HIGHWAY WORK PROPOSAL

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

Proposal Number: 005

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Dane	1206-08-77	WISC 2018438	Mount Horeb - Madison; Cth Pd To Raymond Rd/Stg 2/Phase 3	USH 018

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: $700,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: November 13, 2018 Time (Local Time): 9:00 am	Firm Name, Address, City, State, Zip Code SAMPLE NOT FOR BIDDING PURPOSES
Contract Completion Time October 30, 2020	
Assigned Disadvantaged Business Enterprise Goal 6%	This contract is subject to 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

Grading, Base, Concrete Pavement, Asphalt Pavement, Milling, Bridge Construction, Retaining Walls, Storm Sewer, Curb and Guter, Sidewalk, Concrete Driveway, Beam Guard, Concrete Barrier, Plantings, Street Lighting, Traffic Signals, ITS, Signs, Pavement Markings, Sign Bridges, Overhead Sign Supports, Water Main

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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STSP'S Revised November 30, 2017

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1206-08-77, Mount Horeb-Madison, CTH PD to Raymond Rd/Stg 2/Phase 3, USH 18, Dane 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, 2018 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 (20171130)

2. Scope of Work.

The work under this contract shall consist of earthwork, base course, concrete pavement, HMA pavement, concrete curb and gutter, concrete barrier wall, concrete sidewalk, MGS guardrail, storm sewer, pavement marking, erosion control, lighting, ITS, landscaping, structures (B-13-831, B-13-832, R-13-266, R-13-267, S-13-443, S-13-444, S-13-452, and S-13-453) and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

A General
Begin work within ten calendar days after the engineer issues a written notice to do so. Do not begin work on this project prior to April 29, 2019 without written permission by the engineer. Work areas may be available prior to April 29, 2019 with written permission by the engineer.

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

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

The contract time for completion, as well as the interim completion dates, are based on an expedited work schedule and may require extra work hours, forces, equipment and coordination.

Included in this Prosecution and Progress article are interim and final completion dates. These dates indicate that work efforts will require multiple or concurrent controlling operations to occur at the same time. This information is included to assist the contractor and its subcontractors; do not interpret this information as a demonstration of specified means and methods or work periods other than interim and final completion dates.

Conform to the schedule of operations for the construction staging as shown in the plan. Do not move operations within the proposed construction staging unless modifications to the staging and schedule are approved in writing by the engineer.

The established construction schedule for the contract will involve coordination of construction activities with other projects and are included in the article entitled Other Contracts as part of these special provisions.

Traffic control stages 1 through 8 were included as part of previous projects. Traffic control staging for this project begins with Stage 9.

B Construction Schedule of Operations

Prepare a CPM schedule in accordance with SPV.0060.700, Baseline CPM Progress Schedule and SPV.0060.701, CPM Progress Schedule Updates and Accepted Revisions of these special provisions.

C Contractor Coordination

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

Conduct weekly progress meetings. The contractor's superintendent or representative, designated materials representative, subcontractor's representatives for ongoing subcontract work or subcontract work expected to begin within the next three weeks shall attend. Provide and discuss the schedule and updates as required by Section B. of this article at the weekly progress meetings. Agenda items at the meeting shall include, but not be limited to, the following:

- Review of the contractor's and subcontractors' schedule. Indicate if the project is on, ahead or behind schedule. If behind indicate why, how much behind, and how the project will get back on schedule.
- Utility conflicts and relocation schedule.
- Evaluation of progress to date.
- Outstanding Requests for Information (RFI's) or issues that may cause contract modifications.
- Shop drawing submittal status.

- Materials submittal status.
- Materials sampling and testing activities and results.
- Lane, road, ramp, shoulder and rolling closure schedules.
- Impacts to businesses and private properties.
- Impacts to bus routes, emergency services, postal services.
- Equipment status of orders and deliveries.
- Plans and schedules for upcoming work to prevent potential conflicts between contractors.

Based on the weekly progress meeting, if the engineer requests a new revised schedule, submit it in accordance with SPV.0060.700, Baseline CPM Progress Schedule and SPV.0060.701, CPM Progress Schedule Updates and Accepted Revisions of these special provisions. Failure to submit a revised schedule will result in the engineer holding pay requests according to these special provisions.

Operation and maintenance responsibility by the contractor for the temporary signals at the intersections of Verona Road with CTH PD and Williamsburg Way previously installed as part of projects 1206-07-74 and 1206-07-75 will begin immediately upon the start of work under this contract 1206-08-77, or as directed by the engineer.

D Coordination with Concurrent Project 1206-07-75

According to standard spec. 105.5.2, coordinate construction activities, traffic control sign placement, pedestrian control sign placement, and traffic operations with Project 1206-07-75, the current construction project taking place within the Verona Road corridor. Contract documents for project 1206-07-75 are available from Chris Fredrick (608) 884-7130.

Attend the weekly progress meetings for project 1206-07-75, (currently held each Tuesday at 1:00 PM at 6200 Nesbitt Road, Fitchburg WI), to coordinate construction schedules and activities with this project 1206-08-77.

Construction operations and work areas for this contract 1206-08-77 (STAGE 9) shall be expected adjacent to, overlapping, and coinciding with project 1206-07-75 in 2019. The means, methods, techniques and sequences of procedures of construction for this contract shall accommodate construction of the work areas noted below between the two contracts (1206-07-75 and 1206-08-77). Potential work areas in 2019 for the 1206-07-75 contract include the following:

1. Stage 7A median reconstruction and restoration between approximately Stations 854+50 VR and 871+00 VR.
2. Stage 7A MGS Guardrail relap between approximately Stations 871+00 VR and 878+00 VR.
3. Stage 7A westbound pavement markings between approximately Stations 853+00 VR and 976+00 VR. Stage 7A eastbound pavement markings between approximately Stations 946+00 VR and 976+00 VR.

4. Stage 7A removal of the pedestrian underpass at approximately Station 944+25 VR.
5. Stage 7A construction of the proposed eastbound lanes between approximately Stations 944+50 VR and 952+50 VR, including the remainder of S-13-448.
6. Stage 7A reconstruction and restoration of the median between approximately Stations 968+00 VR and 972+50 VR.
7. Stage 7A Williamsburg Way temporary concrete barrier and pavement marking.
8. Stage 7B pavement marking between approximately Stations 855+00 VR and 885+50 VR.
9. Stage 7B eastbound outside shoulder reconstruction between approximately Stations 865+00 VR and 877+00 VR.
10. Stage 7B median reconstruction and restoration between approximately Stations 969+50 VR and 971+50 VR.
11. Stage 8 excavation common and roadway embankment between approximately Stations 905+50 VR and 945+00 VR, and construction of R-13-273 and B-13-833 at Williamsburg Way. Contract 1206-07-75 includes the majority of the excavation common to subgrade for Stations 935+00 to 937+00, inclusive of the pier construction for B-13-833.
12. Stage 8A temporary concrete barrier wall and pavement marking between approximately Stations 132+00 E and 142+00 F, and 134+00 H and 140+00 G.
13. Stage 8B curb and gutter and pavement marking between approximately Stations 134+00 H and 139+00 G.

Construction of B-13-833, the Williamsburg Way Bridge over Verona Road, is anticipated to be completed by July 2, 2019, except for the concrete staining work.

Construction for project 1206-07-75 is anticipated to be completed by approximately July 31, 2019.

Make the engineer aware of any conflicts or disputes between the two contracts, a minimum of weekly, at the weekly progress meetings for this contract.

Work areas for B-13-831/832 and R-13-266/267 of this contract 1206-08-77 will be available with work adjacent to, overlapping, and coinciding with project 1206-07-75 in 2019 as provided above.

Work in Stage 10, for this contract 1206-08-77, may be available in 2019 as approved in writing by the engineer according to the Traffic Article, Section J, of these special provisions.

E Work Restrictions

Where a closure(s) has been permitted by the engineer in conjunction with the contractor's work schedule, make a continuous effort to complete the work within the said closure(s) in a timely manner. If, in the engineer's judgment, the contractor's operations fail to meet the approved schedule, permission for a full-time or rolling closures may be rescinded.

Do not conduct construction operations in the median area and adjacent outside shoulder area of any roadway at the same time without the written permission of the engineer.

Do not begin work on CTH M until all work on Verona Road, stages 9 through 9F, are completed and Verona Road traffic is operating in its permanent condition. Complete all work on CTH M within 30 consecutive calendar days.

Prior to switching Verona Road traffic into its permanent condition as shown in the plans for TRAFFIC CONTROL - 2019 WINTER SHUTDOWN, perform the following:

- Complete all work on the K Ramp and open the K Ramp to traffic within 14 consecutive calendar days as shown in the plans in TRAFFIC CONTROL - VERONA RD STG. 9C. and 9D.
- Complete all work to re-open the G Ramp within one night during off-peak hours as shown in the plans in TRAFFIC CONTROL - VERONA RD STG. 9E. Close the sidewalk at the G Ramp terminal for a maximum of 8 hours, during off-peak hours, to construct the sidewalk and curb ramps as shown in the plans in TRAFFIC CONTROL - VERONA RD STG. 9E.

Close Nesbitt Road for a maximum of 2 consecutive calendar days to complete work as shown in the plans in TRAFFIC CONTROL - NESBITT ROAD - STG. 10B PH. 1.

Close the sidewalk at the intersection of CTH PD and Commerce Park Drive for a maximum of 8 hours, during off-peak hours, to construct the sidewalk and curb ramp in the southeast quadrant of the intersection as shown in the plans in TRAFFIC CONTROL - CTH PD STG. 10B PH. 1 COMMERCE PARK.

Close access to the driveway at Station 105+50 EB for a maximum of 10 consecutive calendar days to complete construction of the driveway and adjacent roadway as shown in the plans in TRAFFIC CONTROL - CTH PD (MCKEE RD) STAGE 10B PH. 2.

Close Kapec Road for a maximum of 14 consecutive calendar days to complete all work, excluding the upper HMA pavement layer, as shown in the plans in TRAFFIC CONTROL - KAPEC ROAD STG. 10C PH. 2A.

Do not close traffic lanes prior to or after the specified time periods in the Traffic article.

Keep Verona Road and CTH PD open to traffic at all times, except as permitted by these special provisions. Deliver, park and store equipment and material outside of the existing roadways clear zones or at a distance from existing edges of the traveled way as approved by the engineer. Provide ingress and egress locations to the engineer 10 working days in advance of anticipated use. Do not use the ingress or egress locations until approved by the engineer. Sign and/or use flag persons at the ingress and egress locations as directed by the engineer and according to standard spec 104.6.1 (4).

Do not switch traffic to the next construction stage or phase until all signing, pavement marking, traffic control devices for the stage or phase are in place, conflicting pavement markings and signs are covered or removed, and as directed by the engineer.

Maintain pedestrian facilities according to Americans with Disabilities Act Accessibility Guidelines (ADAAG) requirements at all times.

F Interim and Final Completion of Work
2019 Winter Shutdown
Complete all work associated with Verona Road and CTH PD as indicated in the Traffic article of these special provisions and as shown in the TRAFFIC CONTROL plans for the following:

- CTH PD (MCKEE ROAD) STG. 9A
- CTH PD (MCKEE ROAD) STG. 9B
- VERONA RD STG. 9
- VERONA RD STG. 9 CONCRETE REPAIRS
- VERONA RD STG. 9C
- VERONA RD STG. 9D
- VERONA RD STG. 9E
- VERONA RD STG. 9F
- 2019 WINTER SHUTDOWN

Also, complete Pond A as provided in the plans.

Complete all work associated with the above stages, Pond A, including all sawing, removals, excavation, storm sewer, grading, base aggregate dense, select crushed material, concrete pavement, asphalt pavement, concrete curb and gutter, concrete barrier wall, signing, lighting, pavement marking, restoration, and Structures B-13-831, B-13-832, R-13-266, R-13-267, and S-13-444 prior to 12:01 AM on November 9, 2019.

If the contractor fails to complete the above stages, Pond A, all sawing, removals, excavation, storm sewer, grading, base aggregate dense, select crushed material, concrete pavement, asphalt pavement, concrete curb and gutter, concrete barrier wall, signing, lighting, pavement marking, restoration, and Structures B-13-831, B-13-832, R-13-266, R-13-267, and S-13-444 as shown in the plans prior to 12:01 AM on November 9, 2019 the department will assess the contractor $5,000 in interim liquidated damages for each day the work remains incomplete after 12:01 AM, November 9, 2019. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM, November 9, 2019.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to these special provisions.

Nesbitt Road - Stage 10B, Phase 1
Complete improvements to Nesbitt Road as shown in the plans in TRAFFIC CONTROL - NESBITT ROAD - STG. 10B PH. 1 including all removals, grading, bases aggregate dense, and asphalt pavement (lower layer) within 2 consecutive calendar days.

If the contractor fails to complete all removals, grading, base aggregate dense, and asphalt pavement (lower layer) as shown in the plans in TRAFFIC CONTROL - NESBITT ROAD - STG. 10B PH. 1 within 2 consecutive calendar days, the department will assess the contractor $1,500 in interim liquidated damages for each calendar day that the work remains incomplete after 2 consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 2 consecutive calendar days.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to these special provisions.

CTH M Overlay
Complete all work on CTH M as shown in the plans within 30 consecutive calendar days.

If the contractor fails to complete all work on CTH M as shown in the plans within 30 consecutive calendar days, the department will assess the contractor $1,500 in interim liquidated damages for each calendar day that the work remains incomplete after 30 consecutive calendar days. An entire day will be charged for any period of time within a calendar day that the work remains incomplete beyond 30 consecutive calendar days.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to these special provisions.

Project Completion Date
Replace standard spec 108.11 paragraph (3) as follows:

The department will assess $5,000 in daily liquidated damages. These liquidated damages reflect the cost of engineering, supervision, and a portion of road user costs.

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

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

4. Traffic.

A General
Perform work conforming to the requirements of standard spec 643, the Manual on Uniform Traffic Control Devices (MUTCD) and as hereinafter provided.

Replace standard spec 643.3.1 (6) sentences one and two with the following:

> Replace devices the ATSSA guide defines as marginal. Maintain traffic control devices on the project at or above the quality the ATSSA guide defines as acceptable by doing the following:

Replace standard spec 104.6.1 (2) with the following:

> Maintain, at no cost to the department, only those facilities or portions of facilities, including the roadbed surfaces, on which construction has begun or been completed, or has been damaged by the contractor's operations or has been damaged due to the contractor's negligence or noncompliance with the requirements of the contract. Maintain the pavement structure, pavement markings, and traffic signs for the entire project once construction operations begin. The department will pay for materials that engineer deems necessary to maintain those facilities or portions of facilities that are damaged at no fault of the contractor at contract unit prices, or as extra work.

Replace standard spec 643.3.1 (7) with the following:

> Promptly restore any traffic control devices or pavement markings damaged or disturbed within 1 hour of becoming aware of deficiency.

According to the Traffic Control bid item, provide 24 hours per day, 7 days per week availability of equipment and forces to expeditiously restore devices such as, but not limited to, concrete barrier temporary precast (maintain a barrier clamp on site at all times), crash cushions, pavement marking, lights, signs, drums, barricades, arrow boards or other traffic control devices that are damaged or disturbed. Provide equipment and forces on site within 1 hour of being contacted by the engineer of a damaged or disturbed device. The department will pay for materials that engineer deems necessary to maintain these items at contract unit prices, or as extra work, if the disturbance or damage is not the result of the contractor's operations, negligence or noncompliance with the requirements of the contract. Payment for maintaining a clamp on site at all times for concrete barrier temporary precast is included with the pay item Concrete Barrier Temporary Precast Installed.

Before starting any work, provide the State Patrol, Dane County Sheriff's Office, City of Fitchburg Police Department, City of Fitchburg Fire Department, City of Madison Police Department, City of Madison Fire Department, City of Verona Police Department, City of Verona Fire Department, Fitch-Rona EMS, and the engineer a current telephone number for at least three individuals which the contractor or his representatives can be contacted 24 hours-a-day in the event a safety hazard develops. Also contact the above listed parties, as well as local emergency services, local school districts and Madison Metro (to discuss bus routes), and the post office, prior to starting work and at critical times; such as traffic switches, detours, and road closures to inform them of traffic modifications.

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

Do not perform construction operations until all traffic control devices for such work are in the proper location.

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

When required, close sidewalks according to Standard Detail Drawing "Traffic Control, Pedestrian Accommodation", according to the plans and these special provisions, and provide the engineer a written request to close the sidewalk 5 calendar days in advance of the closure.

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

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control shown on the plans. Submit the plan 14 calendar days prior to the preconstruction conference, or if after the preconstruction conference, 14 calendar days prior to the intended use of the revised traffic control. A request does not constitute approval.

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

- Do not park or store any vehicle, piece of equipment, or construction materials within the clear zone without approval of the engineer.
- All construction vehicles and equipment entering or leaving live traffic lanes must yield to through traffic, bicyclists, and pedestrians.
- All construction vehicles and equipment entering or leaving live traffic lanes along Verona Road must utilize acceleration or deceleration lanes of sufficient length to allow merge speeds within 10 MPH of the posted speed prior to merging with Verona Road traffic. Provide and utilize temporary deceleration and acceleration lanes to/from the work zones. Construction of the temporary lanes is included with other items of work. All construction access is subject to approval of the engineer.
- Equip all vehicles and equipment entering or leaving the live traffic lanes with a high-intensity rotating, flashing, oscillating, or strobe lights according to Section 6G.02 of the Manual of Uniform Traffic Control Devices (FHWA, 2009).
- Maintain vehicle and pedestrian access at all times within the limits of construction. Provide temporary sidewalk, crosswalk, bicycle access and bus access as described in the applicable standard detail drawings, the plans, and these special provisions under bid items Temporary Pedestrian Surface Asphalt and

Temporary Curb Ramp as detailed in the plans. Provide temporary sidewalk, crosswalk, bicycle access, and bus access according to the current Americans with Disabilities Act Accessibility Guidelines (ADAAG), which are free from mud, sand, and other construction debris. Provide temporary curb ramps throughout construction operations as described in the special provisions under bid item Temporary Curb Ramp, according to the ADAAG.

- Additional intermediate construction staging or staging gaps, not shown on the plans, may be necessary to maintain continuous property access. If the contractor coordinates the closure of any access to a business or private property with the owner(s), provide written documentation of coordination with the owner(s) to the engineer 48 hours in advance of the closure.
- Do not deliver or store materials or equipment within open travel lanes, open side roads, bike paths, pedestrian paths, or sidewalks during any stage of construction. Temporary lane closures and/or halting of traffic within open roadways and pedestrian paths require flaggers and will not be permitted outside the lane closure hours defined within this article. Flagging operations will be included with the work item being performed for the contract according to standard spec 104.6.1(4).
- Do not use any existing median maintenance crossovers for construction activities.

Upon switching traffic to any permanent or temporary roadways or combination thereof, designate a representative to monitor the condition of the traffic and roadways for a period of not less than eight consecutive hours after traffic is switched and prior to beginning any work on the next stage or phase. Monitoring the switched traffic is included with bid item Traffic Control. Should the permanent or temporary roadways, or combination thereof, show any signs of distress, failure, or lack of drainage immediately notify the engineer. Following a traffic switch, immediately notify the engineer should traffic begin to utilize lanes or intersections incorrectly from that shown on the plans.

Do not use flag persons to direct, control, or stop USH 18/151 (Verona Road) or CTH PD (McKee Road), unless provided written approval from the engineer.

Provide flag persons and associated advanced signing according to the MUTCD and the plans for temporary halting of traffic on the side roads. All flagging operations are included with the contract work item being performed according to standard spec 104.6.1(4).

Mount all traffic control signs at a minimum height of 5 feet, measured from the bottom of the sign, above the edge of pavement.

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

Wisconsin Lane Closure System Advance Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

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

In addition to the closure types and required minimum advance notifications provided in Table 108-1, the following minimum advance notifications are also required for the closure type listed:

- Rolling Closure: 14 calendar days prior to closure, with updates 7 calendar days and 3 calendar days prior to the closure.
- Traffic Switch: 14 calendar days prior to the anticipated switch, with updates 7 calendar days and 3 calendar days prior to the switch.
- Detours, as provided in table 108-1, apply to vehicular, pedestrian, and bicycle detours.

Place portable changeable message signs for all closure types noted above a minimum of 7 calendar days in advance of the closure, switch or detour. Place portable changeable message signs a minimum of 14 calendar days prior to starting work on Verona Road and a minimum of 7 calendar days prior to starting work elsewhere. These timeframes may be adjusted by the engineer.

Closure and traffic switch requests will be reviewed by department personnel and final weekly schedule information will be forwarded to the local media on each Friday by 9:00 AM by department personnel.

General traffic operations during all stages
Maintain two lanes of traffic on a paved surface in each direction at all times on Verona Road and CTH PD except as described in Section B of this article.

Maintain a minimum lane width of 11 feet on Verona Road and CTH PD at all times during construction. When restricted to one lane maintain a minimum clear width to traffic control devices of 16 feet.

Shoulder closures on Verona Road are allowed to complete construction for various stages of the project. Perform shoulder closures according to Section B of this article.

Off-peak travel times for Verona Road, CTH PD, and all side roads are equivalent to the nightly closure times provided in Section B of this article. Peak travel times are any times other than the off peak times.

During daytime construction operations impacting the local roads, maintain at least one lane open to local traffic through the use of flaggers unless otherwise specified in the plans. Maintain a minimum width of 11 feet and a drivable surface utilizing a minimum of base aggregate dense for open lane(s). Open the roadway to 22 feet when flaggers and work operations are not present on the local roads.

Maintain two-way pedestrian and bicycle access on the Capital City Trail, Cannonball Path, Southwest Commuter Path and Military Ridge Path at all times.

B Lane Operations

A summary of nightly allowable lane closure times by location/direction are as follows:

USH 18/151 (Verona Road) and CTH PD Nightly Closures						
Description			**Direction**	**Through Lanes**	**Start**	**End**
Sunday Night	to	Friday Morning	Eastbound/ Westbound	Single	8:00 PM	5:00 AM
Friday Night	to	Sunday Morning	Eastbound/ Westbound	Single	8:00 PM	10:00 AM

Do not close lanes prior to or after the specified times provided in this article. If the contractor closes lanes of traffic prior to or fails to open lanes of traffic by the specified times, reductions will begin immediately upon exceeding the specified closure and will be based upon 15 minute increments of Lane Rental.

B.1 Lane Rental

It is in all stakeholders' best interest that peak travel times remain free from impairments such as delay due to construction activities; therefore, a Lane Rental fee assessment has been established to enforce compliance of a number of time sensitive travel restrictions and discourage any unnecessary peak travel time lane closures.

Lane closure times are limited to the nightly times specified above when 24-hour continuous traffic volume data suggests vehicular travel falls below levels that can be safely managed in one full-width travel lane while traversing active work zones.

This data is supported by project team experience, which suggests prevailing daytime two lane directional traffic flow has the potential to, and often does rapidly deteriorate along the project corridor whenever any seemingly “normal” situation develops. These include, but are not limited to, a disabled vehicle, intermittent periods of inclement weather, the presence of an oversized load or an incident. Furthermore, on the occasion(s) it is necessary to temporarily close a travel lane during daytime hours for any number of routine maintenance activities such as pothole and guardrail repair, miscellaneous shoulder work, or highway debris removal it is not uncommon for queues in excess of 2 miles to rapidly develop, which in turn lead to lengthy travel delays.

The lane rental assessment fee is $1,500 per 15 minutes, per lane, per direction of travel. This fee represents an estimated average cost of motorist inconvenience experienced by road users during each non-emergency closure (as previously discussed). The fee will not be assessed for closures due to crashes within a work zone, or other emergency situations not initiated by the contractor.

The total reduction from monies due to the contractor will be the summation of the separate reduction for each work restriction violation. The department will administer reduction assessments for the road not being open to traffic under the Failing to Open Road to Traffic administrative item.

B.2 Restrictions

Do not conduct construction operations in the median area and adjacent outside shoulder area of any roadway at the same time without the written permission of the engineer.

CTH M overlay shall not begin until all work included in Verona Road, stages 9 through 9F are completed and Verona Road traffic is operating in its permanent condition. Once begun, complete all work on CTH M within 30 consecutive calendar days.

Prior to switching Verona Road traffic into its permanent condition as shown in the plans for TRAFFIC CONTROL - 2019 WINTER SHUTDOWN, perform the following:

- Complete all work on the K Ramp and open the K Ramp to traffic within 14 consecutive calendar days as shown in the plans in TRAFFIC CONTROL - VERONA RD STG. 9C. and 9D.
- Complete all work to re-open the G Ramp within one night during off-peak hours as shown in the plans in TRAFFIC CONTROL - VERONA RD STG. 9E. Close the sidewalk at the G Ramp terminal for a maximum of 8 hours, during off-peak hours, to construct the sidewalk and curb ramps as shown in the plans in TRAFFIC CONTROL - VERONA RD STG. 9E.

Restrict access to Hardrock Road to right-in from eastbound CTH PD in CTH PD (MCKEE RD) STG. 10B PH. 1 and complete all work needed to open Hardrock Road to maintain right-out turns onto eastbound CTH PD as shown in the plans in TRAFFIC CONTROL - CTH PD (MCKEE RD) STG. 10B PH. 1

Close Nesbitt Road for a maximum of 2 consecutive calendar days to complete work as shown in the plans in TRAFFIC CONTROL - NESBITT ROAD - STG. 10B PH. 1.

Close the sidewalk at the intersection of CTH PD and Commerce Park Drive for a maximum of 8 hours, during off-peak hours, to construct the sidewalk and curb ramp in the southeast quadrant of the intersection as shown in the plans in TRAFFIC CONTROL - CTH PD STG. 10B PH. 1 COMMERCE PARK.

Close access to the driveway at Station 105+50 EB for a maximum of 10 consecutive calendar days to complete construction of the driveway and adjacent roadway as shown in the plans in TRAFFIC CONTROL - CTH PD (MCKEE RD) STAGE 10B PH. 2.

Close Kapec Road for a maximum of 14 consecutive calendar days to complete all work, excluding the upper HMA pavement layer, as shown in the plans in TRAFFIC CONTROL - KAPEC ROAD STG. 10C PH. 2A.

B.3 Single Point Interchange

Switch USH 18/151 and CTH PD from two intersections (diamond interchange) with temporary signals, lighting, pavement marking, signing, and traffic control to a temporary single point interchange using a combination of the temporary and permanent signals, lighting, pavement marking, signing and traffic control during one night with State Patrol assistance according to the hours in the lane closure table above and the Interim Traffic Signals for Intersections USH 18/151 and CTH PD of these special provisions. Meet with the department and all subcontractors associated with the switch, and coordinate the switch with the department for securing State Patrol assistance 14 working days in advance of the switch.

Switch USH 18/151 and CTH PD from a temporary single point interchange to the permanent single point interchange, using all permanent signals, lighting and signing. Use lane closures to facilitate the switch according to the lane closure table above. Meet with the department and all subcontractors associated with the switch, and coordinate the switch with the department for any special assistance 14 working days in advance of the switch.

C Rolling Closures

Rolling closures involve slowing traffic for a brief period and then allowing traffic to proceed behind a line of law enforcement vehicles that will coordinate the procession through the work site.

If rolling closures are used, conduct operations requiring law enforcement vehicles, to limit the stop or slowing of USH 18/151 or CTH PD traffic, to less than 15 minutes for the rolling closures. The necessary advanced signing, traffic control personnel, department personnel, and law enforcement personnel are required to be on site prior to and during these operations.

Arrange the implementation of the rolling closures according to the notification required in Section A of this article and through the engineer and Jeff Gustafson with the Southwest Region Office, (608) 516-6400. Provide final confirmation of the scheduled rolling closure to the engineer 3 calendar days in advance of the closure.

D Advance Notifications

Notify the State Patrol, Dane County Sheriff's Office, City of Fitchburg Police Department, City of Fitchburg Fire Department, City of Madison Police Department, City of Madison Fire Department, City of Verona Police Department, City of Verona Fire Department, Fitch-Rona EMS, Dane County 911 Center, Engineer, School Districts, Madison Metro, the City of Madison Engineering Department, the City of Fitchburg Engineering Department and the post office two weeks in advance of all traffic switches, lane closures, ramp closures, road closures and detours. Confirm notifications with all parties one week prior to implementation. Notify parties if a closure is cancelled.

E Pedestrian and Bicycle Access

Maintain pedestrian and bicycle access, according to the current ADAAG, along Verona Road, CTH PD, and all local side roads by means of existing sidewalk, Temporary Pedestrian Surface Asphalt bid item, Temporary Curb Ramp bid item, or new sidewalk at a minimum width of 5 feet, for all abutting businesses and properties and a minimum width of 8 feet for the Capital City Trail, Cannonball Path, Southwest Commuter Path and Military Ridge Path. Keep a minimum width of 5 feet of existing sidewalk as long as practicable to maintain pedestrian access. Place Temporary Pedestrian Safety Fence along the sidewalks, bike paths, or bus stops as shown in the plans and as directed by the engineer. Provide bus stop or temporary bus stop locations as shown in the plans or as directed by the engineer in coordination with the City of Madison Transit Department and the City of Fitchburg.

When required close sidewalks according to the standard detail drawing "Traffic Control, Pedestrian Accommodation." Provide temporary pedestrian, bicycle, and bus access as detailed in the plans and as directed by the engineer. Maintain pedestrian, bicycle, and bus access at all times utilizing a hard surface approved by the engineer, of either asphalt or concrete. Construct hard surfaces to match the width of the existing facility being maintained. The bid items Temporary Pedestrian Surface Asphalt and Temporary Curb Ramp have been provided for this work.

F Property Access

Maintain access to properties along the project for local residents, businesses, and emergency vehicles. Maintain access to all driveways and parking lots at all times where alternative access is not available. Keep business entrances open by partial driveway construction or by closing only one access at a time for properties with multiple driveways. Inform property owners 5 working days prior to closing access(es). Confirm the closure with the property owner two working days prior to use. Provide written documentation of coordination with the owner(s) to the engineer for any closure of any access to a business or private property.

G Clear Zone Working Restrictions

Do not leave any slopes steeper than 3:1 within the clear zone or any drop offs at the edge of the traveled way greater than 2 inches.

Store materials and equipment a minimum of 30 feet from the edge of the traveled way of USH 18/151 (Verona Road). Equipment may be parked and materials stored closer than 30 feet on Verona Road if it is protected by concrete barrier temporary precast.

Store materials and equipment within the right-of-way a minimum of 10 feet from the back of curb or sidewalk, whichever is greater, for CTH PD (McKee Road) and all local roads that are open to traffic. Equipment may be parked and materials stored closer than 10 feet on CTH PD if it is protected by concrete barrier temporary precast.

Maintain a minimum of 5 feet clearance from the front toe of any concrete barrier to any items stored behind the concrete barrier that extend above the concrete barrier including, but not limited to, equipment, materials, and temporary shoring.

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

H Snowplowing, Winter Work Operations and Winter Maintenance

The established construction schedule for the contract involves construction activities and/or traffic control devices to be utilized in the winter months. Clean all traffic control devices of dirt and debris including, but not limited to, signs, drums, message boards and barrier wall reflectors once every month, after each occurrence when county or city maintenance crews have completed winter plowing operations, or as directed by the engineer. This work is included in the cost of the bid item Traffic Control.

During winter months, park equipment at distances, as provided in Section G of this Article, to provide snow storage from snow plowing operations. Do not store equipment or materials within the work zone which may interfere with sight distances along any roadway.

Dane County and the local municipality will perform snow removal operations for roads that are open to through traffic during construction. Coordinate temporarily moving traffic control devices to allow for winter plowing in and around the devices as requested by the maintaining authority or as directed by the engineer. Re-install or adjust any traffic control devices that may be damaged, removed, or shifted as part of the winter maintenance operations. This work is included in the cost of the bid item Traffic Control.

Snow may be plowed from the traveled roadway and existing and temporary pedestrian and bicycle facilities into the work site by the maintaining authority. The contractor is responsible for any snow removal from the work site that may be required to continue work operations. The local maintaining authority will not provide snow plowing operations in areas outside of the active travel lanes. Provide snow removal in those areas

closed to through traffic as required to facilitate construction activities and to provide access to properties within the work area.

The contractor is responsible for plowing any areas which may need to be cleared of snow or ice to accommodate changes in traffic control and to facilitate construction staging during winter months.

Anticipated locations of traffic control devices are shown in the plans. Review the work site with the engineer for locations where additional area may be available to maximize lane and shoulder widths over winter months to aid in winter maintenance operations and to maximize snow storage areas. Adjust traffic control devices in these areas. This work is included in the cost of the bid item Traffic Control.

Snow plowing, snow removal, ice removal including any road salt which may be required, maintenance and cleaning of traffic control devices, and other winter maintenance activities are included with other items of work under this contract.

I Roadside Hazard Protection During Construction

Conduct existing hazard protection removals including but not limited to concrete barrier walls and beamguard in several phases to allow timely installation of temporary or permanent hazard protection. Bridge pier columns, parapets, concrete barrier walls and sign bridge footings (hazards) are to remain protected at all times throughout construction. Remove existing hazard protection concurrently with the placement of any temporary or new permanent hazard protection so that the hazard remains protected at all times.

J Traffic Control Operations

This information is included to assist the contractor and its subcontractors; do not interpret this information as a demonstration of specified means and methods. Coordinate the schedule of operations for the construction staging as shown in the plans and as noted in these special provisions. Do not move operations within the proposed construction staging unless modifications to the staging and schedule are approved in writing by the engineer. Address traffic, construction and pedestrians with any proposed staging modifications provided to the engineer.

For CTH PD, place the lower layer of HMA pavement to accommodate traffic control stages described below. The upper layer of HMA pavement is anticipated to be placed in its entirety on CTH PD in Stage 10D PH 4, once all median areas have been completed and as approved by the engineer. This paving scenario may be revised by the engineer at any time. Revisions to this paving scenario may also be requested from the engineer. Do not revise this paving scenario unless approved in writing by the engineer.

Stages 1 through 8 were completed under previous projects. Staging for this project begins with Stage 9.

STAGE 9 - 2019

Verona Road:

Stage 9:

Traffic

- Eastbound and westbound Verona Road traffic is maintained on a combination of the proposed lanes and ramps.

Construction

- Construct the eastbound Verona Road mainline pavement between Station 888+00 VR and Station 944+90 VR and the westbound Verona Road mainline pavement between Station 893+30 VR and Station 948+00 VR.
- Construct B-13-831, B-13-832, R-13-266, and R-13-267.
- Construct the Verona Rd. STG 9 Concrete Repairs.

Pedestrians

- Maintain on existing sidewalk.

Stage 9C:

Traffic

- Traffic is switched to the mainline roadway and operates in its final condition.
- CTH PD and Williamsburg Way operate as diamond interchanges.
- Eastbound exit to Williamsburg Way remains closed; exiting traffic utilizes CTH PD exit and B Ramp to access Williamsburg Way.
- Eastbound access from CTH PD is closed at the K Ramp. Traffic travels through Williamsburg Way ramps and utilizes F Ramp to access Verona Road.
- Ramp closures are restricted to 14 calendar days.

Construction

- Construct concrete pavement between approximately Station 114+00 K and Station 115+75 B.
- Construct concrete pavement and curb and gutter between Station 127+00 K and Station 128+60 K and Station 128+60 E and Station 131+25 E.

Pedestrians

- Maintained on existing sidewalk.

Stage 9D:

Traffic

- Traffic remains on the mainline roadway.
- CTH PD and Williamsburg Way operate as diamond interchanges.
- Eastbound access to Williamsburg Way is closed at the E Ramp. Access from eastbound Verona Road to Williamsburg Way is via alternate routes.
- Single lane closures utilized on Williamsburg Way.
- Ramp closure is limited to one night during off-peak hours.

Construction

- Construct the median islands, including traffic signals, at the E Ramp terminal at Williamsburg Way.

Pedestrians

- Maintained on existing sidewalk.

Stage 9E/F:

Traffic

- Traffic remains on the mainline roadway.
- CTH PD and Williamsburg Way operate as diamond interchanges.
- Westbound access to Williamsburg Way is closed at the G Ramp. Access from westbound Verona Road to Williamsburg Way is via alternate routes.
- Single lane closures utilized on Williamsburg Way.
- Ramp closure is limited to one night during off-peak hours.

Construction

- Construct the median islands, including traffic signals, at the G Ramp and H Ramp terminals at Williamsburg Way.

Pedestrians

- Maintained on existing sidewalk.
- 8-hour closure of sidewalk allowed for construction of concrete sidewalk at G Ramp terminal.

CTH PD:

Stage 9A:

Traffic

- Maintain eastbound and westbound lanes in existing lane configurations on existing roadway.

Construction

- Construct pier and abutments for Structure B-13-832.

Pedestrians

- Maintain on existing sidewalk and temporary crosswalk utilizing existing pavement around pier construction.

Stage 9B:

Traffic

- Maintain eastbound and westbound traffic on existing and temporary pavement.
- Upon completion of Stage 9B, eastbound traffic is shifted back to its original location. Westbound traffic remains in its shifted location.

Construction

- Construct pier and abutments for Structure B-13-831.

Pedestrians

- Maintain on existing sidewalk and temporary crosswalk installed in Stage 9A.

STAGE 10 - 2020

CTH PD:

Stage 10A:

Traffic

- Maintain traffic on existing lanes with off peak lane closures.

Construction

- Construct temporary pavement in medians and along outside westbound roadway between Fitchrona Road and Kapec Road.
- Construct portions of storm sewer in existing median area between Station 82+00 WB and Station 87+50 WB, including lateral stubs for future stage connections.
- Construct temporary pavement in medians between eastbound Verona Road ramp terminals and Commerce Park Drive.

Pedestrians

- Maintain on existing sidewalk along the south side of CTH PD.

Stage 10B PH. 1:

Traffic

- Maintain eastbound and westbound traffic on a combination of existing and temporary pavements.
- Traffic signals are removed at the Nesbitt Road intersection. Cross traffic and left out movements are restricted at the intersection.
- Westbound left turns onto Hardrock Road are restricted for 14 calendar days.
- Right turns onto CTH PD from Hardrock Road are restricted for 14 calendar days.
- Maintain ingress to General Beverage driveway located at Station 105+50 EB.
- Utilize eastbound and westbound single lane closures at Hardrock Road intersection to complete temporary asphalt paving between proposed and existing pavements.
- Eastbound Verona Road off ramp is restricted to two lanes.
- Nesbitt Road to be fully closed for a maximum of 2 calendar days.

Construction

- Construct eastbound CTH PD between approximate Station 86+35 EB and Station 98+00 EB, Station 99+00 EB and Station 101+35 EB, and Station 106+25 EB to Station 114+50 EB. Construct the lower layer of HMA pavement.
- Construct temporary pavement as shown in the plans to connect proposed and existing pavements for use in future stages.
- Construct curb and gutter along A Ramp.
- Construct A Ramp to CTH PD eastbound roadway.
- Complete excavation, base placement, and a portion of lower layer HMA pavement on Nesbitt Road within the duration of the full roadway closure.
- Complete curb and gutter, sidewalk, concrete driveway, and remaining lower layer HMA pavement on Nesbitt Road while maintaining two way traffic.

Pedestrians

- Maintain along the south side of CTH PD on a combination of existing and temporary sidewalk.
- Nesbitt Road crossing maintained via temporary crosswalk constructed outside of the construction limits of Nesbitt Road.
- Sidewalk along Commerce Park Drive at the intersection of CTH PD to be closed for a maximum of 8 hours to construct sidewalk and curb ramp as shown in the plans in Traffic Control - CTH PD Stg. 10B Ph. 1 Commerce Park. Maintain sidewalk along CTH PD.

Stage 10B PH. 2:

Traffic

- Traffic is maintained in same location as Stage 10B PH. 1.
- Eastbound Verona Road off ramp traffic is shifted and utilizes a combination of existing, new, and temporary pavement.
- CTH PD access to General Beverage driveway at Station 105+50 EB is restricted.
- Westbound left turns onto Hardrock Road are restricted.
- Eastbound CTH PD traffic is required to be shifted into Stage 10C configuration within 10 calendar days to restore access to General Beverage driveway at Station 105+50 EB.

Construction

- Construct eastbound CTH PD between approximately Station 101+35 EB and Station 106+25 EB. Construct the lower layer of HMA pavement.

Pedestrians

- Maintain along the south side of CTH PD on a combination of existing and proposed sidewalk.

Stage 10C PH. 1:

Traffic

- Westbound traffic is maintained in the same location as Stage 10B. Single lane night time lane closures utilized as needed.
- Eastbound traffic is shifted onto the new eastbound roadway and maintained on a combination of existing, proposed, and temporary pavement.
- Westbound left turns onto Hardrock Road are restricted.
- Westbound left turns onto Nesbitt Road and eastbound left turns onto Kapec Road are restricted for one night during storm sewer installation.

Construction

- Extend storm sewer crossings from Stage 10B limits for connection during Stage 10C PH. 2.
- Place asphaltic surface temporary patches to maintain future staged traffic.

Pedestrians

- Maintain along the south side of CTH PD on a combination of existing and proposed sidewalk.

Stage 10C PH. 2:

Traffic

- Eastbound traffic remains shifted onto the new eastbound roadway and maintained on a combination of existing, proposed, and temporary pavement as in Stage 10C, PH. 1.
- Westbound traffic is shifted into the median of existing CTH PD and is maintained on a combination of existing and temporary pavement.
- Westbound left turns onto Hardrock Road are restricted.
- Westbound left turn lane to Fitchrona Road is reduced to a single lane.
- Westbound Verona Road off ramp at CTH PD is restricted to two lanes.
- Eastbound Verona Road off ramp remains restricted to two lanes.
- Traffic shifts utilized on westbound Verona Road off ramp and eastbound Verona Road on ramp to maintain traffic during construction of westbound CTH PD roadway.
- Kapec Road to be closed for a maximum of 14 calendar days for excavation, storm sewer, base aggregate, curb and gutter, and lower layer HMA pavement.
- PDQ driveway at Station 94+25 WB will be maintained during full closure of Kapec Road. Upon completion of Kapec Road, PDQ driveway will be removed.
- Through traffic and left-outs remain restricted at Nesbitt Road and Kapec Road.

Construction

- Construct the westbound CTH PD roadway. Construct the lower layer of HMA pavement.
- Construct portions of the B and C Ramps.
- Construct temporary pavement between proposed and existing pavement for use in current and future stages.

Pedestrians

- Maintain along the south side of CTH PD on a combination of existing and proposed sidewalk.

Stage 10C PH. 3:

Traffic

- Eastbound and westbound traffic remain in the same location as Stage 10C Ph. 2.
- Westbound left turns onto Hardrock Road are restricted.
- Westbound left turn lane to Fitchrona Road remains a single lane.
- Westbound Verona Road off ramp at CTH PD remains restricted to two lanes and is shifted to the western lanes of the ramp.
- Eastbound Verona Road off ramp remains restricted to two lanes.
- Through traffic and left-outs remain restricted at Nesbitt Road and Kapec Road.

Construction

- Construct portions of westbound CTH PD pavement at the B and C ramps previously used for traffic in Stage 10C Ph. 2.
- Construct temporary pavement between proposed and existing pavement for use in current and future stages.

Pedestrians

- Maintain along the south side of CTH PD on a combination of existing and proposed sidewalk.

Stage 10D PH. 1:

Traffic

- Eastbound traffic remains shifted onto the new eastbound roadway and maintained on a combination of existing, proposed, and temporary pavement as in Stage 10C, PH. 3.
- Westbound traffic is shifted onto the newly constructed westbound CTH PD roadway.
- Westbound left turns onto Hardrock Road are restricted.
- Westbound left turn lane to Fitchrona Road remains a single lane.
- Through traffic and left-outs remain restricted at Nesbitt Road and Kapec Road.

Construction

- Construct a portion of westbound roadway between Station 80+75 WB and Station 83+25 WB. Construct the lower layer of HMA pavement.
- Construct medians and pavement between eastbound and westbound alignments between Station 85+50 WB and approximately Station 92+50 WB, Station 94+00 WB and Station 98+50 WB, and Station 101+25 WB and Station 111+00 WB. Construct the lower layer of HMA pavement.
- Begin to construct pavement in SPUI between approximately Station 99+00 WB and Station 101+80 WB.
- Construct a portion of the eastbound roadway between Station 112+75 EB and east project limits. Construct the lower layer of HMA pavement.
- Construct temporary pavement between proposed pavements for use in future stages.

Pedestrians

- Maintain along the south side of CTH PD on a combination of existing and proposed sidewalk.
- Crossing of CTH PD maintained by alternating median construction at Hardrock Road and Nesbitt Road, maintaining one crossing at all times.

Stage 10D PH. 2:

Traffic

- Eastbound and westbound traffic remain in the same location as Stage 10D, PH. 1.
- Westbound left turns onto Hardrock Road are restored.
- Westbound left turn lane to Fitchrona Road remains a single lane; utilizing new pavement constructed in Stage 10D, PH. 1.
- Eastbound left turn onto Kapec Road utilize the new "PL" alignment.
- Ramp traffic at the SPUI utilizes a combination of permanent and temporary pavement constructed in Stage 10D, PH. 1, continuing to operate as a diamond interchange.
- Eastbound and westbound Verona Road exit ramps are restricted to two lanes.
- Through traffic and left-outs remain restricted at Nesbitt Road and Kapec Road.

Construction

- Complete construction of medians and pavement between eastbound and westbound alignments between locations listed in Stage 10D Ph. 1, gapping a portion between Station 92+50 WB and Station 93+45 WB to maintain westbound left turns onto Nesbitt Road. Construct the lower layer of HMA pavement.
- Construct temporary pavement in the median between Station 93+17 EB and Station 94+30 EB for use in future stages.

Pedestrians

- Maintain along the south side of CTH PD on a combination of existing and proposed sidewalk.

Stage 10D PH. 3:

Traffic

- Traffic operates in its permanent condition, with the interchange operating as a SPUI.
- Ramps restricted to single left and right turn lanes.
- Eastbound and westbound CTH PD traffic placed in permanent lane locations, remaining restricted to two lanes in each direction.

Construction

- Complete construction of median curb and gutter and concrete sidewalk at all SPUI islands.
- Complete construction of the median island at Station 109+50 WB. Construct the lower layer of HMA pavement.
- Complete median and pavement construction between Station 91+25 EB and Station 93+45 WB. Construct the lower layer of HMA pavement.

Pedestrians

- Maintain along the south side of CTH PD on a combination of existing and proposed sidewalk while north side sidewalks and crosswalks are completed.
- Maintain on newly constructed north side sidewalks while south side crosswalks and sidewalks at SPUI are constructed.

Stage 10D PH. 4:

Traffic

- Traffic continues to operate in its permanent condition.
- Single lane closures utilized for eastbound and westbound CTH PD traffic at the Nesbitt and Kapec Road intersection.

Construction

- Complete median curb and gutter between Station 93+25 EB and Station 94+50 EB. Construct the lower layer of HMA pavement.
- Complete construction of median islands on Nesbitt and Kapec Roads.
- Complete construction of the upper layer of HMA pavement in all HMA pavement areas where the lower layer of HMA was previously constructed.

Pedestrians

Maintain throughout the project on proposed sidewalks.

5. Holiday and Special Events Work Restrictions.

Holidays

Work is permitted however lane closures and delivery of materials will not be permitted on any portion of the highway carrying USH 18/151 (Verona Road) and CTH PD (McKee Road) during the following holiday periods:

2019

- Easter Holiday – From noon Friday, April 19, 2019 to 5:00 AM Monday, April 22, 2019;
- Memorial Day Holiday – From noon Friday May 24, 2019 to 5:00 AM Tuesday, May 28, 2019;
- Independence Day Holiday – From noon Wednesday, July 3, 2019 to 5:00 AM Monday, July 8, 2019;
- Labor Day Holiday – From noon Friday, August 30, 2019 to 5:00 AM Tuesday, September 3, 2019;
- Thanksgiving Day Holiday – From noon Wednesday, November 27, 2019 to 5:00 AM Monday, December 2, 2019.

2020

- Easter Holiday – From noon Friday, April 10, 2020 to 5:00 AM Monday, April 13, 2020;
- Memorial Day Holiday – From noon Friday May 22, 2020 to 5:00 AM Tuesday, May 26, 2020;
- Independence Day Holiday – From noon Thursday, July 2, 2020 to 5:00 AM Monday, July 6, 2020;
- Labor Day Holiday – From noon Friday, September 4, 2020 to 5:00 AM Tuesday, September 8, 2020;
- Thanksgiving Day Holiday – From noon Wednesday, November 25, 2020 to 5:00 AM Monday November 30, 2020.

The engineer will have the ability to suspend work activates during the holiday periods listed above in the event any undesirable traffic congestion develops that has the potential to cause lengthy motorist delay or unsafe working conditions.

Special Events

Work is permitted however lane closures and delivery of materials will not be permitted on any portion of the highway carrying USH 18/151 (Verona Road) and CTH PD (McKee Road) during the following special event periods:

2019

- Midwest Horse Fair, April 12-14, 2019
  From 5:00 AM to 10:00 AM Friday and Saturday
- Epic's Expert Group Meeting, April 29 to May 3, and May 6-10, 2019
  From 5:00 AM to 10:00 AM Monday through Friday
- PGA Champions Tour, anticipated June 21-23, 2019
  From 5:00 AM to 10:00 AM and 3:00 PM to 8:00 PM Friday through Sunday
- Shake the Lake, Date Pending
  From 9:00 PM to 2:00 AM
- Elver Park Fireworks, Date Pending
  From 9:00 PM to 2:00 AM
- Epic's Users Group Meeting, August 26-29, 2019
  From 5:00 AM to 10:00 AM Monday through Thursday

2020

- Midwest Horse Fair, April 17-19, 2020
  From 5:00 AM to 10:00 AM Friday and Saturday
- Epic's Expert Group Meeting, April 27 to May 1, and May 4-8, 2020
  From 5:00 AM to 10:00 AM Monday through Friday
- PGA Champions Tour, anticipated June 19-21, 2020
  From 5:00 AM to 10:00 AM and 3:00 PM to 8:00 PM Friday through Sunday
- Shake the Lake, Date Pending
  From 9:00 PM to 2:00 AM

- Elver Park Fireworks, Date Pending
  From 9:00 PM to 2:00 AM
- Epic's Users Group Meeting, anticipated August 24-27, 2020
  From 5:00 AM to 10:00 AM Monday through Thursday

Wisconsin Badgers Football Home Games - Work is permitted however lane closures and delivery of materials will not be permitted on any portion of the highway carrying USH 18/151 (Verona Road) and CTH PD (McKee Road) from a maximum of four hours prior to scheduled kickoff to three hours immediately after the end of the game, at the discretion of the engineer. The engineer, in coordination with the department's traffic engineer, will have the ability to suspend work activities based upon changes to game day schedule and game day traffic. Home games in 2019 and 2020 are scheduled on the following dates:

2019

- Saturday, September 7, 2019
- Saturday, September 21, 2019
- Saturday, September 28, 2019
- Saturday, October 5, 2019
- Saturday, October 12, 2019
- Saturday, November 9, 2019
- Saturday, November 23, 2019

2020

- Saturday, September 5, 2020
- Saturday, September 12, 2020
- Saturday, September 19, 2020
- Saturday, October 10, 2020
- Saturday, October 31, 2020
- Saturday, November 21, 2020

For events identified that have dates listed as pending or anticipated, the dates must be confirmed with the engineer as soon as possible. The department will determine the dates and times for work restrictions associated with these events. Dates above for special events may also be revised, at which time the engineer will provide revised restrictions which are not more restrictive than the restrictions provided.

The engineer will have the ability to suspend work activates during the special events listed above in the event any undesirable traffic congestion develops that has the potential to cause lengthy motorist delay or unsafe working conditions.

6. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.
107-065 (20080501)

Some of the utility work described below is dependent on prior work being performed 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. The notice shall be given a minimum of 14 calendar days in advance of when the work is to be completed and when the site will be available to the utility to begin work. Notify the affected utility three working days prior to the start of construction to coordinate the adjustments.

Additional detailed information regarding the location of the relocated utility facilities is available on the permits issued to the utility companies. View these permits at the SW Regional Office during normal working hours. Contact the Regional Utility Permit Coordinator, Mark Goggin at (608) 789-5955 or by email at Mark.Goggin@dot.wi.gov.

Alliant Energy (Alliant) (electric) has overhead and underground facilities within the project area. No conflicts are anticipated with Alliant's existing facilities. Alliant's utility relocations have been completed as part of project 1206-07-74 as follows:

- Use of Alliant's existing underground facilities along the east side of USH 18/151 (Verona Road) from approximately Station 894+90 VR to Station 903+53 VR have been discontinued and the existing underground facilities have been left in place.
- Use of Alliant's existing underground facilities along the north side of CTH PD (McKee Road) from approximately Station 94+77 EB to Station 98+70 EB have been discontinued. The existing underground facilities have been left in place.
- Use of Alliant's existing underground facilities along the west side of USH 18/151 (Verona Road) from approximately Station 905+05 VR to the north have been discontinued and been left in place.

Underground facilities have been placed jointly with AT&T and Charter Communications under the sidewalk on the west side of Nesbitt Road from approximately Station 23+00 NR to Station 24+10 NR with a crossing of Nesbitt Road at approximately Station 23+50 NR. Underground facilities have been placed along the east side of Nesbitt Road from approximately Station 23+50 NR to the north, with a crossing of CTH PD (McKee Road) at approximately Station 93+50 EB. From the crossing of CTH PD (McKee Road), the underground facilities continue north under the sidewalk on the east side of Kapec Road The underground facilities are anticipated to be approximately 5 feet below existing ground from approximately Station 23+00 NR to Station 24+00 NR. The underground crossing of CTH PD at approximately 93+50 EB is anticipated to be approximately 10 feet below existing ground. The underground facilities under the sidewalk on the east side of Kapec Road are anticipated to be approximately 3 feet below existing ground.

Underground facilities have been placed jointly with Charter Communications crossing USH 18/151 (Verona Road) at approximately Station 894+90 VR. The underground facilities are anticipated to be approximately 3 feet below existing ground

Underground facilities have been placed along the east side of USH 18/151 (Verona Road) within approximately 2 feet of the right-of-way from approximately Station 895+00 VR to Station 903+20 VR. The underground facilities are anticipated to be approximately 3 feet

below existing ground. The underground facilities cross CTH PD (McKee Road) at an approximate depth of 5 feet below existing ground at approximately Station 102+00 EB.

Underground facilities have been placed jointly with AT&T and Charter Communications in easement along the east side of USH 18/151 (Verona Road) from approximately Station 905+40 VR to Station 916+90 VR with a crossing of USH 18/151 (Verona Road) at approximately Station 916+90 VR. The underground facilities are anticipated to be approximately 3 feet below existing ground from approximately Station 905+40 VR to Station 914+00 VR and to be approximately 6 feet below existing ground from approximately Station 914+00 VR to Station 916+90 VR. The crossing of USH 18/151 (Verona Road) is anticipated to be approximately 8 feet below existing ground.

Underground facilities have been placed along the west side of Verona Road approximately 5 feet left of the C Ramp alignment from approximately Station 12+05 C to Station 16+80 C. The depth of the underground facilities varies between approximately 3 feet and 6 feet below existing ground. Underground facilities have been placed going west from facility previously described at approximately Station 12+05 C, Station 14+15 C, and Station 16+80 C. The depth of the underground facilities varies between 3 feet and 10 feet below existing ground.

The proposed storm sewer will cross the existing Alliant Energy underground facilities at several locations. These underground facilities will not be relocated. Alliant Energy will make arrangements to temporarily support/protect the underground facilities during construction. Support/protection is required when trench widths exceed 10 feet. Contact Alliant Energy as required by Trans 220.05 (10) for each site/location. Temporary support/protection will take 1 working day to complete at each site.

Contact Alliant 2 weeks prior to working near Alliant facilities. Coordinate operations with Alliant. Contact Craig Hendricks at (608) 458-8184. Invite Craig Hendricks to the weekly construction meetings.

