HIGHWAY WORK PROPOSAL

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

Proposal Number: 018

COUNTY	STATE PROJECT	FEDERAL	PROJECT DESCRIPTION	HIGHWAY
Racine	3763-00-73	N/A	Cth Kr, V Mt Pleasant; Ih 41 E Frontage Rd To Cth H	CTH KR
Racine	2704-00-77	N/A	Wisconn Valley Way; Wisconn Valley Way/Cth Kr Intersctn	LOC STR

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: $440,000.00 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 May 31, 2020	
Assigned Disadvantaged Business Enterprise Goal 0%	This contract is exempt from federal oversight.

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

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

Subscribed and sworn to before me this date _____

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

Notary Seal

Type of Work: For Department Use Only

Excavation, Base, Concrete Pavement, HMA Pavement, Asphaltic Surface, Curb and Gutter, Sidewalk, Signs, Pavement Marking, Street Lighting, Traffic Signals, Storm Sewer

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.

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 2704-00-77,Wisconn Valley Way, Wisconn Valley/CTH KR Intersectn, Local Str, and Project 3763-00-73, CTH KR, V Mt Pleasant, IH 41 E Frontage Rd to CTH H, CTH KR, located in Racine 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 removals, grading, base aggregate, HMA pavement, concrete pavement, storm sewer, erosion control, permanent signing, traffic control, pavement markings, restoration 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. Non-mandatory Pre-Bid Meeting

Prospective bidders are invited to attend a non-mandatory pre-bid meeting on Thursday, October 18, 2018 at 9:00 AM at the Mt Pleasant Village Hall, 8811 Campus Drive, Mount Pleasant, WI 53406.

No meeting minutes will be prepared. Issues discovered at the meeting will be handled by addendum.

4. Wisconsin Inclusion Plan.

Utilization Plan and Other Inclusion Efforts

WisDOT recognizes the intentions of the Local Development Agreement to encourage inclusion for targeted businesses and workforce participants. Bidders are encouraged to make good-faith efforts to achieve these intentions within these contract provisions.

Requirement at the Time of Bid

All Bidders should submit a Wisconsin Utilization Plan at the time of bid demonstrating how s/he will achieve the inclusion objectives for targeted businesses and workforce participants. The submission should comply with the Wisconsin Utilization Plan.

The Wisconsin Utilization Plan should be submitted to the Wisconsin Department of Transportation: Attn: Beth Cannestra at dotdtsdbpd@dot.wi.gov. For questions regarding this provision please contact Michele Carter at Michele.Carter@dot.wi.gov.

A Public Infrastructure Construction Workforce Engagement Advisory Committee has been created to review trends in all bidders' Wisconsin Inclusion Plan submittals for communication and engagement purposes in the local community.

Business Inclusion Goals, Registration and Certification Requirements

WisDOT recognizes that the Local Development Agreement includes language to encourage local and disadvantaged business inclusion. As a result, the following workforce goals and resources have been established that are consistent with Foxconn's inclusion goals for their project:

Wisconsin based Business	60%
Racine County based Businesses	10%
Minority-Owned (MBE) Business Enterprises	10% Combined
Women-Owned (WBE) Enterprises	
Veteran-Owned Business Enterprises	
Directory of Wisconsin based Businesses Directory of Racine County based Businesses	Wisconsin Department of Revenue

The Wisconsin Utilization Plan is to demonstrate the Bidder's efforts to maximize inclusion of targeted businesses and/or intermediaries which are certified and recognized, to include:

Business Category/Certification	Registration Certification Type
Minority Business Enterprise (MBE)	MBE
North Central Minority Supplier Development Council	MSDC
Women-owned Business Enterprise (WBE)	WBENC
Women's Business Enterprise National Council	
Wisconsin Unified Certification DBE Program	City of Madison DOT, Dane County, Milwaukee County Links
Emerging Business Enterprise (EBE)	EBE
Small Business Enterprise (SBE)	SBE
Service Disabled Veteran and or Veteran-owned business (SDV/SVB)	SDV/SVB
Wisconsin Economic Development Corporation	WEDC

Approved List of Targeted Businesses Intermediaries	
African American Chamber of Commerce of Wisconsin	Pan-African Community Association
American Indian Chamber of Commerce of Wisconsin	The Business Council, Inc.
Greater Milwaukee Chamber of Commerce	Wisconsin Black Chamber of Commerce, Inc.
Hmong Wisconsin Chamber of Commerce	Wisconsin Chinese Chamber of Commerce
Latino Entrepreneurial Network	Wisconsin LGBT Chamber of Commerce
Milwaukee Inner-City Congregations Allied for Home (MICAH)	Wisconsin Veterans Chamber of Commerce
National Association of Minority Contractors (NAMC-WI)	
Approved List of Targeted Businesses Directories	
City of Milwaukee Small Business Enterprises (SBE) Business Directory	
Wisconsin Supply Chain Market Directory	
Wisconsin Unified Certification Program (WIUCP) DBE Directory	

Workforce Inclusion and Diversity Goals

WisDOT recognizes that the Local Development Agreement includes language to encourage local and disadvantaged business inclusion. As a result, the following workforce goals have been established that are consistent with Foxconn's inclusion goals for their project:

Wisconsin Resident Work Hours with an emphasis on Racine County Residents	70%
Minorities or People of Color* *Minorities or People of Color as defined: American Indian or Alaska Native – Asian – Black or African American – Hispanic or Latino – Native Hawaiian or Other Pacific Islander. *Federal Register/Vol. 62, No. 210*	10% Combined
Women	
Veterans	

The bidder should make every feasible effort to provide economic opportunities to workforce candidates. The submission of a Wisconsin Utilization Plan affirms the Bidder will have implemented inclusionary measures to engage workforce intermediaries which include the following:

Approved List of Workforce Intermediaries
Human Asset Development Corporation (HADC) First Choice Pre-Apprenticeship Training
Wisconsin Regional Training Partnership WRTP/BIG STEP
Racine Campus of Gateway Technical College

Post-Award

The following two actions will be requested of the Awarded Contractor:

- **Affirmation of business inclusion plan:**

  Within five calendar days of contract award, affirm the participation of the targeted businesses who have been identified in the Wisconsin Utilization Plan. Submit separate Wisconsin Inclusion Agreement(s) for each individual business or organization being utilized. Submit to the Wisconsin Department of Transportation: Attn: Beth Cannestra at dotdtsdbpd@dot.wi.gov

- **Monitoring of workforce inclusion plan:**

  The Awarded Contractor is required to submit weekly certified payrolls by utilizing WisDOT's Civil Rights Compliance System (CRCS) for workforce analysis purposes only.

5. Prosecution and Progress.

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

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

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

The contract time for completion, including interim completion dates, is based on an expedited work schedule and may require extraordinary forces and equipment due to enhanced coordination efforts with adjacent site developments and utility installation.

Be advised that there may be multiple mobilizations and/or remobilizations to complete construction operations, for example such items as: grading, concrete pavement repair/replacement, paving, traffic control, signing, temporary and permanent pavement marking, finishing items and other incidental items. No additional payment will be made, by the department, for additional mobilizations.

Winter Shutdown will commence with the completion of Stage 2 in the fall of 2019. Do not resume work until April 15, 2020 unless approved by the engineer. Provide a start date in writing at least 14 days prior to the planned start of construction in 2020. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

Interim and Final Completion of Work

Supplement standard spec 108.10 with the following:

The department will not grant time extensions for the following:

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

sef-108-015 (20171004)

Winter weather work, grading, excavation of frozen ground, high ground water, dewatering during winter months, and mitigation efforts for high water table elevations will not be considered adverse weather delays to construction. Cost for dewatering is considered incidental to construction.

Anticipate cold weather and early spring concrete masonry, concrete paving and ancillary concrete work (curb, median barrier, etc.). Plan to heat aggregates and water for mixes, and that the heating of the aggregate and water is considered incidental to those concrete items. There will be no adverse weather delay for cold weather construction.

Bi-directional access to remain at all times to Foxconn along CTH KR from CTH H and the East Frontage Road at all times.

A Schedule of Operations

The department anticipates that the schedule for each stage shall be as follows below, unless modifications are approved in writing by the engineer.

Coordinate traffic control and work operations with other projects listed under the article Other Contracts.

CTH KR shall remain open to traffic throughout construction, except for limited closure as indicated below.

Keep both lanes of CTH KR open to traffic between 6:00 AM and 9:00 PM daily. If the contractor fails to keep both lanes of CTH KR open to traffic during this timeframe, the department will assess a lane rental fee according to the Lane Rental Fee Assessment article.

Provide access to the required number of entrances to FoxConn Site Development north of CTH KR as indicated below. If the contractor fails to provide access to the required number of entrances to FoxConn Site Development north of CTH KR, the department will assess the contractor $15,000 per hour for every hour that the contractor fails to provide access to the required number of entrances. This hourly assessment will be made under the administrative item Failing to Open Road to Traffic.

