Inch X 42 Lb	4,035.000 LF	_____.____	_____.____
0294	550.1120 Piling Steel HP 12-Inch X 53 Lb	3,750.000 LF	_____.____	_____.____
0296	601.0322 Concrete Curb & Gutter 22-Inch	169.000 LF	_____.____	_____.____

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0298	601.0331 Concrete Curb & Gutter 31-Inch	361.000 LF	_____.____	_____.____
0300	601.0409 Concrete Curb & Gutter 30-Inch Type A	2,861.000 LF	_____.____	_____.____
0302	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	2,133.000 LF	_____.____	_____.____
0304	601.0600 Concrete Curb Pedestrian	461.000 LF	_____.____	_____.____
0306	602.0410 Concrete Sidewalk 5-Inch	18,880.000 SF	_____.____	_____.____
0308	602.0415 Concrete Sidewalk 6-Inch	3,851.000 SF	_____.____	_____.____
0310	602.0505 Curb Ramp Detectable Warning Field Yellow	338.000 SF	_____.____	_____.____
0312	603.0105 Concrete Barrier Single-Faced 32-Inch	2,894.000 LF	_____.____	_____.____
0314	603.1142 Concrete Barrier Type S42	14,198.000 LF	_____.____	_____.____
0316	603.1156 Concrete Barrier Type S56	775.000 LF	_____.____	_____.____
0318	603.1342 Concrete Barrier Type S42B	50.000 LF	_____.____	_____.____
0320	603.1442 Concrete Barrier Type S42C	1,304.000 LF	_____.____	_____.____
0322	603.1456 Concrete Barrier Type S56C	482.000 LF	_____.____	_____.____
0324	603.3113 Concrete Barrier Transition Type NJ32SF to S36	3.000 EACH	_____.____	_____.____
0326	603.3535 Concrete Barrier Transition Type S36 to S42	3.000 EACH	_____.____	_____.____

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0328	603.3559 Concrete Barrier Transition Type S42 to S56	7.000 EACH	_____.____	_____.____
0330	603.8000 Concrete Barrier Temporary Precast Delivered	39,700.000 LF	_____.____	_____.____
0332	603.8125 Concrete Barrier Temporary Precast Installed	44,276.000 LF	_____.____	_____.____
0334	604.0400 Slope Paving Concrete	839.000 SY	_____.____	_____.____
0336	604.0500 Slope Paving Crushed Aggregate	2,130.000 SY	_____.____	_____.____
0338	606.0200 Riprap Medium	88.000 CY	_____.____	_____.____
0340	606.0300 Riprap Heavy	1,390.000 CY	_____.____	_____.____
0342	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	28.000 LF	_____.____	_____.____
0344	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	1,301.000 LF	_____.____	_____.____
0346	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	2,384.000 LF	_____.____	_____.____
0348	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	5,692.000 LF	_____.____	_____.____
0350	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	1,806.000 LF	_____.____	_____.____
0352	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	516.000 LF	_____.____	_____.____
0354	608.0348 Storm Sewer Pipe Reinforced Concrete Class III 48-Inch	203.000 LF	_____.____	_____.____

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0356	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	131.000 LF	_____.____	_____.____
0358	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	985.000 LF	_____.____	_____.____
0360	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	404.000 LF	_____.____	_____.____
0362	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	2,034.000 LF	_____.____	_____.____
0364	608.0430 Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	78.000 LF	_____.____	_____.____
0366	608.0448 Storm Sewer Pipe Reinforced Concrete Class IV 48-Inch	47.000 LF	_____.____	_____.____
0368	608.0518 Storm Sewer Pipe Reinforced Concrete Class V 18-Inch	261.000 LF	_____.____	_____.____
0370	608.0524 Storm Sewer Pipe Reinforced Concrete Class V 24-Inch	1,267.000 LF	_____.____	_____.____
0372	608.2424 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	204.000 LF	_____.____	_____.____
0374	608.2429 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	599.000 LF	_____.____	_____.____
0376	608.2434 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	243.000 LF	_____.____	_____.____
0378	611.0430 Reconstructing Inlets	7.000 EACH	_____.____	_____.____
0380	611.0535 Manhole Covers Type J-Special	35.000 EACH	_____.____	_____.____

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0382	611.0606 Inlet Covers Type B	25.000 EACH	_____.____	_____.____
0384	611.0610 Inlet Covers Type BW	4.000 EACH	_____.____	_____.____
0386	611.0612 Inlet Covers Type C	4.000 EACH	_____.____	_____.____
0388	611.0624 Inlet Covers Type H	12.000 EACH	_____.____	_____.____
0390	611.0627 Inlet Covers Type HM	21.000 EACH	_____.____	_____.____
0392	611.0636 Inlet Covers Type HM-S	4.000 EACH	_____.____	_____.____
0394	611.0639 Inlet Covers Type H-S	5.000 EACH	_____.____	_____.____
0396	611.0642 Inlet Covers Type MS	15.000 EACH	_____.____	_____.____
0398	611.0651 Inlet Covers Type S	10.000 EACH	_____.____	_____.____
0400	611.0654 Inlet Covers Type V	94.000 EACH	_____.____	_____.____
0402	611.2004 Manholes 4-FT Diameter	17.000 EACH	_____.____	_____.____
0404	611.2005 Manholes 5-FT Diameter	36.000 EACH	_____.____	_____.____
0406	611.2006 Manholes 6-FT Diameter	12.000 EACH	_____.____	_____.____
0408	611.2007 Manholes 7-FT Diameter	5.000 EACH	_____.____	_____.____
0410	611.2008 Manholes 8-FT Diameter	3.000 EACH	_____.____	_____.____
0412	611.3004 Inlets 4-FT Diameter	107.000 EACH	_____.____	_____.____
0414	611.3220 Inlets 2x2-FT	3.000 EACH	_____.____	_____.____