American Transmission Company (ATC) (electric) has overhead facilities within the project area. No conflicts are anticipated with ATC's existing facilities. ATC's utility relocations have been completed as part of project 1206-07-74 as follows:

ATC's existing power poles along the south side of CTH PD (McKee Road) from approximately Station 75+60 EB and Station 113+85 EB have been removed and relocated. New power poles have been placed at approximately the following stations:

- Station 75+54 EB 32.5' RT
- Station 77+88 EB 32.5' RT
- Station 80+40 EB 34' RT
- Station 83+20 EB 35' RT
- Station 85+58 EB 36' RT
- Station 87+70 EB 35' RT
- Station 90+55 EB 66' RT

- Station 94+00 EB 77’ RT
- Station 96+94 EB 87’ RT
- Station 101+59 EB 66’ RT
- Station 105+94 EB 60’ RT
- Station 110+32 EB 59’ RT
- Station 113+74 EB 47’ RT

ATC’s overhead facility is a double circuit line with one 138 kV circuit and one 69 kV circuit. ATC recommends the contractor consider both circuits are 138 kV and maintain OSHA safe working clearance from the ATC circuits based on the latest OSHA requirements with respect to a 138 kV circuit. It is the contractor’s responsibility to determine OSHA requirements.

To request an outage of ATC facilities contact Matt Dopp, ATC Construction Manager, at (608) 225-5983 to obtain ATC’s Transmission Facility Outage Agreement form and for instructions on how to start the agreement process. Early coordination increases the opportunity for the requested outage to be granted. Peak loads are common during summer months and outage requests during these months are rarely allowed.

Contact ATC at least three days in advance of the following:

- Grade change (cut or fill) within 1 foot of an ATC facility.
- Excavations up to 3 feet deep within 10 feet of an ATC facility.
- Excavations greater than 3 feet deep within 20 feet of an ATC facility.
- Grade change in excess of 1 foot of change from the WisDOT plans within 20 feet of an ATC facility (including overhead wires).
- Directional bore or plowing work within 10 feet of an ATC facility.

Exercise caution when working near ATC’s transmission facilities. Any contact with or damage to ATC’s facilities must be reported immediately to either Matt Dopp, ATC Construction Manager, at (608) 225-5983 or Doug Vosberg, ATC Maintenance Specialist, at (608) 438-7650.

Coordinate operations with ATC as necessary. Invite Matt Dopp, ATC Construction Manager, to the weekly construction meetings.

AT&T Wisconsin (AT&T) (communication) has existing overhead and underground facilities within the project area. The majority of AT&T’s utility relocations took place as part of WisDOT project 1206-07-74 as follows:

- Use of AT&T’s existing underground facilities along the east side of Nesbitt Road from approximately Station 888+70 VR to Station 898+25 VR have been discontinued and remain in place.
- Use of AT&T’s existing underground facilities along the west side of USH 18/151 (Verona Road) from approximately Station 900+50 VR to the north have been discontinued and remain in place.

- Use of AT&T's existing facilities along the east side of USH 18/151 (Verona Road) from approximately Station 910+20 VR to Station 955+75 VR have been discontinued and remain in place.
- Use of AT&T's existing underground facilities crossing CTH PD (McKee Road) at approximately Station 89+90 EB have been discontinued. The existing underground facilities will remain in place.
- Use of AT&T's existing underground facilities on the south side of CTH PD (McKee Road) from approximately Station 93+80 EB to Station 94+90 EB and the crossing of CTH PD (McKee Road) at approximately 94+81 EB have been discontinued. The existing underground facilities will remain in place.
- Use of AT&T's existing underground facilities along the south side of CTH PD (McKee Road) from approximately Station 105+05 EB to Station 115+75 EB have been discontinued. The existing underground facilities will remain in place.
- Use of the existing underground facilities crossing CTH PD at approximately Station 107+50 EB have been discontinued. The existing underground facilities will remain in place.
- The existing underground facilities crossing CTH PD at approximately Station 89+33 EB have been removed. The existing conduit will remain in place.
- The existing underground facilities crossing Kapec Road at approximately Station 64+63 KR have been removed. The existing conduit will remain in place.

Underground facilities have been placed jointly with Alliant and Charter under the sidewalk on Nesbitt Road from approximately Station 23+00 NR to Station 24+10 NR and crossing CTH PD (McKee Road) as described elsewhere in these special provisions.

Underground facilities have been placed crossing CTH PD (McKee Road) at approximately Station 106+65 EB with a hand hole at approximately Station 106+65 EB LT. From the crossing, the underground facilities continue to the east under the existing curb and gutter. The depth of the underground crossing of CTH PD (McKee Road) is anticipated to vary between approximately 6 and 8 feet below finished ground. Contact AT&T for additional information.

A manhole has been placed at approximately Station 106+11 EB 70' LT. From the manhole, underground facilities have been placed to the south of the existing bridge pier from approximately Station 106+11 EB to Station 106+90 EB. The underground facility runs along the east side of the Military Ridge Path from approximately Station 106+90 EB to Station 107+85 EB. Underground facilities have been placed approximately 5 feet north of the southern curb and gutter flag line on the south side of CTH PD (McKee Road) from approximately Station 107+85 EB to Station 115+75 EB. The depth of the underground facilities is anticipated to vary between approximately 3 and 8 feet below finished ground. Contact AT&T for additional information.

Underground facilities have been placed jointly with Alliant and Charter along the east side of USH 18/151 (Verona Road) from approximately Station 910+25 VR to Station 916+60 VR.

Underground facilities have been placed along the right-of-way line on the south side of CTH PD from approximately Station 89+35 EB to Station 92+95 EB at a depth of approximately 4 feet below existing ground.

Contact AT&T 14 calendar days in advance of construction of the temporary traffic signals at the CTH PD (McKee Road) and Commerce Park Drive intersection. AT&T has a guy wire that crosses CTH PD (McKee Road) on the east side of the intersection that is in potential conflict with the temporary signals. If a relocation is required, AT&T anticipates the guy will be relocated in 1 working day.

Contact AT&T 7 days prior to working near AT&T facilities. Coordinate operations with AT&T. Contact Carol Anason at (608) 252-2385. Invite Carol Anason to the weekly construction meetings.

City of Fitchburg (sanitary sewer) has existing underground facilities located within the project area. Adjustment of the existing underground facilities will be accomplished as part of project 1206-08-77 with this contract. Coordinate operations with the City of Fitchburg. Contact Tracy Foss at (608) 270-4272. Invite Tracy Foss to the weekly construction meetings.

City of Fitchburg (street lights) has existing light poles and underground electric facilities located within the project area. The existing light poles and underground electric facilities in conflict with the project will be relocated or removed as part of project 1206-08-77 with this contract. Coordinate operations with the City of Fitchburg. Contact Alysen Kohlnhofer at (608) 270-4277. Invite Alysen Kohlnhofer to the weekly construction meetings.

City of Fitchburg (water) has existing underground facilities located within the project area. Adjustment of the existing underground facilities will be accomplished as part of project 1206-08-77 with this contract. Coordinate operations with the City of Fitchburg. Contact Tracy Foss at (608) 270-4272. Invite Tracy Foss to the weekly construction meetings.

Charter Communications (Charter) (communication) has existing overhead and underground facilities located within the project area. No conflicts are anticipated with Charter's existing facilities. Charter's utility relocations took place as part of WisDOT project 1206-07-74 as follows:

- Use of Charter's existing underground facilities along the east side of Nesbitt Road from approximately Station 888+70 VR to Station 898+25 VR have been discontinued and remain in place.
- Use of the existing underground facilities crossing USH 18/151 (Verona Road) at approximately Station 917+30 VR have been discontinued and remain in place.
- Charter's existing underground facilities crossing CTH PD (McKee Road) at approximately Station 93+50 EB have been removed.

- The existing overhead facilities attached to MG&E Electric power poles on the north side of CTH PD (McKee Road) from approximately Station 108+00 EB to Station 113+32 EB and the crossing of CTH PD (McKee Road at approximately Station 107+58 EB have been removed.

Underground facilities have been placed jointly with MG&E Electric crossing USH 18/151 (Verona Road) at approximately Station 920+00 VR.

Underground facilities have been placed jointly with Alliant crossing USH 18/151 (Verona Road) at approximately Station 916+90 VR.

Contact Charter 14 calendar days in advance of construction of the temporary traffic signals at the CTH PD (McKee Road) and Commerce Park Drive intersection. Charter has overhead facilities that cross CTH PD (McKee Road) on the east side of the intersection that are in potential conflict with the temporary signals. If a relocation is required, Charter anticipates the overhead facilities will be relocated in 1 working day.

A representative from Charter must be present any time construction work is conducted within 10 feet of Charter's facilities. Contact Charter 5 days prior to beginning work within 10 feet of Charter facilities. Contact Charter 5 days before removing or adjusting any Charter facilities to verify the facility is no longer in use. Do not assume an unmarked facility is discontinued.

If excavation is within 2 feet of the outer edge of a Charter facility in any direction, only hand excavation, air cutting, and vacuum excavation are permitted.

The maximum unsupported exposed length for a Charter facility is 5 feet. Support the facility with sand bags or padded skids when required. At no time should Charter facilities be used as a brace to support equipment or materials.

Contact Charter 5 days prior to working near Charter facilities. Coordinate operations with Charter. Contact Glen Jakusz at (608) 209-3202. Invite Glen Jakusz to the weekly construction meetings.

MG&E Gas (gas/petroleum) has existing underground facilities located within the project limits. No conflicts are anticipated with MG&E Gas' existing facilities. MG&E Gas' utility relocations took place as part of WisDOT project 1206-07-74 as follows:

- Use of the existing 6-inch steel underground facilities along the west side of Verona Road from approximately Station 897+25 VR to Station 924+75 VR have been discontinued and remain in place.
- Use of the existing 2-inch steel underground facilities along the south side of CTH PD (McKee Road) from approximately Station 92+75 EB to Station 99+40 EB have been discontinued and remain in place.

- Use of the existing 12-inch steel, 400 pound per square inch (psi), underground facilities along and under the eastbound lanes of CTH PD (McKee Road) from approximately Station 86+50 EB to Station 112+50 EB have been discontinued and remain in place.
- Use of the existing 6-inch plastic and 4-inch steel underground facilities along the east side of USH 18/151 (Verona Road) from approximately Station 905+15 VR to the north and the crossings of USH 18/151 (Verona Road) at approximately Station 906+40 VR and Station 922+25 VR have been discontinued and remain in place.
- Use of the existing 4-inch plastic underground facilities crossing CTH PD at approximately 103+05 WB have been discontinued in place.

Underground 400 psi facilities have been placed along the west side USH 18/151 (Verona Road) from approximately Station 921+50 VR to Station 922+25 VR with a crossing of USH 18/151 (Verona Road) at approximately Station 921+00 VR. The depth of the gas facility crossing USH 18/151 (Verona Road) is approximately 8 feet to 16 feet below existing ground. Contact MG&E Gas for additional information.

Underground 60 psi facilities have been placed crossing USH 18/151 (Verona Road) at approximately Station 922+95 VR. The depth of the gas facilities is approximately 8 to 16 feet below existing ground. Contact MG&E Gas for additional information.

Underground 60 psi facilities have been placed along the north side of CTH PD within approximately 1 foot of the right-of-way from approximately Station 103+95 EB to Station 106+80 EB where the facility connects to existing facilities on the north side of CTH PD. The depth of the underground facility is anticipated to be approximately 3 feet to 5 feet below existing ground. Contact MG&E Gas for additional information.

Underground 4-inch plastic facilities have been placed crossing CTH PD at approximately Station 103+50. Contact MG&E Gas for additional information.

Underground 400 psi facilities have been placed approximately 1 foot off the proposed southern right-of-way along CTH PD from approximately Station 107+15 EB to Station 112+50 EB. The depth of the underground facilities is anticipated to be approximately 6 feet below existing ground.

Underground 400 psi facilities have been placed approximately 1 foot off the existing right-of-way along the north side of CTH PD from approximately Station 77+50 WB to Station 91+50 EB where the underground facility continues north along the west side of Kapec Road. The depth of the underground facilities is anticipated to be approximately 4 feet below finished ground.

Underground 60 psi facilities have been placed along the west side of Nesbitt Road behind the back of sidewalk in easement from approximately Station 23+00 NR to Station 24+42 NR where the underground facility continues to the west along the southern right-of-way of CTH PD (McKee Road) to approximately Station 86+90 EB where it connects to existing facilities.

Underground 60 psi facilities have been placed crossing CTH PD at approximately Station 91+50 EB. The depth of the underground facilities along Nesbitt Road and the south side of CTH PD are anticipated to be approximately 3 feet below finished ground. The depth of the underground facilities crossing CTH PD are anticipated to be approximately 4 feet below finished ground and approximately 1.5 feet below the existing storm sewer on the south side of CTH PD.

Contact Shaun Endres of MG&E Gas prior to removing any gas facilities to verify that the facilities have been disconnected and do not carry natural gas. Do not assume that unmarked facilities have been disconnected. At no time is it acceptable to push, pull, cut or drill an unmarked facility without approval from MG&E Gas. Hand dig within 18 inches of gas facilities.

Contact Mike Savage of MG&E Gas at (608) 235-2345 at least one week in advance of excavating within 10 feet of 400 psi facilities so MG&E Gas can have a representative on site during the excavation.

Coordinate operations with MG&E Gas. Contact Shaun Endres at (608) 213-6708. Invite Shaun Endres to the weekly construction meetings.

MG&E Electric (electric) has existing overhead and underground facilities located within the project area. No conflicts are anticipated with MG&E Electric's existing facilities. MG&E Electric's utility relocations took place as part of WisDOT projects 1206-07-74 and 1206-07-75 as follows:

- The existing overhead the crossing of CTH PD (McKee Road) at approximately Station 107+50 EB have been removed.
- The existing power poles from approximately Station 108+00 EB to Station 113+35 EB have been removed.

Underground facilities have been placed jointly with Charter crossing USH 18/151 (Verona Road) at approximately Station 920+00 VR. The depth of the underground facilities is anticipated to vary between approximately 8 feet and 12 feet. Contact MG&E Electric for additional information.

Underground facilities have been placed along the back of the sidewalk on the south side of CTH PD (McKee Road) from approximately Station 107+20 EB to Station 107+81 EB. The depth of the underground facilities is anticipated to be approximately 5 feet below existing ground.

Underground facilities have been placed jointly with AT&T along the south side of CTH PD (McKee Road) from approximately Station 106+75 EB to Station 113+75 EB with crossings of CTH PD (McKee Road) at approximately Station 110+40 EB and Station 113+75 EB. A switch gear and transformer have been placed at approximately Station 110+40 EB and a pedestal at approximately Station 113+95 EB behind the

sidewalk. Contact MG&E Electric for additional information. The underground crossings of CTH PD (McKee Road) are anticipated to be at an approximate elevation of 995.

MG&E has an existing pull box on the north side of CTH PD (McKee Road) at approximately Station 112+95 EB that will need to be adjusted during construction to match the proposed sidewalk elevation. Contact MG&E 7 days prior to the need for the adjustment. The adjustment is anticipated to take 1 working day to complete.

A new power pole with a down guy to the west has been placed at approximately Station 114+15 EB on the north side of CTH PD.

Contact MG&E Electric 14 calendar days in advance of construction of the temporary traffic signals at the CTH PD (McKee Road) and Commerce Park Drive intersection. MG&E Electric has guy wires that cross CTH PD (McKee Road) on the east side of the intersection that are in potential conflict with the temporary signals. If a relocation is required, MG&E Electric anticipates the guy wires will be relocated in 1 working day.

Contact MG&E Electric prior to cutting/removing facilities to verify they are de-energized.

Contact MG&E Electric 5 days prior to working near MG&E Electric facilities.

Coordinate operations with MG&E Electric. Contact Rich Parker at (608) 252-7379. Invite Rich Parker to the weekly construction meetings.

Madison Metropolitan Sewerage District (MMSD) (sanitary sewer) has existing underground facilities located within the project limits. No conflicts are anticipated with MMSD's existing facilities. MMSD's utility relocations took place as part of WisDOT projects 1206-07-74 and 1206-07-75 as follows:

Use of MMSD's existing underground facilities along the east side of USH 18/151 (Verona Road) from approximately Station 885+05 VR to Station 904+25 VR and along the south side of CTH PD (McKee Road) from approximately Station 100+77 EB to Station 107+10 EB have been discontinued and are anticipated to be slurry filled.

Underground force main facilities have been placed crossing CTH PD (McKee Road) at approximately Station 106+85 EB with a new structure/vault placed on the north side of CTH PD (McKee Road) at approximately Station 107+42 EB. A new manhole structure has been placed in the median of CTH PD (McKee Road) at approximately Station 107+42 EB to collect the City of Fitchburg sanitary sewer with a crossing of westbound CTH PD (McKee Road) at approximately Station 107+42 EB.

Contact MMSD 7 days prior to working near MMSD facilities. Coordinate operations with MMSD. Contact Eric Hjellen at (608) 222-1201. Invite Eric Hjellen to the weekly construction meetings.

Metropolitan Unified Fiber Network (MUFN) (communication) has existing underground facilities located within the project limits. No conflicts are anticipated with MUFN's existing facilities. MUFN's utility relocations took place as part of WisDOT project 1206-07-74 as follows:

The existing underground facilities crossing CTH PD (McKee Road) at approximately Station 106+50 EB have been lowered between the existing hand holes on the north and south side of CTH PD. The depth of the underground facilities is anticipated to vary between 7.5 and 9 feet below existing ground. Contact MUFN for additional information

Contact MUFN 7 days prior to working near MUFN facilities. Coordinate operations with MUFN. Contact Randy Simms at (906) 282-3802. Invite Randy Simms to the weekly construction meetings.

7. Municipality Acceptance of Sanitary Sewer and Water Main Construction.

Both the department and City of Fitchburg personnel will inspect construction of sanitary sewer and water main under this contract. However, acceptance of the sanitary sewer and water main construction will be by the City of Fitchburg.
stp-105-001 (20140630)

8. General Provisions for City of Fitchburg Municipal Utilities (Water Main and Sanitary Sewer).

Perform work according to these special provisions, the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction (standard specifications), City of Fitchburg Standard Specifications for Public Works Construction-Latest Edition and City of Madison Standard Specifications for Public Works Construction-Latest Edition. If there is a discrepancy or conflict between the referenced specifications and the standard specifications regarding contract administration, part 1 of the standard specifications governs. In the event of a conflict other than contract administration, the documents listed above are in precedence order.

The Latest Edition of the City of Fitchburg Standard Specifications for Public Works Construction, Latest Edition are available on the city website at:
http://www.fitchburgwi.gov/DocumentCenter/View/10074

The Latest Edition of the City of Madison Standard Specifications for Public Works Construction, Latest Edition are available on the city website at:
http://www.cityofmadison.com/business/pw/specs.cfm

These above provided website locations may change. Confirm the latest edition of the specifications with the City of Fitchburg and the City of Madison.

Work Sequence
Contact the engineer and identified businesses below 10 working days prior to starting work on the water main and sanitary sewer and provide a schedule of operations.

Construct the water main and sanitary sewer in stages according to the traffic control plans and in proper coordination with construction activities adjacent to the water main and sanitary sewer.

Contact Ecostar, Placon, General Beverage and Certco 15 business days prior to any sanitary sewer or water main work affecting these businesses. Provide an update to the business owner of the anticipated work on the lateral and potential service interruption a minimum of 5 business days, and again 48 hours, prior to the work. Complete the fire hydrant relocation near Station 111+60 WB, 40 feet LT on a Thursday. Complete other sanitary sewer and water main work affecting these four business parcels on a Friday after 1:00 PM. Conduct construction operations in a manner that will cause the least interference and inconvenience to the parcel including, but not limited to, performing the construction operations during nighttime hours. Additional intermediate construction staging of the sanitary sewer and water main laterals, not shown on the plans, may be necessary to cause the least interference and inconvenience to the parcel.

Contact the owner of all other parcels with sanitary sewer or water main lateral work 5 business days prior to the work. Provide an update to the property owner of the anticipated work on the lateral and potential service interruption a minimum of 48 hours prior to the work. Conduct construction operations in a manner that will cause the least interference and inconvenience to the parcel including, but not limited to, performing the construction operations during nighttime hours. Additional intermediate construction staging of the sanitary sewer and water main laterals, not shown on the plans, may be necessary to cause the least interference and inconvenience to the parcel.

As construction staging and sequence allows, disinfect the new water mains. Contact the engineer and the City of Fitchburg prior to flushing and testing all newly installed water mains. Coordinate as necessary with the City of Fitchburg for these operations. After the water main has passed bacteriological and pressure testing, install replacement water services and make connections to the existing water system.

Keep valves at connections of the new water main to the existing water main closed until the new water main has passed all testing. Where new valves need to be opened to fill the new water main for testing and flushing, sequence construction to preclude backflow of any water from the new water main to the existing water main. Provide safe bacteriological results to the City of Fitchburg for all service lines after connection to the new main.

Following the installation of replacement water services and the connection of replacement water main to the existing water main at locations noted on the plans, the existing water main shall be cut off, drained, open ends plugged, and the pipe abandoned in place. This work is considered incidental to the new water main.

Determine the location of the curb line, sidewalk limits, and existing utilities in the area prior to hydrant installation to assure the proper location of the hydrant relative to the curb line. This work is considered incidental to the new water main.

Pipe to be removed that is in the same trench as a new pipe shall not be compensated as remove pipe and shall be considered to be incidental to the new pipe installation.

Existing Water and Sanitary Sewer Service Laterals
The horizontal location and size of all laterals indicated on the plans is taken from surveys, approximate measurements, and the City of Fitchburg's available records. These records are not guaranteed to be accurate in all cases and do not indicate at what depths these laterals are located. As such, determine the location and size of the existing laterals before making a tap into the new water main or installing new sanitary wyes. Follow the plans to determine which services are to be abandoned, reconnected, extended, or replaced to the property line.

Location of Existing Facilities
The horizontal and vertical location and size of all existing water mains and sanitary sewers indicated on the plans is taken partially from surveys, approximate measurements, and the City of Fitchburg's available records. These records are not guaranteed to be accurate in all cases. Due to the unverified depth and location of existing pipelines, alteration of the lines and grades shown on the plans for new pipelines where connections are to be made to existing pipelines may be necessary. Notify the engineer and City of Fitchburg of locations where alterations of the lines and grades shown are necessary so that an acceptable solution can be determined.

Testing and Acceptance
Submit testing results as required by the City of Fitchburg Standard Specifications for Public Works Construction-Latest Edition to the engineer and the City of Fitchburg. Final acceptance of water main, sanitary sewer, backfill materials, bedding, and abandonments will be provided by the City of Fitchburg.

Allow the City of Fitchburg to sample/test materials as requested.

Provide complete copies of required submittals to the engineer and City of Fitchburg as follows:

Shop Drawings:	One PDF or hard copy
Sampling/Testing Results:	One PDF or hard copy

E-mail or deliver the submittals and testing results to Tracy Foss, City of Fitchburg, 5520 Lacy Road, Fitchburg, WI 53711, tracy.foss@fitchburgwi.gov.

The City of Fitchburg will review and return shop drawings to the contractor within one week of date of receipt.

9. General Provisions for Storm Sewer.

Construct all storm sewer according to the pertinent provisions of standard spec 607, 608, 610 and 611 as shown on the plans and as follows.

Prior to ordering drainage pipes and structures, verify related drainage information in the plan with the engineer. This includes all information obtained from the bid item Utility Line Opening (ULO).

Seal the joints for reinforced concrete pipe with either mastic or internal rubber gaskets as described in standard spec 608.2. The use of mortar as a pipe joint method is prohibited.

Lay all storm sewer on a 6-inch minimum thick bed of Base Aggregate Dense 1 ¼-Inch according to standard spec 305.2.1 or when water is encountered, size No. 1 coarse concrete aggregate according to standard spec 501.2.5.4. Bedding for pipe is included with the installation costs of the round or elliptical pipe.

For relaid storm sewer between Structures WB8431 and WB8433, the relaid storm sewer is anticipated to be 12-inch corrugated plastic pipe. Any bends needed for relaying the storm sewer to avoid the existing sanitary manhole as shown on the plans, shall be included in the price for relaid storm sewer. Add the following to standard spec 608.5.4: for providing all bends and connections necessary.

Submit a dewatering plan with the ECIP for approval. Dewatering is incidental to all storm sewer pipe installation.

Construct all structures using reinforced concrete. Concrete brick and block options are prohibited.

Construct all structures (manholes and inlets) on a 12-inch minimum thick bed of Base Aggregate Dense 1 ¼-Inch according to standard spec 305.2.1 or when water is encountered, size No. 1 coarse concrete aggregate according to standard spec 501.2.5.4. Bedding for structures is included with the installation costs of the structure.

Do not use station and offset for inlet structures, as given on the storm plans, exclusively for final layout of the structure. Determine the curb line in the area of the inlet prior to pouring the inlet structure to assure proper location of the inlet relative to the curb line.

Center all castings on the structure unless otherwise noted.

Steps are not required in storm sewer structures.

The costs to connect storm sewer to existing structures or pipes, including tapping the hole, placing the pipe, and sealing the joint will be paid for separately by bid items Storm Sewer Tap and Concrete Collars for Pipe, where shown on the plans or directed by the engineer.

Carefully remove and stockpile all existing inlet, manhole, and catch basin covers that are not being adjusted and reused on the project at a location on the right-of-way outside the construction limits for pickup by City of Fitchburg personnel. Contact Mark Hodel, City of Fitchburg Department of Public Works at (608) 729-1720, or mark.hodel@fitchburgwi.gov, at least 3 business days in advance to schedule pickup.

Remove from the right-of-way and properly dispose of all frames or grates and all other material that the City of Fitchburg does not pickup.

10. General Requirements for Incident Management.

Provide 24-hour contact information, including three current telephone number(s), to the engineer, Dane County Sherriff's Department, local City of Fitchburg first responders, and local City of Madison first responders in the event a safety hazard develops.

Repair, replace, or restore the damaged or disturbed traffic control devices within one hour from the time notified as indicated in the Traffic article of these special provisions.

Incidents within the construction work zone will be handled by the City of Fitchburg or the City of Madison, whichever has jurisdiction according to standard operating protocol. Invite the following agencies or individuals to the preconstruction and bi-weekly construction informational meetings:

City of Fitchburg Police Department, Chief Chad Brecklin	(608) 270-4300
City of Madison Police Department, Chief Michael C. Koval	(608) 266-4022
City of Verona Police Department, Chief Bernard Coughlin	(608) 845-7623
City of Fitchburg Fire Department, Chief Joe Pulvermacher	(608) 278-2980
City of Madison Fire Department, Chief Steven Davis	(608) 266-4420
City of Verona Fire Department, Chief Joseph Giver	(608) 845-9401
Fitch-Rona EMS, Chief Brian Myrland	(608) 497-2909
City of Fitchburg Department of Public Works, Interim Director Bill Balke	(608) 270-4264
Dane County Department of Public Works, Deputy Commissioner Pamela Dunphy	(608) 266-4036
Wisconsin State Patrol, Captain Jason L. Zeeh	(608) 846-8500
Wisconsin Department of Transportation, Jeff Gustafson	(608) 516-6400

11. Notice to Contractor - General.

Parcel 4
Schedule a meeting with the Parcel 4 of plat 1206-07-30 (which is Midwest Decorative Stone located at 6149 McKee Road) property owner and engineer a minimum of 10 working days prior to starting work adjacent to the parcel. Do not store equipment within the temporary limited easement of parcel 4 when not in use. Do not disturb the displays or the existing sign within the temporary limited easement area. When parking equipment, when not in use near parcel 4, park equipment in such a manner that will not block the view of the signing for parcel 4.

Meet with the property owner and engineer a minimum of 10 working days prior to any work on the driveway for the parcel (temporary or permanent). The owner would like to limit the amount of time the driveway is closed to accommodate construction activities. The owner has been made aware the driveway may be constructed half at a time.

Parcel 4 Contact: John and Deborah Paul, (608) 273-9787, midweststone@tds.net

Parcel 5
Schedule a meeting with the Parcel 5 of plat 1206-07-30 (General Beverage located at 6169 McKee Road) property owner and engineer a minimum of 14 calendar days prior to starting work adjacent to the parcel.

Meet with the property owner and engineer a minimum of 14 calendar days prior to any work on the driveway for the parcel. The owner would like to limit the amount of time the driveway is closed to accommodate construction activities. The owner has been made aware the driveway may be constructed half at a time.

Parcel 5 Contact: Joel Minkoff, (608) 271-1234, jminkoff@genbev.com

Parcel 46
Schedule a meeting with the Parcel 46 property owner and engineer a minimum of 10 working days prior to starting work adjacent to the parcel. Parcel 46 contains satellite dishes with signals that may be sensitive to interference from equipment operating within several hundred feet of the satellite dishes. When operating equipment near the parcel, if interference is caused by the equipment, as notified by the engineer or owner, remove or repair the equipment immediately so interference is not caused with the signal.

Parcel 46 Contact: Jamie Childs, (608) 209-3214, James.Childs@charter.com

Retaining Wall and Railing Coordination
The plans provide dimensions for the mechanically stabilized earth retaining wall panels. The panel dimensions provided in the plans include the manufacturer specified gaps that will be provided for the retaining wall panels. The retaining wall and railing manufacturers shall coordinate their designs to ensure that the railing properly aligns with the retaining wall panels, including all expansion joints.

Excavation Adjacent to Trees
Avoid excavating within 5 feet of the face of a tree to remain, when practicable, due to the potential of damaging the root system.

American Transmission Company (ATC) (electric) has overhead facilities within the project area. The existing overhead facility is a double circuit line with one 138kV and one 69 kV circuit. These facilities are anticipated to be energized during construction. Use caution when operating around ATC foundations and overhead facilities. See the Utilities article for information on requesting a line outage of ATC's 138 kV and 69 kV facilities.

Level 3 Communications
Level 3 communications is reviewing potential fiber optic utilities within the project corridor. Contact Level 3 Communications prior to starting work on the project to verify if they are placing or have placed facilities within any part of the project area. Contact Jim Buhrdorf, Engineering Manager, eX2 Technology LLC, (402) 669-8099 cell, jbuhrdorf@ex2technology.com

Concrete Barrier Temporary Precast Delivered - Department Owned
Concrete Barrier Temporary Precast Delivered - Department-Owned is located on site from project 1206-07-75. Approximately 3,170 linear feet of department-owned concrete barrier temporary precast is located on site. This concrete barrier temporary precast should be utilized in lieu of furnishing contractor owned concrete barrier temporary precast whenever possible. Coordinate available quantities and dates of availability with Chris Fredrick of WisDOT at (608) 884-7130.

Concrete Barrier Temporary Precast Installed
Anchoring the concrete barrier temporary precast is incidental to concrete barrier temporary precast when located outside the limits of a bridge deck. Anchor the concrete barrier temporary precast at locations shown in the plans and as directed by the engineer.

Concrete Curb and Gutter (Type)
Provide the gutter section for all concrete curb and gutter with a cross slope of 6.25%, unless noted otherwise in the plans. See Standard Detail Drawings Concrete Curb and Gutter and Concrete Curb, Ties and Curb and Gutter Applications for all other information.

Madison Metro Coordination
Madison Metro Transit will be moving, removing and re-installing bus route signs, bases, and posts along the local roads. Notify Tim Sobota, Madison Metro Transit at (608) 261-4289 a minimum of 10 business days prior to impacting Metro Transit signing and bus stops.

Commercial and Residential Parking Lots
Contact the owner of the parcel 10 business days prior to work taking place within the parking lots. Conduct construction operations within commercial and residential parking

lots in a manner that will cause the least interference and inconvenience to existing parking stalls and parking lot circulation. Do not store equipment or stockpile materials within the temporary limited easement. Additional intermediate construction staging of the parking lots, not shown on the plans, may be necessary to maintain continuous parking and parking lot circulation. Maintain a minimum driving surface of base aggregate dense within parking lots.

Equipment, Stockpiles, and Materials
Avoid parking equipment and stockpiling materials in areas of business or rental signing so as not to obstruct business or rental signing. Do not store equipment, vehicles or materials outside the project limits or on adjacent city streets without the approval of the engineer. Do not store equipment or materials on USH 18/151 (Verona Road) closer than 30 feet to the edge of the traveled way unless the equipment and materials are protected by concrete barrier wall. If equipment and materials are stored behind concrete barrier wall, maintain a minimum of 4 feet clearance behind the concrete barrier wall to any equipment or materials that extend above the concrete barrier wall.

Right-of-Way Access
Prior to entry onto any parcel shown in Transportation Project Plat (TPP) 1206-07-25 or 1206-07-30 contact Chris Fredrick, WisDOT Construction Manager, at (608) 884-7130 to verify that the parcel is available for entry.

Project Aesthetics
The retaining walls and sign structure for this project utilize the same concrete formliner and concrete staining color scheme as shown in the plans and as previously used on WisDOT projects 1206-07-74, 1206-07-75, 1206-07-77, 1206-07-78 and 1206-07-84. Coordinate the concrete formliners and concrete stain colors for this project to ensure a similar and consistent appearance with the previous projects. Inconsistent appearance of concrete formliners and concrete staining colors shall be removed.

12. Notice to Contractor - Construction Safety.

Description
This specification describes minimum occupational safety and health requirements for the prime contractor and their subcontractors performing work on this project. The fundamental objective of these requirements is to eliminate construction related injuries and incidents so that their associated impacts to workers and the public, budgets and schedules are avoided or minimized.

Definitions
Certified Crane Operator. To be certified a crane operator one must pass both written and practical tests offered by a nationally accredited testing organization, such as the National Commission for the Certification of Crane Operators (NCCCO) or the Operating Engineers Certification Program (OECP).

Competent Person. One who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Critical Lift. A critical lift applies to, but is not limited to the following: any crane lift or hoisting operation that exceeds 75 percent of the rated capacity of the crane, requires the use of more than one crane or hoisting device, involves barge-mounted cranes, where the center of gravity could change, lifts where existing outriggers cannot be fully extended due to site constraints, lifts involving multiple lift rigging assemblies or other non-routine/difficult rigging arrangements.

Project Safety Officer (PSO). The person or persons designated by the department to coordinate implementation of a construction safety management system, including risk assessment, training, evaluating effectiveness, corrective/preventive action, and management review.

Qualified Person. One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, has successfully demonstrated his/her ability to solve or resolve problems relating to the subject matter, the work, or the project.

Safety Representative (SR). A person designated by the contractor to develop and implement the company's health and safety plan, assess job hazards, and identify and carry out corrective and preventive actions.

General Requirements
Notify the department immediately of any agency compliance inspections, including but not limited to the Occupational Safety and Health Administration (OSHA).

Report all project-related fatalities and OSHA-recordable injuries and illnesses that result in inpatient hospitalizations within 8 hours to the Project Safety Officer (PSO). Report all other project-related OSHA-recordable injuries and illnesses monthly to the PSO.

Safety Representative Requirements
Provide at least one Safety Representative (SR). Each SR shall perform inspections, safety observations and other safety-related duties on-site on a weekly basis, at a minimum. Provide an alternate SR in the event of illness or other unforeseen circumstances.

Each SR and alternate SR shall have training, knowledge and experience in construction safety and health, including but not limited to a current OSHA 10-hour Occupational Safety and Health Training Course in Construction Safety and Health. Provide evidence of SR certifications, qualifications and training to the PSO.

Each SR and alternate SR shall attend a 2-hour Construction Safety Awareness Training provided by the department at the beginning of the project and at least once every two years. The SR shall communicate and distribute materials provided in the 2-hour Construction Safety Awareness Training to their site workers prior to starting site construction activities.

Requirements for Construction Health and Safety Programs
In addition to implementing programs to meet the requirements of OSHA Construction Safety and Health standards, develop a written safety plan for the work to be performed. Note: General guidance is provided in Section 1-35.1.2 of the Construction and Materials Manual.

Traffic Control and Vehicle Collision Prevention/Risk Reduction
All vehicles and mobile equipment shall use high-intensity rotating, flashing, oscillating, or strobe lights according to Section 6G.02 of the Manual of Uniform Traffic Control Devices (FHWA, 2009).

Provide crash cushions or truck (or trailer)-mounted attenuators (TMAs) on shadow vehicles to protect workers, vehicles, and mobile equipment from vehicle collisions according to the Manual of Uniform Traffic Control Devices (FHWA, 2009, Section 6F.86). Coordinate with the engineer at least 72 hours before placing a TMA in service.

Personal Protective Equipment (PPE)
Minimum Requirement Personal Protective Equipment (PPE) to be worn in Construction Work Areas:

ASTM F2413-11 safety-toed boots rated for impact and puncture resistance (PR) shall be worn.

ANSI Z-87+ impact-resistant safety glasses with sideshields shall be worn. Requirements for faceshields, goggles, welding shades, etc. shall be determined by the SR.

ANSI Z-89.1 Class G or E hard hats where there is potential for impact or injury to the head.

Daytime Work: ANSI/ISEA 107-2004 Class 2 or 3 high visibility vests at all times and Type E pants for flaggers and other personnel working on the traffic side of concrete barriers (yellow/lime).

Nighttime Work: ANSI/ISEA 107-2004 Class 2 or 3 retro-reflective safety vests (yellow/lime) and Type E pants (Type 3 ensemble) and a hard-hat-mounted LED light (“miner’s lamp”).

Hearing protection shall be used, if the work site noise exceeds 90 decibels (dBA), as 8-hour average exposure measurements. [29 CFR 1926.52 and .101]

Walking and Working Surfaces
Keep all accessible work areas and passageways free from debris, obstructions and other slip, trip and fall hazards.

Excessive Driving Hours/Extended Work Shifts
Distribute a one-page handout to each truck driver accessing the work zone to increase their awareness of hazards related to extended work shifts. The department will make the handout available electronically.

Cranes and Hoists.
Ensure that all crane operators have been certified by the National Commission for the Certification of Crane Operators (NCCCO) or by the Operating Engineer Certification Program (OECP) if they will be operating a 10-Ton or greater capacity crane or if they are involved in critical lifts.

Provide critical lift plans to the department at least 72 hours prior to a critical lift. The contractor is responsible for all submittals, assumptions, calculations, and conclusions. Have a professional engineer, registered in the State of Wisconsin and knowledgeable of the specific site conditions and requirements, verify the adequacy of the design. Submit one copy of each design, signed and sealed by the same professional engineer verifying the design, to the engineer.

Crane operators shall safely terminate hoisting operations in the event of wind conditions that exceed the original equipment manufacturer's specifications for safe operation.

Documentation and Records
Maintain documents and records and ensure that they are readily available upon request. At a minimum this includes:

a. Written Safety Plan for Work Activities to be Performed
b. Names of Safety Representatives and copies of their OSHA 10-Hour Occupational Safety and Health Training Course in Construction Safety and Health training cards.
c. Names of Competent Persons and Qualified Persons (if required by OSHA for the work performed).
d. Reports of inspections of the job sites, materials, and equipment [29 CFR 1926.20(b)(2)].
e. Documentation that the SR has communicated and distributed materials from the Construction Safety Awareness Training to their site workers. At a minimum this will include a dated sign-in sheet with the names and signatures of the workers trained. The department will provide a sign-in sheet template electronically.
f. Project site OSHA 300 Log (no worker names)[29 CFR 1904.29]
g. Project site OSHA 301 Incident Report (no worker names) [29 CFR 1904.29]

h. Hazard Communication Program [29 CFR 1926.59]
    i. Hazardous Chemical Inventory,
    ii. Location of Safety Data Sheets (SDSs)
    iii. Hazard Warning Symbols
    iv. Information and training requirements.
i. Exposure Monitoring results (if monitoring is required under a specific OSHA standard-no worker names)
j. Crane operator certifications (if applicable)
k. Fall Protection Plan (if applicable) [29 CFR 1926.500-.503 and 1926.104]
l. Confined Space Entry Procedures (if applicable). [29 CFR 1926.1200-.1213]
m. Lockout/Tagout Procedures (if applicable). [29 CFR 1926.417 and .702]
n. Respiratory Protection Program (if applicable) [29 CFR 1926.103 and 1910.134(c)]
o. Emergency Action Plan [29 CFR 1926.35]
    i. Emergency escape procedures and emergency escape route assignments
    ii. Procedures to be followed by employees who remain to operate critical equipment before they evacuate
    iii. Procedures to account for all employees after emergency evacuation has been completed
    iv. Rescue and medical duties for those employees who are to perform them;
        · First Aid and Medical Treatment Procedures [29 CFR 1926.50]
        · Equipment and Supplies
        · Names of persons certified in first aid
        · Location of the nearest medical facility.
    v. The preferred means of reporting fires and other emergencies
    vi. Prime contractor's alarm system
    vii. Names or regular job titles of persons who can be contacted for further information or explanation of duties under the plan.
p. Fire Protection Program (if applicable) [29 CFR 1926.150]
q. Fire Prevention Plan and Hot Work Permit procedures (if applicable) [29CFR 1926.352]

13. Notice to Contractor – Airport Operating Restrictions – Site Specific.

The Federal Aviation Administration (FAA) has height restrictions surrounding select airports. The department has obtained Temporary Determination of No Hazard to Air Navigation for potential temporary structure (i.e. mobile cranes and bucket trucks) erections associated with the items indicated below. This project was separated into 500-foot segments with a determination for each segment at the following locations. A copy of the determination can be obtained through the engineer.

Aeronautical Study No.	Station Range	Temporary Structure	Proposed Ground Elevation	Temporary Structure Height (AGL)	Object
2017-AGL-21527-OE	893+00 VR - 898+00 VR	Mobile Crane	1003	75	Sign Structure S-13-443
2017-AGL-21528-OE	898+00 VR - 903+00 VR	Pile Driving Equipment	1001	125	South Bridge Abutments B-13-831/832
2017-AGL-21529-OE	903+00 VR - 908+00 VR	Pile Driving Equipment	1002	125	North Bridge Abutments B-13-831/832
2017-AGL-21530-OE	908+00 VR - 913+00 VR	Mobile Crane	1008	100	Sign Structure S-13-444
2017-AGL-21531-OE	928+00 VR - 933+00 VR	Bucket Truck	1018	60	Light Pole 931+57 VR LT
2017-AGL-21532-OE	933+00 VR - 938+00 VR	Bucket Truck	1018	60	Light Pole 933+00 VR LT
2017-AGL-21533-OE	938+00 VR - 943+00 VR	Bucket Truck	1031	60	Light Pole 942+06 VR LT
2017-AGL-21534-OE	80+00 WB - 85+00 WB	Mobile Crane	1047	75	Sign Structure S-13-452
2017-AGL-21535-OE	85+00 WB - 90+00 WB	Bucket Truck	1008	50	Light Pole 87+17 WB
2017-AGL-21536-OE	90+00 WB - 95+00 WB	Bucket Truck	997	50	Light Pole 90+69 WB
2017-AGL-21537-OE	95+00 WB - 100+00 WB	Mobile Crane	998	75	Sign Structure S-13-453
2017-AGL-21538-OE	100+00 WB - 105+00 WB	Bucket Truck	1000	50	Light Pole 103+50 WB
2017-AGL-21539-OE	105+00 WB - 110+00 WB	Bucket Truck	1001	50	Light Pole 109+00 WB
2017-AGL-21540-OE	110+00 WB - 115+00 WB	Bucket Truck	1006	55	Signal Pole 115+00 WB

As a condition of the Determinations, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, install and maintain according to FAA Advisory circular 70/7460-1 L Change 1.

Notify the manager of Verona Airport (Robin Slotten) at (608) 845-7239 at least three business days prior to any temporary structure being erected and again when the temporary structure is removed from the site.

Any failure or malfunction that lasts more than 30 minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867, so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

The temporary determinations expire on June 18, 2019 unless extended, revised or terminated by the issuing FAA office. Request for extension of the effective period of this determination must be e-filed at least 15 days prior to the expiration date. After re-evaluation of current operations in the area of the structure to determine that no significant aeronautical changes have occurred, the determination may be eligible for one extension of the effective period. For questions on extensions to the effective period of the determinations, contact the FAA office at (847) 294-7575 and reference the Aeronautical Study Number.

Any changes in coordinates and/or heights will void the determination. Any future construction or alteration, including increase to height, requires a separate notice to the FAA.

Determinations include temporary construction equipment such as the equipment noted above, which may be used during actual construction. Equipment shall not exceed the overall heights as indicated in the determination. The contractor must request separate notice to the FAA if equipment has a height greater than the determination. Submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA a minimum of 45 days before beginning construction operations that propose to use equipment that will exceed the elevations provided within the department completed filings. If required, the FAA will return FAA Form 7460-2, Notice of Actual Construction or Alteration, with a determination. Complete and send FAA Form 7460-2, Part 1 to the FAA at least 48 hours prior to starting the actual construction or alteration of a structure. Additionally, submit Part 2 no later than 5 days after the structure has reached its greatest height.

Contact Justin Hetland, Airspace Safety Program Manager, Bureau of Aeronautics at (608) 267-5018 (Justin.Hetland@dot.wi.gov) with any questions. Refer to the following FAA website for instructions to complete the form and the required information. http://oeaaa.faa.gov/oeaaa/external/portal.jsp

Copy the engineer on all correspondence with the FAA.

A determination concerns the effect of temporary structures on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

14. Contract Award and Execution.

Supplement standard spec 103 as follows:

103.9 Mobilization Workshops
103.9.1 Workshop Schedule
After contract award, attend the following workshops. Each workshop is described below and will include but not be limited to the topics outlined below.

Workshop	Timeframe
Initial Work Plan (IWP)	Prior to Notice to Proceed (NTP)
Cost Reduction Incentive & Submittals	Prior to preconstruction meeting
Utility Coordination	Prior to preconstruction meeting
Baseline CPM Progress Schedule	After NTP & submittal of Baseline CPM Progress Schedule
Work Force Opportunities	Day of preconstruction meeting

The workshop dates will be scheduled by the engineer after contract award. The engineer may modify the original workshop schedule to ensure attendance by the necessary department and contractor personnel. Workshops may be scheduled earlier than specified if agreed to by all parties. Workshops may be deleted and/or combined depending on the complexity and requirements of the project.

103.9.2 Workshops
103.9.2.1 Initial Work Plan
103.9.2.1.1 General
The Initial Work Plan workshop will provide a forum to discuss and answer questions relative to the proposal, bid schedule, and other questions in the Project Questionnaire described in standard spec 103.9.2.1.2. The Initial Work Plan Workshop will include:

- Contractor responses to the attached Project Questionnaire.
- Department presentation of the use of CPM scheduling on the project.
- Contractor presentation of the conceptual work plan for the project.
- Department and contractor discussion of the level of detail and features in the Initial Work Plan Schedule and the Baseline CPM Progress Schedule.

103.9.2.1.2 Project Questionnaire
Provide the following information in the order shown below. This information will constitute the “Project Questionnaire.”

General Information
If a Joint Venture, provide information for each member of the Joint Venture.

1. Provide the following information about the company:
   - Firm Name
   - Address
   - Telephone and facsimile numbers; e-mail address
   - Contracting Specialties
   - Years performing work in contracting specialties
   - Geographic areas served
   - Total Management Employees and years of service
   - Project Managers
   - General Superintendents

- Craft Superintendents
- Engineers
- Estimators
- CPM Schedulers

Construction Engineering

- Provide/attach a copy of your Construction Project Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).
- Provide (if applicable) your third-party construction engineering firms.
- Provide plan for Construction surveying.

Subcontractors

- Attach the list of all subcontractors that are intended for this project and the items of work they shall perform.

Permanent Material Suppliers

- Attach the list of all permanent material suppliers that are intended for the project.

Quality Control (where applicable)

- Provide the name of your Construction Quality Control firm and qualifications indicating the firms' experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).
- Provide/attach a copy of your Construction Quality Control Manager's resume indicating the manager's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).
- List the major elements and/or Table of Contents of your Construction Quality Management Program.
- Provide the name of your Independent Quality Control Testing firm (Construction Quality Control Lab) and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).

Organization Chart

- Provide a functional and personnel Organization Chart showing the authority and responsibilities of each individual identified.

Work Rules

- Provide the plan for hours per day, days per week, and number of shifts for key elements of work; i.e. sewer tunnels, retaining wall construction, roadway excavation, bridge structures, and roadway structural section activities.

Maintenance of Traffic

- Provide the name of your Traffic Control Manager and qualifications indicating the firm's experience in similar major construction projects. The resume shall include similar projects with references. (Note: references are only for verification of work scope performed).
- Attach a copy of your Preliminary Schedule indicating your approach to achieving the substantial completion schedule.
- Include an outline of your approach to the maintenance of traffic and how you shall stage the construction to meet the substantial completion schedule including planned locations for local street and freeway access into and out of the work zones for each stage of construction.

Construction

- Provide the approach (resources, equipment, suppliers, number of crews, and where required ground support systems) for the following activities:
  - Retaining wall construction by type of work
  - Bridge demolition
  - Roadway structural section
  - Roadway excavation
  - Underground construction
  - Office and yard facilities

103.9.2.2 Cost Reduction Incentives & Submittals

The Cost Reduction Incentive (CRI) & Submittals workshop will have two primary topics outlined below:

Cost Reduction Incentives

Identify value enhancing opportunities and consider modifications to the plans and specifications that will reduce either the total cost, time of construction or traffic congestion, without impairing, in any manner, the essential functions or characteristics of the project, including, but not limited to, service life, economy of operation, ease of maintenance, benefits to the traveling public, desired appearance, or design and safety standards.

Submit recommendations resulting from the workshop for approval by the engineer as cost reduction incentive proposals in conformance with the provisions in standard spec 104.10 "Cost Reduction Incentive."

The department and the contractor may be able to complete the CRI Concept process, as specified in standard spec 104.10.2, during the CRI workshop.

Submit CRIs after the CRI workshops that were not introduced at the CRI workshop.

Submittals

The Submittals Workshop will identify the key required submittals for the project, categorize submittals into functional areas, and develop a schedule for submittals, submittal reviews, and material fabrications and deliveries. The workshop participants will at a minimum:

1. Review the project special provisions.

2. Categorize submittals into functional areas including but not limited to:
   - MSE Retaining Walls
   - Temporary Shoring
   - Falsework and Formwork
   - Girder Shop Drawings, Fabrication, and Delivery Dates
   - Steel Transportation, Delivery, and Erection
   - Structure Demolition Plans
   - Pile Hammers and High Capacity Piling
   - Concrete/ Asphalt
   - Materials
   - ITS / Lighting
   - Traffic Signals
   - Sanitary Sewer and Water
   - Permits

3. Develop a schedule for submittals. Submittal schedule data shall be incorporated into CPM progress schedule to reflect submittal preparation durations and dates, submittal approval durations and dates, and material fabrication periods with forecasted delivery dates. Reference Baseline CPM Progress Schedule in these special provisions.

103.9.2.3 Utility Coordination

The Utility Coordination Workshop will define the scope and schedule of utility relocation work and the respective roles and responsibilities of the project team.

1. At a minimum, the following key personnel will attend the Utility Coordination Meeting:
   - Department's Utility Coordinator
   - Contractor's Project Manager, Foreman, Supervisor
   - Designer Team's Utility Coordinator
   - Key Utility Company Representative(s)

2. At a minimum, the Utility Coordination Meeting will include a review of the following:
    - Summary of all required utility relocations on the project
    - Special provisions addressing utility work
    - Sharing of contact information
    - Scheduling of work for utility relocation(s) including critical milestones and staging for the work
    - Contractor's work schedule and anticipated conflicts with the utility's construction schedule.

103.9.2.4 Baseline CPM Scheduling

At the Baseline CPM Scheduling workshop, provide a presentation of the Baseline CPM Schedule. In the presentation, include a discussion of the anticipated fabrication and delivery durations for long lead material procurements, construction 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.

103.9.2.5 Work Force Opportunities

The Work Force Opportunities workshop will provide a venue for contractors to have meaningful dialogue with TrANS providers regarding the hiring of TrANS graduates. For the prime contractor and the subcontractors, provide staff with hiring authority to participate in a job-matching session during this workshop. The workshop will take place on the same day and in the same location as the pre-construction meeting. The workshop participants will at a minimum:

1. Review contractor hiring processes for general labor positions.

2. Review and listen to presentation provided by TrANS providers regarding the training program including details regarding how contractors can hire TrANS graduates.

3. Review TrANS graduate availability for working on project.

4. Meet one-on-one for at least two minutes with each TrANS graduate in attendance at the meeting.

(1/5/2017)

15. Other Contracts.

The following projects will require coordination with the work under this contract:

Construction for this contract is anticipated to be concurrent with other contracts in the vicinity of this project area:

1. Project 1206-07-75 and 1206-08-75, Mount Horeb-Madison, CTH PD to Raymond Road, USH 18, Dane County. This is the 2017 - 2019 Verona Road/CTH PD project.

2. Chalet Gardens Road resurfacing. This project is sponsored by the City of Fitchburg and is anticipated to take place in 2018 or 2019.

3. Commerce Park Drive resurfacing. This project is sponsored by the City of Fitchburg and is anticipated to take place in 2020.

4. Project 5849-02-02, C Fitchburg (McKee Road), Commerce Park Drive to Seminole Highway, CTH PD, Dane County. This is anticipated to take place in 2020.

5. Intersection improvement project at Fitchrona Road and Nesbitt Road. This project is sponsored by the City of Fitchburg and is anticipated to take place in 2019.

Coordinate construction activates, traffic control sign placement and traffic control operations with these projects.

16. Timely Decision Making Manual.

Use the Timely Decision Making Manual (TDM) on this contract. Coordinate with the department to modify the various published tools as necessary to meet the particular project needs and determine how to implement those tools under the contract. Ensure the full participation of the contractor and its principal subcontractors throughout the term of the contract.

Forms and associated guidance are published in the TDM available at the department's Highway Construction Contract Information (HCCI) web site at:

https://wisconsindot.gov/rdwy/admin/tdm.doc

stp-105-005 (20151210)

17. Notice to Contractor – Contamination Beyond Construction Limits.

The department completed testing for soil and ground water contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following sites:

1. (Site 3, 11) Station 105+50 WB to 107+00 WB 100 feet LT of the reference line at 6150 McKee Road and 5301-5321 Verona Road.
2. (Site-6,9) Station 101+75 L to 102+75 L RT of the reference line at 6169 McKee Road.
3. Station 115+00 EB to 116+00 EB from the reference LT 25 feet and from the reference line RT 25 feet.

The contaminated soils at the above sites are expected to be beyond the excavation limits necessary to complete the work under this project. Control construction operations at these locations to ensure that they do not extend beyond the excavation limits indicated in the plans. If contaminated soils are encountered at these sites or elsewhere on the project during excavation, terminate excavation in the area and notify the engineer.

The Hazardous Materials Report is available by contacting:

Name: Daniel Haak
Address: TRC Environmental Corporation
708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone: (608) 826-3628
Fax: (608) 826-3941
E-mail: dhaak@trcsolutions.com

stp-107-100 (20050901)

18. Health and Safety Requirements for Workers Remediating Petroleum Contamination.

Add the following to standard spec 107.1(2):

Soil contamination with gasoline, diesel fuel, fuel oil, or other petroleum related products may be encountered during excavation activities. Prepare a site specific Health and Safety Plan complying with the Occupational Safety and Health Administration (OSHA) standard for Hazardous Waste Operation and Emergency Response (HAZWOPER), 29 CFR 1910.120.

All site workers taking part in remediation activities or who will have the reasonable probability of exposure of safety or health hazards associated with the hazardous material shall have completed Health and Safety training that meets OSHA requirements. Before the start of remediation work, submit to the engineer a site specific Health and Safety Plan, and written verification that workers will have completed up-to-date OSHA training.