Stage 1A

2704-00-77

Begin construction of the westbound lanes of CTH KR. Provide for access to residents South of CTH KR at all times. Stage 1A activities include:

1. Construction of stream relocation channel along the south side of CTH KR
2. Begin construction of westbound CTH KR

3763-00-73

Begin construction of the westbound lanes of CTH KR. Provide for access to all residents South of CTH KR at all times. Provide for access using at least one existing driveway or new entrance to FoxConn Site Development North of CTH KR at all times. Stage 1A activities include:

1. Construction of the north half of the FoxConn main entrance intersection.
2. Construction of the north half of the FoxConn east entrance intersection.
3. Begin construction of westbound CTH KR

Stage 1B

2704-00-77

Complete construction of the westbound lanes of CTH KR. Provide for access to all residents South of CTH KR at all times. Stage 1B activities include:

1. Complete construction of westbound CTH KR.
2. Coordinate traffic crossover at West project limits with Project 1035-03-71.

3763-00-73

Complete construction of the westbound lanes of CTH KR. Provide for access to all residents South of CTH KR at all times. Provide for access on two entrances at all times to FoxConn Site Development North of CTH KR. Pavement for these entrance locations outside of the right-of-way lines will be placed and maintained by others. Stage 1B activities include:

1. Complete construction of westbound CTH KR.
2. Coordinate traffic crossover at East project limits with Project 3760-00-70.

Stage 2

2704-00-77

All traffic is shifted to the newly constructed westbound CTH KR lanes. Construct the eastbound lanes of CTH KR. Provide for access to all residents South of CTH KR at all times. Stage 2 activities include:

1. Construction of 113th Avenue. 113th Avenue will be closed for the duration of the Stage.
2. Construction of driveways to residences south of CTH KR.
3. Construction of eastbound lanes of CTH KR.
4. Coordinate traffic crossover at West project limits with Project 1035-03-71.

3763-00-73

All traffic is shifted to the newly constructed westbound CTH KR lanes. Construct the eastbound lanes of CTH KR. Provide for access to all residents South of CTH KR at all times. Provide for access on two entrances at all times to FoxConn Site Development North of CTH KR. Stage 2 activities include:

1. Construction of 100th Avenue. 100th Avenue will be closed for the duration of the Stage.
2. Construction of asphaltic pavement transition at the East project limits to match into existing CTH KR.
3. Construction of eastbound lanes of CTH KR.
4. Coordinate traffic crossover at East project limits with Project 3760-00-70.

Stage 3

2704-00-77

All traffic is shifted to its respective side of CTH KR. Construct CTH KR median. Provide for access to all residents South of CTH KR at all times. Stage 3 activities include:

1. Finish median grading.
2. Finish median restoration.

3763-00-73

All traffic is shifted to its respective side of CTH KR. Construct CTH KR median. Provide for access to all residents South of CTH KR at all times. Provide for access on two entrances at all times to FoxConn Site Development North of CTH KR. Stage 3 activities include:

1. Finish median grading.
2. Finish median restoration.

Stage 4 Winter Shutdown

2704-00-77

CTH KR shall be open to the ultimate traffic configuration during the winter. Provide for access to all residents South of CTH KR at all times. No construction activities occur.

3763-00-73

CTH KR shall be open to the ultimate traffic configuration during the winter. Provide for access to all residents South of CTH KR at all times. Provide for access on two entrances at all times to FoxConn Site Development North of CTH KR. No construction activities occur.

Stage 5

2704-00-77

CTH KR shall be open to the ultimate traffic configuration during the winter. CTH KR median lane may be close to provide construction access at the work site. Finish CTH KR median. Provide for access to all residents South of CTH KR at all times. Stage 5 activities include:

1. Place plantings in bioswales.
2. Complete construction of CTH KR.

3763-00-73

CTH KR shall be open to the ultimate traffic configuration during the winter. TH KR median lane may be close to provide construction access at the work site. Finish CTH KR median. Provide for access to all residents South of CTH KR at all times. Provide for access on two entrances at all times to FoxConn Site Development North of CTH KR. Stage 5 activities include:

1. Place plantings in bioswales.
2. Complete construction of CTH KR.

Winter Operations 2019/2020 – Restore through traffic operations along CTH KR for all traffic. Contractor to coordinate winter maintenance operations per subsection C “Winter Maintenance” with local municipalities.

B Work Restrictions

Right-of-way

Do not commence work in areas that are not under department or Village of Mount Pleasant ownership as outlined in the plans. Parcel numbers are shown on the right of way plat included in the plan.

All fee parcels have been acquired except Fee Parcels: 507 will be acquired by October 27, 2018.

All TLE parcels have been acquired exceed TLE parcels 520,526 and 527 will be acquired by October 15, 2018 and parcels, 521, 523, 524 and 525 will be acquired by October 31, 2018.

Houses on Parcel 502, 504, 505, 510, 511, 512, 514 and 515 will be removed by November 30, 2018. Barn and Silos on parcel 507 will be removed by December 31, 2018. Barn on parcel 508 will be removed by November 30, 2018.

Contact Steve Hoff at (262) 548-6718 for detailed map of individual parcel clearance status prior to bidding.

Wetlands

Do not begin construction within wetland areas prior to the Section 404 permit has been approved. Verify with the engineer that the permit is approved before starting construction in affected wetland areas. Permit approval date is anticipated to be October 13, 2018.

Work Zone Ingress/Egress.

Provide engineer approved signage and for access into and out of the work zones at locations approved by the engineer.

At the weekly traffic meetings, provide an Emergency Work Zone Access Plan and required updates, as approved by the engineer, to direct emergency responders accessing a mainline median barrier restricted work zone.

Locations of work zone egress or ingress for construction vehicles, other than as the plans show, is subject to approval from the engineer. All construction vehicles shall yield to all through traffic at all locations.

Northern Long-eared Bat *(Myotis septentrionalis)*

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. Roosts have been identified within 150 feet of the project limits. The species and all active roosts are protected by the Federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

To avoid adverse impacts upon the NLEBs, no Clearing is allowed between June 1 and July 31, both dates inclusive.

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

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

Rusty Patched Bumble Bee (*Bombus affinis*)

The rusty patched bumble bee (Bombus affinis) was listed as endangered by the U.S. Fish and Wildlife Service (USFWS) under the Endangered Species Act, effective March 21, 2017. Construction activities such as grading outside the mowed shoulder area have the potential to impact ground nests and wildflowers that may serve as a food source for the bee. If an active rusty-patched bumblebee nest is encountered in construction areas, contact the WisDOT Regional Environmental Coordinator, who will coordinate with USFWS.

C Winter Maintenance.

Kenosha County will perform will perform snow removal operations for CTH KR. Provide for snow removal in those areas closed to traffic as required to facilitate safe construction operations and as required to eliminate snow melt run-off from crossing active roadways. Provide Kenosha County Highway Maintenance and Kenosha and Racine County Sheriff's Department with a 24-hour emergency contact number for when maintenance is required.

sef-999-060 (20120330)

D Enhanced Coordination

The project limits include numerous utilities that are large in size that parallel the entire length of the project limits. North of CTH KR will be under construction with expansive site development which will be adding trucking to the project limits. Time extensions will not be granted for delays incurred due to utility installation or due to providing access for site development traffic. Ensure these elements are accounted for when determining the construction schedule.

Time extensions will not be granted for delays incurred due to existing utilities work, proposed utility installation, or providing access for site development traffic. Ensure these elements are accounted for when determining the construction schedule.

Interim Completion: (July 30, 2019)

If the contractor fails to complete all work required to open one lane of traffic in each direction on newly constructed CTH KR westbound as shown in Stage 2 prior to 12:01 AM July 31, 2019, the department will assess the contractor $5,000 in interim liquidated damages for each calendar day contract work remains incomplete beyond 12:01 AM July 31, 2019. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

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

Interim Completion: (November 15, 2019)

If the contractor fails to complete all work required to open CTH KR to traffic as shown in stage 4 of the traffic control plans prior to 12:01 AM November 16, 2019, the department will assess the contractor $5,000 in interim liquidated damages for each calendar day contract work remains incomplete beyond 12:01 AM November 16, 2019. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

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

6. Lane Rental Fee Assessment

A General

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

The allowable lane closure times are shown in the Prosecution and Progress article.

Submit the dates of the proposed lane or driveway access restrictions to the engineer as part of the progress schedule.

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

B Lane Rental Fee Assessment

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

- CTH KR 2 lanes to 1 lane: $5,000 per hour broken into 15-minute increments.
- CTH KR 2 lanes to Full Closure: $10,000 per hour broken into 15-minute increments.

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

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

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

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

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires prior to the completion of specified work in the contract, additional liquidated damages will be assessed according to standard spec 108.11 or as specified within this contract.
stp-108-070 (20161130)

7. Traffic.

General

The construction sequence, including the associated traffic control, shall be substantially accomplished as detailed in the Traffic Control Plans, and as described herein.

Maintain access at all times to all driveways located along within the project limits unless otherwise noted in the plans. Notify the property occupant five days in advance of the driveway reconstruction to verify closure or staged driveway construction methods.

Coordinate traffic requirements under this contract with other adjacent and concurrent department or local municipality projects. Implement and coordinate with other contractors all traffic control as shown on the plans. Modifications to the traffic control plan may be required by the engineer to be safe and consistent with adjacent work by others.

Unless detailed in the plans, do not begin or continue any work that closes traffic lanes outside the allowed time periods specified in this article.