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0416	611.3225 Inlets 2x2.5-FT	28.000 EACH	_____.____	_____.____
0418	611.3901 Inlets Median 1 Grate	3.000 EACH	_____.____	_____.____
0420	611.3902 Inlets Median 2 Grate	6.000 EACH	_____.____	_____.____
0422	611.8120.S Cover Plates Temporary	7.000 EACH	_____.____	_____.____
0424	611.9800.S Pipe Grates	2.000 EACH	_____.____	_____.____
0426	612.0106 Pipe Underdrain 6-Inch	16,159.000 LF	_____.____	_____.____
0428	612.0406 Pipe Underdrain Wrapped 6-Inch	8,120.000 LF	_____.____	_____.____
0430	614.0805 Crash Cushions Permanent Low Maintenance	2.000 EACH	_____.____	_____.____
0432	614.0905 Crash Cushions Temporary	8.000 EACH	_____.____	_____.____
0434	614.2300 MGS Guardrail 3	284.000 LF	_____.____	_____.____
0436	614.2500 MGS Thrie Beam Transition	197.100 LF	_____.____	_____.____
0438	614.2610 MGS Guardrail Terminal EAT	4.000 EACH	_____.____	_____.____
0440	616.0206 Fence Chain Link 6-FT	11,434.000 LF	_____.____	_____.____
0442	616.0329 Gates Chain Link (width) 0001. 6-FT	1.000 EACH	_____.____	_____.____
0444	616.0329 Gates Chain Link (width) 0002. 12-FT	9.000 EACH	_____.____	_____.____
0446	619.1000 Mobilization	1.000 EACH	_____.____	_____.____

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0448	620.0300 Concrete Median Sloped Nose	506.000 SF	_____.____	_____.____
0450	623.0200 Dust Control Surface Treatment	134,678.000 SY	_____.____	_____.____
0452	624.0100 Water	753.000 MGAL	_____.____	_____.____
0454	627.0200 Mulching	3,482.000 SY	_____.____	_____.____
0456	628.1104 Erosion Bales	21.000 EACH	_____.____	_____.____
0458	628.1504 Silt Fence	21,319.000 LF	_____.____	_____.____
0460	628.1520 Silt Fence Maintenance	21,319.000 LF	_____.____	_____.____
0462	628.1905 Mobilizations Erosion Control	33.000 EACH	_____.____	_____.____
0464	628.1910 Mobilizations Emergency Erosion Control	33.000 EACH	_____.____	_____.____
0466	628.2004 Erosion Mat Class I Type B	69,033.000 SY	_____.____	_____.____
0468	628.2027 Erosion Mat Class II Type C	45,705.000 SY	_____.____	_____.____
0470	628.6510 Soil Stabilizer Type B	1.000 ACRE	_____.____	_____.____
0472	628.7005 Inlet Protection Type A	506.000 EACH	_____.____	_____.____
0474	628.7010 Inlet Protection Type B	16.000 EACH	_____.____	_____.____
0476	628.7015 Inlet Protection Type C	98.000 EACH	_____.____	_____.____
0478	628.7020 Inlet Protection Type D	607.000 EACH	_____.____	_____.____
0480	628.7504 Temporary Ditch Checks	1,087.000 LF	_____.____	_____.____

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0482	628.7570 Rock Bags	500.000 EACH	_____.____	_____.____
0484	629.0210 Fertilizer Type B	41.000 CWT	_____.____	_____.____
0486	630.0120 Seeding Mixture No. 20	2,616.000 LB	_____.____	_____.____
0488	630.0200 Seeding Temporary	2,500.000 LB	_____.____	_____.____
0490	630.0500 Seed Water	1,694.000 MGAL	_____.____	_____.____
0492	633.5200 Markers Culvert End	8.000 EACH	_____.____	_____.____
0494	634.0618 Posts Wood 4x6-Inch X 18-FT	58.000 EACH	_____.____	_____.____
0496	634.0622 Posts Wood 4x6-Inch X 22-FT	24.000 EACH	_____.____	_____.____
0498	634.0816 Posts Tubular Steel 2x2-Inch X 16-FT	11.000 EACH	_____.____	_____.____
0500	635.0200 Sign Supports Structural Steel HS	8,350.000 LB	_____.____	_____.____
0502	637.1220 Signs Type I Reflective SH	2,090.500 SF	_____.____	_____.____
0504	637.2210 Signs Type II Reflective H	1,000.665 SF	_____.____	_____.____
0506	637.2230 Signs Type II Reflective F	224.500 SF	_____.____	_____.____
0508	638.2101 Moving Signs Type I	1.000 EACH	_____.____	_____.____
0510	638.2102 Moving Signs Type II	33.000 EACH	_____.____	_____.____
0512	638.2601 Removing Signs Type I	15.000 EACH	_____.____	_____.____
0514	638.2602 Removing Signs Type II	75.000 EACH	_____.____	_____.____