Develop, delineate, and enforce the health and safety exclusions zones for each contaminated site location pursuant to 29 CFR 1910.120.
stp-107-115 (20150630)

19. Coordination with Businesses and Residents.

The contractor shall arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week prior to the start of work under this contract and hold one meeting per month thereafter. The contractor shall arrange for a suitable location for the meeting(s) that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting

notices and mailings for the meeting(s). The contractor shall schedule the meeting(s) with at least 2 weeks' prior notice to the engineer to allow for these notifications.
stp-108-060 (20141107)

20. 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 Chris Fredrick at (608) 884-7130. Post the permit in a conspicuous place at the construction site.
stp-107-056 (20180628)

21. Environmental Protection, Dewatering and Wetlands.

Supplement standard spec 107.18 as follows:

If dewatering is required, treat the water to remove suspended solids before allowing it to enter any waterway or wetland. Provide a sedimentation basin with sufficient capacity and size to provide an efficient means to filter the water from the dewatering operation before it is discharged back into the waterway or wetland as provided in the standard specifications and these special provisions. As part of the Erosion Control Implementation Plan (ECIP) submittal, supply all pertinent information and calculations used to determine the best management practice for dewatering at each location.

Refer to the dewatering guidelines of WisDNR Storm Water Management Technical Standards, Code #1061, "Dewatering". This document can be found at the WisDNR website: http://dnr.wi.gov/topic/stormwater/documents/Dewatering_1061.pdf

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

22. Erosion Control.

Supplement standard spec 107.20 with the following:

Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial topsoil removal operation through the subsequent grading and re-topsoiling to minimize the period of exposure to possible erosion. Utilize temporary and permanent erosion control measures as noted in the plans or as directed by the engineer.

Re-topsoil graded areas, as designated by the engineer, immediately after grading is completed within those areas. Seed, fertilize, mulch and place erosion mat within 10 calendar days after placement of topsoil in all areas.

Implement best management practices for both temporary and permanent erosion control measures outlined in the plans or as directed by the engineer.

Construct sediment basins, ditch checks, rip rap, silt fence, and erosion mat, as shown on the plans, to store run off flows, limit runoff, and limit the discharge of pollutants.

Limit the amount of erodible surface area exposed to construction operations to less than one third of the individual work areas at all times.

Interim completion dates include completion of all permanent erosion control measures such as seed, fertilizer, mulch, erosion mat and rip rap.

Store material stockpiles upland and away from any drainage way. Protect these stockpiles with silt fence. Temporary seed any soil pile if the pile remains undisturbed for 14 calendar days or more. Temporary seed and silt fence required to protect stored material are included in other items of work.

Prior to initial construction operations, place temporary erosion control measures as shown on the plans, and remove them after the permanent erosion control devices are in place unless directed otherwise by the engineer.

Unless otherwise directed by the engineer, drive a tracked vehicle along untracked or newly graded slopes roughly perpendicular to the direction of stormwater runoff flow down the slopes, to reduce the erosive potential, at the end of each day. Tracking is incidental to the cost of grading.

23. Sealing Pipes.

Replace standard spec 204.3.3.2 (3) as follows:

Under the Sealing Pipes bid item, thoroughly clean the ends of the abandoned pipe, and seal them with any grade of concrete specified under standard spec 501.3.1.3.

24. 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)

25. Removing Swing Gate, Item 204.9060.S.001.

A Description
This special provision describes removing swing gates according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Conform to standard spec 204 and as follows.

Remove swing gate, swing gate base, and swing gate hardware (chains, locks, brackets, nuts, washers, bolts and other appurtenances).

D Measurement
The department will measure Removing Swing Gate as each removing swing gate, acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.001	Removing Swing Gate	EACH

stp-204-025 (20150630)

26. Removing Barricades Type III, Item 204.9060.S.003.

A Description
This special provision describes removing inlet covers according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Conform to standard spec 204 and as follows.

Stockpile the type III barricades at 4391 Maple Grove Drive (Salt Shed Property), outside the limits of any work operations at a location approved by the engineer.

If the engineer or Dane County reviews the barricades and determines the barricades are not useful, dispose of the barricades.

D Measurement
The department will measure Removing Barricades Type III as each removing barricades type III, acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.003	Removing Barricades Type III	EACH

stp-204-025 (20150630)

27. Removing Apron Endwalls, Item 204.9060.S.004.

A Description
This special provision describes removing apron endwalls according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Conform to standard spec 204.

D Measurement
The department will measure Removing Apron Endwalls as each removing apron endwalls, acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.004	Removing Apron Endwalls	EACH

stp-204-025 (20150630)

28. Removing Existing Sign Cover, Item 204.9060.S.005.

A Description
This special provision describes removing existing sign covers according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction
Conform to standard spec 204.

D Measurement
The department will measure Removing Existing Sign Cover as each removing existing sign cover, acceptably completed.

E Payment
Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.005	Removing Existing Sign Cover	EACH

stp-204-025 (20150630)

29. Roadway Excavation.

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 on the earth flow diagram, all excavation material within the project; material shrinkage and swell factors; acceptable on-site material available for use as embankment within the project; anticipated off-site material that will be required for use as embankment within the project (if applicable); and anticipated material to be disposed of off-site (if applicable). It is the sole responsibility of the contractor to prepare their individual investigation and testing program to establish material shrinkage and swell factors.

30. Borrow.

Replace standard spec 208.1(1) with the following:

This section describes constructing embankments and other portions of the work consistent with the earthwork summary and defines the contract requirements for embankment material if required by the plans or if the contractor elects to utilize off-site material to complete the roadway embankments.

Delete standard spec 208.2.2(2).

Add the following to standard spec 208.3:

The contractor shall be responsible for complying with all permit requirements in obtaining embankment materials.

Replace standard spec 208.4 with the following:

The department will not measure embankment material from its source.

Replace standard spec 208.5 with the following:

The department will not pay directly for work specified under this section. This work is incidental to the Roadway Embankment bid item.

31. QMP Base Aggregate.

A Description

A.1 General

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

(2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

(3) Do not apply this special provision to material placed and paid for under the Aggregate Detours, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
1. Production and placement control and inspection.
2. Material sampling and testing.

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

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

A.2 Small Quantities

(1) The department defines a small quantity, for each individual Base Aggregate bid item, as a contract quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:

A.2.1 Quality Control Plan

(1) Submit an abbreviated quality control plan consisting of the following:

1. Organizational chart including names, telephone numbers, current certifications with HTCP numbers, and expiration dates, and roles and responsibilities of all persons involved in the quality control program for material under affected bid items.

A.2.2 Contractor Testing

1. Testing frequency:

Contract Quantity	Minimum Required Testing per source
≤ 6000 tons	One stockpile test before placement, and two production or one loadout test.[1] [2]
> 6000 tons and ≤ 9000 tons	One stockpile and Three placement tests[3] [4] [5]

[1] Submit production test results to the engineer for review before incorporating the material into the work. Production test results are valid for a period of 3 years.

[2] If the actual quantity overruns 6,000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

[3] If the actual quantity overruns 9000 tons, on the next day of placement perform one randomly selected placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

[4] For 3-inch material or lift thickness of 3 inch or less, obtain samples at load-out.

[5] Divide the aggregate into uniformly sized sublots for testing

2. Stockpile testing for concrete pavement recycled in place will be sampled on the first day of production.

3. Until a four point running average is established, individual placement tests will be used for acceptance. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
4. Material represented by a sublot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

A.2.3 Department Testing

(1) The department will perform testing as specified in B.8 except as follows:
- Department testing may be waived for contract bid item quantities of 500 tons or less.

B Materials

B.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.

(2) 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 each of the contractor's laboratories 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 means that will be used, and action time frames.
3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
5. Descriptions of stockpiling and hauling methods.
6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

(1) Have personnel certified under the department's highway technician certification program (HTCP) perform sampling, testing, and documentation as follows:

SAMPLING AND TESTING ROLES	TEST STANDARD	REQUIRED CERTIFICATION
Random Sampling of Materials Sampling Aggregates	ASTM D3665 AASHTO T2 [1]	Transportation Materials Sampling Technician (TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG)
Percent passing the 200 Sieve Gradation Moisture Content Fractured Faces	AASHTO T11 AASHTO T27 AASHTO T255 ASTM D5821	Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG)
Liquid and Plasticity Index	AASHTO T89 AASHTO T90	Aggregate Testing for Transportation Systems (ATTS) Grading Technician I (GRADINGTEC-1) Grading Assistant Certified Technician (ACT-Grading)
Plasticity Check	AASHTO T90	Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) Grading Technician I (GRADINGTEC-1) Grading Assistant Certified Technician (ACT-Grading)

[1] Plant personnel under the direct observation of an aggregate technician certified at level one or higher may operate equipment to obtain samples.

(2) 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.

B.3 Laboratory

(1) Perform QC testing at a department-qualified laboratory. Obtain information on the Wisconsin laboratory qualification program from:

Materials Management Section
3502 Kinsman Blvd.
Madison, WI 53704
Telephone: (608) 246-5388

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

B.4 Quality Control Documentation

B.4.1 General

(1) Submit base aggregate placement documentation to the engineer within 10 business days after completing base placement. Ensure that the submittal is complete, neatly organized, and includes applicable project records and control charts.

B.4.2 Records

(1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within one business day after obtaining a sample. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

B.4.3 Control Charts

(1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.

(2) Provide control charts to the engineer within one business day after obtaining a sample. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

1. Contractor individual QC tests.
2. Department QV tests.
3. Department IA tests.
4. Four-point running average of the QC tests.

(3) Except as specified under B.8.2.1 for nonconforming QV placement tests, include only QC placement tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

B.5 Contractor Testing

(1) Test gradation, fracture, liquid limit and plasticity index during placement for each base aggregate size, source or classification, and type.

(2) Perform one stockpile test from each source before placement. One stockpile test may be used for multiple projects up to 60 calendar days.

(3) Test gradation once per 3000 tons of material placed or fraction thereof. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before watering and compacting; except collect 3-inch samples or lift thickness of 3 inch or less from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.

(4) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for seven calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

(5) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.

(6) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.

(7) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

B.6 Test Methods

B.6.1 Gradation

(1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:
Gradation..... AASHTO T 27
Material finer than the No. 200 sieve..... AASHTO T 11

(2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.

(3) Maintain a separate control chart for each sieve size specified in standard spec 305 or standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:

1. Control limits are at the upper and lower specification limits.
2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

(1) Test fracture conforming to CMM 8.60. The engineer will waive fractured particle testing on quarried stone.

(2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec

301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

B.6.3 Liquid Limit and Plasticity

(1) Test the liquid limit and plasticity according to AASHTO T 89 and T 90.

(2) Ensure the material conforms to the limits specified in standard spec table 301-2.

B.7 Corrective Action

B.7.1 General

(1) Consider corrective action when the running average trends toward a warning limit. Take corrective action if an individual test exceeds the contract specification limit. Document all corrective actions both in the project records and on the appropriate control chart.

B.7.2 Placement Corrective Action

(1) Do not blend additional material on the roadbed to correct gradation problems.

(2) Notify the engineer whenever the running average exceeds a warning limit. When two consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:

1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
2. For fracture, increase the QC testing frequency to at least one test per gradation test.

(3) If corrective action improves the property in question such that the running average after four additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after four additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

(4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:

1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 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.

B.8.2 Verification Testing

B.8.2.1 General

(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 B.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 of each base aggregate size, source or classification, and type during placement conforming to the following:
1. Perform one stockpile test from each source before placement.
2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

(3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before watering and compacting; except, for 3-inch aggregates or for a lift thickness of 3 inch or less, the department will collect samples at load-out. The department will split each sample, test half for QV, and retain half.

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

(5) The department will assess QV results by comparing to the appropriate specification limits. 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.

B.8.3 Independent Assurance

(1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel

qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. 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 B.9.

B.9 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, 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 (Vacant)

D (Vacant)

E Payment

(1) Costs for all sampling, testing, and documentation required under this special provision are incidental to this 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.

(2) For material represented by a running average exceeding a control limit, the department will reduce pay according to CMM 8-10.5.2 for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

stp-301-010 (20171130)

32. Base Aggregate Dense 3/4-Inch, Item 305.0110.

Add the following to standard spec 301.2.4.3:

Furnish only aggregate classified as crushed stone for Dense 3/4-Inch when used in the top 3 inches of the unpaved portion of the shoulder or for unpaved driveways and field entrances.

swr-305-001 (20170711)

33. Base Aggregate Dense 1 1/4-Inch, Item 305.0120.

Add the following to standard spec 305.2.2.1:

When 1 1/4-Inch base aggregate is >/= 50 percent crushed gravel, conform to the following gradation requirements:

SIEVE	PERCENT PASSING BY WEIGHT
1 1/4 inch	95 - 100
1 inch	---
3/4 inch	70 - 90
3/8 inch	45 - 75
No. 4	30 - 60
No. 10	20 - 40
No. 40	7 - 25
No. 200	3 - 10[1]

[1] Limited to a maximum of 8.0 percent for base placed between old and new pavement.

swr-305-002 (20170711)

34. Concrete Pavement.

Supplement standard spec 415.2.1 with the following:

General
Use clean, hard, durable crushed limestone with 100 percent fractured surfaces and free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances or adherent coatings considered injurious.

Use virgin aggregates only.

Deleterious Substances
The amount of deleterious substances must not exceed the following percentages:

DELETERIOUS SUBSTANCE	PERCENT BY WEIGHT
Shale	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of above	5.0
Thin or elongated pieces based on a 3:1 ratio	15.0
Materials passing the No. 200 sieve	1.5
Chert[1]	2.0

[1]Material classified lithologically as chert and having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of chert by dividing the weight of chert in the sample retained on a 3/8-inch sieve by the weight of the total sample.

Physical Properties
The department will ensure that Los Angeles wear testing conforms to AASHTO T 96, soundness testing conforms to AASHTO T 104 using 5 cycles in sodium sulfate solution on aggregate retained on the No. 4 sieve, and freeze-thaw soundness testing conforms to AASHTO T 103. The percent wear must no exceed 40, the weighted soundness must not exceed 9 percent, and the weighted freeze-thaw average loss must not exceed 12 percent.

Add standard spec 415.3.3 (3) as follows:

(3) Place multiple layers of polyethylene sheets over the entire area where concrete pavements contact the concrete masonry associated with and MSE wall. Payment for the sheets is incidental to the concrete pavement bid item.

Add standard spec 415.3.7.1 (7) as follows:

(7) Treat sawed surfaces of transverse and longitudinal joints with a silane concrete sealer found on the department approved products list for Concrete Protective Surface Treatments. Prepare surface by pressure washing all saw slurry from sawed joints and

allow to dry thoroughly prior to application of silane sealer. Apply the product directly to the interior of the sawed joint. Do not use the broadcast spray method of application.

Supplement standard spec 415.3.14 with the following:

Provide a minimum of one concrete finisher to remain on the project site each day after final finishing of all concrete surfaces until such time as the concrete has hardened sufficiently to resist surface scarring caused by footprints, handprints, or any other type of imprint, malicious or otherwise. Actively and continuously patrol on foot the newly placed concrete and repair any damage to the surface that might be sustained as described above.

35. Concrete Pavement - Appurtenant Construction.

Replace standard spec 416.2.5.1(1) with the following:

For the concrete mixture, use a minimum of 846 pounds of cementitious material per cubic yard of concrete. Determine materials and proportions of the concrete mixture to obtain a minimum compressive strength in the concrete of 3000 psi prior to reopening to traffic. The contractor may add one or a combination of admixtures to the ingredients or to the mixture in order to obtain the required minimum strength and required air content. Do not retemper the concrete mixture.

36. 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 all 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 all 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)

37. 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 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:

https://www.atwoodsystems.com/

B Materials

B.1 Personnel

(1) Perform HMA pavement density (QC, QV) testing using a HTCP certified nuclear technician I, or a nuclear assistant certified technician (ACT-NUC) working under a certified technician.

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

B.2 Testing

(1) Conform to ASTM D2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter position. Perform each test for 4 minutes of nuclear gauge count time.

B.3 Equipment

B.3.1 General

(1) 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

(2) Have the gauge calibrated by the manufacturer or an approved calibration service within 12 months of its use on the project. Retain a copy of the manufacturer's calibration certificate with the gauge.

(3) Before each construction season, and following any calibration of the gauge, the contractor must perform calibration verification for each gauge using the reference blocks located in the department's central office materials laboratory. To obtain information or schedule a time to perform calibration verification, contact the department's Radiation Safety Officer at:

Materials Management Section
3502 Kinsman Blvd.
Madison, Wisconsin 53704
Telephone: (608) 243-5998

B.3.2 Comparison of Nuclear Gauges

B.3.2.1 Comparison of QC and QV Nuclear Gauges

(1) Select a representative section of the compacted pavement before or on the first day of paving for the comparison process. The section does not have to be the same mix design.

(2) Compare the 2 or more gauges used for density measurement (QC, QV). The QC and QV gauge operators will perform the comparison on 5 test sites jointly located. Record each density measurement of each test site for the QC, QV and back up gauges.

(3) Calculate the average of the difference in density of the 5 test sites between the QC and QV gauges. Locate an additional 5 test sites if the average difference exceeds 1.0 lb/ft^3. Measure and record the density on the 5 additional test sites for each gauge.

(4) Calculate the average of the difference in density of the 10 test sites between the QC and QV gauges. Replace one or both gauges if the average difference of the 10 tests exceeds 1.0 lb/ft^3 and repeat comparison process from B.3.2.1 (2).

(5) Furnish one of the QC gauges passing the allowable comparison tolerances to perform density testing on the project.

B.3.2.2 Comparison Monitoring

(1) After performing the gauge comparison specified in B.3.2.1, establish a project reference site approved by the department. Clearly mark a flat surface of concrete or asphalt or other material that will not be disturbed during the duration of the project. Perform comparison monitoring of the QC, QV, and all back-up gauges at the project reference site.

(2) Conduct an initial 10 density tests with each gauge on the project reference site and calculate the average value for each gauge to establish the gauge's reference value. Use the gauge's reference value as a control to monitor the calibration of the gauge for the duration of the project.

(3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft^3 of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft^3 of its reference value established in B.3.2.2(2).

(4) Maintain the reference site test data for each gauge at an agreed location.

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) A lot consists of the tonnage placed each day for each layer and target density specified in standard spec 460.3.3.1. A lot may include partial sublots.

(2) Divide the roadway into sublots. A sublot is 1500 lane feet for each layer and target density.

(3) A sublot may include HMA placed on more than one day of paving. Test sublots at the pre-determined random locations regardless of when the HMA is placed. No additional testing is required for partial sublots at the beginning or end of a day's paving.

(4) If a resulting partial quantity at the end of the project is less than 750 lane feet, include that partial quantity with the last full sublot of the lane. If a resulting partial quantity at the end of the project is 750 lane feet or more, create a separate sublot for that partial quantity.

(5) Randomly select test locations for each sublot as specified in CMM 8.15 before paving and provide a copy to the engineer. Locate and mark QC density test sites when performing the tests. Perform density tests before opening the roadway to traffic.

(6) Use Table 1 to determine the number of tests required at each station, depending on the width of the lane being tested. When more than one test is required at a station, offset the tests 10 feet longitudinally from one another to form a diagonal testing row across the lane.

Table 1

Lane Width	No. of Tests	Transverse Location
5 ft or less	1	Random
Greater than 5 ft to 9 ft	2	Random within 2 equal widths
Greater than 9 ft	3	Random within 3 equal widths

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

(1) A lot represents a combination of the total daily tonnage for each layer and target density.

(2) Each side road, crossover, turn lane, ramp, and roundabout must contain at least one sublot for each layer.

(3) If a side road, crossover, turn lane, or ramp is 1500 feet or longer, determine sublots and random test locations as specified in B.4.1.1.

(4) If a side road, crossover, turn lane, or ramp is less than 1500 feet long, determine sublots using a maximum of 750 tons per sublot and perform the number of random tests as specified in Table 2.

Table 2

Side Roads, Turn Lanes, Crossovers, Ramps, Roundabouts: Sublot/Layer tonnage	Minimum Number of Tests Required
25 to 100 tons	1
101 to 250 tons	3
251 to 500 tons	5
501 to 750 tons	7

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 (20161130)

38. Asphaltic Curb.

Replace standard spec 465.2 (2) with the following:

(2) Under the other 465 bid items, the contractor need not submit a mix design. Furnish aggregates mixed with a type AC asphaltic material, except under the Asphaltic Curb bid item furnish PG58-28 asphaltic material. If the Asphaltic Curb is being placed adjacent to and concurrently with Asphaltic Surface Temporary, use Asphaltic Surface Temporary for the asphaltic curb. Use coarse and fine mineral aggregates uniformly coated and mixed with the asphaltic material in an engineer-approved mixing plant. The contractor may include reclaimed asphaltic pavement materials in the mixture.

39. 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 5 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)

40. 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)

41. Expansion Device, B-13-831; B-13-832.

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 (20171130)

42. 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 not measure Bar Steel Reinforcement HS Stainless Structures. The department will use pay plan quantity conforming to standard spec 109.1.1.2. Plan quantities were 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.

E Payment

The department will pay for plan quantities conforming to standard spec 109.1.1.2 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.

43. Concrete Staining B-13-831, Item 517.1010.S.001; B-13-832, Item 517.1010.S.002; R-13-266, Item 517.1010.S.003; R-13-267, Item 517.1010.S.004; S-13-444, Item 517.1010.S.005; S-13-453, Item 517.1010.S.006.

A Description

Furnish and apply a two coat concrete stain to the exposed concrete surfaces of the structure, as detailed in the plans and as hereinafter provided.

B Materials

B.1 Mortar

Use mortar for sack rubbing the concrete surfaces as given in standard spec 502.3.7.5 or use one of the following products:

Preblended, Packaged Type II Cement:	Tri-Mix by TK Products
	Thoroseal Pearl Gray by Thoro Products

The mortar shall contain one of the following acrylic bonding admixtures mixed and applied according to manufacturer's recommendations:

Acrylic Bonding Admixture:	TK-225 by TK Products
	Achro 60 by Thoro Products
	Achro Set by Master Builders

B.2 Concrete Stain

Use concrete stain manufactured for use on exterior concrete surfaces, consisting of a base coat and a pigmented sealer finish coat. Use the following products, or equal as approved by the department, as part of the two coat finish system:

Tri-Sheen Concrete Surfacer, Smooth by TK Products
Tri-Sheen Acrylic by TK Products
TK-1450 Natural Look Urethane Anti-Graffiti Primers by TK Products
Safe-Cure & Seal EPX by Chem Masters
H&C Concrete Stain Solid Color Water Based by Sherwin-Williams

C Construction

C.1 General

Furnish, prepare, apply, cure, and store all materials according to the product manufacturer's specifications for the type and condition of application required.

Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, prior to staining.

C.2 Preparation of Concrete Surfaces
Provide a sack rubbed finish according to standard spec 502.3.7.5, using mortar as indicated above on concrete surfaces with open voids or honeycombing.

Following the sack rubbing, clean all concrete surfaces that are to be coated to ensure that the surface is free of all laitance, dirt, dust, grease, efflorescence, and any foreign material and that the surface will accept the coating material according to product requirements. As a minimum, clean the surface using a 3000-psi water blast. Hold the nozzle of the water blaster approximately 6 inches from the concrete surface and move it continuously in a sweeping motion. Give special attention to smooth concrete surfaces to produce an acceptable surface texture. Correct any surface problems resulting from the surface preparation methods. Grit blasting of the concrete surface is not allowed.

C.3 Staining Concrete Surfaces
Apply the concrete stain according to the manufacturer's recommendations.

Apply the concrete stain when the temperature of the concrete surface is 45º F or higher, or as given by the manufacturer.

The color of the stain shall be as given on the plan. Tint the base coat to match the finish coat; the two coats shall be compatible with each other.

Do not begin staining the structure until earthwork operations are completed to a point where this work can begin without receiving damage. Where this work is adjacent to exposed soil or pavement areas, provide temporary covering protection from overspray or splatter.

C.4 Test Areas
Prior to applying stain to the structure, apply the stain to sample panels measuring a minimum of 48-inches x 48-inches and constructed to demonstrate workmanship in the use of the form liner specified on the structure if applicable. Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, prior to staining. Prepare the concrete surfaces of the sample panels and apply stain using the same materials and in the same manner as proposed for the structure, including staining of the joints between the stones produced by the form liner if applicable. Do not apply stain to the structure until the department approves the test panels.

C.5 Surfaces to be Coated.
Apply concrete stain to the surfaces according to the plan.

D Measurement
The department will not measure Concrete Staining (Structure). The department will use pay plan quantity conforming to standard spec 109.1.1.2.

E Payment

The department will pay for plan quantities conforming to standard spec 109.1.1.2 at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
517.1010.S.001	Concrete Staining B-13-831	SF
517.1010.S.002	Concrete Staining B-13-832	SF
517.1010.S.003	Concrete Staining R-13-266	SF
517.1010.S.004	Concrete Staining R-13-267	SF
517.1010.S.005	Concrete Staining S-13-444	SF
517.1010.S.006	Concrete Staining S-13-453	SF

Payment is full compensation for furnishing and applying the two coat system; for preparing the concrete surface; and for preparing the sample panels.

44. Architectural Surface Treatment B-13-831, Item 517.1050.S.001; B-13-832, Item 517.1050.002; R-13-266, Item 517.1050.S.003; R-13-267, Item 517.1050.S.004; S-13-444, Item 517.1050.S.005; S-13-453, Item 517.1050.S.006.

A Description

Construct a concrete masonry architectural surface treatment on the exposed concrete surfaces of the structure, as detailed in the plans and as hereinafter provided.

B Materials

Use form liners that attach easily to the forming system, and do not compress more than ¼-inch when poured at a rate of 10 vertical feet/hour.

Use a release agent that is compatible with the form liner and coloring materials.

Wall ties shall have set “break-backs” at a minimum of ¾-inches from the finished concrete surface.

C Construction

C.1 Equipment

Equipment and tools necessary for performing all parts of the work shall be satisfactory as to design, capacity, and mechanical condition for the purposes intended. Repair, improve, replace, or supplement all equipment that is not maintained in full working order, or which is proven inadequate to obtain the results prescribed.

C.2 Form Liner Preparation

Clean the form liner prior to each pour and ensure that it is free of any build-up. Visually inspect each liner for blemishes or tears, and repair if necessary per manufacturer’s recommendations.

Apply form release per manufacturer’s recommendations.

C.3 Form Liner Attachment
Place adjacent liners less than ¼-inch from each other, attach liner securely to forms according to the manufacturer's recommendations, and coordinate wall ties with form liner and form manufacturer, e.g., diameter, size, and frequency.

C.4 Surface Finishing
Ensure that the textured surface is free of laitance; sandblasting is not permitted.

Grind or fill pouring blemishes.

D Measurement
The department will not measure Architectural Surface Treatment (Structure). The department will use pay plan quantity conforming to standard spec 109.1.1.2.

E Payment
The department will pay for plan quantities conforming to standard spec 109.1.1.2 at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
517.1050.S.001	Architectural Surface Treatment B-13-831	SF
517.1050.S.002	Architectural Surface Treatment B-13-832	SF
517.1050.S.003	Architectural Surface Treatment R-13-266	SF
517.1050.S.004	Architectural Surface Treatment R-13-267	SF
517.1050.S.005	Architectural Surface Treatment S-13-444	SF
517.1050.S.006	Architectural Surface Treatment S-13-453	SF

Payment is full compensation for producing the proposed architectural surface treatment including: preparing the foundation; finishing and protecting the surface treatment; and for properly disposing of surplus material.

45. Pre-Boring.

Supplement standard spec 550.2 with the following:

550.2.5 Pre-Boring
Furnish grade A, A-FA, A-S, A-t, A-IS, A-IP, or A-IT, air entrained concrete conforming to standard spec 501 of the standard spec.

Replace standard spec 550.3.9.3(1) with the following:

Pre-bore holes 30-inches in diameter.

Replace standard spec 550.3.9.3(3) with the following:

Firmly seat piles after preboring and backfill with concrete according to standard spec 550.2.2. Remove casing, backfill any voids left by the casing removal with concrete or other engineer approved material, and dispose of excess material.

Replace standard spec 550.5.1(2) with the following:

Payment for the Pre-Boring bid items is full compensation for drilling the pre-boring holes; for furnishing; installing, and removing casing; for backfilling with concrete; and for disposing of excess material. The department will not pay for pre-boring the contract does not require or for repairing damage to adjacent structures caused by the contractor's pre-boring operations.

46. Concrete Barrier Temporary Precast Installed.

Replace standard spec 603.3.2.3 (1) with the following:

(1) Under the Concrete Barrier Temporary Precast Installed bid item, install contractor owned and department owned temporary barrier in contract-identified locations or as the engineer directs. Also make contract-identified or engineer-directed moves that do not require trucking and reinstall at those new locations.

47. Adjusting Manhole Covers.

This work shall be according to the pertinent provisions of standard spec 611, as shown on the plans, and as hereinafter provided.

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

Revise standard spec 611.3.7 by deleting the last paragraph.

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

If the manhole frame is higher than the adjacent pavement, the two measurements shall be made at each end of the straightedge. These two measurements shall be averaged. The same criteria for acceptance and payment as above, shall apply.
stp-611-005 (20030820)

48. Cover Plates Temporary, Item 611.8120.S.

A Description
This special provision describes furnishing, installing and removing a steel plate 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)

49. Drain Slotted Vane, Item 611.9900.S.

A Description
This special provision describes furnishing and installing slotted vane drain as shown on the plans, according to standard spec 611, and as hereinafter provided.

B (Vacant)

C Construction
Prior to encasing the pipe in concrete, cover the upper end of the slotted drain as shown on the plans, or as approved by the engineer.

Prior to construction operations adjacent to the slotted area of the slotted vane drain pipe, cover the slots on the top of the drain. Remove any material entering the pipe at the contractor's expense.

Exercise care to avoid damage to the slotted vane drainpipe. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drainpipe at contractor's expense.

D Measurement
The department will measure Drain Slotted Vane in units 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
611.9900.S	Drain Slotted Vane	EACH

Payment is full compensation for furnishing all materials; hauling and placing the pipe; making connections to existing inlets; furnishing concrete masonry, end plug or cap; and cleaning out and restoring site of work.
stp-611-015 (20030820)

50. General Requirements for Storm Sewer Manholes.

Replace standard spec 611.3.4 with the following:

Steps in storm sewer manholes are not required. Center the storm sewer structure casting on the structure unless otherwise noted in the plans.

51. Furnishing and Planting Plant Materials.

Supplement standard spec 632.2.1 with the following:

Provide plants grown within the states of Wisconsin, Minnesota, Michigan, or parts of northern Illinois, Indiana or Ohio located within Zone 5 of the "Plant Hardiness Zone Map" produced by the United States Department of Agriculture, Miscellaneous Publication No. 1475, issued January 1990.

Supplement standard spec 632.2.3.4 with the following:

Obtain review and approval of Planting Mixture, according to the bid item Planting Mixture, by the engineer before use on project. The engineer reserves the right to reject planting mixture that does not conform to the specifications and/or does not come with the appropriate material certificates. The engineer may require samples for USDA soil texture classification, pH, % organic matter, nutrient content, caution exchange capacity, soluble salts, and the presence of any materials deleterious to plant growth. Provide testing through a qualified testing laboratory approved by the State of Wisconsin to confirm that topsoil meets the requirements outlined in standard spec 632.2.3.3.

Replace standard spec 632.2.4.2 with the following:

For fertilizer in plant holes, provide water soluble fertilizer contained in a micropore slow release polyethylene packet with a three-year release. Provide packets with two ounces of fertilizer. A single 2 ounce packet is considered one unit. Fertilizer shall conform to the following minimum requirements:

Nitrogen, not less than ---------- 16%
Phosphoric Acid, not less than ----- 8%
Potash, not less than ---------- 8%

For trees: Use a minimum of two units and provide two units per caliper inch of tree trunk diameter. For one-half caliper measurements, round up to the next unit.

For shrubs: Use a minimum of two units and provide one unit per 12 inches of plant height or spread.

For perennials: Use a single unit per plant.

Replace standard spec 632.2.6 with the following:

Provide mulch as specified by bid item Shredded Hardwood Bark Mulch.

Replace standard spec 632.2.7 with the following:

Do not use wrapping on plant material.

Replace standard spec 632.2.9 with the following:

Provide rodent protection for trees as directed by the engineer or forestry department of the local municipality.

Provide rodent protection for single-stem trees of rigid plastic mesh made of recycled HDPE with an open mesh matrix ¾" by ¾" with each strand approximately 1/8" x 1/8" x 1/8". Provide products that are UV treated with a life expectancy of up to 5) years. The product shall be at least 48 inches high. Supply the source of rodent protection to the engineer. Install rodent protection for single-stem trees according to manufacturer's written instructions and at a minimum, burying the bottom of the rodent protection 2-3 inches into the adjacent soil grades.

Provide rodent protection for multi-stemmed trees of chicken wire or other similarly rigid, matrix-material with an open mesh matrix ¾" by ¾" or less, 48 inches high. Install rodent protection for multi-stemmed trees such that the entire base of the tree is protected; circumference of rodent protection may vary based on specific characteristics of each tree. Bury the bottom 2-3 inches of the rodent protection into the adjacent soil grades.

Replace standard spec 632.2.10 with the following:

Use 18-inch soft polymer webbing strap with grommets at each of the two ends to secure wire or twine to tree. Supply source of webbing straps to the engineer. All sources will be subject to verification and approval by the engineer.

Provide tree stabilization (staking and guying) for all trees unless directed otherwise by the engineer or the forestry department of the local municipality.

Supplement standard spec 632.3.1 (1) with the following:

Obtain approval from the engineer for any plantings between June 1 and September 1. All additional care and maintenance associated with approved plantings occurring within this timeframe, will be at no cost to the department including, but not limited to, supplemental watering above and beyond the typical, specified landscape maintenance and care cycle schedule.

Supplement standard spec 632.3.1 with the following:

Take care not to damage or disturb adjacent finished landscape and be responsible for seeding, sodding or placing Shredded Hardwood Bark Mulch to repair any and all damage caused to adjacent landscape materials at no cost to the department.

Replace standard spec 632.3.3 with the following:

Stake the locations of all plant holes and obtain approval of staked location from the engineer and the forestry department of the local municipality before planting.

Supplement 632.3.4 with the following:

Adequately compact the bottom of the hole to guard against settling. Tamp or water as necessary to create a condition by which plants will not settle in the planting beds. The bottom of the rootball shall be in direct contact with the bottom of the hole.

Replace standard spec 632.3.4 (2) with the following:

Excavate the plant hole to the minimum horizontal dimensions indicated in the Plant Data Table included in the plans or as the engineer directs. The minimum horizontal measurement of the plant hole is to be no less than 24 inches greater than the diameter of the ball, container, or root mass for the full depth of the planting hole for trees.

Replace standard spec 632.3.7 (2) with the following:

Place the plant in the plant hole with its more desirable face towards the most prominent view and hold in a vertical position. Remove the burlap and other wrapping materials including, but not limited to, twine, wire baskets, and plastic ribbon, from the entire root

ball of B&B plants unless the engineer determines that removal of said material will be detrimental to plant stability and/or establishment. At a minimum, the wire basket must be completely removed from the top and sides of the rootball. Move and handle only by the ball or container. Set the plant so that, after settling, the plant root collar is at or 2 inches above the surrounding ground level, as specified above in standard spec 632.3.4.

Replace standard spec 632.3.18.1.2 with the following:

The plant establishment period shall extend to October 15, 2022 for all plant materials. Ultimately, it shall extend a full two growing seasons from the project completion date which may be revised due to unforeseen changes to the construction progress. Obtain, in writing, the final date for the conclusion of the plant establishment period on or soon after project completion. Review all plant materials with the engineer and forestry department of the local municipality at conclusion of the establishment period.

Replace standard spec 632.3.19.1 (9) with the following:

Remove all staking, bracing wire material, nursery tags and other plant stabilization or non-biodegradable material at the end of the establishment period.

Review all rodent protection measures at the end of the establishment period with the engineer and the forestry department of the local municipality to determine if in place rodent protection measures should remain or be removed.

Supplement standard spec 632.3.19.1 (2) with the following:

The interval for a care cycle is 10-14 days between May 15 and October 15. There will be 13 required care cycles in a growing season.

Perform a complete and thorough spring clean-out of all landscape areas within the project boundary. Perform spring clean-out during the first care cycle of the year (between May 15 and June 1) or as soon as weather and growing season conditions permit. Do not perform spring clean-out while the ground is saturated from the spring thaw; walking on saturated soil will result in compaction. Spring clean-out includes removal of past-season herbaceous material that was left standing over winter, cutting back ornamental grasses to within 3-inches of the mulched surface, removing any material damaged over the winter by pruning according to the language outlined in standard spec 632, removal of trash or other debris that has accumulated in planting beds, removal of leaves or other plant debris that has accumulated on the top of the mulched surface, weeding, and any and all other clean-out and maintenance operations as directed by the engineer.

Perform a complete and thorough fall clean-out of all landscape areas within the project boundary. Perform fall clean-out during the last care cycle of the year (between October 1 and October 15). Do not perform fall clean-out if the soil is saturated from rain event; wait until the soil moisture levels have gone down before performing the final bed clean-out.

Fall clean-out includes coordination with the engineer and the forestry department of the local municipality to determine which herbaceous perennial and ornamental grass material to leave standing through the winter and which to cut back to the ground, removing any material damaged during the growing season by pruning according to the language outlined in standard spec 632, removal of trash or other debris that has accumulated in planting beds, removal of leaves or other plant debris that has accumulated on the top of the mulched surface, weeding, and any and all other clean-out and maintenance operations as directed by the engineer.

Provide supplemental water during the May 15 and October 15 maintenance period as often as necessary to ensure healthy, growing, and established plant material. Coordinate supplemental water directly with the municipality so the plant material is not being overwatered or under-watered. The contractor will remain solely responsible for plant health and watering maintenance.

Apply an additional 1-2 inches of Shredded Hardwood Bark Mulch immediately prior to the end of the establishment period for planting beds and tree rings containing Shredded Hardwood Bark Mulch. Work and materials are incidental to Landscape Planting Surveillance and Care Cycles bid item.

52. Landscape Planting Surveillance and Care Cycles.

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of $800 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.
stp-632-005 (20070510)

53. Sod Lawn.

Revise standard spec 631.3.5 as follows:

Change 30 days to 60 days.

Add standard spec 631.3.6 Maintenance as follows:

Provide the engineer with a letter describing the maintenance procedures, schedules and names of personnel performing the maintenance for Sod Lawn.

Maintain Sod Lawn for 60 days after placement. Maintenance includes, but is not limited to, the following: watering, mowing, weeding, protection from insects and diseases, and fertilizing to establish the Sod Lawn free of eroded and bare areas. Watering and fertilizing will be paid for under the appropriate bid items. All other items are incidental to Sod Lawn.

Begin mowing when the grass has reached a height of 3 inches, or as directed by the engineer. Mow the grass to 2 inches in height and at least twice before acceptance. Provide a mower capable of collecting the grass clippings. Dispose of grass clippings off the project site.

Keep sodded areas moist by sprinkling with water for 60 days after placement. Replace areas that the engineer determines are dead or not in healthy growing conditions as soon as conditions permit. Utilize the same Sod Lawn as originally specified. Re-sodding is considered incidental to the contract.

In order to qualify for acceptance, Sod Lawn areas shall have had two mowings before final inspection. Sod Lawn shall be well rooted, practicably free from weeds and be bright in color. Repair and/or replace, as directed by the engineer, areas which fail to meet these requirements, to provide Sod Lawn acceptable to the engineer.

Maintain re-sodded or replaced areas for an additional 30 days.

Replace standard spec 631.5 (2) with the following:

Payment for Sod Lawn is full compensation for preparing the earth bed; for maintaining and mowing the sod, and for furnishing, placing, staking, and rolling the sod.

54. Signs Reflective.

Supplement standard spec 637 as follows:

Where signs overhang a pedestrian or bike path area, provide a minimum mounting height of 8 feet to the bottom of the sign. Where secondary signs are used in urban areas, provide a minimum mounting height of 7 feet to the bottom of the secondary sign when pedestrian or parking movements occur adjacent to the sign.

The mounting height to the bottom of sign W12-1D, Double Arrow, shall be 2-feet above the roadway and to the bottom of sign R1-1F, Folding Stop Sign, shall be 5-feet, 3-inches above the roadway.

R4-7 Keep Right signs are to be installed in the median island nose areas and should be located as close as practical to the beginning of the median nose.

One foot lateral offset from the edge of sign to the face of curb will be allowed at locations designated by the engineer.

55. Removing Signs (type); Removing Small Sign Supports.

Perform this work according to the pertinent requirements of standard spec 638 and as hereinafter provided.

Existing signs removed under bid item Removing Signs (type) and existing sign supports removed under bid item Removing Small Sign Supports, owned by the City of Fitchburg within their local road system and bike path system, remain the property of the City of Fitchburg.

Stockpile the signs and sign posts on the right-of-way, outside the limits of construction at a location approved by the engineer.

Notify the engineer when the sign materials are available for pick up by the City of Fitchburg. If the City of Fitchburg doesn't pick up the sign materials within a reasonable time, as determined by the engineer, dispose of the sign materials. If the City of Fitchburg reviews the sign materials and determines the sign materials aren't useful, dispose of the sign materials.

56. Field Facilities.

Replace standard spec 642.2.1 (4) with the following:

Provide and maintain suitable interior sanitary facilities conforming to State and local health requirements, in clean and good working condition, provide a weekly cleaning service, and stock with sanitary supplies for the duration of the contract.

Supplement standard spec 642.2.2.1 (2) with the following:

Provide CAT 5 services with a minimum of six CAT 5 receptacles.

Replace standard spec 642.2.2.1 (3) with the following:

Provide and maintain a plain-paper photocopier with scanner with the following characteristics:

- Uses toner, not ink.
- Has auto-feed capability.
- Can copy and scan both 8 1/2" x 11" and 11" x 17" paper.
- Can output a PDF of a copied or scanned document.

Replenish paper, toner cartridges, and other supplies before fully expended.

Add standard spec 642.2.2.1 (5) as follows:

Provide a field office having an adjacent hard surface parking facility with a minimum capacity of 16 passenger vehicles.

Replace standard spec 642.2.2.4 with the following:

Under bid item Field Office Type D, furnish a facility with a minimum interior space of 1,500 square feet including a meeting room that is at least 20 feet by 20 feet; furnish indoor sanitary facilities that are housed within, or directly adjacent to, the field office; clean, maintain, and supply the field office and sanitary facilities weekly; and equip with the following:

- Ten suitable office desks with drawers and locks.
- Ten ergonomically correct office chairs in working condition according to standard spec 642.2.2.1 (4).
- Two4-drawer file cabinets.
- Two 4-shelf bookcases.
- Four 2.5 x 5 foot (minimum) tables.
- Four 4 x 8 foot (minimum) tables for the meeting room.
- Twenty, or more, folding chairs.

Add standard spec 642.3 (7) as follows:

(7) Locate the field office to be within 1 mile of the Verona Road-CTH PD intersection.

Add standard spec 642.5 (4) as follows:

(4) Payment of the field office is full compensation for providing a weekly cleaning service for the field office and sanitary facilities, for providing sanitary supplies as necessary, for replenishing paper, toner cartridges, and other supplies before fully expended, for maintaining the photocopier/scanner in working order at all times and for providing and supporting CAT 5 services.

57. 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)

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

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

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

C Construction
C.1 Placement
Provide rumble strips where the plans show or the engineer directs as follows:

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

C.2 Maintenance
Maintain rumble strips as follows:

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

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

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

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

Payment is full compensation for providing, relocating, maintaining or replacing, and removing temporary portable rumble strips.
stp-643-020 (20161130)

59. Temporary Pedestrian Surface Asphalt, Item 644.1410.S.

A Description
This special provision describes providing, maintaining, and removing temporary pedestrian surface.

B Materials
Furnish 1 1/4-inch dense graded aggregate conforming to standard spec 305.2. and asphaltic surface conforming to standard spec 465.2.

C Construction
Place, compact, and level a dense graded aggregate foundation before placing the surface.

Align parallel to the existing roadway grade or, if outside of a street or highway right-of-way, do not exceed 5 percent longitudinal slope. Provide cross slope of 1 to 2 percent unless the engineer approves a steeper cross slope in writing.

Maintain the surface with a 5-foot minimum clear width and the specified joint and slope requirements. Repair or reconstruct installations disturbed during construction operations. Remove and dispose of as specified in standard spec 203.3.4 when no longer required.

D Measurement
The department will measure Temporary Pedestrian Surface Aspahlt 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
644.1410.S	Temporary Pedestrian Surface Asphalt	SF

Payment is full compensation for providing, maintaining, and removing temporary pedestrian surface.
stp-644-010 (20150630)

60. Temporary Curb Ramp, Item 644.1601.S.

A Description
This special provision describes providing, maintaining, and removing temporary curb ramps.

B Materials
Furnish materials as follows:

- Asphaltic surface conforming to standard spec 465.2.
- Engineer-approved ready mixed concrete or ancillary concrete conforming to standard spec 602.2 except no QMP is required.
- Commercially available prefabricated curb ramps conforming to Americans with Disabilities Act Accessibility Guidelines.

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 curb ramps, including detectable warning fields, throughout the project duration. Place and compact a dense graded aggregate foundation before placing the curb ramp, unless the curb ramp is to be placed on existing roadway surface.

Remove and dispose temporary curb ramps and associated detectable warning fields when no longer required.

D Measurement
The department will measure temporary curb ramps by each individual ramp, 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
644.1601.S	Temporary Curb Ramp	EACH

Payment is full compensation for providing, maintaining, and removing temporary curb ramps.
stp-644-020 (20150630)

61. Temporary Pedestrian Safety Fence, Item 644.1616.S.

A Description
This special provision describes providing, maintaining, and removing the temporary pedestrian safety fence.

B Materials
Furnish notched metal "T" or "U" shaped fence posts weighing 1 1/3 pounds per foot or more.

Furnish select 2x4 dimensional lumber.

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Tensile Yield:	Avg. 2000 lb per 4-ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4-ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

The engineer may allow prefabricated fencing systems conforming to Americans with Disabilities Act Accessibility Guidelines.

C Construction
Provide a continuous safety fence with the top edge free of sharp or rough edges. Repair or reconstruct installations disturbed during construction operations. Remove and dispose of as specified in standard spec 204.3 when no longer required.

D Measurement
The department will measure Temporary Pedestrian Safety Fence 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
644.1616.S	Temporary Pedestrian Safety Fence	LF

Payment is full compensation for providing, maintaining, and removing the temporary pedestrian safety fence.
stp-644-025 (20150630)

62. Temporary Pavement Marking.

Add standard spec 649.3 (9) with the following:

Apply temporary pavement markings that are sharp, well defined, uniformly reflectorized and within a horizontal alignment as shown on the plans or as the engineer directs. Apply temporary pavement markings within 1 inch per 50 feet of a true line or curve. Remove and replace markings with excessive variation, curvature, wiggle, or non-uniform applications, as directed by the engineer, at no cost to the department.

63. Removing Pavement Markings.

Perform work according to standard spec 646, except as hereinafter modified:

Use water blast cleaning operations to remove pavement markings on the final pavement surface. Do not remove pavement markings on the final pavement surface by grinding or other methods which may damage the final pavement surface.

Removing existing markings that will be placed in the same location as proposed Marking Line Grooved (material/type) (size) shall be included with the bid item Marking Line Grooved (material/type) (size). Should any existing markings remain following the construction of the Marking Line Grooved (material/type) (size), remove the markings by water blast cleaning operations. These marking removals will not be paid separately as Marking Removal Line as shown in the plans.

64. 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 rigid non-metallic at the sizes and number of conduit detailed in the plans, as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the standard spec.

C Construction
Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for entering conduits at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement
The department will measure Install Conduit Into Existing System by the unit, acceptably installed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five, or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units of payment.

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

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	EACH

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.
stp-652-070 (20100709)

65. 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	
80-foot Camera Pole	Ethernet Switch
Microwave Detector	Pole Mounted Cabinet
Video Detector	Camera Assembly
Wireless Antenna	Fiber Optic Cable
Termination Panels	ITS Field Cabinet
Splice Enclosure	Terminal Server

Contact Dean Beekman, State Traffic Operations Center (STOC), at (414) 227-2154 to obtain a copy of the manufacturer list and contact names for department-furnished equipment.

Pick-up small department-furnished equipment 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 Dane 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) is 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. Submit items, and the drawings that represent them, meeting the requirements of the standard specifications.

Submit design drawings consisting 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. 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.

66. Intelligent Transportation Systems - General Requirements.

A Description

A.1 General

This special provision describes providing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as the plans show.
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 before 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:**
    4.1. **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.
    4.2. **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.
    4.3. **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:**
    5.1. **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.
    5.2. **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 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 labeling methods before 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
The department will not measure the work performed under this special provision.

E Payment
The department will pay for the work performed under this special provision under the contract ITS bid items.
stp-670-010 (20100709)

67. General Provision for Traffic Signals.

Perform all work on the traffic signal and conduit/pull box system according to the Wisconsin Electrical Code, applicable provisions of standard spec 651, these special provisions, and the plans.

This portion of the general provision applies to the department-owned permanent traffic signals at the Verona Road and Williamsburg Way interchange and the Verona Road and CTH PD interchange:

The department will provide contact information for the assigned project electrician at the preconstruction meeting.

Contact the department's assigned electrician, a minimum of seven working days in advance to coordinate installation of new signal equipment including communications and non-intrusive detection devices.

The department will supply and install meter breaker pedestals for department-owned/operated permanent traffic signal installations.

The department's assigned electrician will furnish, install, terminate, and integrate the new permanent traffic signal cabinet/controller and will terminate wiring in the cabinet and splice cabinets.

Install and integrate all new communications equipment (fiber optic, fiber terminations, and Ethernet switches) as shown on the plans.

This portion of the general provision applies to the traffic signals at the CTH PD and Commerce Park Drive intersection and the CTH PD and Fitchrona Road intersection.

Contact Mike Benzschawel at the City of Madison Traffic Engineering Shop, (608) 266-9031 a minimum of seven working days in advance to coordinate the necessary wiring, termination, and integration at the traffic signal cabinet as shown on the plans.

68. Temporary Traffic Signals for Intersections CTH PD & Commerce Park Drive, Item 661.0200.001.

Append standard spec 661.2.2, Temporary Traffic Signals for Intersections, with paragraphs (3), (4), and (5) as follows:

(3) Furnish all materials and equipment as required to operate and maintain a fully functioning temporary traffic signal vehicle detection system. The following methods of temporary traffic signal vehicle detection are allowed:

- Existing inductive loops
- Video detection
- Microwave detection
- Combination of options listed above

Furnish materials and equipment capable of providing the detection zones and functionality as shown on the plans. All methods shall provide for true presence detection. Detection equipment placement may require multiple installations and adjustments, which shall be considered incidental to the temporary traffic signal bid item.

(4) Furnish incidental materials required to install and maintain the temporary signal during all stages as shown on the plans. Incidental materials include, but are not limited to:

- Sheeting for obscuring (bagging) unused and/or existing signal heads.
- R10-3E signs for all signalized pedestrian crossings. Furnish with arrow direction as appropriate.
- Signal head visibility limiting devices (if needed).

(5) Furnish street lighting equipment including arms, LED C luminaires, mounting hardware, wiring and incidentals necessary to provide lighting as shown on the temporary traffic signal plans. Aerial cables shall be rated to maintain acceptable voltage drop and span tension.

Append standard spec 661.3.1, General, with paragraph (4) as follows:

(4) Provide equipment specifications and other technical documentation to the engineer for approval 30 calendar days prior to furnishing any detection equipment. Include documentation depicting the operational characteristics of the detection method(s) proposed for each intersection. Provide verification of the detection method's ability to function correctly under the proposed site conditions, including mounting methods and coordination with temporary pavement operations.

Install, adjust, relocate, or remove detection equipment and/or detection zones for each stage of traffic operations shown in the plans, or as modified by changes in field conditions, and as directed by the engineer.

Damage to new or temporary pavement for temporary inductive loops will not be allowed.

69. Install ITS Field Cabinet, Item 673.0200.S.

A Description

This special provision describes installing a department-furnished type 170, size 334 field cabinet.

B Materials

The department will furnish the type 170, size 334 field cabinet. Provide all necessary miscellaneous mounting hardware and internal power cables. With the field cabinet, the department will furnish cabinet bolts to anchor the cabinet to the concrete base.

C Construction

Install the field cabinet on a new or existing concrete base paid separately. Make all power connections to the cabinet, isolating the neutral bus from the cabinet and equipment ground.

Effectively ground all cable grounding shields and any spare or unused conductors in the field cabinet to the equipment grounding terminal strip.

D Measurement
The department will measure Install ITS Field Cabinet by the unit, installed 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
673.0200.S	Install ITS Field Cabinet	EACH

Payment is full compensation for installing the state-furnished field cabinet; making all connections; and grounding as necessary.
stp-673-005 (20100630)

70. Optimized Aggregate Gradation and Concrete Mixtures.

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
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]	≤2.3

[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	≤ 2.3

[1] Working range limits of composite gradation based on moving average of 4 tests.

Test 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:

- Notify the engineer of the test results within 1 business day from the time of sampling.
- Make immediate adjustments to the JMF, within the limits specified in Table 3;
- Review JMF adjustments with the engineer. Both the contractor and engineer will sign the adjusted JMF if the adjustments comply with Table 3.
- 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.
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.

bts-715-005 (20170123)

71. 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)

72. Roadway Embankment, Item SPV.0035.001.

Conform to standard spec 207 modified by this special provision.

A Description
Replace standard spec 207.1(1) with the following:

This section describes placing, in embankments and in miscellaneous backfills, material obtained under the bid items in the roadway and drainage excavation, or excavation for structure sections; and material obtained under borrow as specified in standard spec 208 and modified under these special provisions.

B Materials
Conform to standard spec 207.2.

C Construction
Conform to standard spec 207.3.

D Measurement
Replace standard spec 207.4(1) with the following:

The department will measure roadway embankment by the cubic yard, acceptably completed in its final location using the method of average end areas, with no correction for curvature or settlement, except as follows:

a) The engineer and contractor mutually agree to an alternative volume calculation method;
b) The method of average end areas is not feasible.

If it is not possible to compute volumes of the various classes of roadway and drainage embankment by the method of average end areas due to erratic location of isolated deposits, the department may compute the volumes by alternative methods involving three-dimensional measurements.

The department will not measure embankment material beyond the limits of the required slopes as shown on the plans.

E Payment
Replace standard spec 207.5(1) with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.001	Roadway Embankment	CY

Payment is full compensation for forming, compacting, shaping, sloping, trimming, finishing, maintaining the embankments, and all other incidental work required under this section.

ASP-5 will be applied to this item. The Fuel Usage Factor for this item is 0.23.

73. Excavation Special, Item SPV.0035.002.

A Description
Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

This work includes excavation, segregating, temporarily stockpiling (as required), loading, hauling, and reuse within the project or disposing of excavated materials, containing low-level contaminated soil Reuse locations shall be approved by the engineer and environmental consultant.

A.2 Notice to the Contractor – Contaminated Soil and Groundwater Locations
The department and/or others completed testing for soil and groundwater contamination for locations within this project where excavation is required.

Petroleum-contaminated and metal-contaminated soil is potentially present at the following locations:

1. (Site-8) Station 108+50 EB to 110+50 EB, from 25 RT of the reference line to construction limits RT, from 3.5 feet to 5.5 feet below ground surface.
2. (Site-25) Station 111+50 EB to 114+25 EB from 25 feet RT of the reference line to construction limits RT, from 5 feet to 10 feet below ground surface.
3. (Site 96) Station 106+75 WB to 107+50 WB, from 30 feet LT of the reference line to construction limits LT, from ground surface to 2 feet below ground surface. Station 106+50 EB to 107+25 EB, from 25 feet RT of the reference line to construction limits RT, from ground surface to 2 feet below ground surface.

Contaminated soils and/or groundwater and/or underground storage tanks (USTs) may be encountered at other locations within the construction limits. If contaminated soils and/or groundwater and/or USTs are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer and the Environmental Consultant. Contaminated soil and/or groundwater at other locations shall be managed by the contractor under this contract. USTs will be removed by others.