Do not store equipment, vehicles, or materials on adjacent streets beyond the project limits without specific approval of the engineer.

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.

stp-108-057 (20161130)

Notify the engineer and Construction Program Work Zone and Traffic Engineer if there are any changes in the schedule, early completions, or cancellations of scheduled work.

Staging

Perform construction operations on CTH KR in stages as shown in the traffic control/construction staging plan. The construction stages are:

CTH KR

Stage 1A

2704-00-77

CTH KR shall remain open to one lane of traffic in each direction on the existing roadway. Access to all residents shall be maintained at all times. The East Frontage Road and 113th Avenue shall remain open to traffic.

3763-00-73

CTH KR shall remain open to one lane of traffic in each direction on the existing roadway. Access to all residents shall be maintained at all times. Access to FoxConn Site Development North of CTH KR shall be maintained on at least one existing driveway or new entrance at all times. During off peak hours or night work flagging is required for one-way operation during construction of two temporary pavement at the permanent driveways adjacent to existing traffic lanes. CTH H and 100th Avenue shall remain open to traffic.

Stage 1B

2704-00-77

CTH KR shall remain open to one lane of traffic in each direction on the existing roadway. Access to all residents shall be maintained at all times. The East Frontage Road and 113th Avenue shall remain open to traffic.

3763-00-73

CTH KR shall remain open to one lane of traffic in each direction on the existing roadway. Access to all residents shall be maintained at all times. Access to FoxConn Site Development North of CTH KR shall be maintained on two entrances at all times. CTH H and 100th Avenue shall remain open to traffic.

Stage 2

2704-00-77

CTH KR traffic shall be shifted to the newly constructed CTH KR westbound lanes with one lane of traffic in each direction. Access to all residents shall be maintained at all times. 113th Avenue shall be closed for the duration of the Stage. The East Frontage Road shall remain open to traffic.

3763-00-73

CTH KR traffic shall be shifted to the newly constructed CTH KR westbound lanes with one lane of traffic in each direction. Access to all residents shall be maintained at all times. Access to FoxConn Site Development North of CTH KR shall be maintained on two entrances at all times. 100th Avenue shall be closed for the duration of the Stage. CTH H shall remain open to traffic.

Stage 3

2704-00-77

CTH KR westbound traffic shall remain on the westbound lanes in Stage 2 configuration. CTH KR eastbound traffic shall be shifted to the newly constructed CTH KR eastbound outside lane. Access to all residents shall be maintained at all times. 113th Avenue shall reopen to traffic. The East Frontage Road shall remain open to traffic.

3763-00-73

CTH KR westbound traffic shall remain on the westbound lanes in Stage 2 configuration. CTH KR eastbound traffic shall be shifted to the newly constructed CTH KR eastbound outside lane. Access to all residents shall be maintained at all times. Access to FoxConn Site Development North of CTH KR shall be maintained on two entrances at all times. 100th Avenue shall reopen to traffic. CTH H shall remain open to traffic. At the completion of Stage 3, CTH KR shall be open to three lanes of traffic in each direction.

Stage 4 – Winter Shutdown

2704-00-77

CTH KR shall be open to three lanes of traffic in each direction. Access to all residents shall be maintained at all times. 113th Avenue shall remain open to traffic. The East Frontage Road shall remain open to traffic.

3763-00-73

CTH KR shall be open to three lanes of traffic in each direction. Access to all residents shall be maintained at all times. Access to FoxConn Site Development North of CTH KR shall be maintained on two entrances at all times. 100th Avenue shall remain open to traffic. CTH H shall remain open to traffic.

Stage 5

2704-00-77

CTH KR shall be open to a minimum of two lanes of traffic in each direction. Access to all residents shall be maintained at all times. 113th Avenue shall reopen to traffic. The East Frontage Road shall remain open to traffic.

3763-00-73

CTH KR shall be open to a minimum of two lanes of traffic in each direction. Access to all residents shall be maintained at all times. Access to FoxConn Site Development North of CTH KR shall be maintained on two entrances at all times. 100th Avenue shall remain open to traffic. CTH H shall remain open to traffic.

Potential Advanceable Contract

There is a potential to advance the construction of ID 3760-00-70 CTH H, from south of CTH KR to Braun Road for construction starting in March 2019 through November 2019. Coordinate constructing staging, adjacent public utility construction, adjacent roadway closures and traffic control with other contractors.

Railroad

Work zone traffic control devices and signs shall not be placed over or within 50 feet of the railroad right-of-way located 2700 feet east of CTH H.

8. Traffic Meetings and Traffic Control Scheduling.

Every Thursday by 9:00 AM, submit a detailed proposed 2-week look-ahead traffic closure schedule to the engineer. Type the detailed proposed 2-week look-ahead closure schedule into an excel spreadsheet provided by the engineer. Enter information such as closure dates, duration, work causing the closure and detours to be used. Also enter information such as ongoing long-term closures, emergency contacts and general 2-month look-ahead closure information into the excel spreadsheet.

Meet with the engineer at 10:00 AM on Thursdays at the project field office to discuss and answer questions on the proposed schedule. Edit, delete and add closures to the detailed proposed 2-week look-ahead schedule, as directed by the engineer, so that proposed closures meet specification requirements. Other edits, deletions or additions unrelated to meeting specification requirements may also be agreed upon with the engineer during the 10:00 AM meeting.

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

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

Hauling Requirements

1) Contractor shall require all material haulers to display a department provided placard on their truck's dashboard when hauling to and from the project site.
2) Contractor shall follow the department identified haul routes for moving materials to and from the project site, unless alternate route is approved by the engineer.
3) Contractor shall provide a 10-day lookahead to the department related to hauling of materials to and from the site on a weekly basis. Information shall include number of trucks, frequency of trucks, material being hauled, routes, and other items as noted in the department Weekly Hauling Activity Memo.

~~sef-643-040 (20150319)~~

9. Holiday Work Restrictions.

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

- From noon Monday, December 31, 2018 to 6:00 AM Wednesday, January 2, 2019 for Christmas and New Year's;
- From noon Friday, May 24, 2019 to 6:00 AM Tuesday, May 28, 2019 for Memorial Day;
- From noon Wednesday, July 3, 2019 to 6:00 AM Monday, July 8, 2019 for Independence Day;
- From noon Friday, August 30, 2019 to 6:00 AM Tuesday, September 3, 2019 for Labor Day;
- From noon Wednesday, November 27, 2019 to 6:00 AM Monday, December 2, 2019 for Thanksgiving;
- From noon Tuesday, December 24, 2019 to 6:00 AM Thursday, January 2, 2020 for Christmas and New Years;
- From noon Friday, May 22, 2020 to 6:00 AM Tuesday, May 26, 2020 for Memorial Day.

stp-107-005 (20050502)

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

10. Work Restrictions.

Comply with all local ordinances that apply to local street work operations, including those pertaining to working from 9:00 PM to 7:00 AM. If required to work outside of the allowable timeframes, furnish any ordinance variance or required permits to the engineer in writing 3 days before performing this work. Do not perform any work that violates local ordinance prior to obtaining written approval from the engineer.

11. Utilities.

Project 2704-00-77 comes under the provisions of Administrative Rule TRANS 220.

Additional information regarding proposed and/or recently relocated utility facilities may be available on permits issued to the utility companies. These permits can be viewed at the Kenosha County Center during normal working hours. Contact Director of Kenosha County Highways Clement Abongwa at (262) 857-1872 for further information.

Underground and overhead utility facilities are located within the project limits. Utility adjustments are required for this construction project as noted below. Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per state statute. Use caution to ensure the integrity of underground facilities and maintain code clearances from overhead facilities at all times.

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

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

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

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

Utility working days shown herein for Project 2704-00-77 are as defined in Wisconsin Administrative Code Chapter Trans 220.

Known utilities in the project area are as follows:

Project 2704-00-77

AT&T Wisconsin has existing overhead and underground communications facilities within the project limits in the following locations:

- An existing overhead communication line on We Energies poles beginning beyond the westerly project limits and running easterly along the southerly CTH KR right-of-way to a pole at Station 371+15, 89’RT. AT&T will reconstruct this line as noted below.
- An existing underground communications line beginning beyond the southerly project limits and running northerly along the easterly right-of-way of 113th Avenue to Station 14+23 where it turns and runs easterly along the southerly CTH KR right-of-way to a pole at pedestal at Station 371+14. This line will remain in place without adjustment.
- An existing underground communications line beginning at a pedestal at Station 371+14, 90’RT and running northeasterly across CTH KR to Station 371+26, 33’RT where it turns and runs easterly along the existing northerly CTH KR right-of-way to beyond the easterly project limits. AT&T will discontinue this line in place as noted below.
- An existing underground communication line beginning at a pole at Station 371+15, 89’RT and running easterly along the southerly CTH KR right-of-way to a pole at Station 375+27, 87’RT. AT&T will discontinue this line in place as noted below.
- An existing overhead communication line on We Energies poles beginning at a pole at Station 375+27, 87’RT and running easterly along the southerly CTH KR right-of-way to a pole at Station 381+51, 89’RT. AT&T will reconstruct this line as noted below.