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0516	638.3000 Removing Small Sign Supports	56.000 EACH	_____.____	_____.____
0518	638.3100 Removing Structural Steel Sign Supports	12.000 EACH	_____.____	_____.____
0520	640.1303.S Pond Liner Clay	1,839.000 CY	_____.____	_____.____
0522	643.0300 Traffic Control Drums	378,385.000 DAY	_____.____	_____.____
0524	643.0420 Traffic Control Barricades Type III	45,632.000 DAY	_____.____	_____.____
0526	643.0705 Traffic Control Warning Lights Type A	73,948.000 DAY	_____.____	_____.____
0528	643.0715 Traffic Control Warning Lights Type C	73,733.000 DAY	_____.____	_____.____
0530	643.0800 Traffic Control Arrow Boards	3,705.000 DAY	_____.____	_____.____
0532	643.0900 Traffic Control Signs	348,816.000 DAY	_____.____	_____.____
0534	643.0910 Traffic Control Covering Signs Type I	621.000 EACH	_____.____	_____.____
0536	643.0920 Traffic Control Covering Signs Type II	509.000 EACH	_____.____	_____.____
0538	643.1000 Traffic Control Signs Fixed Message	283.500 SF	_____.____	_____.____
0540	643.1050 Traffic Control Signs PCMS	2,835.000 DAY	_____.____	_____.____
0542	643.1100.S Dynamic Late Merge System	545.000 DAY	_____.____	_____.____
0544	643.4100.S Traffic Control Interim Lane Closure	2,000.000 EACH	_____.____	_____.____
0546	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0548	644.1601 Temporary Pedestrian Curb Ramp	1,242.000 DAY	_____.____	_____.____

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0550	644.1810 Temporary Pedestrian Barricade	366.000 LF	_____.____	_____.____
0552	645.0111 Geotextile Type DF Schedule A	378.000 SY	_____.____	_____.____
0554	645.0120 Geotextile Type HR	2,380.000 SY	_____.____	_____.____
0556	645.0220 Geogrid Type SR	33,854.000 SY	_____.____	_____.____
0558	646.1020 Marking Line Epoxy 4-Inch	1,490.000 LF	_____.____	_____.____
0560	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	53,495.000 LF	_____.____	_____.____
0562	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	11,187.000 LF	_____.____	_____.____
0564	646.3020 Marking Line Epoxy 8-Inch	587.000 LF	_____.____	_____.____
0566	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	9,871.000 LF	_____.____	_____.____
0568	646.5020 Marking Arrow Epoxy	9.000 EACH	_____.____	_____.____
0570	646.5120 Marking Word Epoxy	2.000 EACH	_____.____	_____.____
0572	646.5220 Marking Symbol Epoxy	2.000 EACH	_____.____	_____.____
0574	646.6120 Marking Stop Line Epoxy 18-Inch	245.000 LF	_____.____	_____.____
0576	646.6220 Marking Yield Line Epoxy 18-Inch	15.000 EACH	_____.____	_____.____
0578	646.7120 Marking Diagonal Epoxy 12-Inch	5,310.000 LF	_____.____	_____.____
0580	646.7220 Marking Chevron Epoxy 24-Inch	1,004.000 LF	_____.____	_____.____

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0582	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	955.000 LF	_____.____	_____.____
0584	646.8120 Marking Curb Epoxy	240.000 LF	_____.____	_____.____
0586	646.8220 Marking Island Nose Epoxy	6.000 EACH	_____.____	_____.____
0588	646.9000 Marking Removal Line 4-Inch	1,187.000 LF	_____.____	_____.____
0590	646.9010 Marking Removal Line Water Blasting 4-Inch	320,874.000 LF	_____.____	_____.____
0592	646.9200 Marking Removal Line Wide	136.000 LF	_____.____	_____.____
0594	646.9300 Marking Removal Special Marking	2.000 EACH	_____.____	_____.____
0596	649.0120 Temporary Marking Line Epoxy 4-Inch	407,538.000 LF	_____.____	_____.____
0598	649.0150 Temporary Marking Line Removable Tape 4-Inch	7,099.000 LF	_____.____	_____.____
0600	649.0220 Temporary Marking Line Epoxy 8-Inch	21,416.000 LF	_____.____	_____.____
0602	649.0250 Temporary Marking Line Removable Tape 8-Inch	260.000 LF	_____.____	_____.____
0604	649.0760 Temporary Marking Raised Pavement Marker Type I	1,362.000 EACH	_____.____	_____.____
0606	649.0960 Temporary Marking Removable Mask Out Tape 6-Inch	224.000 LF	_____.____	_____.____
0608	652.0125 Conduit Rigid Metallic 2-Inch	969.000 LF	_____.____	_____.____
0610	652.0210 Conduit Rigid Nonmetallic Schedule 40 1-Inch	349.000 LF	_____.____	_____.____