For further information regarding previous investigation and remediation activities at these sites contact:

Name:	Daniel Haak
Address:	TRC Environmental Corporation 708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
E-mail:	dhaak@trcsolutions.com

A.3 Coordination

Coordinate work under this Contract with the environmental consultant retained by the department:

Consultant:	TRC Environmental Corporation
Contact:	Mr. Dan Haak
Address:	708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
E-mail:	dhaak@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be segregated for reuse along the project corridor or hauled to the bioremediation facility;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of contaminated soil from the bioremediation facility if soil if found to not be suitable for reuse.
5. Coordinating abandonment or protection of groundwater monitoring wells along the project corridor.
6. Identifying contaminated groundwater to be pumped for treatment and disposal (if dewatering is necessary). Coordinating groundwater characterization and approval for disposal of contaminated water.

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 areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed. Do not transport contaminated soil or pump contaminated groundwater offsite without prior approval from the environmental consultant.

A.4 Protection of Groundwater Monitoring Wells

Groundwater monitoring wells may be present within the construction limits. Protect all groundwater monitoring wells to maintain their integrity. If required by the environmental consultant, notify the environmental consultant if groundwater monitoring wells are encountered. Adjust wells that do not conflict with utilities, structures, curb and gutter, etc. to be flush with the final grade. For wells that conflict with the previously mentioned items, notify the environmental consultant, and coordinate with the environmental consultant, or for wells that require abandonment, the abandonment or adjustment of the wells by others.

Coordinate with the environmental consultant to ensure that the environmental consultant is present to abandon and/or document the location of the groundwater monitoring well during excavation activities.

A.5 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR's concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding the investigations, including waste characterization within the project limits, contact Jennifer Grimes with the department, at (608) 246-3823.

A.6 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter soil contaminated with elevated levels of metals, gasoline, diesel fuel, fuel oil, or other petroleum related products. 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 contaminated site location 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:

The environmental consultant will periodically examine excavated soil during excavations in the areas of known petroleum or soil contamination within the construction limits.

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated and to ensure that excavations do not extend beyond the minimum required to construct utilities and highway improvements unless expressly directed to do so by the engineer.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite bioremediation or can be beneficially re-used on-site under highway pavements, behind retaining walls, or in back-slopes with a minimum 6-inch thick clean soil cover. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil 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, 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, brick, building stone, concrete or reinforced concrete not painted with lead-based paint, broken pavement, and wood not treated or painted with preservatives or lead-based paint), which under NR 500.08 are exempt materials, or
- Low-level contaminated material for reuse as fill within the construction limits, or
- Contaminated soil for off-site treatment and disposal at the WDNR-licensed bioremediation facility, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal.

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 200 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 and the Environmental Consultant.

Groundwater may be present within the construction limits. Water generated during dewatering operations (if necessary) is expected to be permitted to discharge to the surface except in the contaminated areas. If dewatering of perched groundwater or stormwater is required, allow stormwater to settle for 24 hours after a rain event, after which the water shall be managed as uncontaminated dewatering, unless the environmental consultant has evidence that the water will require treatment and/or off-site disposal.

Contaminated groundwater generated from dewatering activities within the contaminated areas may exceed the surface water discharge limits for petroleum compounds specified in the DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

Pump contaminated water that exceeds surface water discharge limits, as determined by environmental consultant, into temporary holding tanks provided by others or an alternative discharge point as determined by the environmental consultant, as necessary to complete construction. Allow contaminated water encountered, but not requiring removal as a standard course of construction, to remain in-place and do not manage according to this special provision.

The environmental consultant will coordinate approval of contaminated water hauling and disposal. Only pump contaminated groundwater if the environmental consultant is on-site.

Discharging contaminated groundwater to any location other than that approved and provided by the environmental consultant, is at the contractor's cost. If the contractor chooses alternate discharge, at the contractor's cost, obtain DNR concurrence on any dewatering plans, and provide and operate any and all treatment and discharge equipment required.

Employ construction methods and techniques in a manner that will minimize the need for dewatering, and if dewatering is required, minimize the volume of water generated. Take measures to limit groundwater, surface water, and precipitation from entering and exiting excavations in the areas of contamination. Such measures, which may include berming, ditching, or other means, shall be maintained until construction of utilities in the areas of contamination are complete.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities. Notify the engineer of any dewatering activities, and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statues, judiciary decisions, and regulations of the State of Wisconsin.

D Measurement
The department will measure Excavation Special in volume by the cubic yards, acceptably completed.

Volume will be computed using the method of average end areas and as specified in standard spec 205.4.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.002	Excavation Special	CY

Payment is full compensation for excavating, segregating, hauling, temporary stockpiling (as required), and reuse; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and for dewatering of soils prior to transport, if necessary.

74. High Performance Concrete (HPC) Masonry Superstructures, Item SPV.0035.300.

This special provision describes specialized material and construction requirements for high-performance concrete used in bridge structures. Conform to standard spec 501, 502, 710, and 715, as modified in this special provision.

MODIFY STANDARD SPEC 501 AS FOLLOWS:

501.2.5.4.1 General
Replace the entire text with the following:

(1) Use clean, hard, durable crushed limestone with 100% fractured surfaces and free of an excess of thin or elongated pieces, frozen lumps, vegetation, deleterious substances or adherent coatings considered injurious.

(2) Use virgin aggregates only.

501.2.5.4.2 Deleterious Substances
Replace paragraph one with the following:

(1) The amount of deleterious substances must not exceed the following percentages:

DELETERIOUS SUBSTANCE	PERCENT BY WEIGHT
Shale	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of above	5.0
Thin or elongated pieces based on a 3:1 ratio	15.0
Materials passing the No. 200 sieve	1.5
Chert[1]	1.0

[1] Material classified lithologically as chert and having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of chert by dividing the weight of chert in the sample retained on a 3/8-inch sieve by the weight of the total sample.

501.2.5.4.3 Physical Properties
Replace paragraph one with the following:

(1) The department will ensure that Los Angeles wear testing conforms to AASHTO T 96, soundness testing conforms to AASHTO T 104 using 5 cycles in sodium sulfate solution on aggregate retained on the No. 4 sieve, and freeze-thaw soundness testing conforms to AASHTO T 103. The percent wear must not exceed 30, the weighted soundness loss must not exceed 6 percent, and the weighted freeze-thaw average loss must not exceed 12 percent.

501.2.9 Concrete Curing Materials
Replace paragraph three with the following:

(3) Furnish burlap conforming to AASHTO M 182, class 1, 2, 3, or 4.

501.3.2.4.3.3 Extended Delivery Time
Delete paragraph one.

501.3.5.1 General
Replace paragraph one with the following:

(1) Use central-mixed concrete as defined in standard spec 501.3.5.1(2) for all work under this special provision.

501.3.5.2 Delivery
Replace paragraph three with the following:

(3) Deliver and completely discharge concrete within one hour beginning when adding water to the cement, or when adding cement to the aggregates. A decrease in air temperature below 60° F or the use of department-approved retarders does not increase the discharge time.

501.3.7.1 Slump
Replace the entire text with the following:

(1) Use a 2-inch to 4-inch slump.

(2) Perform the slump tests for concrete according to AASHTO T 119.

501.3.8.2.1 General
Replace the entire text with the following:

(1) The contractor is responsible for the quality of the concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions the contractor will take to control concrete temperature if the concrete temperature at the point of placement exceeds 80° F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

(2) If the concrete temperature at the point of placement exceeds 80° F, do not place concrete for items covered in this special provision.

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

(4) The department will pay the contract unit price under bid item “Ice Hot Weather Concrete Masonry” for the quantity of ice added to concrete required to reach a target concrete temperature of 80 F if the following conditions are met:

1. The un-iced concrete temperature exceeds 80 F.

2. The contractor has performed the actions outlined in the contractor’s accepted temperature control plan.

3. The contractor elects to use ice.

501.3.8.2.2 Bridge Decks
Replace the entire text with the following:

(1) Do not place concrete for bridge decks when the ambient air temperature is above 80° F.

(2) For concrete placed in bridge decks, submit a written evaporation control plan at each pre-pour meeting. In that plan, outline the actions the contractor will take to maintain concrete surface evaporation at or below 0.15 pounds per square foot per hour. Do not place concrete for bridge decks without the engineer's written acceptance of that evaporation control plan. Perform the work as outlined in the evaporation control plan.

(3) If predicting a concrete surface moisture evaporation rate exceeding 0.15 pounds per square foot per hour, do not place concrete for bridge decks.

(4) Provide evaporation rate predictions to the engineer 24 hours prior to each bridge deck pour.

(5) Compute the evaporation rate from the predicted ambient conditions at the time and place of the pour using the nomograph, or computerized equivalent, specified in CMM 5.25, figure 1. Use weather information from the nearest national weather service station. The engineer will use this information to determine if the pour will proceed as scheduled.

(6) At least 8 hours before each pour, the engineer will inform the contractor in writing whether or not to proceed with the pour as scheduled. If the actual computed evaporation rate during the pour exceeds 0.15 pounds per square foot per hour, at the sole discretion of the engineer, the contractor may be allowed to implement immediate corrective action and complete the pour.

MODIFY STANDARD SPEC 502 AS FOLLOWS:

502.3.5.4 Superstructures
Delete paragraph five.

502.3.7.8 Floors
Replace paragraph five with the following:

(5) The contractor shall set the rails or tracks that the finish machine rides on, to the required elevation; and ensure they adjust to allow for settlement under load. Support the rails or tracks outside the limits of the finished riding surface. Do not support rails or tracks on the tops of girders or within the finished riding surface, without written permission of the engineer.

Delete paragraphs thirteen, fourteen, and fifteen. Add the following as paragraphs nineteen, twenty, and twenty-one.

(19) Do not place bridge deck concrete more than 10 feet ahead of the finishing machine. If there is a delay of more than 10 minutes during the placement of a bridge deck, cover all concrete (unfinished and finished) with wet burlap to protect the concrete from evaporation until placement operations resume.

(20) Hand finishing, except for the edge of deck, must be kept to a minimum. The finishing machine must be equipped with a pan behind the screed. Apply micro texture using a broom or turf drag following the use of a 10-foot straight edge. Only finish by hand as necessary to close up finished concrete. Begin wet curing the deck immediately following the micro texture.

(21) For bridge decks with a roadway design speed of 40 mph or greater, provide longitudinal grooving according to the provision included in this contract.

502.3.8.1 General
Replace paragraph one with the following:

(1) Maintain adequate moisture throughout the concrete mass to support hydration for at least 14 days.

502.3.8.2.1 General
Replace the entire text with the following:

(1) Wet-cure the concrete for bridge decks, structural approach slabs, sidewalks and raised medians for 14 days by use of a soaker hose system, or other engineer-approved methods. Cover the finished surface of bridge decks and overlays with one layer of wetted burlap or wetted cotton mats within 10 minutes after the finishing machine has passed. Apply the burlap/cotton gently so as to minimize marking of the fresh concrete. Keep the first layer of burlap/cotton continuously wet until the bridge deck or overlay is sufficiently hard to apply a second layer of wetted burlap/cotton. Immediately after applying the second layer of burlap/cotton, continue to keep the deck wet until placing and activating the soaker hose system. Throughout the remainder of the curing period, keep the burlap/cotton continuously wet with soaker hoses hooked up to a continuous water source. Inspect the burlap/cotton twice daily to ensure the entire surface is moist. If necessary, alter the soaker hose system as needed to ensure the entire surface is completely covered and stays moist. After 48 hours from the time of completion of the bridge deck or overlay pour, the soaker hose system and burlap/cotton may be covered with polyethylene sheeting. Provide a continuous flow of water through the soaker hose system for the entire curing period.

(2) Do not uncover any portion of the deck at any time for any reason during the first 7 days of the curing period.

(3) Set up and test the fogging system before each bridge deck, raised median and sidewalk pour. The fogging system must remain set up and in operating condition for the duration of the pour.

502.3.8.2.3 Decks
Delete the entire text.

502.3.8.2.4 Parapets
Replace the entire text with the following:

(1) Cure the inside and outside concrete faces and tops of railings or parapets by covering with wetted burlap immediately after form removal and surface finish application. Keep the burlap thoroughly wet for at least 7 days; or by covering for the same period with thoroughly wet polyethylene-coated burlap conforming to standard spec 501.2.9.

(2) Secure coverings along all edges to prevent moisture loss.

502.3.9.6 Bridge Decks
Replace note two within paragraph one with the following:

2. Protect the underside of the deck, including the girders, for bridge deck and overlay pours by housing and heating when the national weather service forecast predicts temperatures to fall below 32° F during the cold weather protection period. Maintain a minimum temperature of 40° F in the enclosed area under the deck for the entire 14-day curing period.

502.5.1 General
Replace paragraph one with the following:

(1) The department will pay for plan quantities conforming to standard spec 109.1.1.2 at the contract unit price and incidentals necessary to complete the work under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.300	High Performance Concrete (HPC) Masonry Superstructures	CY

MODIFY STANDARD SPEC 710 AS FOLLOWS:

Add the following subsection:

710.5.7 Chloride Penetration Resistance

(1) For each new or changed mix design, measure chloride penetration resistance according to AASHTO T 277 (Rapid Chloride Permeability Test) at a frequency of 1 test per 3 months (quarterly) of production.

(2) Permeability samples for AASHTO T 277 testing must be stripped of their molds and wet cured to an age of 7 days in a standard moist room or water tank. After 7 days, submerge the samples in water heated to 100° F until an age of 28 days. Upon completion of the curing process, obtain one sample from each cylinder and test according to AASHTO T 277.

(3) Ensure that the initial accepted mix designs meet the chloride penetration resistance limit of 1500 coulombs based on the AASHTO T 277 Rapid Chloride Permeability test. Chloride resistance testing conducted quarterly using AASHTO T 277 Rapid Chloride Permeability Test during production will not be used for acceptance of previously accepted mixes and concrete masonry mixed and placed according to the contract requirements. For quarterly chloride resistance test results exceeding 1500 coulombs, the department may require adjustment of the concrete mix going forward to improve the chloride penetration resistance.

MODIFY STANDARD SPEC 715 AS FOLLOWS:

715.2.3.2 Structures

Replace paragraph two with the following:

(2) Provide a minimum cementitious content of 470 pounds per cubic yard and a maximum cementitious content of 540 pounds per cubic yard. For all superstructure and substructure concrete, unless the engineer approves otherwise in writing, conform to one of the following:

1. Use class C fly ash or grade 100 or 120 slag as a partial replacement for Portland cement. For binary mixes use 15% to 30% fly ash or 20% to 30% slag. For ternary mixes use 15% to 30% fly ash plus slag in combination. Percentages are stated as percent by weight of the total cementitious material in the mix.
2. Use a type IP or IS blended cement.

Add the following subsection:

715.2.3.3 Trial Mixes

(1) Develop and test each mix to be used for High Performance Concrete Masonry Structures. Produce a laboratory trial mix for each mix, as well as a trial mix from each plant used to supply the project. Test all mixes at a department-qualified laboratory.

(2) The laboratory trial mix data must include the results of the following tests:

1. AASHTO T 119 Slump of Hydraulic Cement Concrete.
2. AASHTO T 121 Mass per Cubic Foot, Yield
3. AASHTO T 152 Air Content.
4. AASHTO T 22 Compressive Strength.
5. AASHTO T 277 Rapid Determination of the Chloride Permeability of Concrete, using the modified curing procedure according to standard spec 710.5.7(3) herein.
6. AASHTO T 309 Temperature.
7. Water Cement Ratio.

(3) The 28-day compressive strength must be greater than or equal to 4000 psi. The 28-day results of the permeability test must be less than or equal to 1500 coulombs.

75. Planting Mixture, Item SPV.0035.500.

A Description

This special provision describes furnishing and installing Planting Mixture at the locations shown on the plans and according to the applicable sections of standard spec 632, as shown in the plans, and as hereinafter provided.

B Materials

B.1 Planting Mixture

Provide Planting Mixture consisting of the following blend by volume:

- 2 parts topsoil conforming to standard spec 625.
- 1 part sand conforming to the gradation in standard spec 209.2.2.
- 1 part compost. Provide compost that is either well-rotted shredded leaf mulch, free of disease; or well-rotted, unleached, stable or cattle manure containing no more than 25 percent by volume of straw, sawdust, or other bedding materials and free of toxic substances. Provide compost free of stones, sticks, soil, weed seeds, debris, and other material harmful to plant growth.
- 1 part peat moss conforming to standard spec 632.

C Construction

C.1 Coordination

Deliver Planting Mixture to project site and install within seven days of delivery. Coordinate and schedule the delivery and installation of the Planting Mixture with the delivery and installation of all landscape plant materials.

C.2 Planting Mixture Preparation and Placement

Provide a list of all materials used in Planting Mixture including manufacturers or suppliers (source) and quantities to the engineer.

Remove construction materials, stone, or other debris larger than 2” in length or diameter, debris, slag piles and trash from areas receiving Planting Mixture.

Till or disc subgrades to loosen and de-compact. Obtain the engineer’s approval of subgrade preparation including depth excavated, removal of trash materials, and loosening of subgrades before placing any Planting Mixture.

Provide Planting Mixture over entire planting bed area and fine grade to match grades as indicated on plans or to adjacent back of curb or other hardscape surface as indicated on plans, accounting for settling. Place Planting Mixture in 6-inch to 8-inch lifts, watering or tamping to reduce settling potential. Place Planting Mixture to depths indicated in plans.

D Measurement

The department will measure Planting Mixture in volume by the cubic yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.500	Planting Mixture	CY

Payment is full compensation for excavating, site preparation, and disposing of surplus materials.

76. Topsoil Special, Item SPV.0035.501.

A Description

This special provision describes excavating and disposing of material taken from within street terrace tree planting locations according to standard spec 205 and furnishing and installing topsoil at the street terrace tree planting locations according to standard spec 625, the plans, and as hereinafter provided.

B Materials

Furnish topsoil materials according to standard spec 625.

Ensure Topsoil Special is in a pH range of 6.0 to 7.0.

C Construction
Excavate materials as the plans show or the engineer allows from the tree planting areas according to standard spec 205. Dispose of surplus or unsuitable material as specified in standard spec 205.3.12. Place Topsoil Special according to standard spec 625 in locations and to depths indicated in the plans.

Take care not to damage or disturb adjacent landscape materials and be responsible for seeding, sodding or placing Shredded Hardwood Bark Mulch to repair any and all damage caused to adjacent landscape materials with like materials.

D Measurement
The department will measure Topsoil Special in volume by the cubic yard, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.501	Topsoil Special	CY

Payment is full compensation for furnishing all materials; and for excavating and disposing of tree planting area materials. Damaged areas will be repaired at the contractor's expense.

77. Traffic Control Surveillance and Maintenance, Item SPV.0045.001.

A Description
This special provision describes providing personnel to inspect and maintain the traffic control devices, furnished, and installed, in proper condition.

B Materials
Provide one person, called the traffic control specialist, all necessary vehicles, equipment, tools, and repair materials. Provide other personnel to accomplish the inspection and maintenance if needed.

C Construction
Inspection and maintenance includes all traffic control signs or devices included in the contract, including those on detour routes. Begin when the first traffic control sign or device is put into operation and end when the last traffic control sign or device is removed from operation. The following is to be completed by the traffic control specialist:

1. Inspect the traffic control signs and devices at least twice each workday and once each non-workday with at least one of the daily inspections during daytime. Separate inspections done on workdays by at least 8 hours or the amount of time from the beginning to the end of that day's work operations, whichever is less.

During each inspection, clean, repair, or replace each traffic control sign or device not performing as intended, as necessary.

2. Inspect each reflective traffic control sign or device at least once each week during hours of darkness. View the signs and devices using low beam vehicle headlights to ensure reflectorization is unimpaired. Clean, repair, or replace each reflectorized traffic control sign or device not performing as intended, as necessary, before sunset of the next calendar day, or as the engineer directs otherwise.

3. Meet once each workday with the department representative responsible for traffic control on the project to discuss possible problems with the traffic control.

4. Submit a written report weekly to the engineer documenting both daytime and nighttime inspections.

5. Make the control specialist, or other contractor-designated person, available 24 hours per day, 7 days per week to clean, repair, or replace traffic control devices not performing as intended throughout the period traffic control signs and devices are operating under this contract. Provide to the engineer, the Dane County Sheriff, and the State Patrol Region Headquarters responsible for Dane County the telephone number to contact the control specialist or other contractor-designated person. Ensure that the control specialist, or other designated person, is able to reach any location within the contract limits, or on detour routes, within 1 hour of being contacted, and can promptly accomplish the necessary cleaning, repair, or replacement.

D Measurement

The department will measure the Traffic Control Surveillance and Maintenance by the day, acceptably completed. The measured quantity will equal the number of calendar days from the date the first traffic control sign or device is placed into operation through the date the last traffic control sign or device is removed from operation.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.001	Traffic Control Surveillance and Maintenance	DAY

Payment is full compensation for providing a designated traffic control specialist, or other contractor-designated person; vehicles, mileage, travel time, and incidentals, including reports and telephone charges, necessary to complete the work; for cleaning, repairing, or replacing traffic control devices; and for partially or fully covering or uncovering signs not paid separately under the Traffic Control Covering Signs bid items. The department will pay for replaced traffic control signs or devices under separate bid items, included in the contract.

78. Utility Line Opening (ULO), Item SPV.0060.001.

A Description
This work consists of excavating to uncover utilities for the purpose of determining elevation and potential conflicts as shown on the plans or as directed by the engineer.

B (Vacant)

C Construction
Perform the excavation in such a manner that the utility in question is not damaged.

Perform the utility line openings as soon as possible and at least ten days in advance of proposed utility construction to allow any conflicts to be resolved with minimal disruption. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening will be called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Provide utility line openings with a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Notify the utility engineers or their agents of this work a minimum of three working days prior to the work so they may be present when the work is completed. Do not perform utility line openings without the approval of the engineer.

D Measurement
The department will measure Utility Line Opening (ULO) as each individual ULO, 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.0060.001	Utility Line Opening (ULO)	EACH

Payment is full compensation for the excavation required to expose the utility line, backfilling with existing material removed from the excavation, compacting the backfill material, restoring the site, and for cleanup.

Existing asphaltic pavement removal necessary to facilitate utility line openings will be considered part of or paid for under Utility Line Openings. Replacement pavement, concrete curb, gutter, and sidewalk items will be considered separate from Utility Line Openings and will be measured and paid for separately.

79. Maintenance of Permanent Crash Cushions Placed by Others, Item SPV.0060.002.

A Description

This special provision describes maintaining permanent crash cushions within the project limits placed by others for the duration of the project according to standard spec 614.

Permanent crash cushions placed by others remain the property of the department upon completion of the contract.

B Materials

Furnish any replacement materials for the permanent crash cushions placed by others according to the pertinent requirements of standard spec 614.2.

C Construction

Maintain the permanent crash cushion according to standard spec 614.3.4.

D Measurement

The department will measure Maintenance of Permanent Crash Cushions Placed by Others as each individual maintenance of permanent crash cushions placed by others, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.002	Maintenance of Permanent Crash Cushions Placed by Others	EACH

Payment is full compensation for maintaining the permanent crash cushions; and for furnishing any replacement materials.

80. Posts Round Tubular Steel 2 3/8-Inch x 8-FT, Item SPV.0060.003; 10-FT, Item SPV.0060.004; 12-FT, Item SPV.0060.005.

A Description

Perform work according to the applicable provisions of standard spec 634, as shown in the plans, and as hereinafter provided.

B Materials

Provide sign posts conforming to the standard specification for hot rolled carbon sheet steel, commercial quality, ASTM A-570-GR-33 for zinc coating tubing to resist corrosion. Provide a 2 3/8-inch, schedule-40 sign post at the length shown on the plans, compatible with the V-Loc Base, and a water tight end cap on the top end.

C Construction
Install sign posts at the locations shown on the plans and approved by the engineer. If the finished grade cannot be determined, ask the engineer to identify the finished grade. Install all signs in a true vertical position conforming to the latest edition of the Manual on Uniform Traffic Control Devices. Band signs to the sign posts according to the details in the plans. Also, locate all underground utilities prior to placing sign posts. Cut off excess sign post length in the field to provide the desired sign clearance.

D Measurement
The department will measure Posts Round Tubular Steel 2 3/8-Inch x (Size) as each individual posts round tubular steel 2 3/8-inch x (size), 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.0060.003	Posts Round Tubular Steel 2 3/8-Inch x 8-FT	EACH
SPV.0060.004	Posts Round Tubular Steel 2 3/8-Inch x 10-FT	EACH
SPV.0060.005	Posts Round Tubular Steel 2 3/8-Inch x 12-FT	EACH

Payment is full compensation for providing, hauling, and installing the posts; treating cut post ends; providing and installing a water tight top end cap; and providing hardware and anchors.

81. V-Loc Base, Item SPV.0060.006.

A Description
This special provision describes furnishing and installing V-Loc sign post bases at locations shown on the plans and as hereinafter provided.

B Materials
Provide V-Loc Post Anchor for Round 2 3/8-inch Posts as manufactured by Tapco, Tapco SKU: 034-00122.

C Construction
Install bases according to manufacturer’s specifications at locations shown on the plans.

Remove and dispose of all excess excavation, surplus material and debris resulting from operations and installation and satisfactorily repair and restore other work damaged.

D Measurement
The department will measure V-Loc Base as each individual V-Loc base, 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.0060.006	V-Loc Base	EACH

Payment is full compensation for furnishing all materials; for hauling, handling and installing the sign post base, for excavating, removing surplus and debris, for backfilling and restoring the work site.

82. Department Owned Crash Cushion Temporary, Item SPV.0060.007.

A Description
This special provision describes loading, transporting, delivering, installing, maintaining, and removing department owned crash cushion temporary according to standard spec 614 and as hereinafter provided.

Department owned crash cushion temporary will remain the property of the department upon completion of the contract.

B Materials
Furnish any installation or replacement materials for the department owned crash cushion temporary according to the crash cushion manufacturer's specifications and with the pertinent requirements of standard spec 614.2.

Department owned crash cushion temporary consist of the following:

1. One crash cushion with 6 bays (3 QuadGuard II cartridges, 3 QuadGuard I cartridges and a QuadGuard I nose cartridge)
2. Three crash cushions with 5 bays (3 QuadGuard II cartridges, 2 QuadGuard I cartridges and a QuadGuard I nose cartridge)
3. Three crash cushions with 2 bays (2 Hex-Foam II cartridges and a Hex-Foam II nose cartridge)

C Construction
Load, transport, and deliver department owned crash cushion temporary to the project from a stored location within 5 miles of the project.

Install and maintain department owned crash cushion temporary according to the pertinent requirements of standard spec 614.3.4.

Remove and stockpile the department owned crash cushion temporary to 4391 Maple Grove Drive, outside the limits of work operations at a location approved by the engineer. If the engineer reviews the crash cushion temporary and determines it is not useful, dispose of the crash cushion temporary.

D Measurement
The department will measure Department Owned Crash Cushion Temporary as each individual department owned crash cushion temporary, 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.0060.007	Department Owned Crash Cushion Temporary	EACH

Payment is full compensation for loading, transporting, delivering and installing; for providing foundation pads, transitions, and backup blocks; and for maintenance including furnishing and installation of any replacement parts and reassembly; and for removing and stockpiling.

83. Inlets Type AZ, Item SPV.0060.047; VR1312, Item SPV.0060.048; C4691, Item SPV.0060.049; FLI, Item SPV.0060.050.

A Description
Perform work according to the applicable provisions of standard spec 611, as detailed in the plans, and as hereinafter provided.

B Materials
Conform to standard spec 611.

C Construction
Conform to standard spec 611.

D Measurement
The department will measure Inlets (type) as each individual inlets (type), 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.0060.047	Inlets Type AZ	EACH
SPV.0060.048	Inlets Type VR1312	EACH
SPV.0060.049	Inlets Type C4691	EACH
SPV.0060.050	Inlets Type FLI	EACH

Payment is full compensation for providing all materials, including all concrete masonry, steel reinforcing, adhesive anchors, temporary sewer connections, and other fittings; for furnishing all excavating, dewatering, and maintaining drainage during the work; for Inlets Type FLI for placement and removal of any temporary pavement and for removal of the temporary pavement; for backfilling, disposing of surplus material, and for cleaning out and restoring the work site, and all incidentals necessary to complete the contract work except that the department will pay for covers, including frames, grates and lids, and temporary shoring separately.

84. Inlet Protection Type FLI, Item SPV.0060.051.

A Description
This special provision describes providing inlet protection type FLI at locations shown on the plans and as hereinafter provided.

B Materials
Provide inlet protection fabric according to standard spec 628.2.12.

Provide 2x4 lumber in lengths as show on the plans.

C Construction
Secure the inlet protection fabric to the 2x4 lumber as shown on the plans.

Place the inlet protection in the Inlets Type FLI opening as shown on the plans.

Inspect and maintain the Inlet Protection Type FLI according to standard spec 628.3.4.2.

D Measurement
The department will measure Inlet Protection Type FLI as each individual inlet protection type FLI, 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.0060.051	Inlet Protection Type FLI	EACH

Payment is full compensation for furnishing, transporting, erecting, installing all materials; and for inspecting, maintaining, and removing the inlet protection device.

85. Inlet Covers, Flat Temporary, Item SPV.0060.052.

A Description
Perform work according to the applicable provisions of standard spec 611 and as detailed in the plans.

B Materials
Furnish inlet covers according to the pertinent requirements of standard spec 611. Provide open grates for drainage, traversable by vehicle and bicycle traffic, and rated for traffic loading.

C Construction
Provide a detailed plan, stamped by a licensed professional engineer in the State of Wisconsin, indicating the methods and materials required to secure the inlet covers and grates to the inlet frames for traffic loading.

Adjust and set the grade of the inlet cover to meet the final surface of the temporary pavement for traffic lanes. Secure inlet covers to the inlet or inlet frame.

Remove the temporary inlet cover once no longer needed in the temporary traffic lanes.

D Measurement
The department will measure Inlet Covers, Flat Temporary as each individual inlet covers, flat temporary, 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.0060.052	Inlet Covers, Flat Temporary	EACH

Payment is full compensation for furnishing inlet covers, including frames, grates or lids; for a detailed plan, stamped by a licensed professional engineer in the State of Wisconsin; for all necessary bolting; for providing all other required materials and for installing and adjusting each inlet cover; and for removing and disposing of inlet cover.

86. Storm Sewer Tap, Item SPV.0060.053.

A Description
This special provision describes tapping various sized storm sewer pipes into existing structures, including manholes or inlets, or other pipes at locations shown on the plans.

Perform the work according to the applicable provisions of standard spec 608 and standard spec 611, and as hereinafter provided.

B Construction
Conform to standard spec 611.

C Construction
Tap into the existing structure to allow the pipe to be flush with the interior wall of the existing pipe or structure.

All necessary temporary shoring needed for construction of this item will not be paid for separately but will be included in this item of work.

D Measurement
The department will measure Storm Sewer Tap as each individual storm sewer tap, 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.0060.053	Storm Sewer Tap	EACH

Payment is full compensation for providing all materials, including saw cuts, for excavating; for removing concrete; for providing and removing sheeting and shoring, making connections to new or existing facilities, and for cleaning out.

87. Inlet Covers Type FLI, Item SPV.0060.054; AZ, Item SPV.0060.055; C4691, Item SPV.0060.056; VR1312, Item SPV.0060.057.

A Description
Perform work according to the applicable provisions of standard spec 611, as detailed in the plans, and as hereinafter provided.

B Materials
Provide cast iron meeting ASTM A-48, Class 35B for Inlet Covers Type C4691 and Inlet Covers Type VR1312.

C Construction
Conform to standard spec 611.

D Measurement
The department will measure Inlet Covers Type (name) as each individual inlet covers (name), 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.0060.054	Inlet Covers Type FLI	EACH
SPV.0060.055	Inlet Covers Type AZ	EACH
SPV.0060.056	Inlet Covers Type C4691	EACH
SPV.0060.057	Inlet Covers Type VR1312	EACH

Payment is full compensation for providing new covers, including frames, grates or lids, all other required materials, for installing and adjusting each cover, and incidentals necessary to complete the contract work.

88. Pull Boxes, Polymer Concrete 17x30-Inch, Item SPV.0060.100.

A Description
This special provision describes furnishing and installing polymer concrete pull boxes. Perform work according to standard spec 653 and as specified herein.

B Materials
Provide gray colored polymer concrete pull boxes.

Provide Pull Boxes, Polymer Concrete 17x30-Inch as manufactured by New Basis, model number FCA173024T-00150.

Provide each cover with the logo “STREET LIGHTING” imprinted on it from the manufacturer.

Provide coarse aggregate size no. 1 according to standard spec 501.2.5.4.5.

C Construction
Install pull boxes at the locations shown on the plans. Provide extensions by the pull box manufacturer as required for installation of lighting branch circuits. Construct the conduits entering the pull box to allow adequate drainage within the conduit.

D Measurement
The department will measure Pull Boxes, Polymer Concrete 17x30-Inch as each pull boxes, polymer concrete 17x30-inch, acceptably completed.

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.0060.100	Pull Boxes, Polymer Concrete 17x30-Inch	EACH

Payment is full compensation for providing pull boxes; for all materials including coarse aggregate; for excavating, backfilling, and disposing of surplus materials; for providing required pull box extensions, and conduit extensions less than 10 feet long including fittings.

89. Pull Box Type I, Item SPV.0060.101; Type III, Item SPV.0060.102; Type V, Item SPV.0060.103.

A Description
Perform work according to the applicable provisions of standard spec 653 and as detailed in the plans.

B Materials
Provide pull boxes that are gray colored polymer concrete construction. Provide pull boxes having dimensions of 19 inches wide, 32 inches long, and 24 inches deep, and with a cover rated to withstand 15,000 pounds over a 10-inch square with a minimum test load of 20,000 pounds.

Provide Pull Box Type III that are high-density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Provide box dimensions for Type III of 12 inches wide, 12 inches long and 12 inches deep. The box and polymer cover must be rated to withstand 20,000 pounds.

Provide Pull Box Type V that are gray colored polymer concrete construction. Provide box dimensions of 24 inches wide, 36 inches long, and 24 inches deep. The box and cover must be rated at 15,000 pounds over a 10-inch square.

Provide each cover with the logo “TRAFFIC SIGNAL” imprinted on it from the manufacturer.

C Construction
Install pull boxes at the locations shown on the plans. Construct the conduits entering the pull box to allow adequate drainage within the conduit.

D Measurement
The department will measure Pull Box (type) as each individual pull box (type), 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.0060.101	Pull Box Type I	EACH
SPV.0060.102	Pull Box Type III	EACH
SPV.0060.103	Pull Box Type V	EACH

Payment is full compensation for providing and installing all materials including coarse aggregate; for excavating, backfilling, and disposing of surplus materials.

90. Concrete Base Type G, Item SPV.0060.104; Type LB-8, Item SPV.0060.105.

A Description
Perform work according to the applicable provisions of standard spec 654, as specified herein and as detailed in the plans.

B Materials
Provide concrete masonry Grade A, A-WR, A-FA, or A-IP conforming to the requirements of standard spec 501.

Provide conduit cast within the bases, Schedule 40 polyvinyl chloride (PVC) electrical conduit conforming to the requirements of standard spec 652.

Provide anchor bolts for Type G bases made from high-strength steel (50 KSI minimum yield strength), ASTM A36, and fitted with a hard washer and heavy hex nut. Provide a minimum of 3 inches of thread at the top end of each bolt. Provide galvanized bolts, washers, and nuts. Provide bolts that are 1.25 inch by 24 inch.

Provide anchor bolts for Type LB-8 bases made from high strength steel (50 KSI minimum yield strength), ASTM A36, and fitted with two hard washers and two heavy hex nuts. Provide a minimum of 6 inches of thread at the top end of each bolt. Provide galvanized bolts, washers, and nuts. Provide bolts for the LB-8 bases that are 1.25 inch by 48 inch, including a 4 inch L-bend at the bottom.

C Construction

Place the bases with one side parallel to the centerline of the street.

Construct forms of sufficient depth to provide a minimum of 12 inches of formed base below the finished grade on the low side of the base. Level the top surface of the base with a ¾ inch chamfer on the edges and provide a rubbed and broomed finish.

Cast anchor bolts into the base as shown on the plans. Verify bolt circle diameters before constructing the bases.

Furnish manufactured elbows and install in all bases, except as noted on the details. Install elbows to permit conduit to be installed in straight-line runs, without unnecessary bends. Bases not installed to this standard will not be accepted. Extend existing conduit into the bases.

Provide elbows conforming to the requirements of the type of conduit entering the base. Install an extra elbow in each base, at the end of a run, as directed by the engineer.

Install extra elbows in any base as directed by the engineer.

Do not erect poles on the concrete bases until the bases have cured for a minimum of seven days.

Provide a rubbed and broomed finish on all concrete bases to 2 inches below finished grade**.**

D Measurement

The department will measure Concrete Base (Type) as each individual concrete base, 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.0060.104	Concrete Base Type G	EACH
SPV.0060.105	Concrete Base Type LB-8	EACH

Payment is full compensation for furnishing and installing all materials including conduit, bushings, caps and/or plugs, ground rod, anchor bolts, cadwelding, copper grounding wire, and corrugated steel pipe; bar steel reinforcement, nuts and washers, extra elbows, rubbed

finish, and concrete masonry; for providing openings through existing pavement where required; and for excavation, including hand-digging as required, backfill, and proper disposal of surplus materials.

91. Transformer Base Steel 20-Inch, Item SPV.0060.106.

A Description
This special provision describes furnishing and installing steel transformer bases as shown on the plans, according to standard spec 657 and as hereinafter provided.

B Materials
Provide hot-dipped galvanized steel transformer bases according to ASTM designation A123. Provide slotted bolt openings in the bases. Furnish steel connecting bolts, size 1.25 inches by 4 inches, hold down lugs for 1.25 inch bolts and nuts and washers, which are also hot-dipped galvanized and be of sufficient size and strength to exceed the capacity of the bases. Provide a Valmont M201, Union Metal 14-B2640Y2, Millerbernd 390A105, Ameron TB1316, or approved equal.

Furnish to the engineer, at the time of delivery of the bases, a manufacturer's certificate of compliance that the base and hardware as furnished meets the above requirements.

Provide shims made of an aluminum alloy.

C Construction
Install transformer bases according to the manufacturer's instructions, plans and specifications.

D Measurement
The department will measure Transformer Base Steel 20-Inch as each individual transformer base steel 20-inch, 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.0060.106	Transformer Base Steel 20-Inch	EACH

Payment is full compensation furnishing and installing transformer bases, mechanical grounding connector and related hardware; and for leveling shims when required.

92. Traffic Signal Trombone Arms, 15-FT, Item SPV.0060.107.

A Description
This special provision describes furnishing and installing trombone mast arms and all necessary miscellaneous hardware needed to complete the installation of the trombone mast arm as shown on the plans, according to standard spec 657, and as hereinafter provided.

B Material

Provide traffic signal trombone arms designed to withstand loadings as specified in standard spec 657.2.2.2 and as shown on Standard Detail Drawing “Pole Mountings for Traffic Signals and Lighting Units, Type 3 (Heavy Duty)”.

Furnish certification of compliance with these stated AASHTO performance requirements with submission of the material list to the engineer.

Submit shop drawings and include dimensions of width, depth, length and thickness of all members and ASTM designation and alloy designation of aluminum members.

Provide aluminum trombone arms consisting of round or oval upper and lower members joined by one or more tubular vertical struts welded to them. Provide a pole end of the mast arm having a mounting clamp welded to it which will permit the attachment of the mast arm to a round pole of varying diameter. Provide a lower clamp that has 5-7/8-inch I.D. and an upper clamp that has 5-l/2-inch I.D. Provide clamps able to accommodate some variation in pole diameter while still attaining full contact between the clamp and the pole. Provide a clamp with surface area contacting the pole that is sufficiently large and designed to prevent horizontal rotation in windy conditions.

Provide a vertical strut, which has provision for mounting the signal head, for horizontal adjustability along the main mast arm members so that signal heads of various lengths with backplates, up to and including 5-section 12-inch heads, can be accommodated within the confines of the mast arm. The cross tees for signal heads will each have two slots on the threaded hubs that face each other.

Locate the wiring raceway entrance through the lower mounting bracket.

Provide a mast arm that has a uniform natural aluminum finish and is clean of dirt and debris. No painting or other corrosion preventive maintenance will be allowed.

The portion of the main members of the arm to which the arm attachment bands are welded will be one piece seamless tapered aluminum tubes.

Attach the main arm member to the pole using extruded aluminum clamps fastened with continuously threaded stainless steel or galvanized bolts with nuts and washers meeting the requirements of ASTM Designation A-320. List the strength and/or grade specification ratings on the shop drawings. Provide stiffeners or gussets at the joints between the main arm tubes and arm clamps to provide adequate strength to resist side loads.

Provide shims made of an aluminum alloy.

Permanently imprint of the "Type" and "Year of Manufacture" on the underside of the lower member of each arm.

C Construction
Conform to standard spec 657.

D Measurement
The department will measure Traffic Signal Trombone Arms, 15-FT as each individual traffic signal trombone arm 15-FT, 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.0060.107	Traffic Signal Trombone Arms, 15-FT	EACH

Payment is full compensation furnishing and installing all materials including all hardware, fittings, mounting clamps, shims, metal identification label, and attachments necessary to completely install the mast arm.

93. Pole 30-FT 7 Gauge, Item SPV.0060.108.

A Description
This special provision describes furnishing and installing poles and arms according to standard spec 657, the details shown on the plans, and these special provisions.

B Materials
Provide poles that are round, with a base plate welded to the bottom end of the pole. All poles are to be a single section, with an eight-inch diameter shaft at the base and 0.14 inches per foot taper.

Provide base plates with slotted openings for anchor bolts.

Designate all poles to withstand a 90 mile per hour sustained wind velocity and 117 mile per hour gust velocity with the bracket arm and luminaire in place. All poles will be used for supporting luminaires, signals heads, signs, and aluminum trombone arms holding signs and/or signal heads as shown in the drawings and on Standard Detail Drawings “Pole Mountings for Traffic Signals and Lighting Units, Type 3 (Heavy Duty)”.

Provide a 4 x 6-1/2 inch galvanized handhole with contoured or flat cover plate joined to the reinforced handhole frame with two bolts. Locate the handhole 90 degrees clockwise from the bracket arm side of poles as viewed when looking down from the top of the pole. Locate the center of the handhole 14 inches from the bottom of the pole. Provide a solid metal bracket, with a drilled and tapped hole, for securing cover plate bolts. Clips for holding these bolts is not acceptable. Furnish machine bolts that are a slotted hex-head style.

Fabricate the pole shaft from the herein specified manufacturer’s best grade, hot rolled basic open hearth, or basic oxygen process steel. Provide a shaft having only one longitudinal, electrically welded joint, with the strength rated at not less than 100 percent

of the yield strength of the steel and having no intermediate horizontal joints or welds. Use only one length of steel sheet formed into a continuously tapered shaft, having a taper of approximately 0.14 inchers per foot. Provide a smooth weld, allowing the specified taper to be constant. Provide a pole that is within 1/4 inch in 10 feet of being straight and centered on its longitudinal axis.

Provide a grounding nut or nut holder for accommodating a 1/2 inch x 13 UNC threaded bolt or stud on the inside of the shaft immediately opposite the center of the handhole. Furnish a nut that is completely free of any metal residue that would prevent a bolt from easily screwing entirely into the nut.

All 30-foot poles with 10-foot arms will have a pole mounted simplex fitter welded to the pole, 6 inches from the top. The simplex fitter permits the positioning of the arm on the pole held only by gravity, while the arm is secured to the pole by two cap screws.

Provide arms with a single member, conforming to the drawing. Weld a steel fitting to the pole end of the arm, which will permit the positioning of the arm on the pole held only by gravity, while the arm is secured to the pole by two cap screws. Provide an arm having a weather-resistant connection and smooth wiring raceway. Provide arms able to accept a luminaire with a 2 inch slip fitter.

Place all mounting and wire raceway holes on all poles holding LED fixtures before being hot-dipped galvanized. Coordinate mounting needs with the LED luminaires selected for the project prior to ordering poles.

Furnish a pole-top cover and four nut covers and installed for each pole. Permanently imprint a metal label, attached with rivets midway between the base plate and the handhole, on each steel pole. Provide a label stating the overall pole height, shaft gauge, year of manufacture, and manufacturer’s name. Conform the label to the curvature of the pole so that it does not have any sharp edges or corners. Smooth all rivets inside and outside of the pole.

After all welding has been completed, thoroughly clean the exterior surface of the pole, arm, and hardware making it free of all loose rust, mill scale, dirt, oil, grease, and other foreign substances. Provide poles and arms that are hot-dipped galvanized according to the requirements of ASTM Designation A123. Provide hardware that is hot dipped galvanized according to ASTM Designation A153. Provide a galvanized finish that is bright, shiny, and uniform. Matted or dull pole sections will not be accepted. Furnish non-shrink commercial grout from approved products list.

C Construction

Group lighting units to operate from branch circuits, which are energized by lighting contactors remotely controlled by photocell. Where a system is employed, no individual lighting units are to be controlled by photocells or time switches. Time switches control only the removal from service of the midnight circuits.

Wire each system in a manner that presents as near as is possible a balanced load at the source of supply during midnight and all-night operation.

Provide conductors to the luminaire consisting of two No. 14 solid annealed copper, UF, 600 volt, as manufactured by General Cable, Anaconda, Rome, Kaiser, or approved equal. On all systems, provide phase wire at the pole handhole having a secondary in-line fuse assembly, Series 64, as manufactured by Elastic Stop Nut Corporation of America, Buss Tron HEB-AA fuseholder, or approved equal, with a Bussmantype FNM or FNQ fuse, 3.2 amp for 150 watt and 5.0 amp for 250 watt luminaires.

Do not splice the phase wire between the fuse assembly and luminaire. Provide for poles with two luminaires, two fuseholders and separate wire from each fuseholder to each luminaire. Install a sufficient length of No. 14 conductor in the pole to permit removal of this fuseholder through the handhole before disconnecting.

Install a 24 inch length of No. 12 THHN Stranded Conductor tail to supply wires permitting easy removal of fixture wires and fuse holder through the handhole.

Ground a tail of No. 4 wire from the neutral conductor splice to each ground rod and metal street light pole.

Use the following color coding at all street light bases:

- Midnight Circuit (red)
- All night circuit (black)
- Neutral (white)

Electrically secure electrical splices and connections and make with pressure or compression fittings as manufactured by Thomas & Betts, Burndy, 3-M (scotch lock brand) or approved equal. Protect taps and splices in the following manner: coat all wire connections with anti-oxidant electrical connection sealant compound; build up taps and splices made with irregularly shaped connectors with insulating material, air seal adhesive roll tape or approved equal, prior to coating; fill all sharp corners and voids; over this, install 3 half lapped layers of rubber electrical tape, dielectric strength, 300 volts per mil - self vulcanizing tape, installed as per manufacturer’s instructions; over this, apply 3 half lapped layers electrical tape that has a tensile strength of 15lbs per inch and resistant to UV rays, abrasion, moisture, alkalis, acids, corrosion and varying weather conditions or approved equal, vinyl plastic electrical tape; then dip the entire splice 1 inch beyond the insulating material in RoHS (Restriction of Hazardous Substance) 2011/65 compliant fast-drying electrical coating liquid sealant. Allow the constructed splice to air dry completely before insertion into the street light pole. Orient all wires leaving the splice in one direction. Hammer and retighten three times all split bolts, when used, and provide a spacer between any copper and aluminum conductors.

Connect the fuse holder to the All-Night circuit or Midnight circuit as indicated on the plans with an approved wire nut (3M, Ideal or approved equal). Dip the wire nut in Scotch-Kote or approved equal.

Connect the lighting units with the underground cable and provide a complete, operational system when finished.

Set and plumb all metal poles with the use of leveling nuts furnished with the anchor bolts. Level luminaries after erecting and leveling the metal standards with bracket arms. The proper leveling method may be obtained from the manufacturer's instruction manual. Torque nuts on anchor and transformer bolts to 175-200 foot pounds or as directed by the engineer. Provide rust, corrosion, and anti-seize protection all threaded assemblies by coating and mating surfaces with Markal (hightemp – E-Z Break), Never-Seez (Marine Grade), LPS 100, Lubriplate, or approved equal.

Attach the stranded copper ground wire that is installed as a part of base construction with an approved connector compatible ground clamp to a ground nut locate inside the pole opposite the handhole.

When transformer bases are not installed, trowel grout between the pole and concrete base and finish at an angle from the edge of the pole base to the outer edge of the foundation. Leave a 1/2 inch slot for drainage through the grouting on the street side at the top of the concrete base.

Provide a permanent imprinted metal identification label to all poles attached with rivets midway between the base plate and the handhole. The label shall state the overall pole height, shaft gauge, and year of manufacturer. The label shall conform to the curvature of the pole and not have any sharp edges or corners. All rivets shall be smooth inside and outside of the pole.

D Measurement
The department will measure Pole 30-FT 7 Gauge as each individual pole 30-FT 7 gauge, 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.0060.108	Pole 30-FT 7 Gauge	EACH

Payment is full compensation for furnishing and installing all materials, including poles, all hardware and fittings necessary to completely install the pole; for corrosion prevention; and for providing and installing metal identification labels.

94. Install Non-Intrusive Detection, Item SPV.0060.109.

A Description
This special provision describes installing a department-furnished non-intrusive detector (video or microwave) and supplying and installing new cable, as specified in standard spec 651, 652, 655, and 670, as shown on the plans, and as provided hereinafter.

B Materials
The department will furnish the detector, Ethernet extenders, and all mounting equipment. Contact Graham Heitz, Southwest Region Traffic Operations Engineer at (608) 246-5362 at least seven working days prior to installation of the detector.

For fish-eye lens video detectors and short-range microwave detectors, furnish CAT 5 or 6, outdoor rated 24 AWG Ethernet cables between the detector, the Ethernet extenders, and cabinets as shown on the plans.

For long-range microwave detectors, the department will furnish the cable.

C Construction
Mount the detector as indicated on the plans. Install cable and make connections between the detector, Ethernet extenders, and cabinet/devices as shown in the plans, or as directed by the engineer.

The department's assigned project electrician will supply the contractor with the detection equipment on-site and oversee the installation. The department will terminate and integrate the detection system in the traffic signal cabinet.

Install the detectors and necessary cabling to signal supports to provide the needed detection as indicated on the plans and according to the on-site discretion of the department and equipment specifications.

D Measurement
The department will measure Install Non-Intrusive Detection as each individual install non-intrusive detection, 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.0060.109	Install Non-Intrusive Detection	EACH

Payment is full compensation for coordination with the department, for furnishing and installing hardware, fasteners, installing the detector, furnishing and installing all necessary hardware and cabling and making all necessary connections.

95. Remove Wireless Antenna, Item SPV.0060.110.

A Description
This special provision describes removing or storing an existing wireless antenna and cable, as specified in standard spec 651, 652, 655, and 670, as shown on the plans, and as provided hereinafter.

B (Vacant)

C Construction
Contact Graham Heitz, Southwest Region Traffic Operations Engineer, (608) 246-5362 at least seven working days prior to removing the wireless antenna.

Prior to removing, the engineer will determine if the antenna is fully functional. If the antenna is not functional, contact the Southwest Region Traffic Operations Engineer.

Remove the antenna where shown on the plans. Store the antenna for installation later in the project, or for pick up by the department, as determined by the Southwest Region Traffic Operations Engineer. Re-installation of the antenna is paid for separately.

Storage of the materials prior to reinstallation is the responsibility of the contractor. Store materials at a secure indoor location.

Remove and dispose of existing cable, unless otherwise indicated by the Southwest Region Traffic Operations Engineer.

Repair or replace any materials to be reinstalled which are lost or damaged during removal or storage at no cost to the department. Damaged items may be repaired or replaced by the department at the expense of the contractor, as determined by the department.

D Measurement
The department will measure Remove Wireless Antenna as each individual removing, salvaging and storing of the antenna, 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.0060.110	Remove Wireless Antenna	EACH

Payment is full compensation for coordination with the department, for removing or storing wireless antenna, and removing and disposing of wire.

96. Relocate Wireless ITS Bluetooth Detector, Item SPV.0060.111.

A Description
This special provision describes relocating an existing wireless ITS Bluetooth detector with onboard cellular modem, solar panel and solar panel mounting hardware, as specified in standard spec 651, 670, 674, and 675, as shown on the plans, and as provided hereinafter.

B (Vacant)

C Construction
Contact Kyle Hemp, Southwest Region ITS Engineer, (608) 246-5367 at least seven working days prior to relocating the wireless ITS Bluetooth detector.

Perform a field review of existing wireless ITS Bluetooth detector and notify the department of any damaged or non-operating equipment. Replace equipment that is determined to have been damaged while being relocated in kind at no cost to the department.

Remove, transport, and reinstall the wireless ITS Bluetooth detector in the same day.

Relocate the wireless ITS Bluetooth detector as indicated on the plans and in accordance to the manufacturer's recommendations. Mount the antenna to maximize signal strength.

D Measurement
The department will measure Relocate Wireless ITS Bluetooth Detector as each individual relocate wireless ITS Bluetooth detector, 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.0060.111	Relocate Wireless ITS Bluetooth Detector	EACH

Payment is full compensation for removal, transporting, and installation of the wireless ITS Bluetooth detector and cellular modem, furnishing and installing all necessary hardware, and making all necessary connections.

97. Remove Non-Intrusive Detection, Item SPV.0060.112.

A Description
This special provision describes removing and storing an existing non-intrusive detector and cable, as specified in standard spec 651, 652, 655, and 670, as shown on the plans, and as hereinafter provided.

B (Vacant)

C Construction
Contact Graham Heitz, Southwest Region Traffic Operations Engineer, (608) 246-5362 at least seven working days prior to removing the detector.

Prior to removing, the engineer will determine if the detector is fully functional. If the detector is not functional, contact the Southwest Region Traffic Operations Engineer.

Remove the detector and associated wiring where shown on the plans. Store the detector for installation later in the project, or for pick up by the department, as determined by the Southwest Region Traffic Operations Engineer. Re-installation of the detector is paid for separately.

Storage of the materials prior to reinstallation is the responsibility of the contractor. Store materials at a secure indoor location.

Remove and dispose of existing cable, unless otherwise indicated by the Southwest Region Traffic Operations Engineer.

Repair or replace any materials to be reinstalled which are lost or damaged during removal or storage at no cost to the department. Damaged items may be repaired or replaced by the department at the expense of the contractor, as determined by the department.

D Measurement
The department will measure Remove Non-Intrusive Detection as each individual remove non-intrusive detection, 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.0060.112	Remove Non-Intrusive Detection	EACH

Payment is full compensation for coordination with the department, for removing, storing detector, and removing and disposing of wire.

98. Reinstall Traffic Signal Equipment, Item SPV.0060.113.

A Description
This special provision describes transporting and storing removed traffic signal equipment and reinstalling the equipment at locations as shown on the plans.

B Materials
Traffic signal mounting hardware and all other wire/cable used for installation is paid for under separate bid items.

C Construction
Install existing traffic signal equipment as indicated on the plans.

Removal of existing traffic signal equipment is paid for under the lump sum remove traffic signal equipment bid item.

For the items that will be reinstalled; transport and store traffic signal equipment including video detectors at a secure indoor location as approved by engineer and/or city until it is ready to be reinstalled. Repair or replace any materials to be reinstalled which are lost or

damaged during transport or storage at no cost to the department. Damaged items may be repaired or replaced by the department at the expense of the contractor, as determined by the department.

D Measurement
The department will measure Reinstall Traffic Signal Equipment as each reinstall traffic signal equipment, 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.0060.113	Reinstall Traffic Signal Equipment	EACH

Payment is full compensation for transporting, storing, and reinstalling the traffic signal equipment; and for any necessary interim stockpiling of requested materials on site.