- An existing underground communication line beginning at a pedestal at Station 381+49, 91'RT and running easterly along the southerly CTH KR right-of-way to beyond the project limits. AT&T will discontinue this line in place as noted below.
- An existing underground communication line beginning at a pedestal at Station 381+49, 91'RT and running northerly across CTH KR to Station 381+49, 34'RT where it turns and runs easterly along the northerly existing right-of-way of CTH KR to beyond the project limits. AT&T will discontinue this line in place as noted below.

Prior to construction and upon completion of Charter Communications' relocations on We Energies' reconstructed poles as described below, AT&T Wisconsin will remove existing overhead communications lines and construct new lines on We Energies' poles along the southerly CTH KR right-of-way and the easterly 113th Avenue right-of-way throughout the project limits. AT&T will also discontinue existing underground facilities in place throughout the project limits.

Contact Jeff Oldenburg, (262) 896-7522, of AT&T Wisconsin 7 days in advance to coordinate locations and any excavation near their facilities.

Charter Communications has existing underground and overhead communications facilities within the project limits in the following locations:

- An existing overhead communications line beginning beyond the westerly project limits and running easterly along the southerly CTH KR right-of-way, crossing 113th Avenue at Station 14+30, and continuing easterly to a We Energies pole at Station 370+30, 90'RT. Charter Communications will reconstruct this line as noted below.
- An existing underground communications line beginning at a pedestal at Station 370+30, 90'RT and running easterly along the southerly CTH KR right-of-way, to a pedestal at Station 371+25, 90'RT. Charter Communications will discontinue this line in place as noted below.
- An existing overhead communications line beginning at a We Energies' pole at Station 371+25, 90'RT and running easterly along the southerly CTH KR right-of-way, and continuing to beyond the easterly project limits. Charter Communications will reconstruct this line as noted below.
- An existing overhead communications line beginning at a We Energies' pole at Station 371+25, 90'RT and running southerly to beyond the project limits. Charter Communications will reconstruct this line as noted below.

Prior to construction and upon completion of We Energies' reconstruction of poles along the southerly CTH KR right-of-way as described below, Charter Communications will remove existing overhead communications lines and construct new lines on We Energies' poles along the southerly CTH KR right-of-way throughout the project limits and along a line beginning at a pole at Station 371+25, 90'RT and running southerly to beyond the project limits. Charter Communications will also discontinue existing underground facilities in place throughout the project limits.

Contact Pete Kruzela, (414) 908-1339 office / (414) 688-5376 cell, of Charter Communications 7 days in advance to coordinate locations and any excavation near their facilities.

Mount Pleasant, Village of – Sanitary has no existing sanitary sewer facilities within the project limits.

Prior to and during construction, the Village of Mount Pleasant will construct a new sanitary sewer main beginning beyond the northerly project limits and running southerly along a line 20' east of and parallel to the proposed easterly Wisconn Valley Way right-of-way to a manhole at Station376+38, 121'LT where it will turn and run easterly along a line 5' south of and parallel to the proposed northerly CTH KR right-of-way to beyond the project limits. Mt. Pleasant will construct this line beginning February 1, 2019 and continuing through June 1, 2019. Provide access as necessary for this sanitary work during construction.

Contact Anthony Beyer, (414) 459-3554, of Village of Mount Pleasant - Sanitary 7 days in advance to coordinate locations and any excavation near their facilities.

We Energies – Electric has existing overhead electric facilities within the project limits in the following locations:

- An existing overhead electric line beginning beyond the westerly project limits and running easterly along the southerly CTH KR right-of-way, crossing 113th Avenue at Station 14+30, and continuing easterly along the right-of-way to beyond the easterly project limits. Prior to construction, We Energies will reconstruct this line in place.

- An existing overhead guy line beginning at a pole at Station 365+58, 85'RT and running northerly across CTH KR to a guy pole at Station 365+61, 27'RT. Prior to construction, We Energies will remove this line and pole.
- An existing overhead line beginning at a pole at Station 370+33, 89'RT and running northeasterly across CTH KR to a pole at Station 370+63, 30'RT. Prior to construction, We Energies will remove this line and pole.
- An existing overhead electric line beginning at a pole at Station 371+25, 90'RT and running southerly to beyond the project limits. Prior to construction, We Energies will reconstruct this line in place.
- An existing overhead line beginning at a pole at Station 375+24, 87'RT and running northeasterly across CTH KR to a residence beyond the northerly project limits. Prior to construction, We Energies will remove this line.
- An existing overhead line beginning at a pole at Station 379+83, 90'RT and running northeasterly across CTH KR to a pole at Station 380+39, 9'LT. Prior to construction, We Energies will remove this line and pole.
- An existing overhead guy line beginning at a pole at Station 381+51, 89'RT and running northerly across CTH KR to a guy pole at Station 381+62, 34'RT. Prior to construction, We Energies will remove this line and pole.

Contact Dan Toomey, (414) 944-5695, of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

We Energies – Gas has an existing underground gas line within the project limits beginning beyond the westerly project limits and running easterly along a line 10' north of and parallel to the southerly CTH KR right-of-way, crossing 113th Avenue at Station 14+35, and continuing easterly to beyond the project limits. We Energies will discontinue this line in place as noted below.

We Energies will construct new underground gas facilities during construction in the following locations:

- Upon completion of placement of fill under this contract, We Energies will construct a new gas line beginning beyond the westerly project limits and running easterly along a line 16' north of and parallel to the existing southerly CTH KR right-of-way to beyond the project limits. We Energies will reconnect existing services to this new line and discontinue the existing line in place. Allow 30 days for We Energies to construct this line and services.
- Upon completion of placement of fill under this contract, We Energies will construct a new gas line beginning at a tee at Station 374+06, 79'RT and running northerly, along a line 8' east of and parallel to the proposed westerly Wisconn Valley Way right-of-way to beyond the project limits. Allow 30 days for We Energies to construct this line.
- Upon completion of placement of fill under this contract, We Energies will construct a new high-pressure gas line beginning beyond the westerly project limits and running easterly along a line 83'north of and parallel to the CTH KR reference line to beyond the project limits. Allow 60 days for We Energies to construct this line.
- Upon completion of placement of fill under this contract, We Energies will construct a new high-pressure gas line beginning at a tee at Station 376+13, 83'LT and running northerly along a line5' west of and parallel to the proposed easterly Wisconn Valley Way right-of-way to beyond the project limits. Allow 60 days for We Energies to construct this line.

Contact Dan Toomey, (414) 944-5695, of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

Project 3763-00-73

Known utilities in the project area are as follows:

AT&T Wisconsin has existing overhead and underground communications facilities within the project limits in the following locations:

- An existing underground communication line beginning beyond the westerly project limits and running easterly along the northerly existing CTH KR right-of-way to beyond the project limits. AT&T will discontinue this line in place as noted below.

- An existing underground communication line beginning beyond the westerly project limits and running easterly along the southerly CTH KR right-of-way to beyond the project limits. AT&T Wisconsin will discontinue this line in place as noted below.
- An existing overhead communications line beginning at a pole at Station 385+66, 35'RT and running southerly across CTH KR to beyond the project limits.
- An existing overhead communications line on We Energies' poles beginning beyond the southerly project limits and running northerly along the existing easterly 100th Avenue right-of-way to a pole at Station 410+97, 95'RT. AT&T Wisconsin will reconstruct this line as noted below.
- An existing underground communications line beginning beyond the southerly project limits and running northerly along the existing easterly 100th Avenue right-of-way, crossing CTH KR, and continuing to Station 410+99, 41'LT where it turns and runs easterly along the existing northerly CTH KR right-of-way to beyond the project limits. AT&T will discontinue this line in place as noted below.

Prior to construction and upon completion of Charter Communications' relocations on We Energies' reconstructed poles as described below, AT&T Wisconsin will remove existing overhead communications lines and construct new lines on We Energies' poles along the southerly CTH KR right-of-way and along the easterly 100th Avenue right-of-way throughout the project limits. AT&T will also construct new underground communications lines beginning beyond the southerly project limits and running northerly along the proposed easterly 100th Avenue right-of-way to a new We Energies' pole at Station 411+07, 95'RT. AT&T will also discontinue existing underground facilities in place throughout the project limits.

Contact Jeff Oldenburg (262-896-7522) of AT&T Wisconsin 7 days in advance to coordinate locations and any excavation near their facilities.

Charter Communications has an existing overhead communications line on We Energies' poles beginning beyond the westerly project limits and running easterly along the southerly CTH KR right-of-way, crossing 100th Avenue at Station 25+23, and continuing easterly to a pole at Station 410+97, 95'RT where it turns and runs southerly along the easterly existing right-of-way of 100th Street and continues to beyond the project limits. Prior to construction and upon completion of We Energies' reconstruction and relocation of poles along the southerly CTH KR right-of-way and along the easterly 100th Avenue right-of-way as described below, Charter Communications will reconstruct this overhead line on reconstructed and relocated We Energies' poles.

Contact Pete Kruzela, (414) 908-1339 office / (414) 688-5376 cell, of Charter Communications 7 days in advance to coordinate locations and any excavation near their facilities.

Mount Pleasant, Village of – Sanitary has no existing sanitary sewer facilities within the project limits.