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0612	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	23,644.000 LF	_____.____	_____.____
0614	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,991.000 LF	_____.____	_____.____
0616	652.0605 Conduit Special 2-Inch	52.000 LF	_____.____	_____.____
0618	652.0615 Conduit Special 3-Inch	951.000 LF	_____.____	_____.____
0620	652.0700.S Install Conduit into Existing Item	7.000 EACH	_____.____	_____.____
0622	652.0800 Conduit Loop Detector	1,433.000 LF	_____.____	_____.____
0624	653.0135 Pull Boxes Steel 24x36-Inch	7.000 EACH	_____.____	_____.____
0626	653.0140 Pull Boxes Steel 24x42-Inch	47.000 EACH	_____.____	_____.____
0628	653.0220 Junction Boxes 18x6x6-Inch	21.000 EACH	_____.____	_____.____
0630	653.0222 Junction Boxes 18x12x6-Inch	36.000 EACH	_____.____	_____.____
0632	653.0905 Removing Pull Boxes	64.000 EACH	_____.____	_____.____
0634	654.0101 Concrete Bases Type 1	6.000 EACH	_____.____	_____.____
0636	654.0102 Concrete Bases Type 2	4.000 EACH	_____.____	_____.____
0638	654.0105 Concrete Bases Type 5	12.000 EACH	_____.____	_____.____
0640	654.0106 Concrete Bases Type 6	1.000 EACH	_____.____	_____.____
0642	654.0108 Concrete Bases Type 8	13.000 EACH	_____.____	_____.____

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0644	654.0110 Concrete Bases Type 10	1.000 EACH	_____.____	_____.____
0646	654.0120 Concrete Bases Type 10-Special	1.000 EACH	_____.____	_____.____
0648	654.0217 Concrete Control Cabinet Bases Type 9 Special	1.000 EACH	_____.____	_____.____
0650	654.0224 Concrete Control Cabinet Bases Type L24	1.000 EACH	_____.____	_____.____
0652	654.0230 Concrete Control Cabinet Bases Type L30	4.000 EACH	_____.____	_____.____
0654	655.0148 Cable In Duct 4-8 AWG	1,666.000 LF	_____.____	_____.____
0656	655.0230 Cable Traffic Signal 5-14 AWG	1,094.000 LF	_____.____	_____.____
0658	655.0240 Cable Traffic Signal 7-14 AWG	1,222.000 LF	_____.____	_____.____
0660	655.0260 Cable Traffic Signal 12-14 AWG	659.000 LF	_____.____	_____.____
0662	655.0320 Cable Type UF 2-10 AWG Grounded	353.000 LF	_____.____	_____.____
0664	655.0510 Electrical Wire Traffic Signals 12 AWG	40.000 LF	_____.____	_____.____
0666	655.0515 Electrical Wire Traffic Signals 10 AWG	9,167.000 LF	_____.____	_____.____
0668	655.0610 Electrical Wire Lighting 12 AWG	22,258.000 LF	_____.____	_____.____
0670	655.0620 Electrical Wire Lighting 8 AWG	119,785.000 LF	_____.____	_____.____
0672	655.0625 Electrical Wire Lighting 6 AWG	2,108.000 LF	_____.____	_____.____
0674	655.0700 Loop Detector Lead In Cable	4,577.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0676	655.0800 Loop Detector Wire	4,478.000 LF	_____._____	_____._____
0678	655.0900 Traffic Signal EVP Detector Cable	560.000 LF	_____._____	_____._____
0680	656.0200 Electrical Service Meter Breaker Pedestal (location) 0001. IH-43 NB Off Ramp & Port Washington Rd	LS	LUMP SUM	_____._____
0682	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1001. HL-40-CA	LS	LUMP SUM	_____._____
0684	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1002. HL-40-GL	LS	LUMP SUM	_____._____
0686	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1003. HL-40-CT	LS	LUMP SUM	_____._____
0688	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1004. HL-40-BP	LS	LUMP SUM	_____._____
0690	656.0400 Electrical Service Main Lugs Only Meter Pedestal (location) 1005. TA1	LS	LUMP SUM	_____._____
0692	656.0500 Electrical Service Breaker Disconnect Box (location) 2001. EX-CCTV-40-0076	LS	LUMP SUM	_____._____
0694	657.0100 Pedestal Bases	4.000 EACH	_____._____	_____._____
0696	657.0210 Transformer Bases Breakaway 15-17 Inch Bolt Circle	51.000 EACH	_____._____	_____._____
0698	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	26.000 EACH	_____._____	_____._____
0700	657.0305 Poles Type 2	2.000 EACH	_____._____	_____._____
0702	657.0310 Poles Type 3	2.000 EACH	_____._____	_____._____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0704	657.0322 Poles Type 5-Aluminum	21.000 EACH	_____.____	_____.____
0706	657.0327 Poles Type 6-Aluminum	1.000 EACH	_____.____	_____.____
0708	657.0375 Poles Type A	38.000 EACH	_____.____	_____.____
0710	657.0380 Poles Type E	13.000 EACH	_____.____	_____.____
0712	657.0405 Traffic Signal Standards Aluminum 3.5-FT	1.000 EACH	_____.____	_____.____
0714	657.0420 Traffic Signal Standards Aluminum 13-FT	3.000 EACH	_____.____	_____.____
0716	657.0605 Luminaire Arms Single Member 4 1/2-Inch Clamp 4-FT	17.000 EACH	_____.____	_____.____
0718	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	2.000 EACH	_____.____	_____.____
0720	657.0615 Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	5.000 EACH	_____.____	_____.____
0722	657.0620 Luminaire Arms Single Member 6-Inch Clamp 4-FT	66.000 EACH	_____.____	_____.____
0724	658.0171 Traffic Signal Face 1S 12-Inch	2.000 EACH	_____.____	_____.____
0726	658.0173 Traffic Signal Face 3S 12-Inch	10.000 EACH	_____.____	_____.____
0728	658.0174 Traffic Signal Face 4S 12-Inch	1.000 EACH	_____.____	_____.____
0730	658.0416 Pedestrian Signal Face 16-Inch	4.000 EACH	_____.____	_____.____
0732	658.0500 Pedestrian Push Buttons	5.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0734	658.5069 Signal Mounting Hardware (location) 0001. IH-43 NB Off Ramp & Port Washington Rd	LS	LUMP SUM	_____.____
0736	658.5069 Signal Mounting Hardware (location) 0002. IH 43 SB On Ramp & W. Hampton Ave.	LS	LUMP SUM	_____.____
0738	659.0600 Underdeck Lighting (location) 1001. B-40-1016	LS	LUMP SUM	_____.____
0740	659.0600 Underdeck Lighting (location) 1002. B-40-1018	LS	LUMP SUM	_____.____
0742	659.1120 Luminaires Utility LED B	26.000 EACH	_____.____	_____.____
0744	659.1125 Luminaires Utility LED C	5.000 EACH	_____.____	_____.____
0746	659.1130 Luminaires Utility LED D	88.000 EACH	_____.____	_____.____
0748	659.1205 Luminaires Underdeck LED A	8.000 EACH	_____.____	_____.____
0750	659.1215 Luminaires Underdeck LED C	18.000 EACH	_____.____	_____.____
0752	659.2124 Lighting Control Cabinets 120/240 24-Inch	1.000 EACH	_____.____	_____.____
0754	659.2230 Lighting Control Cabinets 240/480 30-Inch	4.000 EACH	_____.____	_____.____
0756	670.0100 Field System Integrator 0001. Signals	LS	LUMP SUM	_____.____
0758	670.0100 Field System Integrator 2001. FTMS	LS	LUMP SUM	_____.____
0760	670.0200 ITS Documentation 0001. Signals	LS	LUMP SUM	_____.____