99. Concrete Control Cabinet Bases Type 9 Special (Mod.), Item SPV.0060.114.

A Description
Perform work according to standard spec 654 and as detailed in the plans.

B Materials
Conform to standard spec 654.

C Construction
Conform to standard spec 654.

D Measurement
The department will measure Concrete Control Cabinet Bases Type 9 Special (Mod.) as each individual concrete control cabinet bases type 9 (mod.), 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.0060.114	Concrete Control Cabinet Bases Type 9 Special (Mod.)	EACH

Payment is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor rods, nuts, and washers; and for excavating, backfilling, and disposing of surplus materials.

100. Luminaires Underdeck LED, Item SPV.0060.150.

A Description

This special provision describes furnishing and installing LED underdeck luminaires at highway bridges together with hardware and fittings according to standard spec 659 and as shown in the plans.

B Materials

Provide luminaires constructed of extruded aluminum, die cast aluminum, and stamped metal components. Provide a LED driver sealed in the luminaire for weather-tight operation. Provide stainless steel mounting brackets and junction boxes for field wiring connections. Provide luminaires with a ten year limited warranty.

Provide luminaires with the following minimum requirements:

1. Provide luminaires having 120-277V 50/60 Hz, have Class 1 LED drivers with >90% power factor, 525 mA drive current, 4000K color temperature, and Type V Medium optical distribution.
2. Provide luminaires that are new, unused, and the latest model being produced.
3. Provide luminaires that are manufactured by Cree Lighting, Edge Series Transportation Luminaires (Order No. TSP-EDG-5M-DM-10-E-UL-BZ-525-40K).

C Construction

Furnish and install Luminaires Underdeck LED under bridges together with hardware and fittings according to standard spec 659.3.4 and as shown on the plans. Install fittings and mounting hardware to avoid damaging the bridge paint system or appurtenances. Repair any damaged areas or items at no cost to the department.

D Measurement

The department will measure Luminaires Underdeck LED as each individual luminaires underdeck LED, acceptably completed.

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.0060.150	Luminaires Underdeck LED	EACH

Payment is full compensation for luminaires; for luminaire mounting boxes as required; junction box fusing; for hardware and fittings; for repairs; and for required coordination.

101. Luminaires Utility LED-B-City of Fitchburg, Item SPV.0060.151; Luminaires Utility LED-C-City of Fitchburg, Item SPV.0060.152

A Description
This special provision describes furnishing and installing LED luminaires together with hardware and fittings according to standard spec 659 and as shown in the plans.

B Materials
Provide Luminaires Utility LED-B-City of Fitchburg as manufactured by Leotek, model number GC1-60F-MV-NW-3-GY-700-PCR7-WL-WISDOT-B-SC.

Provide Luminaires Utility LED-C-City of Fitchburg as manufactured by Leotek, model number GC1-80F-MV-NW-3-GY-700-PCR7-WL-WISDOT-C-SC.

C Construction
Furnish and install Luminaires Utility LED (letter)-City of Fitchburg together with hardware and fittings according to standard spec 659.3.3 and as shown on the plans.

D Measurement
The department will measure Luminaires Utility LED-(letter)-City of Fitchburg as each individual luminaires utility LED-(letter)-City of Fitchburg, acceptably completed.

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.0060.151	Luminaires Utility LED-B-City of Fitchburg	EACH
SPV.0060.152	Luminaires Utility LED-C-City of Fitchburg	EACH

Payment is full compensation for luminaires; for luminaire mounting boxes as required; junction box fusing; for hardware and fittings; and for required coordination.

102. Remove Existing City-Owned Light Pole Assembly, Item SPV.0060.153.

A Description
This special provision describes removing and recovering or disposing of existing City-owned light poles, pedestals, transformer bases, arms, luminaires, and wiring as shown on the plans and as hereinafter provided.

B (Vacant)

C Construction
Contact Alysen Tierney, (608) 270-4277, at least 7 calendar days prior to removing lighting equipment on the City of Fitchburg lighting systems.

Remove existing light poles, pedestal/transformer bases, wiring within light poles and between light poles and/or lighting cabinets being removed, arms, and light fixtures according to standard spec 204 and as shown on the plans. Disconnect underground conduit system from light pole base and cap conduit, unless otherwise approved by the engineer or the city. Coordinate equipment to be recovered by the city with the City of Fitchburg Department of Public Works. Properly dispose of any equipment the city chooses not to recover.

Place recovered equipment on blocks for pickup by the city. Protect equipment from moisture. Replace any equipment damaged in the removal process with equipment that is of greater or equal quality than the damaged equipment at no cost to the department.

Notify the engineer and the city when items are available for pick up by the City of Fitchburg.

D Measurement
The department will measure Remove Existing City-Owned Light Pole Assembly as each individual remove existing city-owned light pole assembly, acceptably completed.

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.0060.153	Remove Existing City-Owned Light Pole Assembly	EACH

Payment is full compensation for removing light poles, including fixtures, transformers, pedestal bases, wiring and conduit; for disposing of surplus material; for stockpiling recoverable equipment and materials; for protecting equipment; and for coordinating with the City of Fitchburg.

103. Steel Light Pole with Festoon, Item SPV.0060.154.

A Description
This special provision describes providing steel light poles with festoon outlets as hereinafter provided and as shown on the plans.

B Materials
Furnish steel light poles, Type 5, according to standard spec 657.2.

Furnish steel light poles with festoon outlets at heights such that the center of the outlet is 16’-6” above finished grade. Furnish festoon outlets that consist of 20 amp, 120-volt AC duplex receptacles rated for exterior use with weatherproof in-use covers. Furnish industrial grade receptacles and provided according to the pole manufacturer’s recommendations. Provide a ground fault circuit interrupter as recommended by the outlet manufacturer within the light pole handhole for ground fault protection of the festoon outlet. Furnish festoon outlets and steel light poles from the same manufacturer.

C Construction
Install steel light poles according to standard spec 657.3.

Install outlets 90 degrees from the pole luminaires such that they are not visible from one direction of oncoming traffic. Install festoon outlets to operate on dedicated circuits, independent from the pole luminaires as shown on the plans. Use stainless steel screws to mount each outlet and install the screws through the back of the outlet, or as recommended by the outlet manufacturer.

D Measurement
The department will measure Steel Light Pole with Festoon as each individual steel light pole with festoon, 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.0060.154	Steel Light Pole with Festoon	EACH

Payment is full compensation for providing all materials including light pole, grounding lugs and related mounting hardware; for leveling shims; for corrosion prevention; for festoon outlet, ground fault circuit interrupter, and related mounting hardware; and for all hardware and fittings necessary for pole installation.

104. Modify Existing Lighting Cabinet, Item SPV.0060.155.

A Description
This special provision describes modifying an existing lighting cabinet according to the applicable provisions of standard spec 659, the plans, and as hereinafter provided.

B Materials
Furnish all equipment necessary to modify the cabinet to power and control all lighting circuits, existing and proposed, associated with the cabinet as shown on the plans. This includes, but is not limited to, the following:

- Panelboard
- Circuit breakers
- 8-pole contactor
- Relays
- Terminal strips
- Wiring
- Other miscellaneous electrical components necessary to modify the cabinet

Provide a panelboard with the following characteristics:

- 100-amp
- 120/240-volt
- Single-phase
- 3-wire
- Individually mounted (not branch mounted) 100-amp, 2-pole, 10 kAIC main breaker

Provide a 30-circuit panelboard, circuit breakers, contactor, and relays from the same manufacturer, having the same electrical ratings as the existing units.

C Construction

Perform a field review of existing lighting cabinet for condition of equipment prior to modifications. Notify the engineer in writing of any damaged or non-operating equipment. Replace equipment damaged during construction, in-kind, at no expense to the department. Coordinate times for outages of the existing lighting with the engineer and City of Fitchburg at least two weeks in advance of the outage.

Remove the existing 18-circuit panelboard and replace it with the 30-circuit panelboard. Relocate existing branch circuit breakers from existing panelboard to new panelboard, and provide new circuit breakers in the new panelboard as noted on the plans.

Provide updated panel schedule in plastic holder inside cabinet.

Modify controls such that proposed lighting circuits are controlled in the same fashion as the existing lighting circuits, as shown on the plans. Provide new relays and wiring as required.

Provide updated panel wiring diagram in data pocket inside cabinet.

Wire lighting circuits that exit the cabinet to new terminal blocks mounted in the cabinet.

D Measurement

The department will measure Modify Existing Lighting Cabinet as each individual modify existing lighting cabinet, acceptably completed.

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.0060.155	Modify Existing Lighting Cabinet	EACH

Payment is full compensation for cabinet modification work and materials, including, but not limited to, panelboard, circuit breakers, contactor, relays, terminal strips, and wiring; for providing updated panel schedule and panel wiring diagram; for coordinating with the City of Fitchburg; and for disposing of surplus material.

105. Remove Existing City-Owned Lighting Cabinet, Item SPV.0060.156.

A Description
This special provision describes removing and recovering or disposing of existing city-owned lighting cabinets and wiring as shown on the plans and as hereinafter provided.

B (Vacant)

C Construction
Contact Alysen Tierney, (608) 270-4277, at least 7 calendar days prior to de-energizing lighting cabinets on the City of Fitchburg lighting systems.

Remove existing lighting cabinet, mounting stand, mounting stand concrete footings, and all wiring associated with cabinet according to standard specification 204 and as shown on the plans. Disconnect underground conduit system from light cabinet base and cap conduit, unless otherwise approved by the engineer or the city. Coordinate equipment to be recovered by the city with the City of Fitchburg Department of Public Works. Properly dispose of any equipment the city chooses not to recover.

Place removed equipment on blocks for pickup by the city. Protect equipment from moisture. Replace any equipment damaged in the removal process with equipment that is of greater or equal quality than the damaged equipment at no cost to the department.

Notify the engineer and the city when items are available for pick up by the City of Fitchburg.

D Measurement
The department will measure Remove Existing City-Owned Lighting Cabinet as each individual remove existing city-owned lighting cabinet, 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.0060.156	Remove Existing City-Owned Lighting Cabinet	EACH

Payment is full compensation for removing the lighting cabinet, mounting stand, concrete footings, and all wiring associated with the cabinet; for capping existing conduits that remain; for disposing of surplus material; for stockpiling recoverable equipment and materials; for protecting equipment; and for coordinating with the City of Fitchburg.

106. Perennials, Allium, 'Summer Beauty', CG, 1 Gal., Item SPV.0060.500; Black-Eyed Susan, 'Viette's Little Suzy', CG, 1 Gal., Item SPV.0060.501; Coneflower, 'Pixie Meadowbrite', CG, 1 Gal., Item SPV.0060.502; Eenie Weenie Daylily, CG, 1 Gal., Item SPV.0060.503; Gayfeather, Spiked 'Kobold', CG, 1 Gal., Item SPV.0060.504; Little Trudy Catmint, CG, 1 Gal., Item SPV.0060.505; Prairie Dropseed, 'Tara', CG, 1 Gal., Item SPV.0060.506; Sedum, 'Autumn Joy', CG, 1 Gal., Item SPV.0060.507; Salvia, 'Caradonna', CG, 1 Gal., Item SPV.0060.508; Salvia, 'Marcus', CG, 1 Gal., Item SPV.0060.509; Switch Grass, 'Northwind', CG, 1 Gal., Item SPV.0060.510; White False Indigo, CG, 1 Gal., Item SPV.0060.511.

A Description

This special provision describes furnishing and installing Perennials according to the applicable sections of standard spec 632, as shown on the plans, and as hereinafter provided.

B Materials

Provide Perennial (plant) complying with American Standard for Nursery Stock (ANSI Z60.1-2004) for type, shape, and height.

Provide plants grown within the states of Wisconsin, Minnesota, Michigan, or parts of northern Illinois, Indiana or Ohio located within Zone 5 of the "Plant Hardiness Zone Map" produced by the United States Department of Agriculture, Miscellaneous Publication No. 1475, issued January 1990, unless otherwise approved by the engineer.

C Construction

Lay out location of plantings for approval by the engineer.

Place Planting Mixture according to the bid item Planting Mixture.

Compact the bottom of the hole to guard against settling. Tamp or water in as necessary to create a condition by which plants will not settle in the planting beds. Place the bottom of the root ball directly on the bottom of the hole.

D Measurement

The department will measure Perennials (plant) as each individual perennial (plant), 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.0060.500	Perennials, Allium, 'Summer Beauty', CG, 1 Gal.	EACH
SPV.0060.501	Perennials, Black-Eyed Susan, 'Viette's Little Suzy', CG, 1 Gal.	EACH
SPV.0060.502	Perennials, Coneflower, 'Pixie Meadowbrite', CG, 1 Gal.	EACH
SPV.0060.503	Perennials, Eenie Weenie Daylily, CG, 1 Gal.	EACH
SPV.0060.504	Perennials, Gayfeather, Spiked 'Kobold', CG, 1 Gal.	EACH
SPV.0060.505	Perennials, Little Trudy Catmint, CG, 1 Gal.	EACH
SPV.0060.506	Perennials, Prairie Dropseed, 'Tara', CG, 1 Gal.	EACH
SPV.0060.507	Perennials, Sedum, 'Autumn Joy', CG, 1 Gal.	EACH
SPV.0060.508	Perennials, Salvia, 'Caradonna', CG, 1 Gal.	EACH
SPV.0060.509	Perennials, Salvia, 'Marcus', CG, 1 Gal.	EACH
SPV.0060.510	Perennials, Switch Grass, 'Northwind', CG, 1 Gal.	EACH
SPV.0060.511	Perennials, White False Indigo, CG, 1 Gal.	EACH

Payment is full compensation for providing, transporting, handling, storing, pruning, placing, and replacing plant materials; for laying out plantings and excavating all plant holes, salvaging topsoil, mixing, and backfilling; for providing and applying all required fertilizer, water, rodent protection, herbicides and anti-desiccant spray; for disposing of all excess and waste materials except that the department will pay for Planting Mixture and Shredded Hardwood Bark Mulch separately.

107. Fire Hydrants, Item SPV.0060.600.

A Description

This work consists of furnishing and installing hydrants according to Section 7 of the City of Fitchburg Standard Specifications for Public Works Construction – Latest Edition.

B Materials

Furnish materials according to Section 7.2 of the City of Fitchburg Standard Specifications for Public Works Construction – Latest Edition.

Field verify heights of proposed hydrants. Order hydrants accordingly so that the bury line, when hydrant is installed, will be within 0.2 feet of ground level.

C Construction

Install hydrants according to Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction – Latest Edition, unless otherwise shown or specified.

Locations of fire hydrants may need to be field adjusted prior to installation to avoid conflicts. Field adjusting fire hydrants is included in the cost of the fire hydrant.

Hydrant leads with less than 6.5 feet of cover shall be insulated per specifications. Installing bends in hydrant lead in order to install hydrant at correct elevation is prohibited.

D Measurement
The department will measure Fire Hydrants as each individual fire hydrants, 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.0060.600	Fire Hydrants	EACH

Payment is full compensation for providing and installing the fire hydrant, hydrant flag, hydrant extensions, thrust blocking, restraints, stainless steel bolts, support blocks, bedding, cover, clear stone, polywrap, continuity straps, and paint; for making connection; for excavation, dewatering, backfilling with granular backfill, compaction, bracing, shoring, disposal of surplus excavated material, protection and support of existing utilities; field adjustments, chlorination, testing and cleanup.

108. Remove Existing Hydrant, Item SPV.0060.601.

A Description
Work under this item includes removing and salvaging or legal disposal of existing fire hydrant as identified in the plans or as directed by the City of Fitchburg.

B Materials
Provide all materials necessary to complete the work associated with this item according to Section 7.2 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

C Construction
Complete all work associated with this item according to Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

Remove hydrant only after the connected existing water main section has been abandoned or removed.

If the hydrant is a Waterous hydrant with a 250 psi rating, coordinate pick up of the hydrant with the City of Fitchburg, Tracy Foss, (608) 270-4272. Legally dispose of all other hydrants.

D Measurement
The department will measure Remove Existing Hydrant as each individual remove existing hydrant, 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.0060.601	Remove Existing Hydrant	EACH

Payment is full compensation for disassembly, removal, storage, and delivery of the existing fire hydrant to the Fitchburg Utility or legal disposal of it; for excavating, dewatering, backfilling with granular backfill, compacting, bracing, shoring, and restoring the site; and for disposing of surplus materials.

109. Water Valve, 6-Inch, Item SPV.0060.602; 8-Inch, Item SPV.0060.603; 14-Inch, Item SPV.0060.609.

A Description
This work consists of furnishing and installing water valves according to Section 7 of the City of Fitchburg Standard Specifications for Public Works Construction – Latest Edition. Proposed valves associated with live taps, as indicated on the plans, are not included in this item.

B Materials
Furnish materials according to Section 7.2 of the City of Fitchburg Standard Specifications for Public Works Construction – Latest Edition.

Provide granular backfill according to Granular Backfill for Water Main.

C Construction
Install water valves according to section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction – Latest Edition.

D Measurement
The department will measure Water Valve, (size) as each water valve (size), 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.0060.602	Water Valve, 6-Inch	EACH
SPV.0060.603	Water Valve, 8-Inch	EACH
SPV.0060.609	Water Valve, 14-Inch	EACH

Payment is full compensation for providing and installing any water valve, stabilizer, valve box, bedding, cover, restraints, stainless steel bolts, support block, valve nut extension (if needed, extensions will be provided by the city), and continuity straps; for excavation, dewatering, backfilling with granular backfill, compaction, bracing and shoring; for all

valve box adjustments; for disposal of surplus excavated material, protection and support of existing utilities and cleanup.

110. Adjust Existing Valve Box, Item SPV.0060.604.

A Description
Adjust Existing Valve Box consists of adjusting and extending all existing water valve boxes or sanitary lateral cleanouts within the project limits to a ¼ inch below finished grade.

B (Vacant)

C Construction
Adjust water valve box according to Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

Excavate and expose the existing water valve box or sanitary lateral cleanout to the depth needed to adjust the valve box or casting to finished grade and depth necessary to replace all broken valve box or riser sections. Extensions for additional depth and/or replacement may be required and are included in this item. Backfill and compact according to the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition. Leave all valve boxes centered over the valve operating nut and free of dirt and debris. Leave all castings centered over the sanitary lateral cleanout and free of dirt and debris.

D Measurement
The department will measure Adjust Existing Valve Box as each individual adjust existing valve box, 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.0060.604	Adjust Existing Valve Box	EACH

Payment is full compensation for provision and installation of replacement valve box sections and covers, for provision and installation of replacement sanitary lateral cleanout sections and covers; for excavating, backfilling with granular backfill, adjusting valve box or casting to ¼ inch below finished grade, compacting and restoring disturbed areas.

111. Remove Existing Valve Box, Item SPV.0060.605.

A Description
Work under this item includes abandoning of water valve boxes no longer in service, as indicated in the plans or as directed by the City of Fitchburg.

B (Vacant)

C Construction
Complete all work associated with this item according to Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

After the existing water main has been abandoned, complete all work associated with this bid item.

Place the valve in the closed position prior to abandoning the box and completely remove the valve box. Where complete removal of the existing water valve box is not possible, remove the box to a point 2 feet below the subgrade elevation and fill the valve box with slurry.

D Measurement
The department will measure Remove Existing Valve Box as each individual remove existing valve box, 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.0060.605	Remove Existing Valve Box	EACH

Payment is full compensation for excavation and backfilling with granular backfill; for compaction; for closing valve and removing valve box; for cutting valve box 2 feet below subgrade and filling valve box to remain with slurry in cases where it is not possible to remove valve box to existing valve; and for disposing of surplus materials.

112. Remove Existing Water Valve Manhole, Item SPV.0060.606.

A Description
Work under this item includes removing existing valve manholes no longer in service, as indicated in the plans or as directed by the City of Fitchburg.

B Materials
Provide all materials necessary for completion of this work according to Section 7.2 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

C Construction
Complete all work associated with this item according to Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

Remove Existing Water Valve Manhole on Abandon Water Main
Place the valve in the closed position prior to abandoning valve manhole, completely remove top section of the manhole at least 2 feet below the subgrade elevation, break hole in bottom of manhole and backfill with granular backfill.

Remove Existing Water Valve Manhole and replace with valve box
If the water main is to remain functioning. Completely remove top section of the valve manhole at least 2 feet below the subgrade elevation install a valve box and backfill with granular backfill according to Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

D Measurement
The department will measure Remove Existing Water Valve Manhole as each individual remove existing water valve manhole, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.606	Remove Existing Water Valve Manhole	EACH

Payment is full compensation for excavation, backfilling with granular backfill and compaction; for closing valve and removing valve manhole and creating drain hole at bottom of manhole; adding a valve box and stabilizer were required; and for disposing of surplus materials.

113. Connect to Existing Water Main, Item SPV.0060.607.

A Description
This special provision describes providing a cut-in connection to existing water main as indicated in the plans or as directed by the City of Fitchburg according to Section 7 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

B Materials
Provide all materials necessary for completion of this work according to Section 7.2 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

C Construction
Provide a water-tight cut-in connection at the locations shown on the plans according to Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

Provide water main flushing according to Section 7.4 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition

D Measurement
The department will measure Connect to Existing Water Main as each individual connect to existing water main, 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.0060.607	Connect to Existing Water Main	EACH

Payment is full compensation for making all connections, disposing of surplus materials and for providing a water main flushing.

114. Abandon Existing Water Main, Item SPV.0060.608.

A Description
Work under this item includes abandonment of water main or water service no longer in service, as indicated in the drawings or as directed by the City of Fitchburg according to Section 7 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

B Materials
Provide all materials necessary for completion of this work according to Section 7.2 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

C Construction
Complete all work associated with this item according to Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

D Measurement
The department will measure Abandon Existing Water Main as each individual abandon existing water main, 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.0060.608	Abandon Existing Water Main	EACH

Payment is full compensation for abandonment of existing water main or water service; for provision and installation of ductile iron plugs and caps, bedding, cover, restraints and blocking for water main to be abandoned; for excavation, dewatering, backfilling with granular backfill, compaction, bracing, shoring, disposal of surplus excavated material, protection and support of existing utilities and cleanup.

115. Remove Existing Sanitary Sewer Structure, Item SPV.0060.610.

A Description
This special provision describes removing sanitary sewer access structures as shown on the plans. The work includes storing and disposing of the resulting materials and backfilling the trenches with granular backfill.

B Materials
Provide granular backfill according to Granular Backfill for Sanitary Sewer. Furnishing and placing granular backfill in the void created by the structure removal is included with this bid item.

C Construction
Remove sanitary sewer access structures according to Section 8.3 the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

Plugging sewer mains and laterals that are connected to existing sanitary sewer structure to be removed is included with the removal of the structure. This is applicable to sewer plugs only.

For existing sanitary sewer structures that have already been slurry-filled, remove to the slurried elevation.

Store castings for recovery by the City of Fitchburg. Notify the engineer when the castings can be recovered by the city. Dispose of the castings the city deems unrecoverable.

D Measurement
The department will measure Remove Existing Sanitary Sewer Structure as each individual remove existing sanitary sewer structure, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.610	Remove Existing Sanitary Sewer Structure	EACH

Payment is full compensation for removing existing sanitary sewer structure; for excavation and plugging sewer mains and laterals; for excavation, dewatering, backfilling with granular backfill, compaction, bracing and shoring; for storing the casting; for disposal of surplus materials; for protection and support of existing utilities, and for restoring the site.

116. Reconstruct Existing Sanitary Sewer Structure, Item SPV.0060.611.

A Description
Work under this item includes the removal and/or replacement of the existing sewer access structure barrel sections and/or rotating cone sections, drilling new steps and removing existing steps to better align with improvements as indicated in the drawings or as required by the City of Fitchburg.

B Materials
Furnish all materials according to Section 8.2 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition

C Construction
Remove existing adjustment rings and concrete barrel section(s) as necessary to install new adjustment rings and/or barrel sections needed to reach the final proposed grade as shown on the plans or as directed by the City of Fitchburg.

Rotate the existing cone section as shown on the plans.

Install an offset cone section and casting as shown on the plans.

Adjustment ring heights exceeding 9 inches will not be allowed.

D Measurement
The department will measure Reconstruct Existing Sanitary Sewer Structure as each individual reconstruct existing sanitary sewer structure, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.611	Reconstruct Existing Sanitary Sewer Structure	EACH

Payment is full compensation removing and adding barrel sections to existing sanitary sewer structure; for rotating cone sections on existing sanitary sewer structure, drilling new steps to align with realigned cone section and removing existing steps that do not line up with realigned cone section; for excavation, dewatering, backfilling with granular backfill, compaction, bracing and shoring; for disposal of surplus excavated material, protection and support of existing utilities, and cleanup.

117. Adjusting Sanitary Manhole Covers, Item SPV.0060.612.

A Description
This special provision describes the removal and replacement of the existing sanitary sewer structure covers and rings according to the applicable provisions of standard spec 611 and as indicated in the drawings or as required by the engineer and City of Fitchburg.

B Materials
Furnish all materials according to Section 8.2 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

C Construction
Adjust existing covers, including frames and grates or lids, to the required elevation and alignment. Remove the existing cover and adjustment rings. Dispose of existing concrete adjustment rings.

Install new HDPE adjustment rings and reinstall the cover as shown on the drawings or as directed by the engineer or City of Fitchburg.

Reuse of the existing cover is permitted unless otherwise directed by the city. If a new cover is required, it will be paid for separately.

Adjustment ring heights exceeding 9 inches will not be allowed. Notify the engineer and City of Fitchburg of adjustment exceeding 9 inches.

D Measurement
The department will measure Adjusting Sanitary Manhole Covers as each individual adjusting sanitary manhole covers, 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.0060.612	Adjusting Sanitary Manhole Covers	EACH

Payment is full compensation for removing covers; for removing and disposing of existing adjustment rings; for new HDPE adjustment rings; for replacing the cover at the proposed elevation as indicated on the drawings; for excavation, backfilling, and compaction; for disposal of surplus excavated material; for protection and support of existing utilities; and for cleanup.

118. Baseline CPM Progress Schedule, Item SPV.0060.700; CPM Progress Schedule Updates and Accepted Revisions, Item SPV.0060.701.

Replace standard spec 108.4 with the following:

108.4 Critical Path Method Progress Schedule
108.4.1 Software
Use the latest version of Oracle (Primavera) Project Manager (P6) version 7.0 or newer to prepare the Initial Work Plan Schedule, Baseline CPM Progress Schedule, and all Monthly CPM Updates.

108.4.2 Personnel
Designate a Project Scheduler who will be responsible for scheduling the Work and submit for department approval a professional resume describing a minimum of three years of developing and managing specific CPM scheduling experience on major (interstate) highway reconstruction projects or projects of similar size and complexity. This includes recent experience using Oracle P6 software.

108.4.3 Definitions
The department defines terms used in standard spec 108.4 as follows:

Activity
A task, event or other project element on the schedule, during the course of the project that contributes to completing the project. Activities have a description, scheduled (or actual) start and finish dates, duration and one or more logic ties.

Critical Path
The longest continuous path of activities through the project that has the least amount of total float. In general, a delay on the critical path will extend the scheduled completion date.

Critical Path Method (CPM)
A network based planning technique using activity durations and the relationships between activities to mathematically calculate a schedule for the entire project.

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.

Data Date
The earliest work period after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "as-planned."

Department's Preliminary Construction Schedule
The department's schedule for the contract work, developed during design, and provided to the contractor for informational purposes only.

Float
Float, as used herein, 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(s) predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date(s), 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 or delay impact.

Initial Work Plan Schedule
The Initial Work Plan (IWP) Schedule 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 I-39/90 Corridor Management Program, including intermediate milestone dates contract completion dates and codes.

Procurement Activity
Procurement activities are activities of duration reflecting contractor preparation and submittal of material submittals, department approval of material submittals, material fabrication durations, and material delivery durations.

Work Breakdown Structure (WBS)
A framework for organizing the activities that makes 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.

108.4.4 Department's Preliminary Construction Schedule
The department's Preliminary Construction Schedule was developed during the design phase of the contract. Its purpose was to illustrate work areas per Stage/Phase of construction. Durations and resource availability are department estimates only. Contractor is solely responsible for its use of means and methods and as such is fully responsible for determining durations based on own estimate of production and available resources. The suggested use of the department's Preliminary Construction Schedule is ease of identification of work availability during each Stage/Phase and the logical relationship between the Stages/Phases. The Preliminary Construction Schedule reflects one possible approach to completing the work, consistent with the traffic phasing requirements and the interim/final completion date(s) contained in the contract. The logic contained in the Preliminary Construction Schedule is not intended to alter or supplement contract requirements for the phasing of the work, but to reflect those requirements. Any reliance on the department's Preliminary Construction Schedule is at the sole risk of the contractor.

108.4.5 Contractor's Scheduling Responsibilities
The CPM Schedule shall be a tool capable of forward planning and monitoring the Project. The schedule will further be used as a communication tool between the contractor and the department. It will be used to illustrate the plan, develop what-if scenarios, and analyze impacts. The accuracy and completeness of the CPM Schedule will benefit both

the contractor and the department. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines.

The contractor shall submit to the department initial and monthly update schedules, each consistent in all respects with the time and order of work requirements of the contract. The project work shall be executed in the sequence indicated on the current accepted schedule. Schedules shall show the order in which the contractor proposes to carry out the work with logical links between activities, and calculations made using the critical path method to determine the controlling operation or operations. The contractor is responsible for assuring that each schedule shows a coordinated plan for complete performance of the work. Schedule the Work in the manner required to achieve the completion date and intermediate milestone dates specified in the Prosecution and Progress Special Provision.

Contactor project management personnel shall actively participate in the schedule development, the monthly updating of progress, and all schedule revisions throughout the entire duration of the contract. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate schedule.

108.4.6 Submittals

108.4.6.1 Initial Work Plan Schedule

Submit an Initial Work Plan (IWP) Schedule consisting of the following:

1. Provide a detailed plan of activities to be performed during 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.
2. Provide activities as necessary to depict administrative work, including submittals, reviews, material 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).
3. Provide activities as necessary to depict third-party work related to the contract.
4. Provide summary activities for the balance of the project beyond the first 90 calendar days of the project. Summary activities may have durations greater than 28 calendar days (20 business days).
5. Submit the IWP Schedule, including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER) and an electronic file (PDF) to the following DOT email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.
6. Following department receipt of the IWP Schedule, allow ten business days for department review and return of comments. Within five business days of receiving the IWP Schedule, the department will schedule a workshop for the contractor to present the IWP Schedule and to answer questions raised during the department's review. Provide formal responses to the comments and resubmit the IWP Schedule as necessary. A notice to proceed will not be issued until the engineer accepts the IWP Schedule. The department will use the IWP Schedule to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.

7. Submit an updated version of the IWP Schedule on a bi-monthly basis (every other week) 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.

108.4.6.2 Baseline CPM Progress Schedule

Within ten business days of receiving an approved IWP Schedule, as required in the contract, submit a Baseline CPM Progress Schedule and written narrative consisting of the following:

1. Develop the Baseline CPM schedule. 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. The department will use the schedule to monitor the progress of the work. Include the following:

    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, material 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).

    1.3 Provide activities as necessary to depict third-party work related to the contract. Third-party work activities may include but is not limited to Railroads, Utilities, Real Estate and local government agencies.

    1.4 Make allowance for specified work restrictions, non-working days, time constraints, calendars, and potential or approved weather delays; reflect involvement and reviews by the department; and coordination efforts with adjacent contractors, utility owners, and other third parties.

    1.5 With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. Predecessors and successors shall not be linked to the same activity with different relationship types. 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 or overlap unless the engineer accepts requested exceptions. Include and discuss request for exceptions in the schedule narrative provided with each schedule submittal.

1.6 Schedule activities shall include the following:

a. A clear and legible description. The use of abbreviations shall be limited. Descriptions shall include an action verb describing the work performed, a basic description of the materials used, and, where applicable, a general location of the work.

b. Codes for Contract ID / WisDOT Project ID, Responsibility, Stage, and Area. The department may provide additional codes for use within department reporting.

c. Activities shall carry a single Responsibility assignment.

1.7 Schedule all intermediate milestones in the proper sequence and input as either a "Start on or After" or "Finish on or Before" date. Do not use other constraint types, within the software, without prior approval by the engineer. Do not apply date constraints on any work tasks without prior approval by the engineer. 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 shall encompass all the time in the contract period between the starting date and the specified completion date.

1.8 Develop and submit an anticipated cash-flow curve for the project within the P6 application, based on the Baseline CPM schedule by assigning cost values to selective work tasks within the CPM schedule that total the value of the contract.

1.9 Provide budgeted quantities consistent with the bid quantities on selective construction tasks within the CPM schedule. The engineer will provide a summarized list of 30 generalized quantity items that will be identified and applied by the contractor using the P6 software application.

2. Provide an electronic PDF of the CPM schedule 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.

4. Submit the Baseline CPM schedule including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER) and an electronic file (PDF) to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

Within ten business days of receiving the Baseline CPM schedule, the department will schedule a workshop, review the submittal, and return review comments.

Within five business days after the Baseline CPM scheduling workshop, the department will either accept the contractor's Baseline CPM schedule or provide additional comments. Within five business days, address the department's comments and resubmit a revised Baseline CPM, including formal responses to the department's review comments. If the engineer requests justifications for activity durations provide information that may include estimated labor, equipment, unit quantities, and production rates used to determine the activity duration.

The engineer will accept the Baseline CPM based solely on whether the schedule is complete as specified in this section and meets the requirements of the contract. The engineer's acceptance of the schedule does not modify the contract and does not relieve the contractor from meeting the contract requirements.

The department will not consider requests for contract time extensions as specified in 108.10 or additional compensation for delay specified in standard spec 109.4.7 until the department accepts the Baseline CPM schedule.

108.4.6.3 Monthly CPM Schedule Updates
Submit CPM Schedule updates on a monthly basis after acceptance of the Baseline CPM Schedule. With each CPM Schedule update, include the following:

1. 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. 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 potential delay, work planned for the next 30 calendar days, and all changes to the CPM Schedule. Changes to the CPM Schedule include the addition or deletion of activities, changes to activity descriptions, original durations, relationships, overlap (lag/lead), 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 each CPM Schedule update; including the P6 native data file (XER) and an electronic file (PDF) on three separate CD-ROM's. Submit the P6 native data file (XER), the electronic file (PDF), responses to the DOT review comments, and the progress schedule update narrative to the following dot email boxes; DOTDTSDSWMEGASCHEDULERS@dot.wi.gov and I39project@dot.wi.gov.

5. Within ten business days of receiving each CPM Schedule update, the engineer will provide formal review comments and schedule a meeting, if necessary, to address comments raised in the department's review. Address the department's comments and resubmit a revised CPM Schedule update within five business days after the department's request.

108.4.6.4 Three-Week Look-Ahead Schedules

Submit Three-Week Look-Ahead Schedules on a weekly basis after NTP. The schedule shall be prepared by computer. Provide three hard copies (11" x 17") to the engineer. 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 three-week period.
4. The activities of the Three-Week Look-Ahead schedule shall include the activities underway and critical RFIs and submittals, based on the CPM schedule. The Three-Week Look-Ahead may also include details on other activities not individually represented in the CPM schedule.
5. 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 any disagreements. Use the as-built dates from the Three-Week Look- Ahead schedules for the month when updating the CPM schedule.

108.4.6.5 Weekly Production Data

Provide estimated and actual weekly production curves for items of work on a weekly basis for applicable items of work as requested by the department including but not limited to the following:

1. Provide data on the following items by the units specified:

    1.1 Underground Facilities – LF per week

    1.2 Retaining Walls – SF per week
    - MSE Walls
    - Other Wall Types

    1.3 Bridge Construction
    - Foundation Pile – EACH per week
    - Foundation/Substructure Concrete – CY per week
    - Structural Steel Girders – EACH per week
    - Prestressed Concrete Girders – EACH per week
    - Deck Formwork – SF per week

    1.4 Roadway Excavation – CY per week

    1.5 Roadway Embankment – CY per week

1.6 Roadway Structural Section

- Grading/Subgrade Preparation – SY per week
- Base Material Placement – TON per week
- Base Material Subgrade Preparation – SY per week
- Asphaltic Base – TON per week
- Asphaltic and HMA Pavements – TON per week
- Concrete Pavement – SY per week
- Concrete Pavement – CY per week

1.7 Finishing Items – SY per week

Note: Base material shall include all breaker run, base aggregate, subbase items or other base items included in the contract. Provide production information for each individual base material item.

2. For each item, indicate the actual daily production for the past week and the anticipated weekly production for the next week. Also include cumulative production curves showing the production information for each item to date.

3. 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 any disagreements.

108.4.7 Progress Review Meetings

After completing the weekly submittal of the Three-Week Look-Ahead Schedules and production data, attend a weekly progress review meeting to review the submittals with the department. At the meeting, address comments as necessary, and document agreement or disagreement with the department.

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.

108.4.8 CPM Progress Schedule Revisions

A CPM Progress Schedule Revision may be submitted, prior to the next CPM Monthly Update, if necessary due to changes in the Work or project conditions as authorized by the engineer. Prepare the CPM Revision in the same format as required for CPM Monthly Updates, including justification for changes to the schedule. The process for comment and acceptance of a CPM Revision will be the same as for CPM Monthly 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.

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 CPM Monthly 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.

108.4.9 Documentation Required for Time Extension Requests

The information below is to be applied in compliance with standard spec 108.9 and 108.10 and does not replace the above mentioned specifications. To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative document separate from the monthly schedule update narrative document that specifically details the work added or deleted and the other activities affected and or impacted based on the latest accepted CPM Monthly Update. For added work including impact delay activities, 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.

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 Monthly Update. Requests for time extensions due to delays shall meet the following criteria:

1. For requests to extend the contract completion date, include a detailed description of how the delay, or additional work, affected the project's critical path, based on the latest accepted CPM Monthly Update.

2. For requests to extend an intermediate milestone date, include a description of how the delay, or additional work, affected the controlling (longest) path to the milestone, based on the latest accepted CPM Monthly 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.

108.4.10 Measurement for CPM Progress Schedule

The department will measure Baseline CPM Progress Schedule for each required submittal acceptably completed.

The department will measure CPM Progress Schedule Updates and Accepted Revisions for each required submittal acceptably completed.

108.4.11 Payment for CPM Progress Schedule

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.700	Baseline CPM Progress Schedule	Each
SPV.0060.701	CPM Progress Schedule Updates and Accepted Revisions	Each

Payment is full compensation for furnishing all work required under these bid items. The department will pay the contract unit price for the Baseline CPM Progress Schedule after the department accepts the schedule. Thereafter, the department will pay the contract unit price for each monthly CPM Progress Schedule update acceptably completed. The department will pay the contract unit price for CPM Revisions, if the department accepts the revision. The department will not pay for proposed revisions that are not accepted.

Failure to provide satisfactory schedule submittals within the times specified will result in liquidated damages being assessed and may result in the department managing to the contractor's latest accepted schedule until such time as the contractor submits an updated or revised schedule.

If the contractor does not provide satisfactory progress schedule submittals, updates and revisions, within the time specified by these specifications, the department will assess liquidated damages. The department will deduct the amount of $500 per calendar day due to the contractor for every calendar day that the submission of the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule is delinquent.

If the Initial Work Plan Schedule, Baseline CPM Progress Schedule, Revised CPM Progress Schedule, and the Monthly Progress Schedule update submittals are not received by the department within 10 business days after the submittal time specified, the department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the schedule is submitted. (1/5/2017)

119. Street Sweeping, Item SPV.0075.001.

A Description
This special provision describes removing dirt and dust particles from the roadway using a street sweeper periodically during the project as directed by the engineer.

B Materials
Provide a mechanical, vacuum-assisted or regenerative street sweeper capable of collecting debris within an enclosed collection bin or hopper and disposing of the debris.

C Construction
Remove debris from the roadway using the street sweeper periodically during the project as directed by the engineer.

Provide logged hours of street sweeping to the engineer for approval on a weekly basis.

D Measurement
The department will measure Street Sweeping by the hour that the street sweeper is on the project picking up and removing debris from the roadway, 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.0075.001	Street Sweeping	HRS

Payment is full compensation for furnishing necessary equipment and logged hours.

120. Seeding Mixture Detention Pond, Short Grass Prairie, Item SPV.0085.001.

A Description
This work consists of preparing seed beds, furnishing, and sowing detention pond seed mixtures in accordance the applicable provisions of standard spec 630, as shown on the plans, and as hereinafter provided.

B Materials
B.1 General
Provide all seed according to standard spec 630.2. Provide documentation of seed mixtures to the engineer a minimum of 30 calendar days prior to use.

B.2 Short Grass Prairie
Provide a seed mixture at areas shown as Seeding Mixture Detention Pond, Short Grass Prairie in the plans, conforming to the following species and mixture proportions:

Scientific Name	Common Name	% by weight	Total (oz)
Grasses			
Andropogon Scoparius	Little Bluestem	18.86	88.79
Bouteloua Curtipendula	Side Oats Grama	43.06	202.73
Elymus Canadensis	Canada Wild Rye	11.93	56.14
Sporobolus Heterolepis	Prairie Dropseed	1.10	5.19
Wildflowers			
Agastache Foeniculum	Lavender Hyssop	0.85	3.98
Aster Azureus	Sky Blue Aster	0.97	4.54
Coreopsis Lanceolata	Sand Coreopsis	2.60	12.26
Echinacea Pallida	Pale Purple Coneflower	2.01	9.45
Monarda Fistulosa	Wild Bergamot	0.89	4.20
Penstemon Digitalis	Smooth Penstemon	0.52	2.43
Rudbeckia Hirta	Black-Eyed Susan	0.56	2.65
Solidago Rigida	Stiff Goldenrod	0.99	4.68
Tradescantia Ohiensis	Spiderwort	0.72	3.38
Verbena Stricta	Hoary Vervain	1.79	8.41
Legumes			
Cassia Fasciculata	Partridge Peas	5.14	24.20
Desmanthus Illinoensis	Illinois Bundle Flower	4.00	18.83
Petalostemum Candida	White Prairie Clover	1.88	8.85
Petalostemum Purpeum	Purple Prairie Clover	2.14	10.06

C Construction

Sow seeding mixtures according to standard spec 630.3.3.1.

Use a seeding rate of 0.67 pounds per 1,000 square feet and apply at a rate not less than 150 seeds per square foot.

Provide an establishment period for the Seeding Mixture Detention Pond, Short Grass Prairie according to standard spec 630.3.3.6. The establishment period maintenance shall apply to all growing seasons through October 15, 2021 for Seeding Mixture Detention Pond, Short Grass Prairie.

D Measurement

The department will measure Seeding Mixture Detention Pond, Short Grass Prairie by the pound, acceptably completed and according to standard spec 630.4.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0085.001	Seeding Mixture Detention Pond, Short Grass Prairie	LB

Payment is full compensation for providing, handling, and storing all seed; for providing the required culture and inoculating seed as specified; for preparing the seed bed, sowing, covering and firming the seed; and for work during the establishment period.

121. Concrete Curb & Gutter 4-Inch Sloped 5-Foot Type A, Item SPV.0090.001; 24-Inch Type D, Item SPV.0090.002; 32-Inch Special, Item SPV.0090.003.

A Description
Perform work according to the applicable provisions of standard spec 601, as detailed in the plans, and as hereinafter provided.

B Materials
Conform to standard spec 601.

C Construction
Conform to standard spec 601.

D Measurement
The department will measure Concrete Curb & Gutter (type) in length 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.0090.001	Concrete Curb & Gutter 4-Inch Sloped 5-Foot Type A	LF
SPV.0090.002	Concrete Curb & Gutter 24-Inch Type D	LF
SPV.0090.003	Concrete Curb & Gutter 32-Inch Special	LF

Payment is full compensation for furnishing all foundation excavation and preparation; all special construction required at driveway and alley entrances, or curb ramps; for providing all materials, including concrete, expansion joints, and reinforcement tie bars unless specified otherwise; for placing, finishing, protecting, and curing; for sawing joints; and for disposing of surplus excavation material, and restoring the work site. However, if the contract provides a bid item for excavation, then the department will pay for excavation required for this work as specified in the contract.

122. Concrete Barrier Special Transition S42C-S56C, Item SPV.0090.005.

A Description
Perform work according to the applicable provisions of standard spec 603 and as detailed in the plans.

B Materials
Conform to standard spec 603.

C Construction
Conform to standard spec 603.

D Measurement
The department will measure Concrete Barrier Special (type) in length 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.0090.005	Concrete Barrier Special Transition S42C-S56C	LF

Payment is full compensation for furnishing all foundation excavation and preparation; for providing all materials, including concrete, expansion joints, and reinforcement tie bars unless specified otherwise; for placing, finishing, protecting, and curing; and for disposing of surplus excavation material, and restoring the work site. However, if the contract provides a bid item for excavation, then the department will pay for excavation required for this work as specified in the contract.

123. Removing Department-Owned Concrete Barrier Precast, Item SPV.0090.006.

A Description
This provision describes handling of existing on-site department-owned concrete precast barrier when no longer needed for the project work activities.

B (Vacant)

C Construction
Remove and stockpile the department-owned concrete precast barrier to 4391 Maple Grove Drive, outside the limits of work operations at a location approved by the engineer. If the engineer reviews the concrete barrier precast and determines it is not useful, dispose of the concrete barrier precast.

D Measurement
The department will measure Removing Department-Owned Concrete Barrier Precast in length by 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.0090.006	Removing Department-Owned Concrete Barrier Precast	LF

Payment is full compensation for removing, hauling, disposing, and stockpiling.

124. Concrete Barrier Temporary Precast Delivered - Department Owned, Item SPV.0090.007.

A Description
This special provision describes delivering department owned concrete barrier temporary precast according to standard spec 603.

B (Vacant)

C Construction
Deliver department owned temporary barrier to worksites within the project. Delivering department owned temporary barrier includes loading, hauling, and delivery of department owned temporary barrier, located within five miles of the project, to worksites within the project.

Concrete Barrier Temporary Precast Delivered - Department Owned remains the property of the department upon project completion.

D Measurement
The department will measure Concrete Barrier Temporary Precast Delivered - Department Owned in length 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.0090.007	Concrete Barrier Temporary Precast Delivered - Department Owned	LF

Payment is full compensation for loading, hauling, and delivery of department owned concrete barrier temporary precast to worksites within the project.

125. Concrete Curb & Gutter 30-Inch Type D HES, Item SPV.0090.008.

A Description
Perform work according to the applicable provisions of standard spec 601, as detailed in the plans, and as hereinafter provided.

B Materials
Furnish materials conforming to the following:
Joint Filler……..…… standard spec 415.2.3
Concrete…….....standard spec 501 - Type III portland cement

C Construction
Conform to standard spec 601.

D Measurement
The department will not measure Concrete Curb & Gutter 30-Inch Type D HES in length 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.0090.008	Concrete Curb & Gutter 30-Inch Type D HES	LF

Payment is full compensation for furnishing all foundation excavation and preparation; all special construction required at driveway and alley entrances, or curb ramps; for providing all materials, including concrete, expansion joints, and reinforcement tie bars unless specified otherwise; for placing, finishing, protecting, and curing; for sawing joints; and for disposing of surplus excavation material, and restoring the work site. However, if the contract provides a bid item for excavation, then the department will pay for excavation required for this work as specified in the contract.

126. Pedestrian Overhead Protection, Item SPV.0090.009.

A Description
This special provision describes furnishing and installing pedestrian overhead protection at locations shown on the plans and as hereinafter provided.

B Materials
Furnish conventional 2 x 4 dimensional lumber.
Furnish conventional CDX plywood in thicknesses shown on the plans.

C Construction
Construct frame of 2 x 4 dimensional lumber as shown in the plans using nails or screws as fasteners.

Sheath the sides and top with CDX plywood as shown on the plans.

Light the interior of the Pedestrian Overhead Protection at all times. Install lights on the ceiling with the level of illumination being equivalent of that produced by 100 watt, 1,700 lumen minimum, standard incandescent lamps enclosed in vandal-resistant fixtures and spaced sixteen feet (16 FT) apart and eight feet (8 FT) above the floor level. Lights must be left on overnight. Inspect lighting nightly, and replace burned out or repair inoperative

lighting by the next business day. Comply with the National Electrical Code. Coordinate the power source for the lighting with the department.

D Measurement
The department will measure Pedestrian Overhead Protection in length 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.0090.009	Pedestrian Overhead Protection	LF

Payment is full compensation for furnishing, installing the unit, maintaining the unit in satisfactory condition; lighting and necessary power; all necessary coordination; and for removing the disposing of the unit at staging revisions or project completion.

127. Marking Stop Line Epoxy 24-Inch, Item SPV.0090.010; Marking Crosswalk Epoxy 12-Inch, Item SPV.0090.011.

A Description
Perform work according to the applicable provisions of standard spec 646 and as detailed in the plans.

B Materials
Conform to standard spec 646.

C Construction
Conform to standard spec 646.

D Measurement
The department will measure Marking Stop Line Epoxy 24-Inch and Marking Crosswalk Epoxy 12-Inch in length 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.0090.010	Marking Stop Line Epoxy 24-Inch	LF
SPV.0090.011	Marking Crosswalk Epoxy 12-Inch	LF

Payment is full compensation for providing all materials; and for remarking as required under standard spec 646.3.1.2(2).

128. Removing HMA Pavement Longitudinal Joint Milling, Item SPV.0090.012.

A Description

This special provision describes removing the notched wedge longitudinal joint prior to paving the adjacent lane in order to create a vertical longitudinal joint.

B (Vacant)

C Construction

Remove the notched wedge longitudinal joint constructed according to standard spec 450.3.2.8 prior to paving the adjacent lane. Provide a uniform milled surface that is reasonably plane, free of excessively large scarification marks, and has the grade and transverse slope the plans show or the engineer directs. Remove the notched wedge longitudinal joint without damaging underlying or adjacent pavement.

Use a self-propelled milling machine with depth, grade, and slope controls. Shroud the drum to prevent discharging loosened material onto adjacent work areas or live traffic lanes. Provide an engineer-approved dust control system.

Maintain one lane of the roadway open to traffic at all times during working hours. Do not windrow or store material on the roadway. Clear the roadway of all materials and equipment during non-working hours.

Pave the adjacent lane where the notched wedge longitudinal joint has been removed the same day the notched wedge longitudinal joint is removed. Should the adjacent lane paving not extend to the removal limits of the notched wedge longitudinal joint, replace the wedge and subsequently remove the wedge at no additional cost to the department.

D Measurement

The department will measure Removing HMA Pavement Longitudinal Joint Milling in length 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.0090.012	Removing HMA Pavement Longitudinal Joint Milling	LF

Payment is full compensation for removing the notched wedge longitudinal joint; for hauling and disposal of surplus materials; and for replacement and additional removal of the wedge if paving limits do not extend to the wedge removal limits.

129. Pipe Underdrain 6-Inch with Geotextile Fabric and Aggregate, Item SPV.0090.050.

A Description
This special provision describes providing and placing pipe underdrain, geotextile fabric, and aggregate as shown on the plans and hereinafter provided.

B Materials
B.1 Pipe Underdrain
Provide Pipe Underdrain 6-Inch according to standard spec 612.2.

B.2 Geotextile Fabric
Provide Geotextile Fabric Type, DF Schedule B according to standard specs 645.2.1 and 645.2.2.4.

B.3 Aggregate
Provide coarse aggregate size No. 1 conforming to standard spec 501.2.5.4.5.

C Construction
Construct the Pipe Underdrain 6-Inch with Geotextile Fabric and Aggregate in locations shown on the plans and according to standard spec 612.3.1, 612.3.3, 612.3.5 645.3.1.1 and 645.3.1.4.

D Measurement
The department will measure Pipe Underdrain 6-Inch with Geotextile Fabric and Aggregate in length 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.0090.050	Pipe Underdrain 6-Inch with Geotextile Fabric and Aggregate	LF

Payment is full compensation for providing and placing all materials, including pipe underdrain, geotextile fabric, aggregate, backfill, connections, fittings, and caps or plugs; for furnishing all excavating, recompacting, disposing of surplus material, and restoring the work site.

130. Shovel Cut Edging, Item SPV.0090.500.

A Description
This special provision describes Shovel Cut Edging at locations shown on the plans and as hereinafter provided.

B (Vacant)

C Construction
Shovel cut an edge around the perimeter of planting beds at locations shown on the plans. Manually, or machine cut, edge to minimum depth and width as indicated in the plans. Fill shovel cut edge with Shredded Hardwood Bark Mulch and tamp mulch lightly. Add additional mulch, as necessary, so that the final level of the mulch, after compacting, is level with adjacent lawn grades.

D Measurement
The department will measure Shovel Cut Edging in length 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.0090.500	Shovel Cut Edging	LF

Payment is full compensation for providing shovel cut edging, except that Shredded Hardwood Bark Mulch will be paid separately.

131. Water Main, 6-Inch, Item SPV.0090.600; 8-Inch, Item SPV.0090.601; 14-Inch, Item SPV.0090.604.

A Description
This special provision describes furnishing and installing water main (size) according to Section 7 of the City of Fitchburg Standard Specification for Public Works Construction – Latest Edition.

B Materials
Furnish materials according to Section 7.2 of the City of Fitchburg Standard Specification for Public Works Construction – Latest Edition.

Provide granular backfill according to Granular Backfill for Water Main.

C Construction
Install water main according to section 7.3 of the City of Fitchburg Standard Specification for Public Works Construction – Latest Edition.

Remove all abandoned or existing material located in the new water main alignment.

D Measurement
The department will measure Water Main (Size) in length as linear foot of water main (size), 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.0090.600	Water Main, 6-Inch	LF
SPV.0090.601	Water Main, 8-Inch	LF
SPV.0090.604	Water Main, 14-Inch	LF

Payment is full compensation for provision and installation of water main , fittings, bends, tees, plugs, flushing connection, appurtenances, bedding, cover, restraints, thrust blocking, and polywrap; for furnishing all special connections to existing mains; for excavation; dewatering, backfilling, compaction, bracing and shoring; for removal of all utilities abandoned within the new water main alignment and for removal of flushing connections once flushing and testing is complete; for disposal of surplus excavated material, protection and support of existing utilities, chlorination, coordination and testing and cleanup. Granular Backfill for Water Main will be paid separately.

132. Granular Backfill for Water Main, Item SPV.0090.602.

A Description

This special provision describes furnishing and placing granular backfill over the water main and copper water services along the entire length of the pipe.

B Materials

Provide granular backfill according to standard spec 209, grade 2, of the standard spec.

C Construction

Place granular backfill for water main and copper water services according to all applicable provisions of Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition.

D Measurement

The department will measure Granular Backfill for Water Main in length by the linear foot, acceptably completed. Measurement is along the centerline of the installed water main or copper water service and includes the length through bends, tees, valves, curb stops, and fire hydrants.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.602	Granular Backfill for Water Main	LF

Payment is full compensation for providing granular backfill material for open cut installations; and for disposal of surplus excavated material.

133. Insulation, Item SPV.0090.603.

A Description
This special provision describes furnishing and installing polystyrene insulation to insulate water main and sanitary sewer according to Section 7 of the City of Fitchburg Standard Specifications for Public Works Construction – Latest Edition.

B Materials
Provide materials according to Section 7.2 of the City of Fitchburg Standard Specifications for Public Works Construction – Latest Edition.

C Construction
Install water main and sanitary sewer insulation according to Section 7.3 of the City of Fitchburg Standard Specifications for Public Works Construction - Latest Edition

Provide water main and sanitary sewer insulation at locations where there is less than 6.5 feet of cover to finished grade, where shown on the plans, and as directed by the engineer or City of Fitchburg.

D Measurement
The department will measure Insulation in length by the linear foot, acceptably completed. Measurement is along the centerline of the installed water main and sanitary sewer and includes the length through bends and tees.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.603	Insulation	LF

Payment is full compensation for providing and installation of 4-inch thick by 8 foot by 4 foot sheets of polystyrene.

134. Research and Locate Existing Property Monuments, Item SPV.0105.001.

A Description
This special provision describes researching and locating existing property monuments located within permanent easement and temporary easement areas, within the construction limits that may be lost or disturbed by construction operations, as directed by the engineer, and as hereinafter provided.