Prior to and during construction, Village of Mount Pleasant will construct a new sanitary sewer main beginning beyond the westerly project limits and running easterly along a line 5' south of and parallel to the proposed northerly CTH KR right-of-way to beyond the easterly project limits. Mt. Pleasant will construct this line beginning November 1, 2018 and continuing through June 1, 2019. Provide access as necessary for this sanitary work during construction.

Contact Anthony Beyer, (414) 459-3554, of Village of Mount Pleasant - Sanitary 7 days in advance to coordinate locations and any excavation near their facilities.

We Energies – Electric has existing overhead and underground electric facilities within the project limits in the following locations:

- An existing overhead electric line beginning beyond the westerly project limits and running easterly along the southerly CTH KR right-of-way, crossing 100th Avenue at Station 25+23, and continuing easterly to beyond the easterly project limits. Prior to construction, We Energies will reconstruct this line in place.
- An existing underground electric line beginning at a pole at Station 386+82, 90'RT and running northerly across CTH KR to beyond the project limits. We Energies will discontinue this line in place prior to construction.
- An existing overhead electric line beginning at a pole at Station 391+21, 92'RT and running northeasterly across CTH KR to a pole at Station 391+68, 40'RT where it turns and runs northerly to beyond the project limits. We Energies will remove this line and pole prior to construction.

- An existing overhead electric line beginning at a pole at Station 391+49, 92'RT and running northeasterly across CTH KR to a pole at Station 391+68, 40'RT. We Energies will remove this line and pole prior to construction.
- An existing overhead electric line beginning at a pole at Station 408+04, 93'RT and running northerly across CTH KR to a pole at Station 408+04, 22'RT where it continues northerly to beyond the project limits. We Energies will remove this line and pole prior to construction.
- An existing overhead electric line beginning at a pole at Station 410+96, 95'RT and running northwesterly across CTH KR to a pole at Station 410+04, 35'RT where it turns and runs northerly to beyond the project limits. We Energies will remove this line and pole prior to construction.
- An existing overhead electric line beginning at a pole at Station 410+96, 95'RT and running northerly across CTH KR to a pole at Station 410+90, 41'RT where it turns and runs westerly to a pole at Station 408+04, 22'RT. We Energies will remove this line and pole prior to construction.
- An existing overhead electric line beginning at a pole at Station 410+96, 95'RT and running southerly along the existing easterly 100th Avenue right-of-way to beyond the southerly project limits. Prior to construction, We Energies will relocate this line along the proposed easterly 100th Avenue right-of-way.
- An existing underground electric line beginning at a pole at Station 420+52, 90'RT and running northerly across CTH KR to beyond the project limits. We Energies will discontinue this line in place prior to construction.
- An existing overhead electric line beginning at a pole at Station 420+52, 90'RT and running northeasterly across CTH KR to a pole at Station 421+41, 39'RT where it turns and runs northeasterly to beyond the project limits. We Energies will remove this line and pole prior to construction.
- An existing overhead electric line beginning at a pole at Station 428+28, 98'RT and running northeasterly across CTH KR to a pole at Station 428+83, 38'RT. We Energies will remove this line and pole prior to construction.
- An existing overhead electric line beginning at a pole at Station 433+97, 97'RT and running northerly across CTH KR to beyond the project limits. This line will remain in place.
- An existing overhead electric line beginning at a pole at Station 436+74, 98'RT and running northwesterly across CTH KR to a pole at Station 436+22, 48'RT where it turns and runs northeasterly to beyond the project limits. We Energies will remove this line and pole prior to construction.

Contact Dan Toomey, (414) 944-5695, of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

We Energies – Gas has an existing gas line within the project limits beginning beyond the westerly project limits and running easterly along a line 10' north of and parallel to the southerly CTH KR right-of-way, crossing 100th Avenue at Station 25+30, and continuing easterly to beyond the project limits. We Energies will discontinue this line in place as noted below.

We Energies will construct new underground gas facilities during construction in the following locations:

- Upon completion of placement of fill under this contract, We Energies will construct a new gas line beginning beyond the westerly project limits and running easterly along a line 16' north of and parallel to the existing southerly CTH KR right-of-way to beyond the project limits. We Energies will reconnect existing services to this new line and discontinue the existing line in place. Allow 30 days for We Energies to construct this line and services.
- Upon completion of placement of fill under this contract, We Energies will construct a new high-pressure gas line beginning beyond the westerly project limits and running easterly along a line 83'north of and parallel to the CTH KR reference line to beyond the project limits. Allow 120 days for We Energies to construct this line.

Contact Dan Toomey, (414) 944-5695, of We Energies 7 days in advance to coordinate locations and any excavation near their facilities.

12. Other Contracts.

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

It is expected that routine maintenance by the city and county personnel may be required at certain times concurrently with the work being done under this contract.

The following contracts are anticipated to be under construction within the time period of this contract, unless otherwise indicated:

2018

IH 94 N-S CTH K Cross Road Reconstruction

ID 1030-11-71, CTH K Interchange Cross Road

IH 94 N-S Frontage Road Construction Contract

ID 1030-24-77 and 1030-24-78, CTH KR to STH 11 East and West Frontage Road

ID 1030-24-70 and 1030-24-74, STH 11 Interchange East and West Frontage Road

ID 1033-02-77 and 1033-02-78, STH 11 to STH 20 East and West Frontage Road

IH 94 N-S Freeway Mainline Work Zone Prep

ID 1035-04-71, STH 142 to CTH G, Kenosha and Racine County

Reconstruction

ID 2340-00-76, STH 20 Intersection with CTH C

Roadway Rehabilitations

ID 2250-16-70, STH 20, IH 94 to CTH H

ID 3765-04-70, CTH A, East Frontage Road to CTH H

ID 3723-01-70, CTH H, CTH A to CTH KR

ID 2818-00-73, CTH H, CTH KR to STH 20

2018 -2019

IH 94 N-S Freeway Mainline Construction STH 20 to CTH G Contract:

ID 1030-11-72, CTH K Mainline and Ramps

ID 1030-11-79, STH 20 to CTH K Mainline (North)

ID 1030-11-80, STH 20 to CTH K Mainline (South)

ID 1030-25-79, CTH K to CTH G Mainline

2018 - 2020

IH 94 N-S Freeway Mainline construction CTH G to College Ave Contract:

ID 1035-01-79, IH 94 N-S Freeway, CTH G to 7 Mile Road

ID 1035-01-72, IH 94 N-S Freeway, 7 Mile Road Interchange, 7 Mile Road

ID 1035-01-74, IH 94 N-S Freeway, 7 Mile Road Interchange, Mainline and Ramps

ID 1035-01-82, IH 94 N-S Freeway, 7 Mile Road to Milwaukee County Line

ID 1030-20-87, IH 94 N-S Freeway, County Line to Oakwood Rd, Elm Rd Interchange

ID 1030-20-84, IH 94 N-S Freeway, Oakwood Rd to College Ave

2018-2021

Development Roads

ID 1320-23-70, STH 11, EFR to WVW (2019)

ID 1320-23-73, STH 11, WVW to CTH H (2019)

ID 1320-23-71, STH 11, CTH H intersection (2019-2020)

ID 1320-23-72, STH 11, 56th Road to WFR (2021)

ID 2704-00-78 Wisconn Valley Way Box Culvert (Sept 2018 Sept -January 2019)

ID 2704-00-76, Wisconn Valley Way, CTH KR to STH 11 (2018-2019)

ID 2704-00-75, International Drive, STH 11 to STH 20 (2018 - 2019)

ID 2704-09-70, Braun Road, EFR to CTH H (2018 - 2019)

ID 2704-09-71, Braun Road, CTH H to 90th Street (2021)

ID 3763-00-75 CTH KR, Kilbourn Road Box Culvert (Sept 2018 Sept -January 2019)

ID 3763-00-74, CTH KR, CTH H to Old Green Bay Road (2021-2022)

ID 3760-00-70, CTH H, CTH KR to Braun Road (2019-2020
ID 3760-00-71, CTH H, Braun Road to STH 11 (2019-2020)

ID 2704-00-79, Development Roads Shared Use Paths (2020)

ID 2704-00-80, Development Roads Landscaping (2020)
ID 2704-00-81, Development Roads Continuous Above Ground Lighting (2020)

ID 2704-00-76, Wisconn Valley Way, CTH KR to STH 11 (2019)

ID 3760-00-70, CTH H, CTH KR to STH 11 (2020)

13. 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 Steve Hoff at (262) 548-6718. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

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

The department is obtaining a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit application is available from the regional office by contacting Laci Kazan at (414) 322-1429. Do not being any work activities in affected wetlands prior to 404 permit being obtained. See article *Prosecution and Progress* for anticipated date.

15. Construction Over or Adjacent to Navigable Waters.

Add the following to standard spec 107.19:

The waterways at the following locations are classified as state navigable waterways.

Project	Location	County	Structure No.
2704-00-77	CTH KR Over Kilbourn Road Ditch	Racine County	B-30-142

stp-107-060 (20150630)

16. Environmental Protection, Aquatic Invasive Species Control.

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

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

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels prior to being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Use the following inspection and removal procedures (guidelines from the Wisconsin Department of Natural Resources http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf for disinfection:

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

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

17. Erosion Control

Add the following to standard spec 107.20:

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

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

Provide the ECIP 14 days before the pre-construction conference. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaisons Kristina Betzold, (414) 263-8517, Kristina.betzold@wisconsin.gov, and Craig Webster, (262) 574-2141, craig.webster@wisconsin.gov. Do not implement the ECIP until department approval, and perform all work conforming to the approved ECIP.