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0762	670.0200 ITS Documentation 2001. FTMS	LS	LUMP SUM	_____.____
0764	671.0132 Conduit HDPE 3-Duct 2-Inch	5,150.000 LF	_____.____	_____.____
0766	671.0232 Conduit HDPE Directional Bore 3-Duct 2-Inch	2,070.000 LF	_____.____	_____.____
0768	673.0105 Communication Vault Type 1	13.000 EACH	_____.____	_____.____
0770	673.0225.S Install Pole Mounted Cabinet	1.000 EACH	_____.____	_____.____
0772	674.0200 Cable Microwave Detector	1,525.000 LF	_____.____	_____.____
0774	674.0300 Remove Cable	12,440.000 LF	_____.____	_____.____
0776	675.0100 Install Controller Ramp Meter Processor Assembly	1.000 EACH	_____.____	_____.____
0778	675.0300 Install Mounted Controller Microwave Detector Assembly	7.000 EACH	_____.____	_____.____
0780	677.0150 Install Camera Pole 50-FT	1.000 EACH	_____.____	_____.____
0782	677.0200 Install Camera Assembly	1.000 EACH	_____.____	_____.____
0784	677.9051.S Removing 50-FT Camera Pole	1.000 EACH	_____.____	_____.____
0786	677.9200.S Removing CCTV Camera	1.000 EACH	_____.____	_____.____
0788	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	530.000 LF	_____.____	_____.____
0790	678.0072 Install Fiber Optic Cable Outdoor Plant 72-CT	8,235.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0792	678.0200 Fiber Optic Splice Enclosure	1.000 EACH	_____._____	_____._____
0794	678.0300 Fiber Optic Splice	448.000 EACH	_____._____	_____._____
0796	678.0400 Fiber Optic Termination	18.000 EACH	_____._____	_____._____
0798	678.0500 Communication System Testing 0001. Signals	LS	LUMP SUM	_____._____
0800	678.0500 Communication System Testing 2001. FTMS	LS	LUMP SUM	_____._____
0802	678.0600 Install Ethernet Switches	5.000 EACH	_____._____	_____._____
0804	690.0150 Sawing Asphalt	100.000 LF	_____._____	_____._____
0806	690.0250 Sawing Concrete	13,340.000 LF	_____._____	_____._____
0808	715.0415 Incentive Strength Concrete Pavement	30,696.000 DOL	1.00000	30,696.00
0810	715.0502 Incentive Strength Concrete Structures	75,528.000 DOL	1.00000	75,528.00
0812	715.0603 Incentive Strength Concrete Barrier	9,918.000 DOL	1.00000	9,918.00
0814	715.0710 Optimized Aggregate Gradation Incentive	132,102.000 DOL	1.00000	132,102.00
0816	740.0440 Incentive IRI Ride	22,791.000 DOL	1.00000	22,791.00
0818	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	1,400.000 HRS	5.00000	7,000.00
0820	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	17,280.000 HRS	5.00000	86,400.00