This provision does not relinquish the contractor of his responsibility under standard spec 107.11.

B (Vacant)

C Construction

Prior to construction, research, locate and document the adjacent property monuments located within permanent easement and temporary easement areas. Tie the located property monuments in with coordinates accurate to 1:3000 and tied to at least two adjacent witness markers that will not be disturbed by any project.

Prepare a property monument location map showing the type of monuments originally found with their coordinates. A legible tax map or right-of-way plat is acceptable as a base map for the property monument location map. Provide a copy of the property monument location map to the engineer.

All work under this item is to be performed by, or under the direction of, a land surveyor registered in the State of Wisconsin.

After construction is completed property monument locations will be verified and reset, if necessary, under item Verify and Replace Existing Property Monuments of these special provisions.

D Measurement

The department will measure Research and Locate Existing Property Monuments as a single 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
SPV.0105.001	Research and Locate Existing Property Monuments	LS

Payment is full compensation for furnishing all research, field survey, locating, and recording of field data necessary to locate and determine coordinates for existing property monuments within the construction limits prior to construction; furnishing a registered land surveyor; and for preparing, annotating and delivering the property monument location map to the engineer.

135. Verify and Replace Existing Property Monuments, Item SPV.0105.002.

A Description

This special provision describes verifying the location of, and replacing existing property monuments, which were previously located under item Research and Locate Existing Property Monuments of these special provisions, that are determined to be lost or disturbed, as directed by the engineer, and as hereinafter provided.

This provision does not relinquish the contractor of his responsibility under standard spec 107.11.

B Materials
Provide replacement property monuments that are one-inch inside diameter by 24-inch long iron pipe or ¾-inch diameter iron rod or rebar that are 24 inches long in locations outside of pavement areas, a Berntsen Steel Nail Marker for placement in asphalt pavement, or a Berntsen BP1 Brass Marker with anchoring plug for placement in concrete pavement.

C Construction
After construction is completed, verify the location of all property monuments previously located under item Research and Locate Existing Property Monuments of these special provisions. Replace or reset as necessary, any property monuments that are lost or disturbed.

Prepare a property monument location map showing the type of monuments originally found, and the type of replacement monument used to replace or reset the lost or disturbed monuments, with their coordinates. A legible tax map or right-of-way plat is acceptable as a base map for the property monument location map. The property monument location map is to explicitly state that the replaced or reset monuments are not being certified as an actual property monument, only that evidence of a property monument was found and reset. Provide a copy of the property monument location map to the engineer and the county surveyor.

All work under this item is to be performed by, or under the direction of, a land surveyor registered in the State of Wisconsin.

D Measurement
The department will measure Verify and Replace Existing Property Monuments as a single 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
SPV.0105.002	Verify and Replace Existing Property Monuments	LS

Payment is full compensation for furnishing all survey work necessary to verify the location of all property monuments previously located under item Research and Locate Existing Property Monuments of these special provisions; replacing or resetting, as necessary, property monuments that are lost or disturbed from their original location; furnishing property monuments; furnishing a registered land surveyor; and for preparing, annotating and delivering the property monument location map.

136. Construction Staking Supplemental Features, Item SPV.0105.003.

A Description
Preform work according to standard spec 650 and as hereinafter provided.

B (Vacant)

C Construction

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Set additional construction stakes as necessary to establish location and grade, including points of change in alignment and grade according to the plans, details, and for conformance with ADAAG. Staking includes, but is not limited to, driveway curb cuts, traffic control paint lines, traffic control temporary concrete barrier, temporary traffic signals, temporary asphaltic pavement limits, sawcuts, and silt fence or other erosion control features. Locate stakes to within 0.02 feet horizontally and establish the grade elevation to within 0.01 feet vertically.

D Measurement

The department will measure Construction Staking Supplemental Features as a single complete lump sum unit of work, completed according to the contract 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.0105.003	Construction Staking Supplemental Features	LS

Payment is full compensation for locating and setting all construction stakes and for relocating and resetting damaged or missing construction stakes.

137. Temporary Haul Road, Item SPV.0105.004.

A Description

Work under this item consists of constructing and maintaining a temporary haul road and an at grade temporary signalized crossing of CTH PD to allow for movement of Roadway Embankment at contract specified times. Perform work according to the applicable provisions of standard spec 104, 603, 618, 628, 643, and 661, and these special provisions for Temporary Pedestrian Safety Fence, Cold Patch, and Street Sweeping, as detailed in the plans, and as hereinafter provided.

The use of the temporary haul road for the transfer of materials other than Roadway Embankment is not allowed unless approved by the engineer.

B Materials

B.1 Roadway Maintenance

Provide roadway maintenance materials and tracking pads according to standard spec 618.2 and 628.2.14, respectively. Provide Cold Patch according to these special provisions.

B.2 Traffic Control

Provide Traffic Control Drums, Type III Barricades, and Signs according to standard spec 643.2. Provide flag persons according to standard spec 104.6.1 (4).

B.3 Temporary Traffic Signals

Furnish temporary traffic signal supports, heads, cabling, and incidental items according to standard spec 661.2.

Coordinate directly with the department's assigned project electrician for all activities associated with this bid item which require modifications to the traffic signal control cabinet. The department will provide contact information for the designated project electrician at the preconstruction meeting. Contact the department at least ten working days prior to changes in operation or modifications to the traffic signal control cabinet. Contact Chris Frederick at (608) 884-7130 in advance of the preconstruction meeting with any questions regarding this bid item.

Modification to signal cabinets (not including splice cabinets), wiring terminations, programming changes and testing procedures will be provided by the department.

Furnish materials required to install and maintain the haul road related interim signal equipment and operation. Materials include, but are not limited to:

- Sheeting for obscuring (bagging) existing signals.
- R10-3E signs for all signalized pedestrian crossings. Furnish with arrow direction(s) as appropriate.
- Signal head visibility limiting devices (if needed).
- All materials for integrating interim signal heads.

Regulatory signs as needed are to be placed with the interim traffic signals throughout all stages of construction at locations determined by the contractor and the engineer and are paid for separately under the traffic control signs bid item.

C Construction

Provide and maintain a temporary haul road, consisting of an at grade temporary signalized crossing of CTH PD, to allow for the movement of Roadway Embankment, according to the plan. Control dust from hauling operations using engineer approved methods and provide tracking pads at locations directed by the engineer. The temporary haul road, and associated traffic control devices and temporary traffic signals, may only be used between the hours of 8:00 PM and 5:00 AM according to the Traffic article in these special provisions, or timeframes approved by the engineer.

Move and re-install concrete barrier temporary precast conflicting with the temporary haul road according to standard spec 603.3 and as shown in the plan. Reinstall concrete barrier temporary precast at the plan, or other engineer approved, locations when the haul road is not being used and prior to 5:00 AM.

Maintain all pavements in the haul road area currently in use by traffic or pavements to be used during a later construction stage. Repair all pavements damaged by hauling to a condition that is equivalent, or better, to the pre-hauling condition according to standard spec 618.3. Clean the traveled way on CTH PD daily, prior to 5:00 AM, or as directed by

the engineer according to the Street Sweeping article in these special provisions. Inspect all pavement and pavement repairs daily, prior to 5:00 AM, and repair damage immediately, as directed by the engineer.

Provide and maintain a temporary signalized crossing of CTH PD for the temporary haul road as shown in the plans and according to standard spec 661.3. Provide signalization of the temporary haul road for both approaches to CTH PD as shown in the plans. Integrate the haul road signal timing with the temporary signal timing at the CTH PD and Verona Road intersection as shown in the plans. Actuate the haul road temporary traffic signals by use of a push button operated by a dedicated representative of the contractor. Position the temporary haul road traffic signal heads in a manner that the signal heads are not visible to Verona Road or CTH PD traffic. Install louvers on signal heads, if directed by the engineer. Clean each signal head within the intersection prior to 5:00 AM after the temporary haul road is used, or as directed by the engineer.

Coordinate traffic signal cabinet wiring and traffic signal controller programming changes to implement and deactivate the Stage 9A Haul Route modifications to the interim traffic signal with the department.

When the temporary haul road signal phase is not in use, cover or otherwise completely obscure the temporary haul road related temporary traffic signal heads from vehicles.

Provide traffic control drums, signs, and barricades as shown in the plans and according to standard spec 643.3. Reset all temporary traffic control devices according to the plans prior to 5:00 AM. Provide a flag person at all times the temporary haul road is in use, to control for the passage of pedestrians within the crosswalk along CTH PD. Provide all flagging according to standard spec 104.6.1 (4). Remove Temporary Pedestrian Safety Fence in conflict with the temporary haul road and reset the Temporary Pedestrian Safety Fence according to these special provisions and prior to 5:00 AM.

If, in the engineer's judgment, the contractor's operations are adversely impacting traffic or pedestrians, use of the Temporary Haul Road may be rescinded. Use of the Temporary Haul Road will not be allowed to resume until approved by the engineer.

D Measurement

The department will measure Temporary Haul Road 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 items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.004	Temporary Haul Road	LS

Payment is full compensation for providing all materials, including, but not limited to, temporary traffic control devices and temporary traffic signal equipment; for tracking pads; for moving and resetting concrete barrier temporary precast; for moving and resetting Temporary Pedestrian Safety Fence; for maintaining and repairing pavements damaged as a result of hauling operations, including all sawcuts, asphaltic pavements, concrete pavements, Cold Patch, and any other items needed for the repairs; for providing personnel for actuating the temporary signals; for flagging pedestrians; for cleaning traffic signal heads; for Street Sweeping the haul road area; for coordinating with the department; and for removing and disposing of surplus materials.

The department will pay separately for Water for dust control under other contract items. Required single lane closures on CTH PD used in conjunction with the Temporary Haul Road will be paid for under the appropriate traffic control items within the contract.

138. Storm Sewer Inlet Cap, Item SPV.0105.050; Pipe Cap, Item SPV.0105.051.

A Description

This special provision describes removing and capping existing inlet riser structures on reinforced concrete pipes. Perform work according to the applicable provisions of standard spec 504, as detailed in the plans, and hereinafter provided.

B Materials

Conform to standard spec 504.

C Construction

Maintain existing drainage patterns throughout construction.

D Measurement

The department will measure Storm Sewer Inlet Cap and Storm Sewer Pipe Cap as single complete lump sum units 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 items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.050	Storm Sewer Inlet Cap	LS
SPV.0105.051	Storm Sewer Pipe Cap	LS

Payment is full compensation for providing all materials, including all concrete masonry, steel reinforcing, adhesive anchors; for all excavating, removing concrete, backfilling, disposing of surplus material; for any dewatering; for maintaining existing drainage; for cleaning out debris caused by the work; and for restoring the work site.

139. Remove Traffic Signals, CTH PD & Kapec Road, Item SPV.0105.100; CTH PD & Commerce Park Drive, Item SPV.0105.101.

A Description

This special provision describes removing existing traffic signal equipment at the intersections of CTH PD & Kapec Road and CTH PD & Commerce Park Drive. 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. De-energizing of the traffic signals is only required at the CTH PD & Kapec Road intersection. The CTH PD & Commerce Park Drive traffic signal can remain energized as it will be re-used when the permanent traffic signals go back into operation.

The installation of new equipment at CTH PD & Commerce Park Drive will be paid for under separate bid items.

The storage of and re-installation of existing removed equipment at CTH PD & Commerce Park Drive will be paid for under a separate bid item.

Notify Mike Benzschawel at (608) 266-9031 at least seven working days prior to the removal of the traffic signal equipment. Complete the removal work immediately following shut down of the equipment.

Perform a field review of existing equipment with Mike Benzschawel for condition of equipment prior to removal. The city will identify all items to be removed and salvaged or disposed. Any damaged equipment should be noted to the engineer during this meeting.

Remove all standards and poles from their concrete footings and disassemble. Remove the transformer bases from each pole. Remove the signal heads, mast arms, luminaires, wiring/cabling and traffic signal mounting devices from each signal standard, arm or pole as approved by engineer and/or city. Ensure that access hand hole doors and hardware remain intact. Dispose of the underground signal cable, internal wires and street lighting cable.

After removal of signal equipment, stockpile the materials on site in a readily accessible location and coordinate pick up of all salvaged materials, except wire and cable and any items not salvaged, with Mike Benzschawel.

D Measurement

The department will measure Remove Traffic Signals, (location) as a single 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
SPV.0105.100	Remove Traffic Signals, CTH PD & Kapec Road	LS
SPV.0105.101	Remove Traffic Signals, CTH PD & Commerce Park Drive	LS

Payment is full compensation for removing, disassembling traffic signals, and coordinating pick up of the requested materials with the city; properly disposing of scrap material; and for any necessary interim stockpiling of materials on site.

140. Remove ITS Camera Assembly, Item SPV.0105.102.

A Description

This special provision describes removing and salvaging department-owned ITS camera assembly no longer in use on the project.

B (Vacant)

C Construction

Contact Kyle Hemp, Southwest Region ITS Engineer at (608) 246-5367 at least 14 calendar days prior to removing ITS camera assembly components.

Perform a field review of existing equipment with Kyle Hemp for condition of equipment prior to removal. The department will identify all items to be removed and salvaged or disposed. Coordinate the pick up by the department of any salvaged items with Kyle Hemp. Re-installation of the ITS camera assembly components is paid for separately.

Properly dispose of any equipment that the department does not salvage. Remove and dispose existing 50-foot wood pole.

D Measurement

The department will measure Remove ITS Camera Assembly, as a single 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
SPV.0105.102	Remove ITS Camera Assembly	LS

Payment is full compensation for Remove ITS Camera Assembly; coordinating pick up of salvaged items; disposing of surplus material, including 50-ft wood pole; and for meeting with the department.

141. Install EVP Detector, Verona Road & Williamsburg Way, Item SPV.0105.103; CTH PD & Commerce Park Drive, Item SPV.0105.104.

A Description

This special provision describes installing Emergency Vehicle Preemption (EVP) detection equipment at the location shown on the plans and as provided hereinafter.

B Materials

Use the existing EVP equipment that was used on the temporary/interim traffic signals.

Furnish mounting hardware for EVP detectors.

For the Verona Road & Williamsburg Way intersection, the department will furnish the EVP cable. Contact Graham Heitz (Southwest Region Traffic Operations Engineer) at (608) 246-5362 at least seven working days prior to the installation of the detectors and other EVP equipment.

For the CTH PD & Commerce Park Drive intersection, the City of Madison will furnish the EVP cable. Contact Mike Benzschawel (City of Madison Traffic) at (608) 266-9031 at least seven working days prior to the installation of the detectors and other EVP equipment.

C Construction

Mount detectors on the mast arms and signal poles as shown on the plans.

Install EVP cable between the detectors shown on the plans and the traffic signal control cabinet.

Mount the EVP detector just above the upper traffic signal mast arm bracket, positioning the polybracket above the traffic signal mast arm. Install the cable from the traffic signal control cabinet to the EVP detector. Include a six foot loop of cable in the pull box nearest the mounting pole.

For the Verona Road & Williamsburg Way intersections, the department will install and terminate the card rack and discriminator equipment in the cabinet.

For the CTH PD & Commerce Park Drive intersection, the City of Madison will install and terminate the card rack and discriminator equipment in the cabinet.

D Measurement

The department will measure Install EVP Detector (location) as a single 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
SPV.0105.103	Install EVP Detector, Verona Road & Williamsburg Way	LS
SPV.0105.104	Install EVP Detector, CTH PD & Commerce Park Drive	LS

Payment is full compensation for mounting and installing EVP detector, polybracket, and cable, including mounting hardware; and for coordination with the department and city for delivery and installation of department furnished components.

142. Interim Traffic Signals for Intersections USH 18/151 and Williamsburg Way, Item SPV.0105.200; Interim Traffic Signals for Intersections USH 18/151 and CTH PD, Item SPV.0105.201.

A Description

This special provision describes maintaining an existing long term duration interim traffic signal installation, furnishing and installing equipment as shown in the plans, and removing all equipment when no longer needed at the location as shown on the plans, and according to standard spec 661.

B Materials

Provide all materials according to the plans and standard spec 661.2 and as hereinafter provided.

B.1 Interim Traffic Signal General Requirements

Coordinate directly with the department's assigned project electrician for all activities associated with this bid item which require modifications to the traffic signal control cabinet. The department will provide contact information for the designated project electrician at the preconstruction meeting. Contact the department at least ten working days prior to changes in operation or modifications to the traffic signal control cabinet. Contact Chris Frederick at (608) 884-7130 in advance of the preconstruction meeting with any questions regarding this bid item.

Modification to signal cabinets (not including splice cabinets), wiring terminations, programming changes and testing procedures will be provided by the department.

The department will operate traffic signal cabinet, controller, and department furnished non-intrusive detection during the entire duration of this contract.

Contractor furnished materials from the previous contract (1206-07-75) bid item "Interim Traffic Signals For Intersections (location)" become property of the 1206-08-77 contractor. This does not include traffic signal cabinets, controllers, detection, items removed or installed and paid for using separate bid items, or items that are reclaimed by the department.

B.2 Microwave Detection, Video Detection and Radio Communications

Microwave sensors, detector cards, video cameras, radio communications equipment, emergency vehicle preemption (EVP) equipment, and mounting hardware present at the intersection at the beginning of this contract become property of the department upon

completion of this contract. Materials furnished by the contractor under this contract remain the property of the contractor upon completion of this contract.

B.3 Street Lighting
Furnish all street lighting equipment including arms, LED C luminaires, mounting hardware, wiring, controls, and incidentals necessary to provide lighting as shown on the interim traffic signal plans. Aerial cables shall be rated to maintain acceptable voltage drop and span tension.

B.4 Emergency Vehicle Preemption
Furnish all equipment for pole or span wire mounting as required to allow for line of sight placement with emergency vehicle emitters during all stages of construction as shown on the plans.

B.5 Girder Supported Structures
This item requires temporary signal cables to be installed under the USH 18/151 Structures during stage 10D Phase 3 to Post Stage. Furnish non-metallic cable raceways and supports as required to place temporary signal cables under the structures. Furnish all cable raceways and supports in compliance with the Wisconsin State Electrical Code, consisting of Chapter Comm. 16 of the Wisconsin Electrical Code combined with the National Electrical Code.

B.6 General Materials
Furnish materials required to install and maintain the interim signal during all stages as shown on the plans. Materials include, but are not limited to:

- Sheeting for obscuring (bagging) existing signals.
- R10-3E signs for all signalized pedestrian crossings. Furnish with arrow direction(s) as appropriate.
- Signal head visibility limiting devices (if needed).
- Temporary signal cabinet bases.
- Video and Microwave detector wire and cable.
- Hardware for span wire mounting of EVP detectors (if needed).
- Materials for integrating interim signal heads, and aerial cabling to permanent signal infrastructure.
- Conduit, fittings, pull boxes, and cabling for integrating interim signals with segments of permanent signal conduit and structure conduits.

Signal mounting hardware for mounting traffic signal heads to permanent signal poles and traffic signal heads at Williamsburg Way will be paid under separate bid items.

Regulatory signs such as R5-1, R1-1F, R4-7, R3-4 are to be placed with the interim traffic signals throughout all stages of construction at locations determined by the contractor and engineer and are paid for separately under the traffic control signs bid item.

C Construction

C.1 General

Construct the interim traffic signals according to the plans and standard spec 661.3 and as hereinafter provided:

Arrange for monthly inspections with the engineer to check the height of the span wire above the roadways to ensure that the bottom of the traffic signal heads remain within the minimum and maximum heights allowed above the roadway according to the standard spec and the current edition of the MUTCD. Make all height adjustments within 24-hours of an inspection indicating that adjustments are required. Notify the engineer in writing upon completion of all necessary adjustments. Maintain a written log to properly document the date of each monthly inspection, the heights above the roadway, the roadway clearance after adjustments have been made and acceptance by the engineer. Provide written log to engineer monthly.

Ensure that all pedestrian buttons are placed in conformance with ADA requirements.

C.2 Operational Transfer

Operation and maintenance responsibility will begin immediately upon the start of work under contract 1206-08-77 at the intersection of USH 18/151 and CTH PD. Work completed under the prior contract (1206-07-75) at the intersection of USH 18/151 and CTH PD will be finalized and transferred to the department prior to the start of work under contract 1206-08-77

Operation and maintenance responsibility will begin immediately upon completion of Stage 8 under contract 1206-07-75 at the intersection of USH 18/151 and Williamsburg Way. The anticipated completion date of Stage 8 under contract 1206-07-75 is July 3, 2019.

C.3 Non-Intrusive Detection

Install, adjust, relocate, or remove detection equipment and wiring, and/or detection zones for each stage of traffic operations shown in the plans, or as modified by changes in field conditions, and as directed by the engineer.

C.4 Microwave Detection, Video Detection and Radio Communications

The department's assigned project electrician will oversee all changes in operation and placement of department furnished detection and communications equipment. Modifications to traffic signal cabinets, completing wiring terminations, programming and testing will be provided by the department.

C.5 Emergency Vehicle Preemption

Maintain emergency vehicle preemption equipment as shown on the interim traffic signal plans. Adjust locations of emergency vehicle preemption detectors throughout the stages of construction as needed to allow for line-of-sight placement with emergency vehicle emitters.

C.6 Street Lighting
Install poles, arms and LED C luminaires as shown on the plans. Re-orient the luminaires throughout the stages of construction as needed to illuminate the active travel lanes and pedestrian crossings.

C.7 Integration with Permanent Signal Conduits
Install and abandon conduits, fittings, pull boxes, and cabling according to the standard spec, and as shown on the plans. Integrate segments of the permanent signal conduit system for use with interim signal cabling. All connections to permanent signal conduits, junction boxes, permanent signal heads and pull boxes shall be approved by the engineer.

C.8 Temporary Haul Road Integration (CTH PD only)
All work required to integrate and remove the temporary haul road related interim traffic signal equipment and coordination with the department for traffic signal controller and cabinet modifications shall be paid for under separate temporary haul road bid item.

C.9 Girder Supported Cables (CTH PD only)
Install all girder supported cables in raceways and supports with non-destructive methods only. Do not drill or otherwise permanently alter the condition of any elements of the USH 18/151 structures. Install girder supported cables in a manner that maintains full clearance below the structures without the use of ground supports. Raceways and supports shall not sag below the level of the bottom of the girders. Install all cable raceways and supports in compliance with the National Electric Code.

C.10 Single Point Interchange Switch-Over (CTH PD only)
Refer to information in the Traffic article in these special provisions for coordination requirements when executing the switch-over from existing diamond interchange configuration and control to single-point interchange configuration and control. Multiple switch-overs will be required during the final stage of construction. First, to perform the switch from diamond interchange control to temporary single-point control; second, to perform the switch from temporary single-point control to permanent single-point control.

The first switch-over (from diamond to temporary single-point) will consist of operating permanent signal heads on the structure with temporary signal heads operating at other locations.

Work required prior to stage 10D phase 3 during the first switch-over include:

- Install all permanent signal heads, conduits, cables attached to the structures and wired back to the pier cap junction boxes.
- Construct a temporary signal cabinet base as shown on the plans.
- WisDOT personnel will install a temporary signal cabinet with single-point controller operation. Provide temporary electrical service connections to the temporary single-point cabinet.
- Install temporary signals for stage 10D phase 3 as shown on the plans.

- Terminate all temporary signal cables on the east side of the interchange span wires into the temporary single-point signal cabinet and controller.
- Terminate all temporary signal cables on the west side of the interchange into the temporary single-point splice cabinet.

The second switch-over (from temporary single-point to permanent single-point) will consist of operating permanent signal heads at all locations while the temporary signals are removed.

Work required during stage 10D phase 3 to accomplish the second switch-over include:

- Install all remaining permanent signal conduits, pull boxes, bases, poles, heads and cables.
- Construct the permanent primary cabinet base and splice cabinet bases as shown on the plans.
- WisDOT personnel will install the permanent primary cabinet with single-point controller operation and splice cabinets. Provide permanent electrical service connection to the primary cabinet.
- Terminate all permanent signal cables to primary and splice cabinets on both sides of the interchange.
- Shut down the temporary single-point cabinet.
- Disconnect all temporary signal cables that are wired back to the pier cap junction boxes.
- Terminate all permanent signal cables to the pier cap junction boxes.
- Remove all temporary signals, poles, and span wires from the site.

All coordination required to execute the switch-overs are included with this bid item. All traffic control devices not shown on the plans required to execute the switch-overs to accommodate the contractor's means and methods shall be included with the Traffic Control Project bid item.

D Measurement

The department will measure Interim Traffic Signals For Intersections (Location) 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
SPV.0105.200	Interim Traffic Signals For Intersections USH 18/151 and Williamsburg Way	LS
SPV.0105.201	Interim Traffic Signals For Intersections USH 18/151 and CTH PD	LS

Payment is full compensation for installing, operating, maintaining, and removing the complete installation.

143. Galvanize and Paint Steel Signal Supports B-13-831, Item SPV.0105.300; Galvanize and Paint Steel Signal Supports B-13-832, Item SPV.0105.301.

A Description

This special provision describes providing galvanizing and painting for the steel signal support brackets and pipes.

B Materials

Furnish a two-coat paint system from the departments Approved Products List for structure painting systems under paint-galvanized railing.

C Construction

Galvanize and paint steel signal support brackets and pipes as the plans specify.

Submit shop drawings as specified in standard spec 506.3.2 before ordering or fabricating the material. Include paint specifications stating the name of the painting manufacturer and the product name of the tie-coat and top coat used along with the color number and name.

Fabricate signal support brackets to meet the requirements of standard spec 506. After fabrication, blast clean assemblies per SSPC-SP6 and galvanize according to ASTM A123. Provide vent holes in members to facilitate galvanizing and provide drainage. Remove burrs at component edges, corners, and holes; and chamfer sharp edges before galvanizing. Condition thermal cut edges before blast cleaning by shallow grinding or other cleaning to remove hardened surface layer material. Remove steel defects according to AASHTO M 160 before blast cleaning. Remove lumps, projections, globules, and heavy deposits of galvanizing. Do not use water quenching; and do not use chromate or other passivating treatments.

Use a two-coat paint system after galvanizing as follows:

- Coat exterior surfaces of signal support brackets and pipes.

Clean galvanized surfaces before coating according to SSPC-SP1 to remove chlorides, sulfates, zinc salts, oil, dirt, organic matter, and other contaminants. Ensure tie-coat adhesion by brush blasting the cleaned surface according to SSPC-SP16 to create a slight angular surface profile according to manufacturer’s recommendations of 1 mil to 1.5 mils. Remove wet storage stains before blasting according to SSPC-SP16.

Brush blast at an angle of 30 to 60 degrees at no greater than 50 psi using garnet or other engineer-approved soft abrasive. Do not use steel shot or angular iron blasting grit. Brush blast the surface to produce a matte silver appearance. Do not fracture the galvanizing finish or remove any dry film thickness. Before applying the tie-coat, remove visible deposits of oil, grease, and other contaminants according to SSPC-SP1 and remove dust, dirt, and loose residue.

After cleaning and within 8 hours of blasting, apply the tie-coat from a coating system intended for galvanized surfaces, according to manufacturer's recommendations. Apply the top-coat according to manufacturer's recommendations, matching the color the plans show. Use a top-coat that is UV resistant and suitable to a marine environment. Ensure that the tie and top-coats are of contrasting color and come from the same manufacturer.

Ensure that the coating manufacturer reviews the process for surface preparation and application of the coating system with the coating applier. The review includes a visit to the facility performing the work if the coating manufacturer requests. Provide written confirmation, from the coating manufacturer to the engineer, that the review took place and that issues raised were addressed before beginning the coating work under the contract.

The department will reject coating with bubbles, blisters, or flaking.

Handle steel signal support brackets and pipes in conforming to standard spec 517.3.1.7.4. Repair or replace assemblies if the zinc coating or the two-coat paint system is damaged. Store the material off the ground, providing proper ventilation and drainage. Do not field weld, field cut, or drill without the engineer's written approval.

For minor damage to coated surfaces caused by shipping, handling, or installation; touch-up the surface conforming to the manufacturer's recommendation for the two-coat paint system and conforming to ASTM A780 for the zinc coating.

D Measurement
The department will measure Galvanize and Paint Steel Signal Supports 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.0105.300	Galvanize and Paint Steel Signal Supports B-13-831	LS
SPV.0105.301	Galvanize and Paint Steel Signal Supports B-13-832	LS

Payment is full compensation for painting and galvanizing steel.

144. Construction Staking Water Main, Item SPV.0105.600.

A Description
Preform work according to the applicable provisions of standard spec 650.

B (Vacant)

C Construction
Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate stakes to within 0.02 feet of the true

horizontal position at 50 intervals along the water main, and to establish the grade elevations within 0.01 feet of the true vertical position.

Place additional intermittent stakes as necessary to provide staking information at critical areas such vertical and horizontal bends, tees, valves, hydrants, water services locations. Determine offsets in conjunction with contractor requirements.

Provide cut sheets to the engineer and City of Fitchburg and contractor for elevation reference.

D Measurement
The department will measure Construction Staking Water Main 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
SPV.0105.600	Construction Staking Water Main	LS

Payment is full compensation for locating and setting all construction stakes and providing cut sheet information; and for relocating and resetting damaged or missing construction stakes.

145. Water for Seeded Areas, Item SPV.0120.001.

A Description
This special provision describes furnishing, hauling and applying water to seeded areas as directed by the engineer, and as hereinafter provided.

B Materials
When watering seeded areas, use clean water, free of impurities or substances that might injure the seed.

C Construction
If rainfall is not sufficient, keep all seeded areas thoroughly moist by watering or sprinkling. Water for 60 days after seed placement or as the engineer directs. Apply water in a manner to preclude washing or erosion. Water the topsoil and salvaged topsoil every three calendar days during this 60-day period unless the engineer determines that it is excessively wet and does not require watering. Water topsoil and salvaged topsoil with the equivalent of at least one-half inch of rainfall per week.

D Measurement
The department will measure Water for Seeded Areas by volume by the thousand gallon units (MGAL), acceptably completed.

Provide volume by metering devices or from tanks of known capacity. Report volumes to the engineer daily. Unreported daily volumes may not be considered for payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0120.001	Water for Seeded Areas	MGAL

Payment is full compensation for furnishing, hauling, and applying the water.

146. Colored and Stamped Concrete 5-Inch, Item SPV.0165.001.

A Description

Construct colored concrete sidewalk according to standard spec 602, as shown in the plans, and as hereinafter provided.

B Materials

B.1 Concrete

Provide concrete according to standard spec 602 and as shown on the plans or as approved by the engineer.

Integrally color the concrete using non-fading synthetic iron oxides conforming to ASTM C979. Follow color pigment manufacturers recommendations for minimum and maximum percentage of loading by weight of the cementitious materials in the mix.

Provide color Dark Gold RC5010, trademarked RheoColor, by BASF.

Maintain mix characteristics for all colored concrete requiring a matching finish. Use the same source, brand, type, and color of portland cement, supplementary cementitious materials, aggregates and admixtures for colored concrete throughout the project. Use constant cement content, supplementary cementitious material content and water/cementitious materials ratio in the concrete mix to maintain consistent color.

B.2 Concrete Curing

Supply a clear, non-yellowing liquid membrane-forming clear curing compound conforming to ASTM C 1315, Type 1 A.

B.3 Admixtures

Furnish admixtures designed for use and compatible with colored concrete pigments. Do not use calcium chloride or admixtures containing chlorides.

B.4 Mix Approval

B.4.1 General

Perform preliminary laboratory and/or field trial batching to establish the mix proportions necessary to conform to the contract-required color.

Submit to the engineer the final mix design including specific sources and/or trade names as applicable for all materials. Include the slump, air, and water-cement ratio according to standard spec 602.

B.3.2 Test Panels

Provide the engineer ten calendar day notice for production of a test panel. At an engineer-approved location on the project, place and finish an 8-foot by 8-foot by 5-inch colored concrete test panel using processes and techniques intended for use on permanent work, including curing procedures stamping, coloring, antiquing, joint tooling and sealing. Produce test panels using the same workers who will perform the contract work. Retain samples of cements, sands, aggregates and color additives used in test panels for comparison with materials used in the contract work. For an accurate representation of the desired color or color intensity, produce the colored concrete for the test panel in a minimum batch size of 2 cubic yards or in full cubic yard increments for batch sizes greater than 2 cubic yards. Remove excess material from the project site.

The engineer will determine acceptance of the test panel color based on review and approval by engineer, the City of Fitchburg and department representatives. Test panel color will be evaluated for approval within five calendar days after the test panel is poured, cured and sealed according to all manufacturer's specifications (including all required cure time prior to sealing). Once approved, provide engineer with the documentation of all materials and material ratios within the approved test panel.

Store and protect the test panel on the project site for use during the entire project as a comparison of the completed work. Work that does not match the test panel, as determined by the engineer, may be ordered for removal and replacement by the engineer at no cost to the department.

Replace test panels that are damaged or removed from the project site at no cost to the department.

B.5. Stamp

Furnish 'Fractured Slate Embossing Skin' pattern (No. 910M), trademarked Lithotex Pavecrafters, by Scofield, with a tool size of approximately 42 inches by 42 inches. Provide a sample stamp pattern to engineer for approval by the engineer, City of Fitchburg and department representatives a minimum of ten calendar days prior to production of a test panel

B.6. Antiquing Release Agent

Use an antiquing release agent that is compatible with the stamp and coloring materials.

Use color Walnut 810 antique release, by Brickform.

Provide manufacturer's color chart and specifications for antiquing release agent to engineer ten calendar days prior to production of a test panel.

B.7. Concrete Sealant
Use concrete sealant that is compatible with the stamp, release agent and manufacturer's recommended installation methods. Provide sealant specifications to the engineer ten calendar days prior to production of a test panel.

Prime Sealant: Glossy.
Secondary Sealant: Matte.

C Construction
Construct Colored and Stamped Concrete 5-Inch according to standard spec 602.

Coordinate locations of permanent signage requiring PVC pipe box outs according to standard spec 634.3 and as approved by the engineer.

C.1 Placement
Produce consistent colored concrete mixes. Once colored concrete placement has started, variations in the amounts, types, or source of materials are not permitted, with the exception of minor adjustments of water and air-entraining agent as necessary according to the standard spec. Other changes require the contractor to repeat the mix approval process.

Schedule colored concrete placement to minimize exposure to rapid drying conditions, wind and full sun, before curing materials are applied. Do not place colored concrete if rain, snow, or freezing temperature is forecasted within 24-hours.

Cover and protect adjacent construction work from discoloration and spillage during placement and curing of colored concrete. Remove and replace discolored work as the engineer directs.

Perform finishing operations consistently to avoid color variation in the finished colored concrete. Do not begin finishing until bleed water has left the surface. If water is added to the surface of the colored concrete to aid in finishing, the engineer will order removal of the colored concrete. During final finishing and stamping apply all strokes in the same direction.

Cure colored concrete according to standard spec 415.3.12, using the impervious coating or impervious sheeting method. Protect colored concrete from premature drying and excessive cold or hot temperatures by prompt application of curing materials. Do not allow plastic sheeting to come in contact with colored concrete.

C.2 Stamp Preparation
Clean the stamp prior to each use and ensure that it is free of any build-up. Visually inspect each stamp for blemishes or tears, and repair if necessary according to the manufacturer's recommendations.

C.3 Stamp
Coordinate with the engineer to verify stamping pattern orientation prior to starting the stamping work.

Prepare stamp tools with a full, smooth coat of antiquing release agent according to the manufacturer's recommendations.

While concrete is still in the plastic state, apply imprinting tools to the surface and press into the concrete to create the desired impression. Finish all surfaces uniformly. Ensure that the stamped surface is free of laitance; sandblasting is not permitted. Grind or fill any blemishes.

Hand apply antiquing release agent to each individual joint line by spraying or rolling according to the manufacturer's recommendations.

Shake or spray antiquing release agent over concrete surface according to the manufacturer's recommendations to achieve desired look and to match approved test panel.

C.4 Finishing

Provide tooled joints in a 4-foot x 4-foot grid, perpendicular to the back of the primary curb, or as directed by the engineer.

Allow concrete to cure for 24 hours and according to the manufacturer's recommendations after application of the color hardeners, antiquing release agents and stamp pattern.

Pressure wash concrete surface to remove approximately 80% of the antiquing release agent.

Ensure that concrete is clean and dry according to the manufacturer's recommendations before proceeding with concrete sealant.

Apply sealant according to the manufacturer's recommendations. Spray or roll on a single layer of gloss sealant. Follow by spraying on a single coat of matte finish sealer. Do not roll matte finish sealer onto concrete surfaces.

Protect the colored concrete from damage. Do not permit construction traffic or material storage on colored concrete. Exclude other foot traffic from colored concrete for at least 24 hours after placement.

D Measurement

The department will measure Colored and Stamped Concrete 5-Inch by the square foot, 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.0165.001	Colored and Stamped Concrete 5-Inch	SF

Payment is full compensation for preparing the foundation; for developing mix designs and providing and storing test panels; for furnishing materials (including concrete masonry, colored pigments, sealers, joint and bond breakers, and retarders), hauling, preparing, placing, curing, and protecting the concrete; for stamping, for antiquing and finishing; for sawing required for construction of colored concrete; for jointing and joint materials; for measuring opening strength including fabricating and testing cylinders, and evaluating maturity; for furnishing all removal of test panels and surplus colored concrete; and for protecting adjacent work.

147. Salvage and Replace Landscaping Stone, Item SPV.0165.002.

A Description

This special provision describes salvaging and replacing landscaping stone at locations shown on the plans and as hereinafter provided.

B (Vacant)

C Construction

Remove, handle, store and reinstall existing landscaping stone in a manner that prevents foreign material from being intermixed with the stone. If fabric or plastic sheeting underlies the existing landscaping stone, replace in a similar manner meeting the approval of the engineer.

D Measurement

The department will measure Salvage and Replace Landscaping Stone 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.0165.002	Salvage and Replace Landscaping Stone	SF

Payment is full compensation for removing, handling, and storing all materials, including all fabric or plastic sheeting; for all excavating, backfilling, disposing of surplus material; and for reinstalling existing landscaping stone.

148. Curb Ramp Detectable Warning Field Temporary, Item SPV.0165.003.

A Description

Work under this item consists of furnishing, installing, maintaining, and removing temporary detectable warning fields at locations shown on the plans and as designated by the engineer.

B Materials

Furnish surface applied detectable warning fields conforming to Americans with Disabilities Act Accessibility Guidelines that are approved by the engineer and will not damage the underlying pavement.

Furnish surface applied detectable warning fields having a minimum slip resistance coefficient of 0.80 wet and dry. Maintain the slip resistance throughout construction.

Furnish yellow temporary detectable warning fields.

C Construction

Place temporary detectable warning fields according to Standard Detail Drawing 8d5 Curb Ramps (type). Match the width of the facility leading to the curb ramp, in locations approved by the engineer and as shown on the plans. Provide temporary detectable warning fields meeting the requirements of the manufacturer and the current Americans with Disabilities Act Accessibility Guidelines (ADAAG).

Maintain the temporary detectable warning fields until removed to be compliant with the ADAAG, the manufacturer's specifications, and the contract documents.

Remove temporary detectable warning fields as provided in the plans or as directed by the engineer.

D Measurement

The department will measure Curb Ramp Detectable Warning Field Temporary 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.0165.003	Curb Ramp Detectable Warning Field Temporary	SF

Payment is full compensation for furnishing all materials; for placing and maintaining; and for removing and disposing of surplus and removed materials.

149. Wall Concrete Panel Mechanically Stabilized Earth R-13-266 Item SPV.0165.300; R-13-267 Item SPV.0165.301.

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 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. 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 foot 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 concrete leveling pad. The bottom units shall be horizontal and centered on the leveling pad. The minimum thickness of the leveling pad shall be 6-inches. The minimum width of the leveling pad shall be 12-inches.

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, and have cast-in-place concrete pads or footings. 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.

For 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.

For 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.

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 Sample Panel
Provide sample wall panels with the textures and relief features as provided on each structure plan.

Supply and deliver to the engineer a 5-foot x 5-foot minimum sample panel for each panel type, demonstrating all wall components, for each structure with the specified pattern and colors for each structure. Prepare concrete surfaces of the sample panels and apply the stain using the same materials and in the same manner as proposed for each structure. Obtain the engineer's acceptance of the panel's texture and pattern prior to 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 the wall panels for each structure. Continue to provide test panels until accepted by the engineer.

The engineer will visually inspect panels for consistency upon arrival at the project. The panels shall have no substantial variation from the accepted test panel submitted for the project. All panels with substantial variation will be rejected and shall be removed from the project.

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.3.3.1 Wall Backfill Type A

For typical wall backfill, provide and 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.

B.3.3.2 Wall Backfill Type B

If the project schedule is such that the wall must be constructed during freezing weather, the engineer may allow use of alternate wall backfill materials. The alternate wall backfill materials will only be utilized when approved by the engineer. Alternate Wall Backfill, Type B shall comply with the requirements for Coarse Aggregate No.1 as given in standard spec 501.2.5.4.4. The alternate wall backfill must consist of crushed stone or crushed gravel.

For Alternate Wall Backfill, Type B, provide material conforming to the following gradation requirements as per WisDOT Standard Specifications for Highway and Structure Construction.

Sieve Size	Percentage by Weight Passing
	Size No. 1 Coarse Aggregate, Standard spec 501.2.5.4.4
1”	100
¾”	90-100
3/8”	20-55
#4	0-10
#8	0-5

When Alternate Wall Backfill Type B (Coarse Aggregate No.1) is used in the reinforced zone as backfill, as required for construction during freezing weather, a geotextile shall be placed to separate the Alternate Wall Backfill Type B from the retained soil. If the wall is constructed in stages where portions of wall backfill consist of Wall Backfill Type A and adjacent portions consist of Alternate Wall Backfill Type B (Coarse Aggregate No.1), a geotextile must also be placed at the interface of and between the two different backfill materials for the entire height of the backfill to prevent migration of finer soil. The geotextile shall also be placed on top of the Alternate Wall Backfill Type B to provide separation from the fill above the wall reinforced zone. Adjoining sections of geotextile should be overlapped by a minimum of 12 in. The geotextile shall meet the physical requirements stated in standard spec 645.2.4 for Geotextile Fabric, Type DF, Schedule B. Where geotextile is used it cannot be placed directly on top of wall reinforcement and it must be placed at one-half of the backfill lift thickness over the reinforcement.

Do not alternate wall backfill types along the height of the wall. Sloping of the Alternate Wall Backfill Type B from the top of the reinforced earth zone down to the leveling pad is acceptable as required for staging and as approved by the engineer. The section C.2 compaction requirements must be satisfied for this interim condition. Temporary shoring return walls, such as wire face MSE walls, are acceptable as approved by the engineer.

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).

If the engineer allows and approves use of alternate wall backfill material, the compaction of Alternate Wall Backfill Type B (Coarse Aggregate No.1) should be performed with at least three passes of a vibratory compactor in two mutually perpendicular directions (at least 6 passes total), such that with additional compactive effort, no further densification is obtained as visually determined by the engineer. If additional densification is observed after three passes in the two directions, then the material must be re-compacted until no further visual densification is observed. The initial three passes of the compactor must be in the direction parallel to the wall alignment followed by the three passes in the direction perpendicular to the wall alignment. Density testing is not required for Alternate Wall Backfill Type B.

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 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.

C3.3 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. The HTCP Level I Grading Technician, Level I Aggregate Technician, or Assistant Certified Aggregate Technician (ACT) must also be present to document and confirm the required number of passes of the compaction equipment for the Alternate Wall Backfill Type B during wall backfill placement and compaction activities.

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

C.4.3 Equipment

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

Furnish nuclear gauges from the department's approved product list at http://www.atwoodsystems.com/. Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to ASTM D6938 and CMM 8-15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

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

C.4.4 Documentation

(1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.

(2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 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.

Observe the compaction and densification process for the Alternate Wall Backfill Type B. The material must be compacted using the minimum number of passes of the compaction equipment until no further densification is obtained as visually determined. Provide documentation that the compaction met the required number of passes of the compaction equipment for the Alternate Wall Backfill Type B.

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.

(6) The department will also provide personnel to be onsite and confirm the required number of passes of the compaction equipment for the Alternate Wall Backfill Type B during wall backfill placement and compaction activities on a random basis. This work does not relieve the contractor of the responsibility to observe and document fill placement and compaction as required in C.4.2 and C.4.4.

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 not measure Wall Concrete Panel Mechanically Stabilized Earth. The department will use pay plan quantity conforming to standard spec 109.1.1.2. The plan quantity area is at the front face of wall as defined by the pay limits the contract plans show. Unless the engineer directs in writing, a change to the limits indicated on the contract plan, wall area constructed above or below these limits will not be measured for payment.

E Payment

The department will pay for plan quantities conforming to standard spec 109.1.1.2 at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.300	Wall Concrete Panel Mechanically Stabilized Earth R-13-266	SF
SPV.0165.301	Wall Concrete Panel Mechanically Stabilized Earth R-13-267	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 and leveling pad;

constructing the retaining system including drainage system; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

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, abutment bodies and other items above the wall cap or coping will be paid for separately. Vehicle barrier and its support 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.

150. Longitudinal Grooving Bridge Deck, Item SPV.0165.302.

A Description

Provide longitudinal deck grooves parallel to the centerline of the roadway prior to opening the bridge to traffic as directed by the engineer.

B Materials

The grooving machine to contain blades mounted on a multi-blade arbor on a self-propelled machine built for grooving hardened concrete surfaces.

The grooving machine to have a depth control device that detects variations in the deck surface and adjusts the cutting head height to maintain a specified depth of groove.

The grooving machine to have a guide device to control multi-pass alignment.

C Construction

Perform longitudinal grooving operation in a manner to preclude any damage to the concrete deck surface.

Longitudinal grooving operation to result in a uniformly grooved deck surface.

Cut grooves continuously across the deck width to within 18 inches of the barrier rail, curb line, or median divider. If metal floor drains extend more than 18 inches from the barrier rail, curb line, or median divider, all grooves on the bridge deck surface are to end within 6 inches of the floor drain perimeter.

At skewed metal edged expansion joints in the bridge deck surface, all grooves on the bridge deck surface are to end within 6 inches of the joint leaving no ungrooved surface adjacent to each side of the joint greater than 6 inches in width on the deck side of the expansion joints.

Produce grooves that are continuous across construction joints or other joints in the concrete deck surface less than ½-inch wide.

Grooves shall be 1/8-inch wide and 3/16-inch deep. The longitudinal groove shall be spaced at ¾ inches center-to-center. Tolerance for groove width shall be +1/16 inch to -0 inch. Tolerance for groove depth shall be ± /16 inch. Tolerance for groove spacing shall be ± 1/16 inch.

Collect, remove and dispose of solid material residue and liquid waste resulting from grooving operations by vacuuming in a manner satisfactory to the engineer.

D Measurement
The department will not measure Longitudinal Grooving Bridge Deck. The department will use pay plan quantity conforming to standard spec 109.1.1.2. The quantity was determined by multiplying the grooved width by the total length grooved.

E Payment
The department will pay for plan quantities conforming to standard spec 109.1.1.2 at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.302	Longitudinal Grooving Bridge Deck	SF

Payment is full compensation for providing the required machinery and operators; for grooving, for collecting, removing and properly disposing of all waste materials.

151. Asphaltic Surface Safety Islands, Item SPV.0180.001.

A Description
This special provision describes providing asphaltic surface safety islands according to standard spec 465.

B Materials
Conform to standard spec 465.

C Construction
Construct Asphaltic Surface Safety Islands to a minimum depth of 2 inches.

D Measurement
The department will measure Asphaltic Surface Safety Islands by the square yard, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.001	Asphaltic Surface Safety Islands	SY

Payment is full compensation for submitting an asphaltic mixture design; for preparing the foundation; for providing the asphaltic mixture, including asphaltic material and reclaimed asphaltic pavement materials; and for compacting the mixture.

152. Infiltration Basin Compost, Item SPV.0180.002.

A Description

This special provision describes providing and placing infiltration basin compost as shown on the plans and as hereinafter provided.

B Materials

Provide Class A Compost according to the requirements of the Wisconsin Department of Natural Resouces Specification 'Compost for Storm Water Management', number S100, revised October 2017 as follows:

Compost shall meet the standards of Class A Compost as described in s. NR 502.12(16), Wis. Adm. Code, with the following additional requirements:

1. Particle size: 95% of the compost shall pass through 1/2 inch screen, and
2. Organic matter/ash content: ≥40% organic matter and <60% ash content, and
3. Physical contaminants: <1% combined glass, metal, and plastic.

Definition of Ash: Measure of inert material after heating to 550 degrees Celsius.

Provide a certification that the compost meets NR 502.12(16), Wis. Adm. Code.

Remove any nonconforming compost and replace at no cost to the department.

C Construction

C.1 Construction Site Stabilization

Prevent construction site runoff from disturbed areas from entering and contaminating the infiltration basin during compost placement.

If runoff from disturbed areas enters and contaminates the infiltration basin, restore the affected areas at no additional cost to the department.

C.2 Suitable Weather

Suspend infiltration basin construction operations during periods of rainfall or snowmelt. Suspend infiltration basin construction if ponded water is present or if residual soil moisture contributes significantly to the potential for soil smearing, clumping or other forms of compaction.

C.3 Dewatering

Dewater the site as necessary prior to and during placement of infiltration basin compost.

C.4 Placement and Settling of Infiltration Basin Compost

Place 4-inches of infiltration basin compost on top of the existing sand and gravel layer, as detailed in the plan.

Rototill the 4-inches of infiltration basin compost into approximately 8-inches of the native sand layer to the final elevation of the infiltration basin shown on the plans.

Methods to induce mild settling of the infiltration basin compost layer, such as lightly tamping, may be used to prepare a stable planting medium. Vibrating-style plate compactors or other vibratory compactors are not allowed to induce settling.

C.5 Compaction Avoidance
Acceptable equipment for constructing the infiltration basin compost includes light equipment with turf type tires and/or marsh equipment or wide-track loaders.

During placement of the infiltration basin compost, avoid compaction beyond that allowed in section C.4 of this special provision.

C.6 Compaction Remediation
If compaction occurs, beyond that allowed in section C.4 of this special provision, re-fracture the soil to a depth of at least 12 inches. If smearing occurs, correct the smeared areas of the interface by raking or rototilling. Restore compacted or smeared areas at no additional cost to the department.

D Measurement
The department will measure Infiltration Basin Compost by the square yard, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.002	Infiltration Basin Compost	SY

Payment is full compensation for dewatering the compost site; for providing, stockpiling, loading, hauling, placing, and rototilling the material; for providing necessary protection from construction site runoff; for restoration of disturbed areas if necessary; and for re-fracturing compacted areas if necessary.

153. Shredded Hardwood Bark Mulch, Item SPV.0180.500.

A Description
This special provision describes furnishing and installing Shredded Hardwood Bark Mulch according to the applicable sections of standard spec 632 and as hereinafter provided.

B Materials
Provide Shredded Hardwood Bark Mulch that is finely shredded hardwood bark mulch and the product of a mechanical chipper, hammermill, or tub grinder.

Provide fibrous wood mulch, uniformly dark brown in color, free of large wood chunks, and substantially free of mold, dirt, sawdust, and foreign material. Ensure that no portion of the material is in an advanced state of decomposition.

Provide fibrous wood mulch not containing manufactured boards or chemically treated wood, including but not limited to wafer board, particle board, and chromated copper arsenate (CCA) or penta-treated wood. Ensure that the material does not contain bark of black walnut trees.

Provide air dried mulch, passing a 4-inch screen, with no more than 20 percent by mass passing a 0.10-inch sieve. Ensure that unattached bark or greenleaf composition, either singly or combined, do not exceed 20 percent each by mass. The maximum length of individual pieces cannot exceed 4 inches.

C Construction

Install mulch according to standard spec 632.3.9 to depth indicated in plans.

Do not use any weed barrier fabric in mulch areas.

Do not damage plants, structures, and/or other materials already in place, when placing the mulch.

D Measurement

The department will measure Shredded Hardwood Bark Mulch by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.500	Shredded Hardwood Bark Mulch	SY

Payment is full compensation for furnishing and installing all materials.

154. Excavation, Hauling, and Disposal of Contaminated Soil and Management of Contaminated Groundwater, Item SPV.0195.001.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and disposing of contaminated soil at a DNR approved bioremediation facility. The closest DNR approved bioremediation facility is:

Waste Management Madison Prairie Landfill
6002 Nelson Road
Sun Prairie, WI
(608) 837-9031

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

Contaminated groundwater is not anticipated to be encountered but this special provision does describe pumping and disposing of contaminated groundwater (if dewatering is necessary).

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 100-299 of the Wisconsin Administrative Code, as supplemented herein. Perform all work necessary to control, handle, and dispose of groundwater and surface water, and all other water that may be encountered within contaminated areas, as required for performance of the work.

A.2 Notice to the Contractor – Contaminated Soil and Groundwater Locations
The department completed testing for soil and groundwater contamination for locations within this project where excavation is required.

Petroleum-contaminated soil is potentially present at the following locations:

1. (Site 14, 19) Station 89+00 WB to 90+75 WB from the reference line to the right 30 feet and from the reference line to the left 75 feet near 2975 Kapec Road.

2. (Site-8) Station 108+50 EB to 110+50 EB, from 25 RT of the reference line to construction limits RT, from 3.5 feet to 5.5 feet below ground surface.

3. (Site-25) Station 111+50 EB to 114+25 EB from 25 feet RT of the reference line to construction limits RT, from 5 feet to 10 feet below ground surface.

Contaminated soils and/or groundwater and/or underground storage tanks (USTs) may be encountered at other locations within the construction limits. If contaminated soils and/or groundwater and/or USTs are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer and the environmental consultant. Contaminated soil and/or groundwater at other locations shall be managed by the contractor under this contract. USTs will be removed by others.

For further information regarding previous investigation and remediation activities at these sites contact:

Name:	Daniel Haak
Address:	TRC Environmental Corporation 708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
E-mail:	dhaak@trcsolutions.com

A.3 Coordination

Coordinate work under this Contract with the environmental consultant retained by the department:

Consultant:	TRC Environmental Corporation
Contact:	Mr. Dan Haak
Address:	708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
E-mail:	dhaak@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated.

2. Identifying contaminated soils to be hauled to the bioremediation facility.

3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein.

4. Obtaining the necessary approvals for disposal of contaminated soil from the bioremediation facility.

5. Coordinating abandonment of groundwater monitoring wells along the project corridor.

6. Identifying contaminated groundwater to be pumped for treatment and disposal (if dewatering is necessary). Coordinating groundwater characterization and approval for disposal of contaminated water.

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 areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Identify the DNR approved bioremediation facility that will be used for disposal of contaminated soils, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from the bioremediation facility.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed. Do not transport contaminated soil or pump contaminated groundwater offsite without prior approval from the environmental consultant.

A.4 Protection of Groundwater Monitoring Wells

Groundwater monitoring wells, including lost or improperly abandoned wells, may be present within the construction limits. Notify the environmental consultant if groundwater monitoring wells are encountered. Protect all groundwater monitoring wells to maintain their integrity. If required by the environmental consultant, adjust wells that do not conflict with utilities, structures, curb and gutter, etc. to be flush with the final grade. For wells that conflict with the previously mentioned items, notify the environmental consultant, and coordinate with the environmental consultant, or for wells that require abandonment, the abandonment or adjustment of the wells by others.

Coordinate with the environmental consultant to ensure that the environmental consultant is present to abandon and/or document the location of the groundwater monitoring well during excavation activities.

A.5 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR.
The WDNR's concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding the investigations, including waste characterization within the project limits, contact Jennifer Grimes with the department, at (608) 246-3823.

A.6 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter soil contaminated with gasoline, diesel fuel, fuel oil, or other petroleum related products. 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 contaminated site location 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.

Disposal of petroleum-contaminated soil at the bioremediation facility is subject to the facility's safety policies.