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

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

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

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

Dewatering is incidental.

The project team may identify ‘sensitive’ areas in the field that require additional temporary stabilization to protect resources from being contaminated by sediment-laden water discharging from the work site. Any ‘release’ of sediment-laden water from the work site that enters a wetland or waterway shall be reported to the WDNR liaison within 24 hours.

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

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

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

Construction of structures over navigable waterways shall be completed as quickly as possible in order to minimize disruption. Construction shall minimize the removal of shoreline vegetation below the ordinary high water mark (OHWM), unless otherwise directed by the WDNR Transportation Liaison. Construction equipment should not operate on the bed of the stream or below the OHWM, except for that which is necessary for the placement of the structure. The contractor must provide a means of separating the live flow channel of the waterway from disturbed areas (cofferdam, turbidity barrier, etc.). Any plan for diverting the flow of a navigable waterway (listed under Fish Spawning provision) needs to be submitted, reviewed and approved by the project staff and the WDNR liaison according to the article Temporary Water Diversion Culvert B-51-160.

If erosion mat is used along stream banks, DNR recommends that biodegradable non-netted mat be used (e.g. Class I Type A Urban, Class I Type B Urban, or Class II Type C). Long-term netted mats may cause animals to become entrapped while moving in and out of the stream. Avoid the use of fine mesh matting that is tied or bonded at the mesh intersection such that the openings in the mesh are fixed in size.

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

18. Dust Control Implementation Plan.

A Description

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

B (Vacant)

C Construction

C.1 General

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

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

C.2 DCIP Contents

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

Include all of the following:

- A single contact person with overall responsibility for the DCIP development as well as surveillance and remediation of job related dust. Provide:
    - Name, firm, address, and working-hours phone number.
    - Non-working-hours phone number.
    - Email address.

- A site map locating project features, the job site boundaries, all ingress and egress points, air intakes and other dust-sensitive areas, and all public and private paved surfaces within and adjacent to the job site. Show where specific land disturbing, dust generating activities will occur and, to the extent possible, where employing various dust control or prevention strategies.

- A matrix, or plan, for each anticipated land disturbing, dust generating activity, showing the following:
    - Preventive measures that shall be employed.
    - The applicable contact person.
    - The contractor’s timetable and surveillance measures used to determine when remediation is required.
    - The specific dust control and remediation measures that shall be employed. Identify the specific contract bid items that shall be used for payment. Indicate costs and practices that are incidental to the contract.
    - Both maintenance and cleanup schedules and procedures.
    - Excess and waste materials disposal strategy.

- A description of monitoring and resolving off-site impacts.

C.3 Updating the DCIP

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

C.4 Dust Control Deficiencies

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

D Measurement

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

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

623.0200	Dust Control Surface Treatment
624.0100	Water
628.7560	Tracking Pads
SPV.0075.001	Pavement Cleanup Project 3763-00-73
SPV.0075.002	Pavement Cleanup Project 2704-00-77

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

E Payment

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

sef-107-005 (20170323)

19. Project Site Air Quality

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

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

Portable Concrete Crusher Plants

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

sef-999-039 (20160929)

20. Maintaining Drainage.

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

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

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

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

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

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

sef-107-016 (20170310)

21. Hauling Restrictions.

Replace standard spec 107.2 with the following:

Prior to hauling any materials to or from the project, all trucking providers will be required to attend a mandatory pre-haul conference. The purpose of the pre-haul conference is to discuss specific project hauling requirements, placard implementation, weekly haul forecasting and reporting, and the processes required to secure approvals for any hauling routes not shown in the plan. Attendance of this conference is considered incidental to the work. Any trucking provider not attending the pre-haul conference will not be allowed to haul for the project.

The department will provide placards at the pre-haul conference for all trucks hauling materials to and from the project. These placards must be displayed on the dash when actively hauling for the project. Additional placards can be picked up at the Development Roads field office. Obtaining, distributing, and placement of the placards as well as implementation of the placard system is considered incidental to the work.

Provide a forecast of the following week's hauling activities by 10:00 AM each Wednesday. The hauling forecast shall include the following information for each individual haul route for each day's hauling activities: the number of trucks hauling, the number of overall truck trips, the hours in operation, and the type of material being hauled. The haul route includes all roadways utilized between the material source/waste site and the project. The hauling forecast shall not combine haul routes. The department will provide a spreadsheet format for use in forecast reporting. The weekly hauling forecast and reporting is considered incidental to the work.

Approved local street haul routes are shown in the plan.

If additional haul routes are needed that are not shown in the plan, or part of the state trunk highway system, submit a New Haul Route Request Form detailing any additional haul routes three business days in advance of any proposed hauling to the department. Include the months, days of the week, time of day, number of trucks, types of trucks and maximum loads of trucks anticipated to accomplish the project work. The New Haul Route Request Form can be found on the department's 511 website at the address listed below.

https://projects.511wi.gov/fdr/trucking/

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

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

22. Public Involvement Meetings.

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

sef-999-040 (20160915)

23. Program Partnering Meetings Monthly.

The department will implement mandatory monthly program partnering meetings involving various stakeholders in and around the Foxconn development site corridor. The meetings will involve leadership staff from the following entities: contractor, department, adjacent site development, utilities, local officials, and adjacent department contracts. The meetings will occur monthly from project start until the contractor accepts the tentative final estimate. The department may invite other attendees if deemed appropriate.

This meeting is intended to facilitate cooperation and coordination of construction activities within and surrounding the Wisconn development site corridor. Meeting topics may include:

- Schedule updates
- Hauling coordination
- Site development access
- Public/private project interface issues
- Utility progress
- Safety
- Local official concerns
- Public outreach
- Traffic management

All costs are incidental to contract work.

24. Partnering Meetings Monthly

A Description

The department will implement mandatory monthly leadership partnering meetings. Unless the department and contractor agree otherwise, the contractor, project design engineers, and department field personal shall meet monthly from project start until the contractor accepts the tentative final estimate. The contractor and department field personal may mutually agree to invite other attendees.

This meeting is intended to facilitate a cooperative team environment that defines roles and responsibilities, determines common goals and objectives, and provides a platform to build trust and accountability. Meeting topics may include:

- Issue and risk management
- Dispute resolution procedures
- Safety
- Public outreach
- Traffic management
- Cost reducing incentives
- Claim resolution
- Scheduling issues
- Quality control

All costs are incidental to the contract work.

sef-108-040 (20171004)

25. Notice to Contractor – Personnel Identification Program.

All contractor personnel will be required to register in the program prior to performing work. Valid photo identification which includes unexpired driver's license, government issued identification cards, military identification, passport, or other identification approved by the department will be required to register. All personnel registered will be issued a hard sticker with an identification number by the department. Stickers shall be placed in a visible location on the hard hat.

Noncompliance with this contract provision may result in removal of contractor personnel from the project or suspension of work according to standard spec 108.6.

26. Notice to Contractor – Media Relations.

a) The contractor shall not disseminate or publicize this Agreement, information relating to this Agreement, their work responsibilities, or generally comment about the entire project without prior written consent from one of the department's designated Project Communications Leaders listed under Section (d).
b) The contractor shall refer all information requests or interview requests made by external parties, including media sources, to all of the department's designated Project Communications Leaders listed under Section (d).
c) The contractor agrees to coordinate with the department as to the form, content and timing of any public announcement of this Agreement.

d) The Project Communications Leaders for the department shall be:

i. The department's Project Manager

ii. Becky Kikkert
4802 Sheboygan Avenue
Madison, WI 53705
Phone: (608) 266-3581
Email: rebecca.kikkert@dot.wi.gov

iii. Michael Pyritz
141 NW Barstow Street
P.O. Box 798
Waukesha, WI 53188
Phone: (262) 521-5373
Email: michael.pyritz@dot.wi.gov

e) Noncompliance with this contract provision may result in removal of contractor personnel from the project or suspension of work according to standard spec 108.6.

f) Notwithstanding anything to the contrary contained herein, no provision of this Agreement shall be interpreted to impede the contractor, or any individual, from reporting possible violations of state or federal law to any governmental agency or entity, or from making other disclosures under the whistleblower provisions of state or federal law. The contractor does not need the prior authorization of the department to make any such reports or disclosures and the contractor shall not be required to notify the department that such reports or disclosures have been made.

27. Notice to Contractor- Safety

All workers shall wear OSHA and ANSI compliant safety head protection, safety glasses, safety-toe protective footwear, and safety vest at all times while within the project footprint.

The contractor and respective subcontractors shall provide a copy of their current Company Safety Plans to the department at the preconstruction meeting. All workers shall comply with the Safety Plans of their employer.

Noncompliance with this contract provision may result in removal of contractor personnel from the project or suspension of work according to standard spec 108.6.