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0822	SPV.0045 Special 0001. Temporary Detectable Warning Field	542.000 DAY	_____.____	_____.____
0824	SPV.0060 Special 0001. Concrete Barrier Transition Type G1	1.000 EACH	_____.____	_____.____
0826	SPV.0060 Special 0002. Concrete Barrier Transition Type G2	1.000 EACH	_____.____	_____.____
0828	SPV.0060 Special 0003. Marking Contrast Epoxy Special Marking Arrow	11.000 EACH	_____.____	_____.____
0830	SPV.0060 Special 0004. Marking Contrast Epoxy Special Marking Word	6.000 EACH	_____.____	_____.____
0832	SPV.0060 Special 0006. Baseline CPM Progress Schedule	1.000 EACH	_____.____	_____.____
0834	SPV.0060 Special 0007. Monthly CPM Progess Schedule Updates	36.000 EACH	_____.____	_____.____
0836	SPV.0060 Special 0008. Concrete Barrier Transition Type M1	2.000 EACH	_____.____	_____.____
0838	SPV.0060 Special 0120. Mobilizations Emergency Pavement Repair	10.000 EACH	_____.____	_____.____
0840	SPV.0060 Special 0603. Exposing Existing Infrastructure Paved Area	5.000 EACH	_____.____	_____.____
0842	SPV.0060 Special 0604. Exposing Existing Infrastructure Unpaved Area	5.000 EACH	_____.____	_____.____
0844	SPV.0060 Special 0910. Traffic Control Close-Open Freeway Entrance Ramp	400.000 EACH	_____.____	_____.____
0846	SPV.0060 Special 0916. Traffic Control Local Road Lane Closure	100.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0848	SPV.0060 Special 0940. Emergency Response To Traffic Incident Involving Conc Barrier Temporary	40.000 EACH	_____.____	_____.____
0850	SPV.0060 Special 0945. Emergency Response To Traffic Incident Involving Crash Cushions	10.000 EACH	_____.____	_____.____
0852	SPV.0060 Special 1003. Wood Pole Lighting 60-Foot	48.000 EACH	_____.____	_____.____
0854	SPV.0060 Special 1004. Wood Poles 60-Foot	3.000 EACH	_____.____	_____.____
0856	SPV.0060 Special 1005. Removing Poles Wood 60-Foot and Floodlights	48.000 EACH	_____.____	_____.____
0858	SPV.0060 Special 1006. Removing Poles Wood 60-Foot	3.000 EACH	_____.____	_____.____
0860	SPV.0060 Special 1007. Luminaires Floodlight 400W HPS	51.000 EACH	_____.____	_____.____
0862	SPV.0060 Special 1008. Luminaires Replace Existing HPS	43.000 EACH	_____.____	_____.____
0864	SPV.0060 Special 1009. Removing Electrical Service Meter Breaker Pedestal Lighting	4.000 EACH	_____.____	_____.____
0866	SPV.0060 Special 1010. Concrete Bases Type B	15.000 EACH	_____.____	_____.____
0868	SPV.0060 Special 1011. Luminaires Sign LED	1.000 EACH	_____.____	_____.____
0870	SPV.0060 Special 1012. Luminaires Tunnel Lighting LED	8.000 EACH	_____.____	_____.____
0872	SPV.0060 Special 1014. Junction Boxes 4x4x4-Inch	8.000 EACH	_____.____	_____.____
0874	SPV.0060 Special 2000. Removing Electrical Service Meter Breaker Pedestral	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0876	SPV.0060 Special 2001. Removing Controller Cabinet	2.000 EACH	_____.____	_____.____
0878	SPV.0060 Special 2002. Removing Controller Cabinet Base	2.000 EACH	_____.____	_____.____
0880	SPV.0060 Special 2004. Removing Ramp Control Signal Assebly Sidemount	2.000 EACH	_____.____	_____.____
0882	SPV.0060 Special 2005. Removing Communication Vault	6.000 EACH	_____.____	_____.____
0884	SPV.0060 Special 2006. Removing Electrical Service Breaker Disconnect Box	1.000 EACH	_____.____	_____.____
0886	SPV.0060 Special 2013. Ground Rod	2.000 EACH	_____.____	_____.____
0888	SPV.0060 Special 2020. Signal Assembly Ramp Control Sidemount	2.000 EACH	_____.____	_____.____
0890	SPV.0060 Special 2022. Signal Assembly Advance Flasher Type 1	1.000 EACH	_____.____	_____.____
0892	SPV.0060 Special 2023. Communication Vault Adjustment	1.000 EACH	_____.____	_____.____
0894	SPV.0060 Special 2024. Installing Portable Video Surveillance System	1.000 EACH	_____.____	_____.____
0896	SPV.0060 Special 2025. Temporary 5.8 GHZ Ethernet Bridge	1.000 EACH	_____.____	_____.____
0898	SPV.0060 Special 2026. Refocus Vehicle Detector Assembly	10.000 EACH	_____.____	_____.____
0900	SPV.0060 Special 3001. Install Poles Type 9	1.000 EACH	_____.____	_____.____