B (Vacant)

C Construction

Supplement standard spec 205.3 with the following:

The environmental consultant will periodically examine excavated soil during excavations in the areas of known petroleum or soil contamination within the construction limits.

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated and to ensure that excavations do not extend beyond the minimum required to construct utilities and highway improvements unless expressly directed to do so by the engineer.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite bioremediation or can be beneficially re-used on-site. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil 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, 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, brick, building stone, concrete or reinforced concrete not painted with lead-based paint, broken pavement, and wood not treated or painted with preservatives or lead-based paint), which under NR 500.08 are exempt materials, or
- Low-level contaminated material for reuse as fill within the construction limits, or
- Contaminated soil for off-site treatment and disposal at the WDNR-licensed bioremediation facility, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal.

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 200 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.

Directly load and haul soils designated by the environmental consultant for off-site bioremediation to the DNR approved bioremediation facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of petroleum-contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site bioremediation so as not to contain free liquids. Verify that the vehicles used to transport contaminated material are licensed for such activity according to applicable state and federal regulations.

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 and the Environmental Consultant.

Groundwater may be present within the construction limits. Water generated during dewatering operations (if necessary) is expected to be permitted to discharge to the surface except in the contaminated areas. If dewatering of perched groundwater or stormwater is required, allow stormwater to settle for 24 hours after a rain event, after which the water shall be managed as uncontaminated dewatering, unless the environmental consultant has evidence that the water will require treatment and/or off-site disposal.

Contaminated groundwater generated from dewatering activities within the contaminated areas may exceed the surface water discharge limits for petroleum compounds specified in the DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

Pump contaminated water that exceeds surface water discharge limits, as determined by environmental consultant, into temporary holding tanks provided by others or an alternative discharge point as determined by the environmental consultant, as necessary to complete construction. Allow contaminated water encountered, but not requiring removal as a standard course of construction, to remain in-place and do not manage according to this special provision.

The environmental consultant will coordinate approval of contaminated water hauling and disposal. Only pump contaminated groundwater if the environmental consultant is on-site.

Discharging contaminated groundwater to any location other than that approved and provided by the environmental consultant, is at the contractor's cost. If the contractor chooses alternate discharge, at the contractor's cost, obtain DNR concurrence on any dewatering plans, and provide and operate any and all treatment and discharge equipment required.

Employ construction methods and techniques in a manner that will minimize the need for dewatering, and if dewatering is required, minimize the volume of water generated. Take measures to limit groundwater, surface water, and precipitation from entering and exiting excavations in the areas of contamination. Such measures, which may include berming, ditching, or other means, shall be maintained until construction of utilities in the areas of contamination are complete.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities. Notify the engineer of any dewatering activities, and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statues, judiciary decisions, and regulations of the State of Wisconsin.

D Measurement

The department will measure Excavation, Hauling, and Disposal of Contaminated Soil and Management of Contaminated Groundwater in tons of contaminated soil accepted by the bioremediation facility as documented by weight tickets generated by the bioremediation facility.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.001	Excavation, Hauling, and Disposal of Contaminated Soil and Management of Contaminated Groundwater	TON

Payment is full compensation for excavating, segregating, loading, hauling, and treatment via bioremediation of contaminated soil; tipping fees including applicable taxes and surcharges; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and for dewatering of soils prior to transport, if necessary.

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 15 *(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 6 *(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.

I. 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.*

II. 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

1. Description

a. The federal DBE program requirements outlined in the Code of Federal Regulations at 49 CFR Part 26 apply to this Wisconsin Department of Transportation contract. WisDOT is a recipient of federal funds and this contract includes federal funds. United States Department of Transportation Federal DBE Program requires the following provisions:

(1) Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE regulations will be considered a material breach of contract. This is non-negotiable. If a contractor fails to carry out the DBE program and Title VI nondiscrimination requirements of its contracts, the following sanctions will be assessed depending upon the facts, reasoning, severity and remedial efforts of the contractor: termination of contract, withholding payment, assessment of monetary sanctions, assessment of liquidated damages and/or suspension/debarment proceedings that may result in the disqualification of the contractor from bidding for a designated period of time.

(2) The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains the federal fund recipient's [DOT] written consent. Unless [WisDOT] consent is provided, the contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

b. The Wisconsin Department of Transportation [WisDOT] is committed to the compliant administration of the DBE Program. Each WisDOT Secretary affirms this commitment with his/her signed assurance. https://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/policy-statement.pdf

(1) The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts. Under the contract, the contractor agrees to provide the assistance to participating DBE's in the following areas:

i. Produce accurate and complete quotes.
ii. Understand highway plans applicable to their work.
iii. Understand specifications and contract requirements applicable to their work.
iv. Understand contracting reporting requirements.

(2) Wisconsin DOT 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, specified contract DBE goal by subcontracting work to a DBE or by procuring services or materials from a DBE. The department calculates the DBE participation as the dollar value of DBE participation included in the bid expressed as a percentage of the total contract bid amount.

(3) For more comprehensive information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at: https://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx

2. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

a. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.

b. **DBE:** A small business certified as disadvantaged business enterprise (DBE) under the federal DBE program and included on the Wisconsin UCP DBE Directory deemed ready, willing and able.

c. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.

d. **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.

e. **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.

f. **Voluntary Achievement:** The amount of DBE participation achieved and reported in the contract in excess of the assigned goal.

3. DBE Percentage Required at Bid Submission

Indicate the bid percentage (i.e. 0% through 100%) of DBE participation on the completed bidding proposal. For electronic submittals, show the percentage in the miscellaneous data folder, Item 3, DBE Percent. For paper submittals, show the percentage on the sheet included after the schedule of items. By submission of the bid, the bidder contractually commits to DBE participation at or above the bid percentage, or certifies that they have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, and that the bid percentage is reflective of these good faith efforts. The bid percentage should demonstrate the efforts of the prime contractor prior to bid. If the bidder does not indicate the bid percentage of DBE participation on the completed bidding proposal, the department will consider the bid irregular and may reject the bid.

4. WisDOT Interpretation of Federal DBE Program Provision

Prime contractors must utilize the specific DBEs listed to perform the work and/or supply the materials for which each is listed on the Commitment to Subcontract to DBE Form [DT1506] and approved by WisDOT's DBE office to execute its contract. The approved Commitment to Subcontract to DBE Form [DT1506] becomes a contract document/record.

a. **Department's DBE Evaluation Process**
WisDOT evaluates DBE using the Commitment to Subcontract to DBE, payments to subcontractors and contract documentation. The prime contractor shall list the specific DBE certified firms and items of work s/he intends to use toward the fulfillment of the assigned DBE contract goal. The prime contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved Form DT1506.

b. **Documentation Submittal**
The contractor is to identify, by name, the DBE firms whose utilization is intended to satisfy this provision, the items of work of the DBE subcontract or supply agreement and the dollar value of those items of work by completing the Commitment to Subcontract to DBE Form [DT1506]. Effective January 1, 2017, the contractor will be required to submit the documentation within 5 business days after bid opening. All necessary supporting documentation including Attachment 'A' forms and/or Good Faith Efforts Form

[DT1202] must be submitted no later than 2 business days from contractor's initial submission of the DT 1506. The contractor must provide a signed Attachment 'A' form to the DBE office within the time limit in order to receive authorization for contract execution; the DBE office reserves the right accept alternate documentation in lieu of the signed form in extenuating circumstances. Documentation must be submitted to the DBE Office by email at DBE_Alert@dot.wi.gov (DBE_Alert@dot.wi.gov) or by postal mail ATTN: DBE Office, PO Box 7965, Madison, WI 53707-7965.

(1) **Bidder Meets DBE Goal**
If the bidder indicates that the contract DBE goal is met, after award and before execution, the department will evaluate the Commitment to Subcontract to DBE Form DT1506 and attachment A(s) to verify the actual DBE percentage calculation. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

(2) **Bidder Does Not Meet DBE Goal**

i. If the bidder indicates a bid percentage on the Commitment to Subcontract to DBE Form [DT1506] that does not meet the contract DBE goal, the bidder must submit a Good Faith Efforts Form [DT1202] and supporting documentation. After award and before execution, the department will evaluate the bidder's DBE commitment and consider the bidder's good faith efforts submission.

ii. The department will evaluate the bidder's good faith effort request and notify the bidder of one of the following:

(a) If the department grants a good faith efforts, the bid is eligible for contract execution with respect to DBE commitment.

(b) If the department rejects the good faith efforts request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith efforts request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

c. **Bidder Fails to Submit Documentation**
If the contractor fails to furnish the Commitment to Subcontract to DBE Form [DT1506] within the specified time, the department may cancel the award. Delay in fulfilling this requirement is not a cause for extension of the contract time and shall not be used as a tool to delay execution.

5. Department's Criteria for Good Faith Effort

Appendix A of 49 CFR Part 26, is the guiding regulation concerning good faith efforts. However, the federal regulations do not explicitly define "good faith" but states that bidder must actively and aggressively attempt to meet the goal. The federal regulations are general and do not include every factor or effort that can be considered. As a result, each state must establish its own processes and consider the factors established in its own practices to create a process for making a determination of adequate good faith. WisDOT evaluates good faith on a contract basis just as each contract award is evaluated individually.

The department will only approve a contractor's good faith efforts if the bidder has made the effort, given the relevant circumstances under the contract that a bidder actively and aggressively seeking to meet the goal would make. The department will evaluate the bidder's good faith effort to determine whether a good faith efforts will be granted. The bidder must demonstrate, on the DT1202 that they have aggressively solicited DBE participation in an attempt to meet the contract DBE goal and attaining the stated DBE goal is not feasible.

a. The department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort. 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.

b. Prime Contractors should:
   (1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use the Civil Rights & Compliance System [CRCS] and related WisDOT- approved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.
   (2) Prime contractors may 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. Requesting assistance with outreach is not a decisive factor in the review Good faith effort evaluation. Phone numbers are 414-438-4584 and/or 414-659-0487; Fax: 414-438-5392; E-mail: DOTDBESupportServices@dot.wi.gov.
   (3) Request quotes by identifying potential items to subcontract and solicit. Prime contractors are strongly encouraged to include in their initial contacts a single page including a 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 A*. 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's 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 you are seeking quotes to DOTDBESupportServices@dot.wi.gov.
      ii. SBN is the preferred outreach tool. https://www.bidx.com/wi/main. Other acceptable means include postal mail, email, fax, phone call.
         (a) Primes must ask DBE firms for a response in their solicitations. See *Sample Contractors Solicitation Letter* in Appendix. This letter can be included as an attachment to the SBN sub-quote request.
         (b) Solicit quotes at least 10 calendar days prior to the letting date, at least two Fridays before the letting, 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) Second solicitation should take place within 5 calendar days. Email and SBN are the preferred delivery of the follow-up 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 Bid Express SBN Record of Subcontractor Outreach Effort.

c. Evaluate DBE quotes Documentation is critical if a prime does not utilize the DBE firm's quote for any reason.
   (1) Evaluate DBE firm's capability to perform 'possible items to subcontract' using legitimate reasons, including but not limited to, ***a discussion with the DBE firm*** regarding its capabilities prior to the bid letting. If lack of capacity is your reason for not utilizing the DBE quote, you are 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 and/or NAICS code listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.
   (2) In striving to meet an assigned DBE contract goal, prime contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

(3) **Special Circumstance** - Evaluation of DBE quotes with tied bid items. “Tied quotes are the condition in which a subcontractor submits quotes including multiple areas of expertise across multiple work areas noting that the items and price are tied. Typically this type of quoting represents a cost saving to the prime but is not clearly stated as a discount; tied quotes are usually presented as ‘all or none’ quote to the prime.” When non-DBE subcontractors submit tied bid items in their quotes to the prime, the DBE firms’ quote may seem not 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.

d. Immediately after notification of contract award, the prime submits all **'Commitment to Subcontract'** forms to the DBE Office. Prime contractor has 5 days to submit the completed form for the DBE firms it intends to use on the contract for DBE credit. If the goal is not met in full, the prime contractor must provide the following information along with WisDOT form DT1202: Certificate of Good Faith Efforts.

(1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact.
(2) A description of information provided to the DBE's regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE.
(3) Photocopies or electronic copies of all written solicitations to DBE's. A printed copy of SBN solicitation is acceptable.
(4) Documentation of each quote received from a DBE and, if rejected, the reason for that rejection.
(5) Bidder attendance at any pre-solicitation or pre-bid meetings the department held to inform DBE's of participation opportunities available on the project.

The prime contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved Commitment to Subcontract to DBE Form [DT1506]. If the prime contractor utilizes another contractor, including the use of its own workforce, to perform the work assigned to a DBE on the approved DT1506, the prime contractor will not be entitled to payment for that work. Any changes to DBE after the approval of the DT1506 must be reviewed and approved by the DBE office prior to the change.

6. 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, a prime contractor and the regular dealer of 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 in cases where the prime has submitted the DBE and material 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 is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE 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 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 the DBE Commitment form or 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 supplies.

b. DBE subcontractor is responsible to furnish and/or install the material/work item. The DBE subcontractor shall not be an 'extra participant' in the transaction; the DBE'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 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 contractors negotiated unit price.

7. Bidder's Appeal Process

a. A bidder can appeal the department's decision to deny the bidder's good faith effort submission. The bidder must provide written documentation refuting the specific reasons for rejection as stated in the department's rejection notice. The bidder may meet in person with the department if so requested. Failure to appeal within 7 calendar days after receiving the department's written denial notice of a good faith effort evaluation constitutes a forfeiture of the bidder's right of appeal. A contract cannot be executed without documentation that the DBE provisions have been fulfilled.

b. The department will appoint a representative, who did not participate in the original determination, to assess the bidder's appeal. The department will issue a written decision within 5 calendar days after the bidder presents all written and oral testimony. In that written decision, the department will explain the basis for finding that the bidder did or did not meet the contract DBE goal or make an adequate good faith effort to meet the contract DBE goal. The department's decision is final. If the department finds that the bidder did not meet the contract DBE goal or did not make adequate efforts to meet the DBE goal, the department may declare the bid ineligible for execution.

8. Department's Criteria for DBE Participation

Directory of DBE firms

a. The only resource for DBE certified firms certified in the state of Wisconsin is the Wisconsin Unified Certification Program [UCP] DBE List. Wisconsin Department of Transportation maintains a current list of certified DBE firms titled Wisconsin UCP DBE Directory on the website at:
   https://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx

b. The DBE office is also available to assist at 414-438-4583 or 608-267-3849.

9. Counting DBE Participation

Assessing DBE Work

a. 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 unified certification program agencies. If a firm becomes DBE certified before entering into a subcontract, the department may consider that DBE usage towards the contract goal. 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:

b. The department counts work performed by the DBE's own resources. The department includes the cost of materials and supplies the DBE obtains for the work. The department also includes the cost of equipment the DBE leases for the work. The department will not include the cost of materials, supplies, or equipment the DBE purchases or leases from the prime contractor or its affiliate, except the department will count non-project specific leases the DBE has in place before the work is advertised.

c. The department counts fees and commissions the DBE charges for providing a 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 engineer deems reasonable based on experience or prevailing market rates.

d. If a DBE subcontracts work, the department counts the value of the subcontracted work only if the DBE's subcontractor is also a DBE.

e. The contractor shall maintain records and may be required to furnish periodic reports documenting its performance under this item.

f. It is the prime contractor’s responsibility to determine whether the work that is committed and/or contracted to a DBE certified 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.

g. It is the prime contractor’s responsibility to assess the DBE firm’s ability to perform the work for which s/he 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.

10. Commercially Useful Function

a. Commercially useful function is evaluated after the contract has been executed, while the DBE certified firm is performing its work items. A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.

b. The department uses Form DT1011: DBE Commercially Useful Function Review and Certification to evaluate whether 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 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 contract work and it 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 Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website at https://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf

12. 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 provides under the contract for DBE credit based on whether the DBE is a manufacturer, supplier or broker. Generally, DBE crediting measures and evaluates the DBE owner's role, responsibility and contribution to the transaction: maximum DBE credit when the DBE manufactures materials or supplies; DBE credit decreases when the DBE solely supplies material and minimal credit is allotted when the DBE's role is administrative or transactional.

It is the bidder's responsibility to find out if the DBE 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, count **100%** percent of the cost of the materials or supplies toward DBE goals.

b. Regular Dealers of Material and/or Supplies
   (1) 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.
   (2) 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.
   (3) 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.

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 have historically been 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, or fees or transportation charges for the delivery of materials or supplies required on a job site.
   (4) The evaluation will review the contract need for the item/service, review the sub-contract or invoice for the item/service, compare the fees customarily allowed for similar services to determine whether they are reasonable.

When DBE suppliers are contracted, additional documentation must accompany the DT1506 and Attachment 'A' forms. An invoice or bill-of-sale that includes the company names of the bidder and the DBE supplier and 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*. Please respond to the following questions and submit with your DBE Commitment Form.

1. What is the product or material?
2. Is this item in the prime's inventory or was the item purchased when contract was awarded?
3. Which contract line items were referenced to develop this quote?
4. What is the amount of material or product used on the project?

13. Credit Evaluation for DBE Primes

Wisconsin DOT calculates DBE credit based on the amount and type of work performed by DBE certified firms. If the prime contractor is a DBE certified firm, the department will only count the work that DBE prime contractor performs with its own forces for DBE credit. We will also calculate DBE credit for the work performed by any other DBE certified subcontractor, DBE certified supplier, DBE certified manufacturer on that contract in that DBE's approved work areas/NAICS code. Crediting for manufacturers and suppliers is calculated consistent with paragraph 12 of this document and 49 CFR Part 26.

14. Joint Venture

If a DBE performs as a participant in a joint venture, the department will only count that portion of the total dollar value of the contract equal to that portion of the work that the DBE performs with its own forces for DBE credit.

15. Mentor Protégé

a. If a DBE performs as a participant in a mentor protégé agreement, the department will count for credit the portion of the work performed by the DBE protégé firm.

b. DBE credit will be 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 that can be counted on any WisDOT project.

16. DBE Replacement or Termination

Contractual Requirement

The contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the contractor obtains written consent from the Department's DBE Office. If the Department does not provide consent to replace or terminate a DBE firm, the prime contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the listed DBE.

Contractor Considerations

a. A prime contractor cannot terminate and/or replace a DBE subcontractor listed on the approved Commitment to Subcontract to DBE Form [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.

b. If a prime contractor feels it is necessary to replace or terminate a DBE firm that has been approved for DBE credit toward its contract, s/he will be required to provide reasons and documentation to support why the prime cannot fulfill the contractual commitment that it made to the Department regarding the DBE utilization.

c. Prime contractor is required to make affirmative efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the assigned DBE contract goal.

d. 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 is expected to make affirmative efforts to maintain its commitment to the assigned DBE goal.

e. The DBE firm should communicate with the prime contractor regarding its schedule and capacity in the context of the contract. If the DBE anticipates that it cannot fulfill its subcontract, s/he shall advise the prime contractor and suggest a DBE that may replace their services or provide written consent to be released from its subcontract.

(1) Before the prime contractor can request to terminate or substitute a DBE firm; s/he must:
   i. Make every effort to fulfill the DBE commitment by working with the listed DBE to ensure that they are fully knowledgeable of your 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 your *intent to* request to terminate and/or replace the firm including the reason(s) you want to pursue this action.
   iii. Copy the DBE Office on all correspondence related to changing a DBE firm who has been approved for DBE credit on a contract including the preparation and coordination efforts with the DBE on the contract.
   iv. Clearly state the amount of time the DBE firm has to remedy and/or respond to your notice of intent to replace/terminate their firm from the contract. The DBE shall be allowed five days 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 manager must verify that waiting 5 days for a DBE performing traffic control work to respond would affect the public safety.
   v. The DBE subcontractor must forward a written response to the prime contractor and copy the DBE Office. The written response must outline why it objects to the proposed termination of its subcontract and list the reasons that WisDOT should not approve the request for their firm to be replaced or removed from the contract.

The Request to Replace or Terminate a DBE

The prime contractor must provide a written request to replace or terminate a DBE firm that has been approved for DBE credit on a WisDOT contract. The written request can be an email or printed document delivered by email or fax; at minimum, the request must contain the following:

1. Contract ID number.
2. Wisconsin DOT Contract Project Manager name and contact information.
3. DBE name and work type and/or NAICS code.
4. Contract's progress schedule.
5. Reason(s) for requesting that the DBE be replaced or terminated.
6. Attach/include all communication with the DBE to deploy/address/resolve work completion,

WisDOT will review your request and any supporting documentation that you submit to evaluate whether the circumstance and the reasons constitute a good cause for replacing or terminating the DBE that was approved for DBE credit on that contract.

Examples of Good Causes to Replace a DBE 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.
- You have determined that the listed DBE subcontractor is not a responsible contractor.
- The listed DBE subcontractor voluntarily withdraws from the project and provides to you written notice of its withdrawal.
- The listed DBE is ineligible to receive DBE credit for the type of work required.
- A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract.

Evaluation and Response to the Request

If WisDOT determines that your reasons comply with the good cause standards; the DBE office will send the prime contractor and the WisDOT project manager an email stating that we concur with the reasons and approve the replacement or termination.

If WisDOT determines that your reasons do not comply with the good cause standards of the federal DBE program, the DBE Office will send the prime contractor an email that includes *the requirement* to utilize the committed DBE, *remedial actions* to support the completion of the contractual commitment, a list of available WisDOT support services *and administrative remedies that may be invoked* for failure to comply with federal DBE guidelines for DBE replacement.

The Wisconsin Department of transportation contact for all actions related to replacing a DBE is the DBE Program Chief and/or the DBE Program Engineer which can be reached at DBE_Alert@dot.wi.gov or by calling 608-267-3849.

17. DBE Utilization beyond the approved DBE Commitment Form DT1506

If the Prime/subcontractor increases the scope of work for a participating DBE or adds a DBE subcontractor that was not on the approved Form DT1506 at any time after contract award, s/he should follow these steps so that the participation can be accurately credited toward the DBE goal.

a. Send an email to the DBE Engineer at DBE_Alert@dot.wi.gov describing the work to be performed by the new DBE including the proposed schedule or duration, DBE name and contact information. You may also call the DBE Engineer at 414-659-0487 to notify him of the change verbally.
If the scope change added work for a participating DBE; list the date and reason for the scope change.

b. Forward a complete, signed Attachment 'A' form to the DBE Office at DBE_Alert@dot.wi.gov. A complete Attachment A includes DBE contact information, signature, subcontract value and proper description of the work areas to be performed by the DBE.
The DBE office will confirm the DBE participation and revise the DT1506 based on the email/discussion and attach the new/revised Attachment A to the Contract record/documentation.

18. Contract Modifications

When additional opportunity is available by contract modifications, the Prime Contractor shall utilize DBE Subcontractors that were committed to equal work items, in the original contract.

19. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

APPENDIX A
Sample Contractor Solicitation Letter Page 1
This sample is provided as a guide not a requirement

GFW SAMPLE 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 https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/default.aspx

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

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 QUOTATION

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:

Clear and Grub	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 B
BEST PRACTICES FOR PRIME CONTRACTOR & DBE SUBCONTRACTOR GOOD FAITH EFFORT

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 do as thorough a job as possible 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 C
Types of Efforts considered in determining GFE
This list represents concepts being assessed; analysis requires additional steps

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities.
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively.
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal.
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract.
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities.
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

APPENDIX D
Good Faith Effort Evaluation Guidance
Excerpt from Appendix A of 49 CFR Part 26

APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS

I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make 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, it is up to you 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. 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: meeting quantitative formulas is not required.

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. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must 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 to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

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.

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. 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 employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.

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, you may take into account the performance of other bidders in meeting the contract. 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 reasonable 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.

Appendix E
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 completion at a later time.

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.

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 414-438-4588.

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

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

The prime contractor may also withhold routine retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

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

Release of Routine Retainage

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

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

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

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

ADDITIONAL SPECIAL 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 $2.15 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:

104.10.1 General

Replace paragraph one with the following effective with the December 2017 letting:

(1) Subsection 104.10 specifies a 2-step process for contractors to follow in submitting a cost reduction incentive (CRI) for modifying the contract in order to reduce direct construction costs computed at contract bid prices. The initial submittal is referred to as a CRI concept and the second submittal is a CRI proposal. The contractor and the department will equally share all savings generated to the contract due to a CRI as specified in 104.10.4.2(1). The department encourages the contractor to submit CRI concepts.

104.10.4.2 Payment for the CRI Work

Replace paragraph one with the following effective with the December 2017 letting:

(1) The department will pay for completed CRI work as specified for progress payments under 109.6. The department will pay for CRI's under the Cost Reduction Incentive administrative item. When all CRI costs are determined, the department will execute a contract change order that does the following:

1. Adjusts the contract time, interim completion dates, or both.
2. Pays the contractor for the unpaid balance of the CRI work.
3. Pays the contractor 50 percent of the net savings resulting from the CRI, calculated as follows:

NS = CW - CRW - CC - DC

Where:

NS = Net Savings

CW = The cost of the work required by the original contract that is revised by the CRI. CW is computed at contract bid prices if applicable.[1]

CRW = The cost of the revised work, computed at contract bid prices if applicable.[1]

CC = The contractor's cost of developing the CRI proposal.

DC = The department's cost for investigating, evaluating, and implementing the CRI proposal.

[1] The department may adjust contract bid prices that, in the engineer's judgement, do not represent the fair value of the work deleted or proposed.

108.11 Liquidated Damages

Replace paragraphs two and three with the following effective with the December 2017 letting:

(2) This deducted sum is not a penalty but is a fixed, agreed, liquidated damage due the department from the contractor for the added cost of engineering and supervision resulting from the contractor's failure to complete the work within the contract time.

(3) Unless enhanced in the special provisions, the department will assess the following daily liquidated damages

LIQUIDATED DAMAGES

ORIGINAL CONTRACT AMOUNT		DAILY CHARGE	
FROM MORE THAN	TO AND INCLUDING	CALENDAR DAY	WORKING DAY
$0	$250,000	$850	$1700
$250,000	$500,000	$815	$1630
$500,000	$1,000,000	$1250	$2500
$1,000,000	$2,000,000	$1540	$3080
$2,000,000	___	$2070	$4140

203.3.2.2 Removal Operations

Replace the entire text with the following effective with the December 2017 letting:

203.3.2.2.1 General

(1) Except as specified below for closing culverts, remove the entire top slab of box culverts and the entire superstructure of other culverts and bridges designated for removal. Completely remove existing piles, cribs, or other timber construction within the limits of new embankments, or remove these structures to an elevation at least 2 feet below finished ground line. Remove sidewalls or substructure units in water to an elevation no higher than the elevation of the natural stream or lake bed, or, if grading the channel is required under the contract or the plans, to the proposed finished grade of the stream or lake bed. Remove sidewalls or substructure units not in water down to at least 2 feet below natural or finished ground line.

(2) If extending or incorporating existing culverts and bridges in the new work, remove only those parts of the existing structure as necessary to provide a proper connection to the new work. Saw, chip, or trim the connecting edges to the required lines and grades without weakening or damaging the remaining part of the structure. During concrete removal, do not damage reinforcing bars left in place as dowels or ties incorporated into the new work.

(3) Remove pipe culverts designated for salvage in a way that prevents damage to the culverts.

(4) Dismantle steel structures or parts of steel structures designated for salvage in a way that avoids damage to the members. If the contract specifies removing the structure in a way that leaves it in a condition suitable for re-erection, matchmark members with durable white paint before dismantling. Mark pins, bolts, nuts, loose plates, etc., similarly to indicate their proper location. Paint pins, bolts, pinholes, and machined surfaces with a department-approved rust preventative. Securely wire loose parts to adjacent members, or label and pack them in boxes.

(5) Remove timber structures or parts of timber structures designated for salvage in a way that prevents damage to the members.

(6) If the engineer approves, the contractor may temporarily use materials designated for salvage in falsework used to construct new work. Do not damage or reduce the value of those materials through temporary use.

203.3.2.2.2 Deck Removal

(1) Protect the work as specified in 107.14 during deck removal. Minimize debris falling onto water surfaces and wetlands as the contract specifies in 107.18 or in the special provisions. Also, minimize debris falling on the ground and roadway.

(2) Do not damage existing bar steel reinforcement, girders, or other components that will be incorporated in new work. Remove decks on prestressed concrete girders using a hydraulic shear or other engineer-approved equipment. Thoroughly clean, realign, and retie reinforcement as necessary.

(3) After deck removal is complete, notify the engineer to request a damage survey. Point out damage to the engineer. Allow one business day for the engineer to complete the damage survey. If damage is identified, the department will determine if repairs or girder restoration will be allowed.

(4) If the department allows girder restoration, have a professional engineer registered in the State of Wisconsin analyze the effect of the damage to the bridge, make recommendations, and prepare signed and sealed computations and structural details required to restore girders to their previous structural capacity. Submit the restoration proposal, including analysis and structural details, to the department and design engineer of record. The department will accept or reject the restoration proposal within 3 business days. Do not begin restoration work until the department allows in writing.

(5) The engineer will not extend contract time to assess or remediate contractor caused damage.

203.5.1 General

Replace paragraph two with the following effective with the December 2017 letting:

(2) Payment is full compensation for breaking down and removing; costs associated with contractor-caused damage; required salvaging, storing, and disposing of materials; and, unless the contract specifies granular backfill, for backfilling.

415.2.3 Expansion Joint Filler

Replace paragraph one with the following effective with the December 2017 letting:

(1) Furnish expansion joint filler conforming to AASHTO M153, AASHTO M213, or ASTM D8139 in lengths equal to the pavement lane width and of the thickness and height the plans show. Where dowel bars are required, use filler with factory-punched holes at the dowel bar locations and with a diameter not greater than 1/8 inch larger than the nominal dowel bar diameter.

415.3.20 Filling Joints

Replace paragraph two with the following effective with the December 2017 letting:

(2) Clean joints of laitance, curing compound, and other contaminants before filling. Saw construction joints at least 3/4 inches deep before filling. Sawing is not required for tooled joints in curb and gutter. Sandblast or waterblast exposed joint faces using multiple passes as required to clean joints surfaces of material that might prevent bonding. Blow clean and dry with oil-free compressed air immediately before filling.

415.5.1 General

Replace paragraph six with the following effective with the December 2017 letting:

(6) Payment for Concrete Pavement Joint Filling is full compensation for filling concrete pavement joints; filling adjacent curb and gutter joints; and for sawing.

440.3.4.2 Contractor Testing

Replace paragraph two with the following effective with the December 2017 letting:

(2) Coordinate with the engineer at least 24 hours before making profile runs for acceptance unless the engineer approves otherwise. The department may require testing to accommodate staged construction or if corrective action is required.

455.5.3 Tack Coat

Replace paragraph two with the following effective with the December 2017 letting:

(2) The department will adjust pay for Tack Coat, under the Nonconforming Tack Coat administrative item, for nonconforming material the engineer allows to remain in place at a maximum of 75 percent of the contract unit price.

460.2.7 HMA Mixture Design

Replace paragraph one with the following effective with the December 2017 letting:

(1) For each HMA mixture type used under the contract, develop and submit an asphaltic mixture design according to CMM 8-66 and conforming to the requirements of table 460-1 and table 460-2. The values listed are design limits; production values may exceed those limits. The department will review mixture designs and report the results of that review to the designer according to CMM 8-66.

TABLE 460-2 MIXTURE REQUIREMENTS

Mixture type	LT	MT	HT	SMA
ESALs x 10^6 (20 yr design life)	<2.0	2 - <8	>8	___
LA Wear (AASHTO T96)				
100 revolutions(max % loss)	13	13	13	13
500 revolutions(max % loss)	50	45	45	40
Soundness (AASHTO T104) (sodium sulfate, max % loss)	12	12	12	12
Freeze/Thaw (AASHTO T103) (specified counties, max % loss)	18	18	18	18
Fractured Faces (ASTM D5821) (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	43	45	45
Sand Equivalency (AASHTO T176, min)	40	40	45	50
Gyratory Compaction				
Gyrations for N_{ini}	6	7	8	8
Gyrations for N_{des}	40	75	100	65
Gyrations for N_{max}	60	115	160	160
Air Voids, $\%V_a$ ($\%G_{mm}$ N_{des})	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)	4.0 (96.0)
% G_{mm} N_{ini}	<= 91.5[1]	<= 89.0[1]	<= 89.0	___
% G_{mm} N_{max}	<= 98.0	<= 98.0	<= 98.0	___
Dust to Binder Ratio[2] (% passing 0.075/P_{be})	0.6 - 1.2	0.6 - 1.2	0.6 - 1.2	1.2 - 2.0
Voids filled with Binder (VFB or VFA, %)	68 - 80[4] [5]	65 - 75[3] [5]	65 - 75[3] [5]	70 - 80
Tensile Strength Ratio (TSR) (AASHTO T283)[6] [7]				
no antistripping additive	0.75 min	0.75 min	0.75 min	0.75 min
with antistripping additive	0.80 min	0.80 min	0.80 min	0.80 min
Draindown (AASHTO T305) (%)	___	___	___	0.30

[1] The percent maximum density at initial compaction is only a guideline.

[2] 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.

[3] For No. 5 (9.5mm) and No. 4 (12.5 mm) nominal maximum size mixtures, the specified VFB range is 70 - 76 percent.

[4] For No. 2 (25.0mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[5] For No. 1 (37.5mm) nominal maximum size mixes, the specified VFB lower limit is 67 percent.

[6] WisDOT eliminates freeze-thaw conditioning cycles from the TSR test procedure.

[7] Run TSR at asphalt content corresponding to 3.0% air void regressed design using distilled water for testing.

460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater

Replace paragraph six with the following:

(6) Conduct TSR tests during mixture production according to CMM 8-36.6.14. Test each full 50,000 ton production increment, or fraction of an increment, after the first 5000 tons of production. Perform required increment testing in the first week of production of that increment. If production TSR values are below the limit specified in CMM 8-36.6.14, notify the engineer. The engineer and contractor will jointly determine a corrective action.

502.2.7 Preformed Joint Filler

Replace paragraph one with the following effective with the December 2017 letting:

(1) Use preformed joint filler conforming to AASHTO M153, AASHTO M213, or ASTM D8139.

502.3.7.8 Floors

Replace paragraph fourteen with the following effective with the December 2017 letting:

(14) Unless specified otherwise, transversely tine finish the floors of structures with approach pavements designed for speeds of 40 mph or greater as specified in 415.3.8.3, except make the tining 1/8 inch in depth and do not perform tining within 12 inches of gutters. The contractor may apply a broom finish, described below, instead of the artificial turf drag finish required before tining. The contractor may perform tining manually, if it obtains a finish satisfactory to the engineer. Perform tining within 20 degrees of the centerline of bearing of the substructure units on bridge decks having skew angles of 20 degrees or greater.

505.2.6 Dowel Bars and Tie Bars

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

505.2.6.1 General

(1) Furnish bars coated in a plant certified by the Concrete Reinforcing Steel Institute. For dowel bars and straight tie bars, there is no requirement for bend tests. Ensure that the bars are the specified diameter and length the plans show.

(2) The contractor need not coat or patch sawed ends, sheared ends, cut ends, ends left bare during the coating process, or ends with damaged coating.

(3) The contractor need not repair circumferential coating damage from shipping, handling, or installation, if the following conditions are met:

1. The damaged area is 1/4 inch square or smaller.
2. The total damaged area in any one-foot length does not exceed 2 percent of the circumferential area in that length.

(4) Repair areas of damaged circumferential coating larger than 1/4 inch square. Reject bars with total damage greater than 2 percent of the bar's circumferential area.

505.2.6.2 Dowel Bars

505.2.6.2.1 General

(1) Ensure that the bars are straight, round, smooth, and free from burrs or other deformations detrimental to the free movement of the bar in the concrete.

(2) Saw bars to the required length. For solid bars, the department will allow shearing if no damage occurs to the coating and shearing distortions do not exceed the following:

1. No distorted diameter is more than 0.04 inches greater than the true diameter.
2. No distortion extends more than 0.40 inches from the sheared end.

(3) Apply a surface treatment to loose dowels, or furnish manufacturer-treated bars in dowel bar baskets, capable of preventing bond between the epoxy-coated bars and the concrete. Apply field surface treatments when loading bars in the dowel bar magazine.

505.2.6.2.2 Solid Dowel Bars

(1) Furnish coated bars conforming to AASHTO M31 grade 40 or 60. Alternatively the contractor may furnish dowel bars conforming to AASHTO M227 grade 70-80. Coat with a thermosetting epoxy conforming to AASHTO M254, type B.

505.2.6.2.3 Tubular Dowel Bars

(1) Furnish welded steel tubular bars conforming to ASTM A513 fabricated from plain carbon steel with a minimum tensile yield strength of 60 ksi and sized as follows:

SOLID BAR SPECIFIED DIAMETER	MINIMUM REQUIRED OUTSIDE DIAMETER	MINIMUM BASE METAL WALL THICKNESS
1 1/4-inch	1 5/16 inches	0.120 inch
1 1/2-inch	1 5/8 inches	0.120 inch

(2) Cap bar ends to prevent intrusion of concrete or other materials. Ensure that tubing is galvanized on the exterior and interior according to ASTM A653 with a G40 zinc coating and apply 7-13 mils of epoxy to the galvanized exterior according to AASHTO M254, Type B.

505.2.6.2.4 High Performance Dowel Bars

(1) As an alternate the contractor may furnish high performance dowel bars from the department's APL.

505.2.6.3 Tie Bars

(1) Furnish coated bars conforming to AASHTO M31 grade 40 or 60. Coat tie bars as specified in 505.2.4 for coated high-strength steel reinforcement. Ensure that the tie bars are the shape the plans show.

(2) Repair, with compatible coating material, the bend location of field-straightened coated tie bars.

614.2.1 General

Add the following as paragraph ten effective with the December 2017 letting:

(10) Furnish guardrail reflectors from the department's APL.

614.3.2.1 Installing Posts

Add the following as paragraph five effective with the December 2017 letting:

(5) Provide post-mounted reflectors every 100 feet with one at the beginning and end of each run and a minimum of three reflectors per run.

614.5 Payment

Replace paragraph four with the following effective with the December 2017 letting:

(4) Payment for the Steel Thrie Beam, Steel Plate Beam Guard, Guardrail Stiffened, MGS Guardrail, Short Radius, and various transition bid items is full compensation for providing guardrail and transitions including post-mounted reflectors; for repairing damaged zinc coatings; and for excavating, backfilling, and disposing of surplus material.

641.2.9 Overhead Sign Supports

Replace paragraph three with the following effective with the December 2017 letting:

(3) Provide steel pole shafts, mast arms or trusses, and luminaire arms zinc coated according to ASTM A123. The contractor may provide either straight or tapered pole and arm shafts unless the plans specify otherwise. Provide bolts and other hardware conforming to 641.2.2.

642.2.2.1 General

Replace the entire text with the following effective with the December 2017 letting:

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

(2) Provide long distance telephone service via a land line for exclusive department use that has the following:

- Two programmable touch-tone phones, one of which is cordless. Ensure that phone operations will not interfere with other telecommunications equipment.
- Voice mail service or an answering machine.

(3) Provide 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 bandwidth range as follows:

Field office with 1-5 staff:	A minimum connection speed of 5 Mbps download and 1 Mbps upload. If a cable or DSL option is not available the contractor may provide a personal hotspot using cell phone tethering or other device able to achieve the specified minimum speeds inside the field office.
Field office with 6 or more staff:	A minimum connection speed of 10 Mbps + 1/2 Mbps per user download and 5 Mbps upload.
Projects over 500 million dollars:	A minimum connection speed of 20 Mbps + 1/2 Mbps per user download and 10 Mbps upload. Coordinate network setup at the leased office with the WisDOT network team.

(4) Provide and maintain a Windows 7 and Windows 10 compliant multi-function device with copy, print, and scan capabilities that can accommodate both 8 1/2" x 11" and 11" x 17" paper. Replenish paper, toner cartridges, and other supplies before fully expended. Ensure that department staff can connect to the device either directly or through the field office wireless network.

(5) Equip with a drafting table with a drafter's stool. Except as specified in 642.2.2.4, provide 2 ergonomically correct office chairs in working condition with, at a minimum, the following:

1. Five-legged base with casters.
2. Seat adjustable from 15 to 22 inches from the floor with a seamless waterfall, rounded, front edge.
3. High backrest with no arms or adjustable arms.

643.3.1 General

Replace paragraph one with the following effective with the December 2017 letting:

(1) Provide and maintain traffic control devices located where the plans show or engineer directs to maintain a safe work zone throughout the contract duration. Relocate as required to accommodate changing work operations. When not in use, place devices away from traffic outside of paved and gravel shoulder surfaces. Where there is barrier on the shoulder, the contractor may place devices not in use on the shoulder as close as possible to the barrier and delineated with drums. Lay signs and supports flat on the grade with uprights oriented parallel to and downstream from traffic. Do not stack devices or equipment. Promptly remove temporary devices from within the project limits as follows:

- That will not be used within 14 consecutive calendar days.
- Within 5 business days of substantial completion unless the engineer allows otherwise.

645.2.2.2 Geotextile, Type SAS (Subgrade Aggregate Separation)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Furnish fabric conforming to the following physical properties:

TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	170 lb
Minimum puncture strength	ASTM D6241	350 lb
Maximum apparent opening size	ASTM D4751	No. 70
Minimum permittivity	ASTM D4491	0.35 s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

645.2.2.4 Geotextile, Type DF (Drainage Filtration)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Furnish fabric conforming with the physical requirements of either schedule A, schedule B, or schedule C as the contract specifies.

SCHEDULE A TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	110 lb
Minimum puncture strength	ASTM D6241	200 lb
Minimum apparent breaking elongation	ASTM D4632	30%
Maximum apparent opening size	ASTM D4751	300 µm
Minimum permittivity	ASTM D4491	0.70 s^{-1}

SCHEDULE B TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	180 lb
Minimum puncture strength	ASTM D6241	350 lb
Minimum apparent breaking elongation	ASTM D4632	30%
Maximum apparent opening size	ASTM D4751	300 µm
Minimum permittivity	ASTM D4491	1.35 s^{-1}

SCHEDULE C TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	180 lb
Minimum puncture strength	ASTM D6241	350 lb
Minimum apparent breaking elongation	ASTM D4632	15%
Maximum apparent opening size	ASTM D4751	600 µm
Minimum permittivity	ASTM D4491	1.00 s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

645.2.2.6 Geotextile, Type R (Riprap)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Use fabric conforming to the following physical properties:

TEST	METHOD	VALUE[1]
Minimum grab tensile strength	ASTM D4632	205 lb
Minimum puncture strength	ASTM D6241	400 lb
Minimum apparent breaking elongation	ASTM D4632	15%
Maximum apparent opening size	ASTM D4751	No. 30
Minimum permittivity	ASTM D4491	0.12 s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

645.2.2.7 Geotextile, Type HR (Heavy Riprap)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Use fabric conforming to the following physical properties:

TEST	METHOD	VALUE[1]
Minimum grab tensile strength, lb	ASTM D4632	305 lb
Minimum puncture strength, lb	ASTM D6241	500 lb
Minimum apparent breaking elongation, %	ASTM D4632	15%
Maximum apparent opening size	ASTM D4751	No. 30
Minimum permittivity	ASTM D4491	0.40, s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

645.2.2.8 Geotextile, Type C (Modified SAS)

Replace paragraph one with the following effective with the December 2017 letting:

(1) Use fabric conforming to the following physical properties:

TEST	METHOD	VALUE[1]
Grab tensile strength, lb	ASTM D4632	205 lb
Puncture strength, lb	ASTM D6241	350 lb
Maximum apparent opening size	ASTM D4751	No. 50
Minimum permittivity	ASTM D4491	0.12 s^{-1}

[1] All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

646.3.1.1 General Marking

Replace paragraph one with the following effective with the December 2017 letting:

(1) Prepare the surface and apply marking as the manufacturer specifies. Provide manufacturer specifications as the engineer requests. Do not mark over a marking product with less adherence or over chipped or peeled marking. Do not remove polymer overlay materials in areas receiving pavement marking. Use only epoxy pavement marking where the contract requires marking placed on polymer overlays.

Replace paragraph five with the following effective with the December 2017 letting:

(5) After the marking can sustain exposure to traffic, re-apply clear protective surface treatment conforming to 502.2.11 where removed from structures during marking surface preparation. Seal exposed concrete including grooves for tape. Cover marking during resealing with a system that will not degrade the marking's retroreflectivity when removed. Uncover marking before opening to traffic.

701.3 Contractor Testing

Replace paragraph one with the following effective with the December 2017 letting:

(1) Perform contract required QC tests for samples randomly located according to CMM 8-30. Also perform other tests as necessary to control production and construction processes, and additional testing enumerated in the contractor's quality control plan or that the engineer directs. Use test methods as follows:

TABLE 701-2 TESTING STANDARDS

TEST	TEST STANDARD
Washed P 200 analysis	AASHTO T11[1]
Sieve analysis of fine and coarse aggregate	AASHTO T27[1]
Aggregate moisture	AASHTO T255[1]
Sampling freshly mixed concrete	AASHTO R60
Air content of fresh concrete	AASHTO T152[2]
Air void system of fresh concrete	AASHTO Provisional Standard TP118
Concrete slump	AASHTO T119[2]
Concrete temperature	ASTM C1064
Concrete compressive strength	AASHTO T22
Making and curing concrete cylinders	AASHTO T23
Standard moist curing for concrete cylinders	AASHTO M201

[1] As modified in CMM 8-60.

[2] As modified in CMM 8-70.

715.2.3.1 Pavements

Add the following as paragraph six effective with the December 2017 letting:

(6) For new lab-qualified mixes, test the air void system of the proposed concrete mix conforming to AASHTO provisional standard TP 118. Include the SAM number as a part of the mix design submittal.

715.3.1.1 General

Replace paragraph one with the following effective with the December 2017 letting:

(1) Provide slump, air content, concrete temperature and compressive 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 three cylinders for strength evaluation. For pavement concrete, also test the air void system conforming to AASHTO provisional standard TP118 at least once per lot and enter the SAM number in the MRS for information only.

715.3.1.3 Department Verification Testing

Replace paragraph one with the following effective with the December 2017 letting:

(1) The department will perform verification testing as specified in 701.4.2 with additional testing as required to obtain at least 1 verification test per lot for air content, slump, temperature, and compressive strength.

Errata

Make the following corrections to the standard specifications:

106.3.3.1 General

Correct errata by changing "acceptance" to "approval".

(1) For manufactured products or assemblies, the department may base approval on a product certification or require both a product certification and production plant certification.

205.3.1 General

Correct errata by replacing paragraphs three and four with the following to reflect current practice to incorporate suitable materials.

(3) Replace unsuitable material with satisfactory material. Trim and finish the roadway. Maintain the work done under 205 in a finished condition until acceptance.

305.1 Description

Correct errata to clarify that the contractor may use more than one material under a single contract.

(1) This section describes constructing a dense graded base using one or more of the following aggregates at the contractor's option:

Crushed stone	Reclaimed asphalt
Crushed gravel	Reprocessed material
Crushed concrete	Blended material

521.2 Materials

Correct errata by deleting bullet three and including aluminum coated pipe in bullet one.

(1) Furnish corrugated steel pipe and steel apron end walls as follows:

- Corrugated steel culvert pipe, steel apron endwalls, aluminum coated corrugated steel culvert pipe, and other components conforming to AASHTO M36.
- Polymer coated corrugated steel culvert pipe and pipe arch fabricated from zinc coated sheet steel conforming to AASHTO M218. Before fabrication, coat the sheets on both sides with polymer protective coating grade 250/250 according to AASHTO M246. Fabricate the pipe according to AASHTO M245.

614.3.2.2 Installing Rail

Correct errata for splice location and allow punching or drilling holes and slots.

(1) Install rail with lap splices in the direction of traffic. Ensure that the number and dimensions of holes and bolts conforms to the plan details for new splices. Place the round head of bolts on the traffic side.

(2) Cut rails to length by shearing or sawing; do not use cutting torches. Drill or punch bolt holes and slots; ensure that they are burr free. After installation, cut anchor bolts that project more than one inch from the nut to 1/2 inch from the nut; deburr the threaded end of cut bolts.

618.1 Description

Correct errata by deleting designated detours from the scope of Maintenance and Repair of Haul Roads.

(1) This section describes maintaining, repairing, and restoring all public roads, streets, drainage facilities, and other components used for hauling by contractor, subcontractor, or supplier to support work for a department contract to its pre-haul condition. Public roads and streets shall be limited to those not a part of the State Trunk Highway System and from now on called haul roads.

643.3.5.2 Cellular Communication

Correct errata by changing State Traffic Operations Center to Traffic Management Center.

(2) A minimum of 14 days before deployment, demonstrate to the department that the cellular modem is capable of communications with the Traffic Management Center. If remote communications are interrupted or temporarily unavailable, the department will notify the contractor to change messages manually. Update messages within 2 hours of receiving notification.

646.3.1.2 Liquid Marking

Correct errata by changing "epoxy overlays" to "polymer overlays".

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

LIQUID MARKING	PAVEMENT TYPE	THICKNESS (mils)	BEAD APPLICATION (pounds per gallon)
Paint	all	16	8-10
Epoxy	SMA, seal coats, and polymer overlays	25	25
Epoxy	all other	20	22.5

654.5 Payment

Correct errata to clarify that contractor-provided anchor rods and associated hardware are incidental.

(2) Payment for the Bases bid items is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor rods, nuts, and washers; for bar steel reinforcement; and for excavating, backfilling, and disposing of surplus materials.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

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

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

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

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

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

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. 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, submit their weekly certified payrolls electronically through CRCS. These payrolls 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 payrolls. 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 of forms DT-1816 and DT-1929 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 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 August 2015 letting

BUY AMERICA PROVISION

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

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

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

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

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: WI180010 09/28/2018 WI10

Superseded General Decision Number: WI20170010

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 $10.35 for calendar year 2018 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 $10.35 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 2018. 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	01/05/2018
1	05/18/2018
2	05/25/2018
3	06/15/2018
4	06/22/2018
5	07/20/2018
6	08/03/2018
7	08/31/2018
8	09/28/2018

BRWI0001-002 06/01/2017

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.03	22.40

BRWI0002-002 06/01/2017

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER	$ 38.07	20.67

BRWI0002-005 06/01/2017

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	$ 34.87	21.46

BRWI0003-002 06/01/2017

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.41	22.02

BRWI0004-002 06/01/2017

KENOSHA, RACINE, AND WALWORTH COUNTIES

	Rates	Fringes
BRICKLAYER	$ 36.79	22.99

BRWI0006-002 06/01/2017

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.25	21.18

BRWI0007-002 06/01/2017

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.77	22.37

BRWI0008-002 06/01/2017

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER	$ 37.25	22.10

BRWI0011-002 06/01/2016

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.22	20.57

BRWI0019-002 06/01/2017

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER	$ 32.17	22.26

BRWI0034-002 06/01/2017

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER	$ 33.74	22.40

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

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* 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 06/04/2018

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:	$ 34.21	20.46

ELEC0014-007 06/05/2018

REMAINING COUNTIES

	Rates	Fringes
Teledata System Installer		

Installer/Technician.....$ 26.25 13.92

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 06/01/2017

KENOSHA COUNTY

	Rates	Fringes
Electricians:	$ 38.50	30%+10.57

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* ELEC0158-002 06/04/2018

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
Electricians:	$ 32.50	19.68

ELEC0159-003 06/01/2018

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
Electricians:	$ 39.04	21.56

ELEC0219-004 06/01/2016

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern, Florence and Homestead) AND MARINETTE COUNTY (Township of Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over $180,000	$ 32.38	18.63
Electrical contracts under $180,000	$ 30.18	18.42

ELEC0242-005 05/16/2018

DOUGLAS COUNTY

	Rates	Fringes
Electricians:	$ 36.85	26.17

ELEC0388-002 05/30/2016

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:	$ 30.69	26.00% +10.05

ELEC0430-002 06/01/2017

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:	$ 37.32	21.07

ELEC0494-005 06/01/2018

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:	$ 39.31	24.69

ELEC0494-006 06/01/2018

CALUMET (Township of New Holstein), DODGE (East of Hwy 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:	$ 33.40	22.08

ELEC0494-013 06/01/2018

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	$ 19.56	17.74
Technician	$ 28.99	19.15

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 06/01/2018

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:	$ 32.18	18.59

ELEC0890-003 06/01/2018

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes

Electricians:.....$ 34.15 19.63

ELEC0953-001 07/01/2015

	Rates	Fringes
Line Construction:		
(1) Lineman	$ 42.14	32% + 5.00
(2) Heavy Equipment Operator	$ 40.03	32% + 5.00
(3) Equipment Operator	$ 33.71	32% + 5.00
(4) Heavy Groundman Driver	$ 26.78	14.11
(5) Light Groundman Driver	$ 24.86	13.45
(6) Groundsman	$ 23.18	32% + 5.00

ENGI0139-005 06/04/2018

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 40.72	22.10
Group 2	$ 40.22	22.10
Group 3	$ 39.72	22.10
Group 4	$ 39.46	22.10
Group 5	$ 39.17	22.10
Group 6	$ 33.27	22.10

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.

IRON0008-002 06/01/2017

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER	$ 31.24	26.97

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0008-003 06/01/2017

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER	$ 33.19	26.97

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

IRON0383-001 06/01/2017

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	$ 34.50	23.82

IRON0498-005 06/01/2016

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER	$ 36.29	30.77

IRON0512-008 05/01/2017

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES

	Rates	Fringes
IRONWORKER	$ 36.50	26.45

IRON0512-021 05/01/2017

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER	$ 32.04	26.45

LABO0113-002 06/04/2018

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 27.88	21.76
Group 2	$ 28.03	21.76
Group 3	$ 28.23	21.76
Group 4	$ 28.38	21.76
Group 5	$ 28.53	21.76
Group 6	$ 24.37	21.76

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 06/04/2018

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 27.13	21.76
Group 2	$ 27.23	21.76
Group 3	$ 27.28	21.76
Group 4	$ 27.48	21.76
Group 5	$ 27.33	21.76
Group 6	$ 24.22	21.76

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 06/04/2018

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1	$ 26.94	21.76
Group 2	$ 27.09	21.76
Group 3	$ 27.29	21.76
Group 4	$ 27.26	21.76
Group 5	$ 27.59	21.76
Group 6	$ 24.08	21.76

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 06/04/2018

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	$ 31.80	17.20
Group 2	$ 31.90	17.20
Group 3	$ 31.95	17.20
Group 4	$ 32.15	17.20
Group 5	$ 32.00	17.20
Group 6	$ 28.43	17.20

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 06/04/2018

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1	$ 32.08	17..20
Group 2	$ 32.18	17..20
Group 3	$ 32.23	17..20
Group 4	$ 32.43	17..20
Group 5	$ 32.28	17..20
Group 6	$ 28.43	17..20

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 06/01/2017

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller	$ 33.74	18.95
Spray & Sandblast	$ 34.74	18.95

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 06/01/2017

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge	$ 30.60	22.80
Brush	$ 30.25	22.80
Spray & Sandblast	$ 31.00	22.80

PAIN0802-002 06/01/2017

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush	$ 28.25	17.72

PREMIUM PAY:
Structural Steel, Spray, Bridges = $1.00 additional per hour.