28. Notice to Contractor – Airport Operating Restrictions.

The Federal Aviation Administration (FAA) has height restrictions surrounding select airports. The department is obtaining Temporary Determination of No Hazard to Air Navigation for all temporary structure (i.e. crane) erections associated with bridge and retaining wall construction for the project. These Determinations are anticipated to be received by September 30, 2018. Once received, copies of the Determinations can be obtained through the engineer.

The Determinations are anticipated to include conditions such as red obstruction lights and orange/white checkered flags on cranes, as well as lowering the cranes to the ground when not in use and during the hours between sunset and sunrise.

Notify the manager of the applicable airport at least 3 business days prior to the temporary structure being erected and again when the structure is removed from the site. Contact the airport owner to disseminate a Notice to Airmen (NOTAM) when cranes are in use and construction is occurring.

Include dust control provisions near airports in the Dust Control Implementation Plan.

Any failure or malfunction that lasts more than thirty (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.

Any height exceeding the above ground level (AGL) or above mean sea level (AMSL) in the Determinations will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

The Determinations will expire unless extended, revised or terminated by the issuing office. Contractor must request an extension of the effective period of the determination to be postmarked or delivered by the contractor at least 30 days prior to the expiration date to:

Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Once the Determinations are received, 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 shall void the Determinations. Any future construction or alteration, including increase to heights, requires separate notice to the FAA.

Determinations include temporary construction equipment such as cranes, derricks, and other equipment, which may be used during actual construction of a structure. Equipment shall not exceed the overall heights as indicated above. Contractor must request separate notice to the FAA if equipment has a height greater than the studied structure.

Contractor must copy the engineer on any correspondence with the FAA as it relates to time extensions and new/revised Determinations.

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.

If drainage or pond designs need to be modified in the field, contact WisDOT Bureau of Aeronautics (LeviEastlick, Levi.Eastlick@dot.wi.gov, 608-267-5018 or Matt Malicki, Matthew.Malicki@dot.wi.gov, (608) 267-5273, to obtain input on minimizing wildlife attractants for the modified designs.

29. Notice to Contractor – Great Lakes Compact.

This project is near, or may cross, the Subcontinental Divide which is the watershed boundary of the Great Lakes basin and the Mississippi River basin. The Great Lakes Compact and Wisconsin State Statutes regulate water use in the Great Lakes basin and ban diversion of Great Lakes water, with limited exceptions. Source water obtained from the Mississippi River basin may be released on portions of the project located within the Mississippi River basin or the Great Lakes Basin. Source water obtained from the Great Lakes basin may only be released within the Great Lakes basin. Submit all water sources and plans for use to the department for review and approval prior to use on the project. Source water permanently incorporated into a product (e.g., concrete masonry) is exempt from the requirements of this special provision if the product is made within the Great Lakes basin.

30. Material and Equipment Staging.

Submit a map showing all proposed material stockpile or equipment storage locations to the engineer 14 days before either preconstruction or proposed use, whichever comes first. Identify the specific purposes for the location. Obtain written permits from the property owner, and submit two copies to the engineer before use. Do not stockpile or store materials or equipment on wetlands.

sef-999-020 (20170310)

Material and staging areas off the project limits shall be included in the ECIP for review.

31. Contractor Notification.

Replace standard spec 104.2.2.2(2) with the following:

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

104.3.2 (Vacant)

104.3.3 Contractor Initial Written Notice

Replace standard spec 104.3.2 and 104.3.3 with the following:

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

a) A written description of the nature of the issue.
b) The time and date of discovering the problem or issue.
c) If appropriate, the location of the issue.

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

sef-104-005 (20141211)

32. Available Documents.

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

- Design Study Report
- Pavement Type Selection Report
- Environmental Document
- Preconstruction survey
- Traffic Management Plan

These documents are available from Steve Hoff at 141 NW Barstow Street, Waukesha, WI 53187, (262) 548-6718.

Reproduction costs will be applied to all copies requested.

sef-102-005 (20170310)

33. Contractor Document Submittals.

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

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

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

Submit electronic copies in Portable Document Format (PDF) to the engineer-designated folder within the department's SharePoint site, and send alerts with a link to the document via email to (an) account(s) the engineer determines. If possible, translate original documents from their native format (e.g. Word, Excel, AutoCAD, etc.) using a Portable Document Format translation routine. Scan other documents to PDF format with a minimum resolution of 600 dpi.

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

sef-105-010 (20150619)

34. Geotechnical Investigation Information.

Replace standard spec 102.5(3) 2 with the following:

Available information relative to subsurface exploration, borings, soundings, water levels, elevations or profiles are available for review at the department's Regions office. Contact Steve Hoff, 141 NW Barstow Street, Waukesha, WI 53187, (262) 548-6718.

Review the available information to determine if it is of use. The use or not of the geotechnical information does not relieve performing the work conforming to the plans and specifications.

35. CPM Progress Schedule.

Replace standard spec 108.4.4.1 with the following:

(1) Submit a CPM Progress Schedule and updates.

(2) To ensure compatibility with the Master Program Schedule, use the latest version of Primavera P6 Project Management, by Oracle Corporation, Redwood Shores, CA, to prepare the Initial CPM Progress Schedule, Monthly CPM Progress Updates and other CPM Progress Revisions requested by the engineer.

(3) Within five business days after award, the department will provide its current standard Work Breakdown Structure and activity codes to use to develop the Initial CPM Progress Schedule.

(4) Designate a Project Scheduler who will be responsible for scheduling the Work and submit a professional resume describing a minimum of three years of scheduling experience on interstate-highway reconstruction work of similar size and complexity, including recent experience with P6. Obtain approval of the submitted resume before scheduling the work.

Replace standard spec 108.4.4.4(2) with the following:

(2) For each schedule update, submit electronic copies in an approved format and updated PDF printouts of the following:

1. Tabular sorts by:
   - Activity Identification/Early Start.
   - Total Float.
2. If applicable, an updated logic diagram as the engineer requires.
3. If augmenting the CPM schedule with a linear schedule, provide an update of the linear schedule.
4. Activities underway and as-built dates for the past month.
5. Agreement on the as-built dates with the department depicted in the Monthly CPM Progress Schedule Update. Document all disagreements. Use the as-built dates from the Monthly CPM Progress Schedule Update for the month when updating the CPM schedule.
6. Actual as-built dates for completed activities through final acceptance of the project.

sef-108-010 (20171004)

36. Control of Materials

Delete paragraph 1 of standard spec 106.2.1 Waste Materials.

37. Subletting the Contract.

Replace standard spec 108.1.1 (3) with the following:

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

sef-108-035 (20171004)

38. Force Account.

Supplement standard spec 109.4.5.1 (3)1 with the following:

Include accumulation of wages to date for each employee performing force account work and identify allowable Federal Unemployment Tax (FUTA) and State Unemployment Tax (SUTA) multipliers.

sef-109-005 (20141211)

39. Clearing and Grubbing, Emerald Ash Borer.

This applies to projects in the emerald ash borer (EAB) quarantined zones to include: Adams, Brown, Buffalo, Calumet, Columbia, Crawford, Dane, Dodge, Door, Douglas, Fond du Lac, Grant, Green, Iowa, Jackson, Jefferson, Juneau, Kenosha, Kewaunee, La Crosse, Lafayette, Manitowoc, Marquette,

Milwaukee, Monroe, Oneida, Outagamie, Ozaukee, Portage, Racine, Richland, Rock, Sauk, Sheboygan, Trempealeau, Vernon, Walworth, Washington, Waukesha, Winnebago and Wood counties.

Supplement standard spec 201.3 with the following:

The emerald ash borer (EAB) has resulted in a quarantine of ash trees (*Fraxinus sp.*) by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) and the Wisconsin Department of Natural Resources (DNR).

Ash trees species attacked by emerald ash borer include the following:

a) Green ash (*F. pennsylvanica*) is found throughout the state, but is most common in southern Wisconsin. It may form pure stands or grow in association with black ash, red maple, swamp white oak, and elm. It grows as an associate in upland hardwood stands, but is most common in and around stream banks, floodplains, and swamps.
b) Black ash (*F. nigra*) is distributed over the entire state but is most frequently found in northern Wisconsin. It is most common in swamps, but is also found in other wet forest types.
c) Blue ash (*F. quadrangulata*) is a threatened species that is currently found only at a few sites in Waukesha County. The species is at the edge of its range in Wisconsin, but is common in states farther south. The species is not of commercial importance. Blue ash twigs are 4-sided.
d) White ash (*F. americana*) tends to occur primarily in upland forests, often with *Acer saccharum.*

The quarantine of ash trees includes all horticultural cultivars of the species listed above.

Note that blue ash twigs are 4-sided. All other Wisconsin ash trees have round stems. Also, Mountain ash (*Sorbus americana and S. decora*) is not a true ash and is not susceptible to EAB infestation.

The contractor shall be responsible for hiring a certified arborist to identify all ash trees that will be cleared and grubbed for the project. In addition, prior to scheduled clearing and grubbing activities, the arborist shall mark all ash trees with florescent lime flagging tied around the trunk perimeter.

Follow and obey the following Wisconsin Department of Agriculture, Trade, and Consumer Protection order:

ATCP 21.17 Emerald ash borer; import controls and quarantine.

(1) Importing or Moving Regulated Items from Infested Areas; Prohibition.