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0902	SPV.0060 Special 3002. Install Poles Type 9 Special	1.000 EACH	_____.____	_____.____
0904	SPV.0060 Special 3003. Install Monotube Arms 30-FT	1.000 EACH	_____.____	_____.____
0906	SPV.0060 Special 3004. Install Monotube Arms 40-FT Special	1.000 EACH	_____.____	_____.____
0908	SPV.0060 Special 4000. Embedded Galvanic Anodes	175.000 EACH	_____.____	_____.____
0910	SPV.0060 Special 4001. Ultrasonic Impact Treatment Procedure	84.000 EACH	_____.____	_____.____
0912	SPV.0060 Special 4002. Anchor Assemblies Noise Barrier Structures R-40-712	9.000 EACH	_____.____	_____.____
0914	SPV.0060 Special 4003. Anchor Assemblies Noise Barrier Structures R-40-713	64.000 EACH	_____.____	_____.____
0916	SPV.0060 Special 4004. Anchor Assemblies Noise Barrier Structures B-40-1020	13.000 EACH	_____.____	_____.____
0918	SPV.0060 Special 4005. Maintenance Doors	1.000 EACH	_____.____	_____.____
0920	SPV.0060 Special 6001. Sign Support Special Mounting	8.000 EACH	_____.____	_____.____
0922	SPV.0060 Special 7001. Adjusting Water Boxes	4.000 EACH	_____.____	_____.____
0924	SPV.0060 Special 7002. Adjusting Water Manholes	2.000 EACH	_____.____	_____.____
0926	SPV.0060 Special 8002. Manholes 9-FT Special	2.000 EACH	_____.____	_____.____
0928	SPV.0060 Special 8003. Manholes 10-FT Special	1.000 EACH	_____.____	_____.____

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0930	SPV.0060 Special 8004. Pipe Connection to Existing Structure	9.000 EACH	_____.____	_____.____
0932	SPV.0060 Special 8005. Removing Bulkhead	15.000 EACH	_____.____	_____.____
0934	SPV.0060 Special 8006. Lake Tower Pond Outlet Storm Sewer Structure	1.000 EACH	_____.____	_____.____
0936	SPV.0060 Special 8007. Oak Leaf Pond Outlet Storm Sewer Structure	1.000 EACH	_____.____	_____.____
0938	SPV.0060 Special 8008. Slip-In Check Valve for 36-Inch Diameter Pipe	1.000 EACH	_____.____	_____.____
0940	SPV.0060 Special 8009. Slip-In Check Valve for 48-Inch Diameter Pipe	1.000 EACH	_____.____	_____.____
0942	SPV.0075 Special 0001. Pavement Cleanup Project (1228-22-71)	1,500.000 HRS	_____.____	_____.____
0944	SPV.0090 Special 0001. Concrete Curb & Gutter 4-Inch Sloped 60-Inch Type A	3,455.000 LF	_____.____	_____.____
0946	SPV.0090 Special 0002. Concrete Barrier Type S42C Special	133.000 LF	_____.____	_____.____
0948	SPV.0090 Special 1001. Cable Aerial Aluminum 6 AWG Quadruplex	7,589.000 LF	_____.____	_____.____
0950	SPV.0090 Special 1002. Cable Aerial Aluminum 6 AWG Triplex	1,255.000 LF	_____.____	_____.____
0952	SPV.0090 Special 3000. Fiber Optic Warning Tape	46.000 LF	_____.____	_____.____
0954	SPV.0090 Special 4000. Removing Existing Steel Piling	80.000 LF	_____.____	_____.____

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0956	SPV.0090 Special 4010. Remove Existing Timber Piling	360.000 LF	_____.____	_____.____
0958	SPV.0090 Special 8001. Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class IV 38x60-	68.000 LF	_____.____	_____.____
0960	SPV.0090 Special 8025. Pipe Underdrain Exploration	100.000 LF	_____.____	_____.____
0962	SPV.0090 Special 8026. Storm Sewer Lateral Exploration	100.000 LF	_____.____	_____.____
0964	SPV.0090 Special 8027. Precast Trench Drain	267.000 LF	_____.____	_____.____
0966	SPV.0105 Special 0001. Survey Project (1228-22-71)	LS	LUMP SUM	_____.____
0968	SPV.0105 Special 0002. Temporary Causeway	LS	LUMP SUM	_____.____
0970	SPV.0105 Special 1001. Maintenance of Lighting System	LS	LUMP SUM	_____.____
0972	SPV.0105 Special 1002. Lighting System Intergrator	LS	LUMP SUM	_____.____
0974	SPV.0105 Special 3000. Trnspt & Inst State Furn Traffic Sig Cabinet IH-43 NB Off Ramp & Port Wash	LS	LUMP SUM	_____.____
0976	SPV.0105 Special 3001. Trnspt & Inst State Furn Radar Detect Sys IH-43 NB Off Ramp & Port Wash	LS	LUMP SUM	_____.____
0978	SPV.0105 Special 3002. Trnspt Traffic Sig & Inter Lighting Materials IH-43 NB Off Ramp &Port Wash	LS	LUMP SUM	_____.____