PAIN0802-003 06/01/2017

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	$ 24.89	12.05

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 06/01/2017

FLORENCE COUNTY

	Rates	Fringes
Painters:	$ 24.86	12.23

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 06/01/2018

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles	$ 28.12	21.20
3 or more Axles; Euclids Dumptor & Articulated, Truck Mechanic	$ 28.27	21.20
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: 20181113005 **Project(s):** 1206-08-77

Federal ID(s): WISC 2018438

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	204.0100 Removing Pavement	8,350.000 SY	_____.____	_____.____
0004	204.0115 Removing Asphaltic Surface Butt Joints	4,850.000 SY	_____.____	_____.____
0006	204.0120 Removing Asphaltic Surface Milling	13,800.000 SY	_____.____	_____.____
0008	204.0150 Removing Curb & Gutter	11,080.000 LF	_____.____	_____.____
0010	204.0155 Removing Concrete Sidewalk	1,128.000 SY	_____.____	_____.____
0012	204.0180 Removing Delineators and Markers	246.000 EACH	_____.____	_____.____
0014	204.0195 Removing Concrete Bases	35.000 EACH	_____.____	_____.____
0016	204.0210 Removing Manholes	11.000 EACH	_____.____	_____.____
0018	204.0220 Removing Inlets	81.000 EACH	_____.____	_____.____
0020	204.0245 Removing Storm Sewer (size) 001. 12-Inch	2,170.000 LF	_____.____	_____.____
0022	204.0245 Removing Storm Sewer (size) 002. 15-Inch	270.000 LF	_____.____	_____.____
0024	204.0245 Removing Storm Sewer (size) 003. 18-Inch	1,088.000 LF	_____.____	_____.____
0026	204.0245 Removing Storm Sewer (size) 004. 24-Inch	828.000 LF	_____.____	_____.____
0028	204.0245 Removing Storm Sewer (size) 005. 30-Inch	395.000 LF	_____.____	_____.____
0030	204.0245 Removing Storm Sewer (size) 006. 19x30-Inch HERCP	15.000 LF	_____.____	_____.____

Proposal ID: 20181113005 **Project(s):** 1206-08-77

Federal ID(s): WISC 2018438

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0032	204.0280 Sealing Pipes	18.000 EACH	_____.____	_____.____
0034	204.0291.S Abandoning Sewer	16.500 CY	_____.____	_____.____
0036	204.9060.S Removing (item description) 001. Swing Gate	3.000 EACH	_____.____	_____.____
0038	204.9060.S Removing (item description) 003. Barricades Type III	9.000 EACH	_____.____	_____.____
0040	204.9060.S Removing (item description) 004. Apron Endwalls	9.000 EACH	_____.____	_____.____
0042	204.9060.S Removing (item description) 005. Existing Sign Cover	13.000 EACH	_____.____	_____.____
0044	205.0100 Excavation Common	233,235.000 CY	_____.____	_____.____
0046	206.1000 Excavation for Structures Bridges (structure) 001. B-13-831	LS	LUMP SUM	_____.____
0048	206.1000 Excavation for Structures Bridges (structure) 002. B-13-832	LS	LUMP SUM	_____.____
0050	209.2100 Backfill Granular Grade 2	8,517.000 CY	_____.____	_____.____
0052	211.0100 Prepare Foundation for Asphaltic Paving (project) 001. 1206-08-77	LS	LUMP SUM	_____.____
0054	211.0200 Prepare Foundation for Concrete Pavement (project) 001. 1206-08-77	LS	LUMP SUM	_____.____
0056	213.0100 Finishing Roadway (project) 001. 1206-08-77	1.000 EACH	_____.____	_____.____
0058	305.0110 Base Aggregate Dense 3/4-Inch	5,870.000 TON	_____.____	_____.____

Proposal ID: 20181113005 **Project(s):** 1206-08-77

Federal ID(s): WISC 2018438

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	305.0120 Base Aggregate Dense 1 1/4-Inch	48,045.000 TON	_____.____	_____.____
0062	305.0130 Base Aggregate Dense 3-Inch	1,220.000 TON	_____.____	_____.____
0064	312.0110 Select Crushed Material	109,357.000 TON	_____.____	_____.____
0066	312.0115 Select Crushed Material	330.000 CY	_____.____	_____.____
0068	405.0100 Coloring Concrete WisDOT Red	30.000 CY	_____.____	_____.____
0070	415.0100 Concrete Pavement 10-Inch	85,160.000 SY	_____.____	_____.____
0072	415.0410 Concrete Pavement Approach Slab	392.000 SY	_____.____	_____.____
0074	415.1100 Concrete Pavement HES 10-Inch	290.000 SY	_____.____	_____.____
0076	415.5110.S Concrete Pavement Joint Layout 001. 1206-08-77	1.000 LS	_____.____	_____.____
0078	416.0170 Concrete Driveway 7-Inch	90.000 SY	_____.____	_____.____
0080	416.0190 Concrete Driveway 9-Inch	380.000 SY	_____.____	_____.____
0082	416.0270 Concrete Driveway HES 7-Inch	45.000 SY	_____.____	_____.____
0084	416.0290 Concrete Driveway HES 9-Inch	20.000 SY	_____.____	_____.____
0086	416.0512 Concrete Truck Apron 12-Inch	35.000 SY	_____.____	_____.____
0088	416.0610 Drilled Tie Bars	96.000 EACH	_____.____	_____.____
0090	416.0620 Drilled Dowel Bars	631.000 EACH	_____.____	_____.____

Proposal ID: 20181113005 **Project(s):** 1206-08-77

Federal ID(s): WISC 2018438

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0092	416.1110 Concrete Shoulder Rumble Strips	32,250.000 LF	_____.____	_____.____
0094	416.1715 Concrete Pavement Repair SHES	61.000 SY	_____.____	_____.____
0096	416.1725 Concrete Pavement Replacement SHES	251.000 SY	_____.____	_____.____
0098	440.4410 Incentive IRI Ride	44,645.000 DOL	1.00000	44,645.00
0100	450.4000 HMA Cold Weather Paving	463.000 TON	_____.____	_____.____
0102	455.0605 Tack Coat	8,642.000 GAL	_____.____	_____.____
0104	460.2000 Incentive Density HMA Pavement	14,530.000 DOL	1.00000	14,530.00
0106	460.6223 HMA Pavement 3 MT 58-28 S	5,542.000 TON	_____.____	_____.____
0108	460.6424 HMA Pavement 4 MT 58-28 H	17,107.000 TON	_____.____	_____.____
0110	465.0120 Asphaltic Surface Driveways and Field Entrances	111.000 TON	_____.____	_____.____
0112	465.0125 Asphaltic Surface Temporary	2,575.000 TON	_____.____	_____.____
0114	465.0310 Asphaltic Curb	975.000 LF	_____.____	_____.____
0116	465.0400 Asphaltic Shoulder Rumble Strips	3,000.000 LF	_____.____	_____.____
0118	495.1000.S Cold patch	10.000 TON	_____.____	_____.____
0120	501.1000.S Ice Hot Weather Concreting	14,910.000 LB	_____.____	_____.____
0122	502.0100 Concrete Masonry Bridges **P**	891.000 CY	_____.____	_____.____

Proposal ID: 20181113005 **Project(s):** 1206-08-77

Federal ID(s): WISC 2018438

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0124	502.3100 Expansion Device (structure) 001. B-13-831	LS	LUMP SUM	_____.____
0126	502.3100 Expansion Device (structure) 002. B-13-832	LS	LUMP SUM	_____.____
0128	502.3200 Protective Surface Treatment **P**	5,579.000 SY	_____.____	_____.____
0130	502.3210 Pigmented Surface Sealer **P**	2,246.000 SY	_____.____	_____.____
0132	503.0172 Prestressed Girder Type I 72W-Inch	7,240.000 LF	_____.____	_____.____
0134	504.0500 Concrete Masonry Retaining Walls **P**	1,557.000 CY	_____.____	_____.____
0136	505.0400 Bar Steel Reinforcement HS Structures **P**	43,440.000 LB	_____.____	_____.____
0138	505.0600 Bar Steel Reinforcement HS Coated Structures **P**	691,880.000 LB	_____.____	_____.____
0140	505.0800.S Bar Steel Reinforcement HS Stainless Structures **P**	4,540.000 LB	_____.____	_____.____
0142	506.0105 Structural Steel Carbon	4,320.000 LB	_____.____	_____.____
0144	506.2605 Bearing Pads Elastomeric Non-Laminated **P**	44.000 EACH	_____.____	_____.____
0146	506.2610 Bearing Pads Elastomeric Laminated **P**	44.000 EACH	_____.____	_____.____
0148	506.3004 Welded Stud Shear Connectors 3/4x4-Inch	3,076.000 EACH	_____.____	_____.____
0150	506.4000 Steel Diaphragms (structure) 001. B-13-831	45.000 EACH	_____.____	_____.____

Proposal ID: 20181113005 **Project(s):** 1206-08-77

Federal ID(s): WISC 2018438

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0152	506.4000 Steel Diaphragms (structure) 002. B-13-832	37.000 EACH	_____.____	_____.____
0154	511.1200 Temporary Shoring (structure) 001. B-13-831	1,590.000 SF	_____.____	_____.____
0156	511.1200 Temporary Shoring (structure) 002. B-13-832	780.000 SF	_____.____	_____.____
0158	511.1200 Temporary Shoring (structure) 003. R-13-266	1,900.000 SF	_____.____	_____.____
0160	511.1200 Temporary Shoring (structure) 004. R-13-267	500.000 SF	_____.____	_____.____
0162	513.8016 Railing Steel Pedestrian Type C3 001. R-13-266	185.000 LF	_____.____	_____.____
0164	513.8016 Railing Steel Pedestrian Type C3 002. R-13-267	182.000 LF	_____.____	_____.____
0166	516.0500 Rubberized Membrane Waterproofing	248.000 SY	_____.____	_____.____
0168	517.1010.S Concrete Staining (structure) 001. B-13-831 **P**	14,890.000 SF	_____.____	_____.____
0170	517.1010.S Concrete Staining (structure) 002. B-13-832 **P**	14,280.000 SF	_____.____	_____.____
0172	517.1010.S Concrete Staining (structure) 003. R-13-266 **P**	30,517.000 SF	_____.____	_____.____
0174	517.1010.S Concrete Staining (structure) 004. R-13-267 **P**	27,823.000 SF	_____.____	_____.____
0176	517.1010.S Concrete Staining (structure) 005. S-13-444 **P**	400.000 SF	_____.____	_____.____

Proposal ID: 20181113005 **Project(s):** 1206-08-77

Federal ID(s): WISC 2018438

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0178	517.1010.S Concrete Staining (structure) 006. S-13-453 **P**	310.000 SF	_____.____	_____.____
0180	517.1050.S Architectural Surface Treatment (structure) 001. B-13-831 **P**	1,430.000 SF	_____.____	_____.____
0182	517.1050.S Architectural Surface Treatment (structure) 002. B-13-832 **P**	1,100.000 SF	_____.____	_____.____
0184	517.1050.S Architectural Surface Treatment (structure) 003. R-13-266 **P**	20,320.000 SF	_____.____	_____.____
0186	517.1050.S Architectural Surface Treatment (structure) 004. R-13-267 **P**	19,694.000 SF	_____.____	_____.____
0188	517.1050.S Architectural Surface Treatment (structure) 005. S-13-444 **P**	400.000 SF	_____.____	_____.____
0190	517.1050.S Architectural Surface Treatment (structure) 006. S-13-453 **P**	235.000 SF	_____.____	_____.____
0192	520.2012 Culvert Pipe Temporary 12-Inch	124.000 LF	_____.____	_____.____
0194	520.8000 Concrete Collars for Pipe	78.000 EACH	_____.____	_____.____
0196	550.0020 Pre-Boring Rock or Consolidated Materials	1,070.000 LF	_____.____	_____.____
0198	550.1140 Piling Steel HP 14-Inch X 73 Lb	2,025.000 LF	_____.____	_____.____
0200	601.0405 Concrete Curb & Gutter 18-Inch Type A	315.000 LF	_____.____	_____.____
0202	601.0407 Concrete Curb & Gutter 18-Inch Type D	360.000 LF	_____.____	_____.____
0204	601.0409 Concrete Curb & Gutter 30-Inch Type A	4,742.000 LF	_____.____	_____.____
0206	601.0411 Concrete Curb & Gutter 30-Inch Type D	5,380.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0208	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	10,201.000 LF	_____.____	_____.____
0210	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	5.000 LF	_____.____	_____.____
0212	601.0580 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	132.000 LF	_____.____	_____.____
0214	601.0600 Concrete Curb Pedestrian	362.000 LF	_____.____	_____.____
0216	602.0410 Concrete Sidewalk 5-Inch	32,430.000 SF	_____.____	_____.____
0218	602.0415 Concrete Sidewalk 6-Inch	2,115.000 SF	_____.____	_____.____
0220	602.0515 Curb Ramp Detectable Warning Field Natural Patina	496.000 SF	_____.____	_____.____
0222	602.0615 Curb Ramp Detectable Warning Field Radial Natural Patina	96.000 SF	_____.____	_____.____
0224	603.1142 Concrete Barrier Type S42	9,748.000 LF	_____.____	_____.____
0226	603.1442 Concrete Barrier Type S42C	1,066.000 LF	_____.____	_____.____
0228	603.8125 Concrete Barrier Temporary Precast Installed	2,113.000 LF	_____.____	_____.____
0230	604.0600 Slope Paving Select Crushed Material **P**	1,020.000 SY	_____.____	_____.____
0232	608.0005 Storm Sewer Rock Excavation	95.900 CY	_____.____	_____.____
0234	608.0112 Relaid Storm Sewer 12-Inch	101.000 LF	_____.____	_____.____
0236	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	5,430.000 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
0238	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	1,182.000 LF	_____.____	_____.____
0240	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	2,148.000 LF	_____.____	_____.____
0242	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	2,385.000 LF	_____.____	_____.____
0244	608.0430 Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	251.000 LF	_____.____	_____.____
0246	608.0436 Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	23.000 LF	_____.____	_____.____
0248	608.0442 Storm Sewer Pipe Reinforced Concrete Class IV 42-Inch	96.000 LF	_____.____	_____.____
0250	608.2414 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	104.000 LF	_____.____	_____.____
0252	608.2424 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	89.000 LF	_____.____	_____.____
0254	611.0420 Reconstructing Manholes	4.000 EACH	_____.____	_____.____
0256	611.0430 Reconstructing Inlets	1.000 EACH	_____.____	_____.____
0258	611.0530 Manhole Covers Type J	12.000 EACH	_____.____	_____.____
0260	611.0535 Manhole Covers Type J-Special	3.000 EACH	_____.____	_____.____
0262	611.0545 Manhole Covers Type L	1.000 EACH	_____.____	_____.____
0264	611.0600 Inlet Covers Type A	6.000 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
0266	611.0606 Inlet Covers Type B	4.000 EACH	_____.____	_____.____
0268	611.0610 Inlet Covers Type BW	7.000 EACH	_____.____	_____.____
0270	611.0624 Inlet Covers Type H	74.000 EACH	_____.____	_____.____
0272	611.0627 Inlet Covers Type HM	35.000 EACH	_____.____	_____.____
0274	611.0636 Inlet Covers Type HM-S	2.000 EACH	_____.____	_____.____
0276	611.0639 Inlet Covers Type H-S	24.000 EACH	_____.____	_____.____
0278	611.0642 Inlet Covers Type MS	6.000 EACH	_____.____	_____.____
0280	611.0651 Inlet Covers Type S	10.000 EACH	_____.____	_____.____
0282	611.0652 Inlet Covers Type T	1.000 EACH	_____.____	_____.____
0284	611.0654 Inlet Covers Type V	71.000 EACH	_____.____	_____.____
0286	611.2003 Manholes 3-FT Diameter	8.000 EACH	_____.____	_____.____
0288	611.2004 Manholes 4-FT Diameter	37.000 EACH	_____.____	_____.____
0290	611.2005 Manholes 5-FT Diameter	9.000 EACH	_____.____	_____.____
0292	611.2006 Manholes 6-FT Diameter	4.000 EACH	_____.____	_____.____
0294	611.2007 Manholes 7-FT Diameter	2.000 EACH	_____.____	_____.____
0296	611.2008 Manholes 8-FT Diameter	2.000 EACH	_____.____	_____.____
0298	611.3220 Inlets 2x2-FT	77.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0300	611.3225 Inlets 2x2.5-FT	4.000 EACH	_____.____	_____.____
0302	611.3230 Inlets 2x3-FT	78.000 EACH	_____.____	_____.____
0304	611.3901 Inlets Median 1 Grate	2.000 EACH	_____.____	_____.____
0306	611.3902 Inlets Median 2 Grate	2.000 EACH	_____.____	_____.____
0308	611.8110 Adjusting Manhole Covers	8.000 EACH	_____.____	_____.____
0310	611.8115 Adjusting Inlet Covers	1.000 EACH	_____.____	_____.____
0312	611.8120.S Cover Plates Temporary	46.000 EACH	_____.____	_____.____
0314	611.9710 Salvaged Inlet Covers	6.000 EACH	_____.____	_____.____
0316	611.9900.S Drain Slotted Vane	110.000 EACH	_____.____	_____.____
0318	612.0206 Pipe Underdrain Unperforated 6-Inch	230.000 LF	_____.____	_____.____
0320	612.0406 Pipe Underdrain Wrapped 6-Inch	3,940.000 LF	_____.____	_____.____
0322	614.0150 Anchor Assemblies for Steel Plate Beam Guard	1.000 EACH	_____.____	_____.____
0324	614.2300 MGS Guardrail 3	115.000 LF	_____.____	_____.____
0326	614.2500 MGS Thrie Beam Transition	40.000 LF	_____.____	_____.____
0328	614.2610 MGS Guardrail Terminal EAT	1.000 EACH	_____.____	_____.____
0330	618.0100 Maintenance And Repair of Haul Roads (project) 001. 1206-08-77	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
0332	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0334	620.0200 Concrete Median Blunt Nose	690.000 SF	_____.____	_____.____
0336	620.0300 Concrete Median Sloped Nose	2,347.000 SF	_____.____	_____.____
0338	621.1200 Landmark Reference Monuments and Aluminum Covers	3.000 EACH	_____.____	_____.____
0340	623.0200 Dust Control Surface Treatment	143,340.000 SY	_____.____	_____.____
0342	624.0100 Water	1,187.000 MGAL	_____.____	_____.____
0344	625.0100 Topsoil	10,213.000 SY	_____.____	_____.____
0346	625.0500 Salvaged Topsoil	12,188.000 SY	_____.____	_____.____
0348	627.0200 Mulching	275.000 SY	_____.____	_____.____
0350	628.1504 Silt Fence	401.000 LF	_____.____	_____.____
0352	628.1520 Silt Fence Maintenance	731.000 LF	_____.____	_____.____
0354	628.1905 Mobilizations Erosion Control	33.000 EACH	_____.____	_____.____
0356	628.1910 Mobilizations Emergency Erosion Control	17.000 EACH	_____.____	_____.____
0358	628.2004 Erosion Mat Class I Type B	4,830.000 SY	_____.____	_____.____
0360	628.2006 Erosion Mat Urban Class I Type A	5,110.000 SY	_____.____	_____.____
0362	628.6510 Soil Stabilizer Type B	1.000 ACRE	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0364	628.7005 Inlet Protection Type A	350.000 EACH	_____.____	_____.____
0366	628.7010 Inlet Protection Type B	144.000 EACH	_____.____	_____.____
0368	628.7015 Inlet Protection Type C	281.000 EACH	_____.____	_____.____
0370	628.7020 Inlet Protection Type D	80.000 EACH	_____.____	_____.____
0372	628.7560 Tracking Pads	22.000 EACH	_____.____	_____.____
0374	628.7570 Rock Bags	10.000 EACH	_____.____	_____.____
0376	629.0210 Fertilizer Type B	19.400 CWT	_____.____	_____.____
0378	630.0120 Seeding Mixture No. 20	178.000 LB	_____.____	_____.____
0380	630.0130 Seeding Mixture No. 30	106.000 LB	_____.____	_____.____
0382	630.0140 Seeding Mixture No. 40	59.000 LB	_____.____	_____.____
0384	630.0200 Seeding Temporary	436.000 LB	_____.____	_____.____
0386	630.0400 Seeding Nurse Crop	1.000 LB	_____.____	_____.____
0388	631.0300 Sod Water	301.400 MGAL	_____.____	_____.____
0390	631.1000 Sod Lawn	12,470.000 SY	_____.____	_____.____
0392	632.0101 Trees (species) (size) (root) 001. Coffeetree, 'Expresso', B&B, 2.5" Cal.	1.000 EACH	_____.____	_____.____
0394	632.0101 Trees (species) (size) (root) 002. Catalpa, Northern, B&B, 2.5" Cal.	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0396	632.0101 Trees (species) (size) (root) 003. Elm, 'Accolade', B&B, 2.5" Cal.	2.000 EACH	_____.____	_____.____
0398	632.0101 Trees (species) (size) (root) 004. Elm, American 'Princeton', B&B, 2.5" Cal.	3.000 EACH	_____.____	_____.____
0400	632.0101 Trees (species) (size) (root) 005. Elm, 'New Horizon', B&B, 2.5" Cal.	1.000 EACH	_____.____	_____.____
0402	632.0101 Trees (species) (size) (root) 006. Honeylocust, 'Street Keeper', B&B, 2.5" Cal.	11.000 EACH	_____.____	_____.____
0404	632.0101 Trees (species) (size) (root) 007. Oak, Regal Prince, B&B, 2.5" Cal.	9.000 EACH	_____.____	_____.____
0406	632.0101 Trees (species) (size) (root) 008. Oak, Schuettes, B&B, 2.5" Cal.	3.000 EACH	_____.____	_____.____
0408	632.0201 Shrubs (species) (size) (root) 001. Juniper, Pfitzer 'Kallay's Compact', CG, 24" Sp.	62.000 EACH	_____.____	_____.____
0410	632.9101 Landscape Planting Surveillance and Care Cycles	26.000 EACH	_____.____	_____.____
0412	633.1000 Delineator Brackets	99.000 EACH	_____.____	_____.____
0414	634.0412 Posts Wood 4x4-Inch X 12-FT	8.000 EACH	_____.____	_____.____
0416	634.0414 Posts Wood 4x4-Inch X 14-FT	22.000 EACH	_____.____	_____.____
0418	634.0416 Posts Wood 4x4-Inch X 16-FT	10.000 EACH	_____.____	_____.____
0420	634.0612 Posts Wood 4x6-Inch X 12-FT	11.000 EACH	_____.____	_____.____
0422	634.0614 Posts Wood 4x6-Inch X 14-FT	26.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0424	634.0616 Posts Wood 4x6-Inch X 16-FT	18.000 EACH	_____.____	_____.____
0426	634.0618 Posts Wood 4x6-Inch X 18-FT	26.000 EACH	_____.____	_____.____
0428	634.0620 Posts Wood 4x6-Inch X 20-FT	8.000 EACH	_____.____	_____.____
0430	634.0622 Posts Wood 4x6-Inch X 22-FT	3.000 EACH	_____.____	_____.____
0432	634.0624 Posts Wood 4x6-Inch X 24-FT	1.000 EACH	_____.____	_____.____
0434	635.0200 Sign Supports Structural Steel HS	1,924.000 LB	_____.____	_____.____
0436	636.0100 Sign Supports Concrete Masonry **P**	65.200 CY	_____.____	_____.____
0438	636.0500 Sign Supports Steel Reinforcement	196.000 LB	_____.____	_____.____
0440	636.1000 Sign Supports Steel Reinforcement HS **P**	4,430.000 LB	_____.____	_____.____
0442	636.1500 Sign Supports Steel Coated Reinforcement HS **P**	7,480.000 LB	_____.____	_____.____
0444	637.1220 Signs Type I Reflective SH	1,223.000 SF	_____.____	_____.____
0446	637.1230 Signs Type I Reflective F	127.500 SF	_____.____	_____.____
0448	637.2210 Signs Type II Reflective H	1,292.360 SF	_____.____	_____.____
0450	637.2215 Signs Type II Reflective H Folding	178.200 SF	_____.____	_____.____
0452	637.2230 Signs Type II Reflective F	334.250 SF	_____.____	_____.____
0454	638.2102 Moving Signs Type II	24.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0456	638.2602 Removing Signs Type II	79.000 EACH	_____.____	_____.____
0458	638.3000 Removing Small Sign Supports	69.000 EACH	_____.____	_____.____
0460	638.3150 Removing Overhead Sign Supports Cantilever (structure) 001. S-13-357	1.000 EACH	_____.____	_____.____
0462	638.3150 Removing Overhead Sign Supports Cantilever (structure) 002. S-13-358	1.000 EACH	_____.____	_____.____
0464	638.3210 Revising Signs Type I Demountable	1.000 EACH	_____.____	_____.____
0466	641.1200 Sign Bridge Cantilevered (structure) 006. S-13-444	LS	LUMP SUM	_____.____
0468	641.6600 Sign Bridge (structure) 001. S-13-453	LS	LUMP SUM	_____.____
0470	641.8100 Overhead Sign Support (structure) 001. S-13-443	LS	LUMP SUM	_____.____
0472	641.8100 Overhead Sign Support (structure) 002. S-13-452	LS	LUMP SUM	_____.____
0474	642.5401 Field Office Type D	1.000 EACH	_____.____	_____.____
0476	643.0300 Traffic Control Drums	134,509.000 DAY	_____.____	_____.____
0478	643.0310.S Temporary Portable Rumble Strips	1.000 LS	_____.____	_____.____
0480	643.0420 Traffic Control Barricades Type III	9,736.000 DAY	_____.____	_____.____
0482	643.0500 Traffic Control Flexible Tubular Marker Posts	202.000 EACH	_____.____	_____.____
0484	643.0600 Traffic Control Flexible Tubular Marker Bases	202.000 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
0486	643.0705 Traffic Control Warning Lights Type A	22,989.000 DAY	_____.____	_____.____
0488	643.0715 Traffic Control Warning Lights Type C	9,313.000 DAY	_____.____	_____.____
0490	643.0800 Traffic Control Arrow Boards	187.000 DAY	_____.____	_____.____
0492	643.0900 Traffic Control Signs	43,084.000 DAY	_____.____	_____.____
0494	643.0910 Traffic Control Covering Signs Type I	3.000 EACH	_____.____	_____.____
0496	643.0920 Traffic Control Covering Signs Type II	3.000 EACH	_____.____	_____.____
0498	643.1000 Traffic Control Signs Fixed Message	31.750 SF	_____.____	_____.____
0500	643.1050 Traffic Control Signs PCMS	376.000 DAY	_____.____	_____.____
0502	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0504	644.1410.S Temporary Pedestrian Surface Asphalt	1,760.000 SF	_____.____	_____.____
0506	644.1601.S Temporary Curb Ramp	6.000 EACH	_____.____	_____.____
0508	644.1616.S Temporary Pedestrian Safety Fence	1,440.000 LF	_____.____	_____.____
0510	645.0220 Geogrid Type SR	9,300.000 SY	_____.____	_____.____
0512	646.1020 Marking Line Epoxy 4-Inch	78,072.000 LF	_____.____	_____.____
0514	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	70,122.000 LF	_____.____	_____.____
0516	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	9,318.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0518	646.3020 Marking Line Epoxy 8-Inch	7,395.000 LF	_____.____	_____.____
0520	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	18,475.000 LF	_____.____	_____.____
0522	646.4520 Marking Line Same Day Epoxy 4-Inch	34,965.000 LF	_____.____	_____.____
0524	646.5020 Marking Arrow Epoxy	117.000 EACH	_____.____	_____.____
0526	646.5120 Marking Word Epoxy	53.000 EACH	_____.____	_____.____
0528	646.5220 Marking Symbol Epoxy	36.000 EACH	_____.____	_____.____
0530	646.6120 Marking Stop Line Epoxy 18-Inch	368.000 LF	_____.____	_____.____
0532	646.7120 Marking Diagonal Epoxy 12-Inch	59.000 LF	_____.____	_____.____
0534	646.7220 Marking Chevron Epoxy 24-Inch	1,733.000 LF	_____.____	_____.____
0536	646.7405 Marking Crosswalk Paint Transverse Line 6-Inch	742.000 LF	_____.____	_____.____
0538	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	952.000 LF	_____.____	_____.____
0540	646.7520 Marking Crosswalk Epoxy Ladder Pattern 24-Inch	435.000 LF	_____.____	_____.____
0542	646.8120 Marking Curb Epoxy	123.000 LF	_____.____	_____.____
0544	646.8220 Marking Island Nose Epoxy	12.000 EACH	_____.____	_____.____
0546	646.9000 Marking Removal Line 4-Inch	17,913.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0548	646.9010 Marking Removal Line Water Blasting 4-Inch	29,863.000 LF	_____.____	_____.____
0550	646.9100 Marking Removal Line 8-Inch	2,259.000 LF	_____.____	_____.____
0552	646.9110 Marking Removal Line Water Blasting 8-Inch	2,497.000 LF	_____.____	_____.____
0554	646.9200 Marking Removal Line Wide	488.000 LF	_____.____	_____.____
0556	646.9210 Marking Removal Line Water Blasting Wide	115.000 LF	_____.____	_____.____
0558	646.9300 Marking Removal Special Marking	18.000 EACH	_____.____	_____.____
0560	646.9310 Marking Removal Special Marking Water Blasting	29.000 EACH	_____.____	_____.____
0562	649.0105 Temporary Marking Line Paint 4-Inch	106,226.000 LF	_____.____	_____.____
0564	649.0150 Temporary Marking Line Removable Tape 4-Inch	13,102.000 LF	_____.____	_____.____
0566	649.0205 Temporary Marking Line Paint 8-Inch	3,880.000 LF	_____.____	_____.____
0568	649.0250 Temporary Marking Line Removable Tape 8-Inch	3,755.000 LF	_____.____	_____.____
0570	649.0505 Temporary Marking Arrow Paint	12.000 EACH	_____.____	_____.____
0572	649.0520 Temporary Marking Arrow Epoxy	6.000 EACH	_____.____	_____.____
0574	649.0550 Temporary Marking Arrow Removable Tape	2.000 EACH	_____.____	_____.____
0576	649.0805 Temporary Marking Stop Line Paint 18-Inch	452.000 LF	_____.____	_____.____

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0578	649.0850 Temporary Marking Stop Line Removable Tape 18-Inch	357.000 LF	_____.____	_____.____
0580	650.4000 Construction Staking Storm Sewer	232.000 EACH	_____.____	_____.____
0582	650.4500 Construction Staking Subgrade	19,242.000 LF	_____.____	_____.____
0584	650.5000 Construction Staking Base	6,744.000 LF	_____.____	_____.____
0586	650.5500 Construction Staking Curb Gutter and Curb & Gutter	10,289.000 LF	_____.____	_____.____
0588	650.6500 Construction Staking Structure Layout (structure) 001. B-13-831	LS	LUMP SUM	_____.____
0590	650.6500 Construction Staking Structure Layout (structure) 002. B-13-832	LS	LUMP SUM	_____.____
0592	650.6500 Construction Staking Structure Layout (structure) 003. R-13-266	LS	LUMP SUM	_____.____
0594	650.6500 Construction Staking Structure Layout (structure) 004. R-13-267	LS	LUMP SUM	_____.____
0596	650.6500 Construction Staking Structure Layout (structure) 005. S-13-443	LS	LUMP SUM	_____.____
0598	650.6500 Construction Staking Structure Layout (structure) 006. S-13-444	LS	LUMP SUM	_____.____
0600	650.6500 Construction Staking Structure Layout (structure) 007. S-13-452	LS	LUMP SUM	_____.____
0602	650.6500 Construction Staking Structure Layout (structure) 008. S-13-453	LS	LUMP SUM	_____.____
0604	650.7000 Construction Staking Concrete Pavement	12,622.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0606	650.8000 Construction Staking Resurfacing Reference	34,700.000 LF	_____.____	_____.____
0608	650.8500 Construction Staking Electrical Installations (project) 001. 1206-08-77	LS	LUMP SUM	_____.____
0610	650.9000 Construction Staking Curb Ramps	46.000 EACH	_____.____	_____.____
0612	650.9910 Construction Staking Supplemental Control (project) 001. 1206-08-77	LS	LUMP SUM	_____.____
0614	650.9920 Construction Staking Slope Stakes	4,039.000 LF	_____.____	_____.____
0616	652.0110 Conduit Rigid Metallic 1-Inch	1,066.000 LF	_____.____	_____.____
0618	652.0125 Conduit Rigid Metallic 2-Inch	1,444.000 LF	_____.____	_____.____
0620	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	9,128.000 LF	_____.____	_____.____
0622	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	6,930.000 LF	_____.____	_____.____
0624	652.0325 Conduit Rigid Nonmetallic Schedule 80 2-Inch	190.000 LF	_____.____	_____.____
0626	652.0335 Conduit Rigid Nonmetallic Schedule 80 3-Inch	1,611.000 LF	_____.____	_____.____
0628	652.0605 Conduit Special 2-Inch	84.000 LF	_____.____	_____.____
0630	652.0615 Conduit Special 3-Inch	180.000 LF	_____.____	_____.____
0632	652.0700.S Install Conduit into Existing Item	55.000 EACH	_____.____	_____.____
0634	652.0800 Conduit Loop Detector	2,803.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0636	652.0900 Loop Detector Slots	407.000 LF	_____.____	_____.____
0638	653.0154 Pull Boxes Non-Conductive 24x36-Inch	11.000 EACH	_____.____	_____.____
0640	653.0164 Pull Boxes Non-Conductive 24x42-Inch	26.000 EACH	_____.____	_____.____
0642	653.0220 Junction Boxes 18x6x6-Inch	2.000 EACH	_____.____	_____.____
0644	653.0222 Junction Boxes 18x12x6-Inch	14.000 EACH	_____.____	_____.____
0646	653.0900 Adjusting Pull Boxes	28.000 EACH	_____.____	_____.____
0648	653.0905 Removing Pull Boxes	21.000 EACH	_____.____	_____.____
0650	654.0101 Concrete Bases Type 1	26.000 EACH	_____.____	_____.____
0652	654.0102 Concrete Bases Type 2	8.000 EACH	_____.____	_____.____
0654	654.0105 Concrete Bases Type 5	26.000 EACH	_____.____	_____.____
0656	654.0106 Concrete Bases Type 6	17.000 EACH	_____.____	_____.____
0658	654.0110 Concrete Bases Type 10	2.000 EACH	_____.____	_____.____
0660	654.0217 Concrete Control Cabinet Bases Type 9 Special	3.000 EACH	_____.____	_____.____
0662	654.1180 Concrete Bases Camera Pole 80-FT	1.000 EACH	_____.____	_____.____
0664	654.1239 Concrete Control Cabinet Bases ITS	1.000 EACH	_____.____	_____.____
0666	655.0220 Cable Traffic Signal 4-14 AWG	820.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0668	655.0230 Cable Traffic Signal 5-14 AWG	10,572.000 LF	_____.____	_____.____
0670	655.0240 Cable Traffic Signal 7-14 AWG	5,393.000 LF	_____.____	_____.____
0672	655.0250 Cable Traffic Signal 9-14 AWG	180.000 LF	_____.____	_____.____
0674	655.0260 Cable Traffic Signal 12-14 AWG	1,623.000 LF	_____.____	_____.____
0676	655.0270 Cable Traffic Signal 15-14 AWG	5,915.000 LF	_____.____	_____.____
0678	655.0280 Cable Traffic Signal 19-14 AWG	787.000 LF	_____.____	_____.____
0680	655.0305 Cable Type UF 2-12 AWG Grounded	510.000 LF	_____.____	_____.____
0682	655.0515 Electrical Wire Traffic Signals 10 AWG	17,206.000 LF	_____.____	_____.____
0684	655.0610 Electrical Wire Lighting 12 AWG	16,921.000 LF	_____.____	_____.____
0686	655.0615 Electrical Wire Lighting 10 AWG	34,748.000 LF	_____.____	_____.____
0688	655.0620 Electrical Wire Lighting 8 AWG	22,111.000 LF	_____.____	_____.____
0690	655.0625 Electrical Wire Lighting 6 AWG	29,633.000 LF	_____.____	_____.____
0692	655.0630 Electrical Wire Lighting 4 AWG	2,100.000 LF	_____.____	_____.____
0694	655.0700 Loop Detector Lead In Cable	47,866.000 LF	_____.____	_____.____
0696	655.0800 Loop Detector Wire	23,405.000 LF	_____.____	_____.____
0698	656.0500 Electrical Service Breaker Disconnect Box (location) 001. CB-ITS-1	LS	LUMP SUM	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0700	657.0100 Pedestal Bases	27.000 EACH	_____.____	_____.____
0702	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	53.000 EACH	_____.____	_____.____
0704	657.0310 Poles Type 3	8.000 EACH	_____.____	_____.____
0706	657.0322 Poles Type 5-Aluminum	15.000 EACH	_____.____	_____.____
0708	657.0327 Poles Type 6-Aluminum	17.000 EACH	_____.____	_____.____
0710	657.0410 Traffic Signal Standards Aluminum 9-FT	5.000 EACH	_____.____	_____.____
0712	657.0420 Traffic Signal Standards Aluminum 13-FT	21.000 EACH	_____.____	_____.____
0714	657.0425 Traffic Signal Standards Aluminum 15-FT	1.000 EACH	_____.____	_____.____
0716	657.0590 Trombone Arms 20-FT	1.000 EACH	_____.____	_____.____
0718	657.0614 Luminaire Arms Single Member 4-Inch Clamp 8-FT	44.000 EACH	_____.____	_____.____
0720	657.0615 Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	27.000 EACH	_____.____	_____.____
0722	657.0709 Luminaire Arms Truss Type 4-Inch Clamp 12-FT	8.000 EACH	_____.____	_____.____
0724	657.0714 Luminaire Arms Truss Type 4-Inch Clamp 15-FT	4.000 EACH	_____.____	_____.____
0726	657.1345 Install Poles Type 9	1.000 EACH	_____.____	_____.____
0728	657.1350 Install Poles Type 10	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0730	657.1530 Install Monotube Arms 30-FT	2.000 EACH	_____.____	_____.____
0732	657.1808 Install Luminaire Arms Steel 8-FT	2.000 EACH	_____.____	_____.____
0734	657.6005 Anchor Assemblies Light Poles on Structures	10.000 EACH	_____.____	_____.____
0736	658.0173 Traffic Signal Face 3S 12-Inch	85.000 EACH	_____.____	_____.____
0738	658.0174 Traffic Signal Face 4S 12-Inch	2.000 EACH	_____.____	_____.____
0740	658.0416 Pedestrian Signal Face 16-Inch	36.000 EACH	_____.____	_____.____
0742	658.0500 Pedestrian Push Buttons	32.000 EACH	_____.____	_____.____
0744	658.5069 Signal Mounting Hardware (location) 001. CTH PD & Commerce Park Drive	LS	LUMP SUM	_____.____
0746	658.5069 Signal Mounting Hardware (location) 002. Verona Road & Williamsburg Way	LS	LUMP SUM	_____.____
0748	658.5069 Signal Mounting Hardware (location) 003. Verona Road & CTH PD	LS	LUMP SUM	_____.____
0750	659.1125 Luminaires Utility LED C	43.000 EACH	_____.____	_____.____
0752	661.0200 Temporary Traffic Signals for Intersections (location) 001. CTH PD & Commerce Park Drive	LS	LUMP SUM	_____.____
0754	670.0100 Field System Integrator	LS	LUMP SUM	_____.____
0756	670.0200 ITS Documentation	LS	LUMP SUM	_____.____
0758	671.0300 Fiber Optic Cable Marker	2.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0760	673.0200 Tracer Wire Marker Posts	8.000 EACH	_____.____	_____.____
0762	673.0200.S Install ITS Field Cabinet	1.000 EACH	_____.____	_____.____
0764	674.0200 Cable Microwave Detector	3,040.000 LF	_____.____	_____.____
0766	674.0300 Remove Cable	405.000 LF	_____.____	_____.____
0768	675.0300 Install Mounted Controller Microwave Detector Assembly	6.000 EACH	_____.____	_____.____
0770	677.0180 Install Camera Pole 80-FT	1.000 EACH	_____.____	_____.____
0772	677.0200 Install Camera Assembly	1.000 EACH	_____.____	_____.____
0774	678.0012 Install Fiber Optic Cable Outdoor Plant 12-CT	8,606.000 LF	_____.____	_____.____
0776	678.0036 Install Fiber Optic Cable Outdoor Plant 36-CT	3,475.000 LF	_____.____	_____.____
0778	678.0072 Install Fiber Optic Cable Outdoor Plant 72-CT	6,370.000 LF	_____.____	_____.____
0780	678.0200 Fiber Optic Splice Enclosure	7.000 EACH	_____.____	_____.____
0782	678.0300 Fiber Optic Splice	108.000 EACH	_____.____	_____.____
0784	678.0400 Fiber Optic Termination	72.000 EACH	_____.____	_____.____
0786	678.0500 Communication System Testing	 LS	LUMP SUM	_____.____
0788	678.0600 Install Ethernet Switches	5.000 EACH	_____.____	_____.____
0790	678.0700 Install Wireless Antennas	2.000 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
0792	690.0150 Sawing Asphalt	21,303.000 LF	_____.____	_____.____
0794	690.0250 Sawing Concrete	2,414.000 LF	_____.____	_____.____
0796	715.0415 Incentive Strength Concrete Pavement	25,635.000 DOL	1.00000	25,635.00
0798	715.0502 Incentive Strength Concrete Structures	26,598.000 DOL	1.00000	26,598.00
0800	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	3,200.000 HRS	5.00000	16,000.00
0802	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	6,000.000 HRS	5.00000	30,000.00
0804	SPV.0035 Special 001. Roadway Embankment	128,885.000 CY	_____.____	_____.____
0806	SPV.0035 Special 002. Excavation Special	350.000 CY	_____.____	_____.____
0808	SPV.0035 Special 300. High Performance Concrete (HPC) Masonry Superstructures **P**	1,985.000 CY	_____.____	_____.____
0810	SPV.0035 Special 500. Planting Mixture	408.000 CY	_____.____	_____.____
0812	SPV.0035 Special 501. Topsoil Special	77.000 CY	_____.____	_____.____
0814	SPV.0045 Special 001. Traffic Control Surveillance and Maintenance	437.000 DAY	_____.____	_____.____
0816	SPV.0060 Special 001. Utility Line Opening (ULO)	10.000 EACH	_____.____	_____.____
0818	SPV.0060 Special 002. Maintenance of Permanent Crash Cushions Placed By Others	4.000 EACH	_____.____	_____.____
0820	SPV.0060 Special 003. Posts Round Tubular Steel 2 3/8-Inch x 8-FT	4.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0822	SPV.0060 Special 004. Posts Round Tubular Steel 2 3/8-Inch x 10-FT	11.000 EACH	_____.____	_____.____
0824	SPV.0060 Special 005. Posts Round Tubular Steel 2 3/8-Inch x 12-FT	4.000 EACH	_____.____	_____.____
0826	SPV.0060 Special 006. V-Loc Base	19.000 EACH	_____.____	_____.____
0828	SPV.0060 Special 007. Department Owned Crash Cushion Temporary	6.000 EACH	_____.____	_____.____
0830	SPV.0060 Special 047. Inlets Type AZ	3.000 EACH	_____.____	_____.____
0832	SPV.0060 Special 048. Inlets Type VR1312	1.000 EACH	_____.____	_____.____
0834	SPV.0060 Special 049. Inlets Type C4691	1.000 EACH	_____.____	_____.____
0836	SPV.0060 Special 050. Inlets Type FLI	2.000 EACH	_____.____	_____.____
0838	SPV.0060 Special 051. Inlet Protection Type FLI	2.000 EACH	_____.____	_____.____
0840	SPV.0060 Special 052. Inlet Covers, Flat Temporary	15.000 EACH	_____.____	_____.____
0842	SPV.0060 Special 053. Storm Sewer Tap	48.000 EACH	_____.____	_____.____
0844	SPV.0060 Special 054. Inlet Covers Type FLI	2.000 EACH	_____.____	_____.____
0846	SPV.0060 Special 055. Inlet Covers Type AZ	6.000 EACH	_____.____	_____.____
0848	SPV.0060 Special 056. Inlet Covers Type C4691	1.000 EACH	_____.____	_____.____
0850	SPV.0060 Special 057. Inlet Covers Type VR1312	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0852	SPV.0060 Special 100. Pull Boxes, Polymer Concrete 17x30-Inch	10.000 EACH	_____.____	_____.____
0854	SPV.0060 Special 101. Pull Box Type I	8.000 EACH	_____.____	_____.____
0856	SPV.0060 Special 102. Pull Box Type III	3.000 EACH	_____.____	_____.____
0858	SPV.0060 Special 103. Pull Box Type V	3.000 EACH	_____.____	_____.____
0860	SPV.0060 Special 104. Concrete Bases Type G	4.000 EACH	_____.____	_____.____
0862	SPV.0060 Special 105. Concrete Bases Type LB-8	2.000 EACH	_____.____	_____.____
0864	SPV.0060 Special 106. Transformer Base Steel 20-Inch	1.000 EACH	_____.____	_____.____
0866	SPV.0060 Special 107. Traffic Signal Trombone Arms, 15-FT	1.000 EACH	_____.____	_____.____
0868	SPV.0060 Special 108. Pole 30-FT 7 Gauge	1.000 EACH	_____.____	_____.____
0870	SPV.0060 Special 109. Install Non-Intrusive Detection	6.000 EACH	_____.____	_____.____
0872	SPV.0060 Special 110. Remove Wireless Antenna	6.000 EACH	_____.____	_____.____
0874	SPV.0060 Special 111. Relocate Wireless ITS Bluetooth Detector	3.000 EACH	_____.____	_____.____
0876	SPV.0060 Special 112. Remove Non-Intrusive Detection	10.000 EACH	_____.____	_____.____
0878	SPV.0060 Special 113. Reinstall Traffic Signal Equipment	4.000 EACH	_____.____	_____.____
0880	SPV.0060 Special 114. Concrete Control Cabinet Base Type 9 Special (Mod.)	1.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0882	SPV.0060 Special 150. Luminaires Underdeck LED	8.000 EACH	_____.____	_____.____
0884	SPV.0060 Special 151. Luminaires Utility LED-B-City of Fitchburg	39.000 EACH	_____.____	_____.____
0886	SPV.0060 Special 152. Luminaires Utility LED-C-City of Fitchburg	2.000 EACH	_____.____	_____.____
0888	SPV.0060 Special 153. Remove Existing City-Owned Light Pole Assembly	17.000 EACH	_____.____	_____.____
0890	SPV.0060 Special 154. Steel Light Pole With Festoon	24.000 EACH	_____.____	_____.____
0892	SPV.0060 Special 155. Modify Existing Lighting Cabinet	1.000 EACH	_____.____	_____.____
0894	SPV.0060 Special 156. Remove Existing City-Owned Lighting Cabinet	1.000 EACH	_____.____	_____.____
0896	SPV.0060 Special 500. Perennials, Allim, 'Summer Beauty', CG, 1 Gal.	351.000 EACH	_____.____	_____.____
0898	SPV.0060 Special 501. Perennials, Black-Eyed Susan, 'Viette's Little Suzy', CG, 1 Gal.	563.000 EACH	_____.____	_____.____
0900	SPV.0060 Special 502. Perennials, Coneflower, 'Pixie Meadowbrite', CG, 1 Gal.	236.000 EACH	_____.____	_____.____
0902	SPV.0060 Special 503. Perennials, Eenie Weenie Daylily, CG, 1 Gal.	233.000 EACH	_____.____	_____.____
0904	SPV.0060 Special 504. Perennials, Gayfeather, Spiked 'Kobold', CG, 1 Gal.	90.000 EACH	_____.____	_____.____
0906	SPV.0060 Special 505. Perennials, Little Trudy Catmint, CG, 1 Gal.	310.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0908	SPV.0060 Special 506. Perennials, Prairie Dropseed, 'Tara', CG, 1 Gal.	797.000 EACH	_____.____	_____.____
0910	SPV.0060 Special 507. Perennials, Sedum, 'Autumn Joy', CG, 1 Gal.	74.000 EACH	_____.____	_____.____
0912	SPV.0060 Special 508. Perennials, Salvia, 'Caradonna', CG, 1 Gal.	384.000 EACH	_____.____	_____.____
0914	SPV.0060 Special 509. Perennials, Salvia, 'Marcus', CG, 1 Gal.	301.000 EACH	_____.____	_____.____
0916	SPV.0060 Special 510. Perennials, Switch Grass, 'Northwind', CG, 1 Gal.	412.000 EACH	_____.____	_____.____
0918	SPV.0060 Special 511. Perennials, White False Indigo, CG, 1 Gal.	43.000 EACH	_____.____	_____.____
0920	SPV.0060 Special 600. Fire Hydrants	2.000 EACH	_____.____	_____.____
0922	SPV.0060 Special 601. Remove Existing Hydrant	2.000 EACH	_____.____	_____.____
0924	SPV.0060 Special 602. Water Valve, 6-Inch	1.000 EACH	_____.____	_____.____
0926	SPV.0060 Special 603. Water Valve, 8-Inch	2.000 EACH	_____.____	_____.____
0928	SPV.0060 Special 604. Adjust Existing Valve Box	16.000 EACH	_____.____	_____.____
0930	SPV.0060 Special 605. Remove Existing Valve Box	12.000 EACH	_____.____	_____.____
0932	SPV.0060 Special 606. Remove Existing Water Valve Manhole	1.000 EACH	_____.____	_____.____
0934	SPV.0060 Special 607. Connect to Existing Water Main	6.000 EACH	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0936	SPV.0060 Special 608. Abandon Existing Water Main	3.000 EACH	_____.____	_____.____
0938	SPV.0060 Special 609. Water Valve, 14-Inch	2.000 EACH	_____.____	_____.____
0940	SPV.0060 Special 610. Remove Existing Sanitary Sewer Structure	2.000 EACH	_____.____	_____.____
0942	SPV.0060 Special 611. Reconstruct Existing Sanitary Sewer Structure	5.000 EACH	_____.____	_____.____
0944	SPV.0060 Special 612. Adjusting Sanitary Manhole Covers	9.000 EACH	_____.____	_____.____
0946	SPV.0060 Special 700. Baseline CPM Progress Schedule	1.000 EACH	_____.____	_____.____
0948	SPV.0060 Special 701. CPM Progress Schedule Updates and Accepted Revisions	20.000 EACH	_____.____	_____.____
0950	SPV.0075 Special 001. Street Sweeping	440.000 HRS	_____.____	_____.____
0952	SPV.0085 Special 001. Seeding Mixture Detention Pond, Short Grass Prairie	1.000 LB	_____.____	_____.____
0954	SPV.0090 Special 001. Concrete Curb & Gutter 4-Inch Sloped 5-Foot Type A	624.000 LF	_____.____	_____.____
0956	SPV.0090 Special 002. Concrete Curb & Gutter 24-Inch Type D	4,326.000 LF	_____.____	_____.____
0958	SPV.0090 Special 003. Concrete Curb & Gutter 32-Inch Special	40.000 LF	_____.____	_____.____
0960	SPV.0090 Special 005. Concrete Barrier Special Transition S42C-S56C	25.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0962	SPV.0090 Special 006. Removing Department-Owned Concrete Barrier Precast	3,169.000 LF	_____.____	_____.____
0964	SPV.0090 Special 007. Concrete Barrier Temporary Precast Delivered - Department Owned	2,113.000 LF	_____.____	_____.____
0966	SPV.0090 Special 008. Concrete Curb & Gutter 30-Inch Type D HES	96.000 LF	_____.____	_____.____
0968	SPV.0090 Special 009. Pedestrian Overhead Protection	210.000 LF	_____.____	_____.____
0970	SPV.0090 Special 010. Marking Stop Line Epoxy 24-Inch	228.000 LF	_____.____	_____.____
0972	SPV.0090 Special 011. Marking Crosswalk Epoxy 12-Inch	883.000 LF	_____.____	_____.____
0974	SPV.0090 Special 012. Removing HMA Pavement Longitudinal Joint Milling	34,700.000 LF	_____.____	_____.____
0976	SPV.0090 Special 050. Pipe Underdrain 6-Inch with Geotextile Fabric and Aggregate	23,412.000 LF	_____.____	_____.____
0978	SPV.0090 Special 500. Shovel Cut Edging	60.000 LF	_____.____	_____.____
0980	SPV.0090 Special 600. Water Main, 6-Inch	20.000 LF	_____.____	_____.____
0982	SPV.0090 Special 601. Water Main, 8-Inch	100.000 LF	_____.____	_____.____
0984	SPV.0090 Special 602. Granular Backfill for Water Main	145.000 LF	_____.____	_____.____
0986	SPV.0090 Special 603. Insulation	100.000 LF	_____.____	_____.____
0988	SPV.0090 Special 604. Water Main, 14-Inch	25.000 LF	_____.____	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0990	SPV.0105 Special 001. Research and Locate Existing Property Monuments	LS	LUMP SUM	_____.____
0992	SPV.0105 Special 002. Verify and Replace Existing Property Monuments	LS	LUMP SUM	_____.____
0994	SPV.0105 Special 003. Construction Staking Supplemental Features	LS	LUMP SUM	_____.____
0996	SPV.0105 Special 004. Temporary Haul Road	LS	LUMP SUM	_____.____
0998	SPV.0105 Special 050. Storm Sewer Inlet Cap	LS	LUMP SUM	_____.____
1000	SPV.0105 Special 051. Storm Sewer Pipe Cap	LS	LUMP SUM	_____.____
1002	SPV.0105 Special 100. Remove Traffic Signals, CTH PD & Kapec Road	LS	LUMP SUM	_____.____
1004	SPV.0105 Special 101. Remove Traffic Signals, CTH PD & Commerce Park Drive	LS	LUMP SUM	_____.____
1006	SPV.0105 Special 102. Remove ITS Camera Assembly	LS	LUMP SUM	_____.____
1008	SPV.0105 Special 103. Install EVP Detector, Verona Road & Williamsburg Way	LS	LUMP SUM	_____.____
1010	SPV.0105 Special 104. Install EVP Detector, CTH PD & Commerce Park Drive	LS	LUMP SUM	_____.____
1012	SPV.0105 Special 200. Interim Traffic Signals for Intersections USH 18/151 and Williamsburg Way	LS	LUMP SUM	_____.____
1014	SPV.0105 Special 201. Interim Traffic Signals for Intersections USH 18/151 and CTH PD	LS	LUMP SUM	_____.____

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1016	SPV.0105 Special 300. Galvanize and Paint Steel Signal Supports B-13-831	LS	LUMP SUM	_____.____
1018	SPV.0105 Special 301. Galvanize and Paint Steel Signal Supports B-13-832	LS	LUMP SUM	_____.____
1020	SPV.0105 Special 600. Construction Staking Water Main	LS	LUMP SUM	_____.____
1022	SPV.0120 Special 001. Water For Seeded Areas	87.400 MGAL	_____.____	_____.____
1024	SPV.0165 Special 001. Colored and Stamped Concrete 5-Inch	77,920.000 SF	_____.____	_____.____
1026	SPV.0165 Special 002. Salvage and Replace Landscaping Stone	650.000 SF	_____.____	_____.____
1028	SPV.0165 Special 003. Curb Ramp Detectable Warning Field Temporary	200.000 SF	_____.____	_____.____
1030	SPV.0165 Special 300. Wall Concrete Panel Mechanically Stabilzed Earth R-13-266 **P**	24,150.000 SF	_____.____	_____.____
1032	SPV.0165 Special 301. Wall Concrete Panel Mechanically Stabilized Earth R-13-267 **P**	22,770.000 SF	_____.____	_____.____
1034	SPV.0165 Special 302. Longitudinal Grooving Bridge Deck **P**	46,300.000 SF	_____.____	_____.____
1036	SPV.0180 Special 001. Asphaltic Surface Safety Islands	5,455.000 SY	_____.____	_____.____
1038	SPV.0180 Special 002. Infiltration Basin Compost	4,700.000 SY	_____.____	_____.____
1040	SPV.0180 Special 500. Shredded Hardwood Bark Mulch	1,214.000 SY	_____.____	_____.____

Proposal ID: 20181113005 **Project(s):** 1206-08-77

Federal ID(s): WISC 2018438

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID / Description	Approximate Quantity and Units	Unit Price	Bid Amount
1042	SPV.0195 Special 001. Excavation, Hauling, & Disposal Of Cntmntd Soil & Mngmnt Of Cntmntd Grndwt	700.000 TON	_____._____	_____._____
	Section: 0001		**Total:**	_____._____
			Total Bid:	**_____._____**

PLEASE ATTACH SCHEDULE OF ITEMS HERE