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0980	SPV.0105 Special 3003. Trnspt & Inst State Furn EVP Heads IH-43 NB Off Ramp & Port Wash	LS	LUMP SUM	_____.____
0982	SPV.0105 Special 3004. Install Fiber Optic Communications in Cabinet S40-1207	LS	LUMP SUM	_____.____
0984	SPV.0105 Special 4000. Removing Sign Bridge S-40-381	LS	LUMP SUM	_____.____
0986	SPV.0105 Special 4001. Removing Sign Bridge S-40-383	LS	LUMP SUM	_____.____
0988	SPV.0105 Special 4002. Removing Sign Bridge S-40-803	LS	LUMP SUM	_____.____
0990	SPV.0105 Special 4003. Removing Sign Bridge S-40-848	LS	LUMP SUM	_____.____
0992	SPV.0105 Special 4004. Removing Sign Bridge S-40-849	LS	LUMP SUM	_____.____
0994	SPV.0105 Special 4005. Removing Sign Bridge S-40-981	LS	LUMP SUM	_____.____
0996	SPV.0105 Special 4006. Removing Sign Bridge S-40-228	LS	LUMP SUM	_____.____
0998	SPV.0105 Special 4007. Removing Sign Bridge S-40-229	LS	LUMP SUM	_____.____
1000	SPV.0105 Special 8001. Control of Water Storm Sewer	LS	LUMP SUM	_____.____
1002	SPV.0105 Special 8002. Dewatering for Detention Basin Construction	LS	LUMP SUM	_____.____
1004	SPV.0135 Special 0110. Field Office Special	35.000 MON	_____.____	_____.____

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1006	SPV.0135 Special 0601. Vibration Monitoring	32.000 MON	_____.____	_____.____
1008	SPV.0165 Special 4000. Removing Loose Concrete	420.000 SF	_____.____	_____.____
1010	SPV.0165 Special 4001. Temporary Wall Wire Faced Mechanically Stabilized Earth	25,124.000 SF	_____.____	_____.____
1012	SPV.0165 Special 4002. Wall Concrete Panel Mechanically Stabilized Earth R-40-706	12,118.000 SF	_____.____	_____.____
1014	SPV.0165 Special 4003. Wall Concrete Panel Mechanically Stabilized Earth R-40-707	16,073.000 SF	_____.____	_____.____
1016	SPV.0165 Special 4004. Wall Concrete Panel Mechanically Stabilized Earth R-40-709	5,489.000 SF	_____.____	_____.____
1018	SPV.0165 Special 4005. Wall Concrete Panel Mechanically Stabilized Earth R-40-710	2,600.000 SF	_____.____	_____.____
1020	SPV.0165 Special 4006. Wall Concrete Panel Mechanically Stabilized Earth R-40-711	1,520.000 SF	_____.____	_____.____
1022	SPV.0165 Special 4007. Wall Concrete Panel Mechanically Stabilized Earth R-40-712	9,520.000 SF	_____.____	_____.____
1024	SPV.0165 Special 4008. Wall Concrete Panel Mechanically Stabilized Earth R-40-713	36,500.000 SF	_____.____	_____.____
1026	SPV.0180 Special 0301. Topsoil Special	75,447.000 SY	_____.____	_____.____
1028	SPV.0195 Special 0001. Management of Contaminated Soil and Contaminated Sediment	15,431.000 TON	_____.____	_____.____
1030	SPV.0195 Special 4000. Select Crushed Material for Travel Corridor	30.000 TON	_____.____	_____.____
1032	611.0420 Reconstructing Manholes	3.000 EACH	_____.____	_____.____

Proposal ID: 20210413026 Project(s): 1228-22-71

Federal ID(s): WISC 2021226

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1034	649.0520 Temporary Marking Arrow Epoxy	4.000 EACH	_____.____	_____.____
1036	603.8500 Anchoring Concrete Barrier Temporary Precast	23,935.000 LF	_____.____	_____.____
1038	603.8505 Anchoring Concrete Barrier Temporary Precast on Bridge Decks	1,811.000 LF	_____.____	_____.____
1040	618.0100 Maintenance And Repair of Haul Roads (project) 01. 1228-22-71	1.000 EACH	_____.____	_____.____
1042	629.0205 Fertilizer Type A	5.000 CWT	_____.____	_____.____
1044	630.0140 Seeding Mixture No. 40	338.000 LB	_____.____	_____.____
1046	643.1200.S Portable Automated Real-Time Traffic Queue Warning System	455.000 DAY	_____.____	_____.____
1048	645.0130 Geotextile Type R	66.000 SY	_____.____	_____.____
1050	SPV.0045 Special 0002. Waterway Buoys	25,194.000 DAY	_____.____	_____.____

Section: 0001 Total: _____.____

Total Bid: _____.____