Except as provided in subparagraph (3), no person may do any of the following:

a) Import a regulated item under sub. (2) into this state if that item originates from an emerald ash borer regulated area identified in 7CFR 301.53-3.
b) Move any regulated item under sub. (2) out of an emerald ash borer regulated area that is identified in 7CFR 301.53-3 and located in this state.

Note: The United States Department of Agriculture-Animal and Plant Health Inspection Service (USDA-APHIS) periodically updates the list of regulated areas in 7CFR 301.53-3. Subsection (1) applies to new regulated areas as those areas are identified in the CFR.

(2) Regulated Items. The following are regulated items for purposes of subparagraph
a) The emerald ash borer, Agrilus planipennis Fairmaire in any living stage.
b) Ash trees.
c) Ash limbs, branches, and roots.
d) Ash logs, slabs or untreated lumber with bark attached.
e) Cut firewood of all non-coniferous species.
f) Ash chips and ash bark fragments (both composted and uncomposted) larger than one inch in diameter.
g) Any other item or substance that may be designated as a regulated item if a DATCP pest control official determines that it presents a risk of spreading emerald ash borer and notifies the person in possession of the item or substance that it is subject to the restrictions of the regulations.

(3) Inspected and Certified Items; Exemption.

Subsection (1) does not prohibit the shipment of a regulated item if a pest control official in the state or province of origin does all of the following:

a) Inspects the regulated item.
b) Certifies any of the following in a certificate that accompanies the shipment:

1. The regulated item originates from non−infested premises and has not been exposed to emerald ash borer.

2. The regulated item was found, at the time of inspection, to be free of emerald ash borer.

3. The regulated item has been effectively treated to destroy emerald ash borer. The certificate shall specify the date and method of treatment.

4. The regulated item is produced, processed, stored, handled or used under conditions, described in the certificate, that effectively preclude the transmission of emerald ash borer.

Regulatory Considerations

a) The quarantine means that ash wood products may not be transported out of the quarantined area.
b) Clearing and grubbing includes all ash trees that are to be removed from within the project footprint. If ash trees are identified within clearing and grubbing limits of the project, the following measures are required for the disposal:

Chipped Ash Trees

a) May be left on site if used as landscape mulch within the project limits. If used as mulch on site, chips may not be applied at a depth greater than standard mulch applications as this will impede germination of seeded areas.
b) May be buried on site within the right-of-way according to standard spec 201.3 (14).
c) May be buried on adjacent properties to projects within the quarantined zone with prior approval of the engineer according to standard spec 201.3 (15).
d) May be trucked to a licensed landfill within the quarantined zone with the engineer's approval according to standard spec 201.3 (15).
e) Burning chips is optional if in compliance with standard spec 201.3.
f) Chips must be disposed of immediately if not used for project mulching and may not be stockpiled and left on site for potential transport by others. Chips may be stockpiled **temporarily** if they will be used for project mulching and **are not readily accessible to the public**.
g) Chipper equipment must be cleaned following post-chipping activities to ensure no spread of wood chip debris into non-quarantined counties.

Ash logs, Branches, and Roots

a) May be buried without chipping within the existing right-of-way or on adjacent properties according to standard spec 201.3 (14)(15).
b) May be trucked to a licensed landfill within the quarantined zone with the engineer's approval according to standard spec 201.3 (15).
c) Burning is optional if in compliance with standard spec 201.3.
d) Ash logs, branches, and roots must be disposed of immediately and may not be stockpiled.
e) All additional costs will be incidental to clearing and grubbing items.
f) Do not bury or use mulch in an area that will be disturbed again during later phases of the project.
g) Anyone moving firewood or ash products from the state or these counties is subject to state and federal fines up to $1,000.00. All fines are the responsibility of the contractor. Obtain updated quarantine information at the DNR Firewood Information Line at 1-800-303-WOOD.

Furnishing and Planting Plant Materials

Supplement standard spec 632.2.2 with the following:

Ash trees may be obtained from inside or outside the quarantine area and planted within the quarantined area. Ash trees from within the quarantine area may not be transported and planted into the non-quarantined area.

Updates for Compliance

Each year, as a service, the Wisconsin department of agriculture, trade and consumer protection distributes an updated federal CFR listing to nursery license holders and other affected persons in this state. More frequent updates, if any, are available on the Department of Agriculture, Trade, and Consumer Protection (DATCP) website at **www.datcp.state.wi.us**. Subsection (1) applies to new regulated areas as those areas are identified in the CFR, regardless of whether affected persons receive update notices from the DATCP. Persons may request update notices by calling (608) 224−4573, by visiting the DATCP website, or by writing to the following address:

Wisconsin Department of Agriculture, Trade and Consumer Protection
Division of Agricultural Resource Management
P.O. Box 8911
Madison WI 53708−8911

Regulated Items

More frequent updates, if any, are available on the DATCP website at **www.datcp.state.wi.us**. Subsection (1) applies to new regulated areas as those areas are identified in the CFR, regardless of whether affected persons receive update notices from DATCP. Persons may request update notices by calling (608) 224−4573, by visiting the DATCP website, or by writing to the above address.

SER-201.1 (20160808)

40. Removing or Abandoning Miscellaneous Structures.

Replace standard spec 204.5.1(3) with the following:

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

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

Supplement standard spec 204.3.2.2 with the following:

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

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

SEF Rev. 14_1215

41. Removing Crash Cushion Temporary Left in Place, Item 204.9060.S.001.

A Description

This special provision describes Removing Crash Cushion Temporary Left in Place conforming to standard spec 204.

B (Vacant)

C Construction

Conform to standard spec 204.

D Measurement

The department will measure Removing Crash Cushion Temporary Left in Place as each individual unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.001	Removing Crash Cushion Temporary Left in Place	EACH

stp-204-025 (20150630)

42. Removing Draintile, Item 204.9090.S.001.

A Description

This special provision describes removing draintile 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 Draintile by the linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.001	Removing Draintile	LF

stp-204-025 (20150630)

43. Removing Underdrain, Item 204.9090.S.002.

A Description

This special provision describes removing underdrain 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 Underdrain by the linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.002	Removing Underdrain	LF

stp-204-025 (20150630)

44. Removing Concrete Barrier Temporary, Item 204.9090.S.003.

A Description

This special provision describes removing concrete barrier temporary left in place from previous projects, at locations shown in the plan and 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 Concrete Barrier Temporary by the linear foot, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.003	Removing Concrete Barrier Temporary	EACH

stp-204-025 (20150630)

45. Roadway Excavation

Replace standard spec 205.3.2(2) with the following:

Salvage topsoil, as specified in Article Topsoil Special, from excavation areas and the roadway foundation. Remove topsoil present below subgrade in cut sections and excess topsoil from embankment areas not required to cover side slopes as excavation common. Dispose of excess topsoil according to standard spec 205.3.12. Utilize Roadway Embankment to backfill areas of topsoil removal as directed by the engineer. The engineer may require EBS Backfill to fill shallow areas at cut-fill transitions to address stability issues related to the underlying soils.

Add the following to standard spec 205.5.2(1):

Provide the department with an earth flow diagram within 15 calendar days of receiving the contract Notice to Proceed.

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

Provide earth flow diagram updates to the engineer for sequencing and source changes.

Add the following to standard spec 205.5.2(2):

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

46. QMP Subgrade.

A Description

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

- CTH KR
- 100th Street
- 113th Street

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

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

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

B Materials

B.1 Quality Control Plan

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

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

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

B.2 Personnel

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

B.3 Laboratory

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

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

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

B.4 Equipment

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

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

http://www.atwoodsystems.com/.

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

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

B.5 Soil Source Study

Conduct and submit a soil source study before beginning of grading operations. Ensure that this study identifies each distinct soil type on the project within the top 15 feet of cut areas and all borrow material. Provide the in-bank natural moisture content for each soil. Develop moisture-density curves for each identified soil type by utilizing AASHTO T 99, with a minimum of 5 individual points, and a zero air voids

curve at a specific gravity of 2.65. If a different specific gravity is used perform a specific gravity test. Determine the maximum density and corresponding optimum moisture level for each soil type. Develop a site-specific family of Proctor curves for this contract from the completed soil source study and submit to the engineer for review and acceptance.

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

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

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

Regional Materials Laboratory
Attn: Paul Emmons
935 S. 60th Street
West Allis, Wisconsin 53214
Telephone: (414) 266-1158

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

B.6 Quality Control Documentation

B.6.1 Control Charts

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

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

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

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

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

B.6.2 Records

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

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

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

B.7 Contractor Testing

B.7.1 General

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

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

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

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

B.7.2 Field Density and Field Moisture

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

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

B.7.3 Testing Frequency

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

Perform the required tests at the following frequencies:

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

B.7.3.2 Subgrade Embankment Within 200 Feet of Bridge Abutments

Perform the required tests at the following frequencies:

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

B.7.3.3 Subgrade Cut

Perform the required tests at the following frequencies:

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

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

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

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

B.7.3.5 Structure and Granular Backfill at Bridge Abutments

Perform the required tests at the following minimum frequencies:

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

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

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

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

B.7.4 Control Limits

B.7.4.1 Field Density

B.7.4.1.1 General Conditions

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

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

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

B.7.4.2 Field Moisture Content

The upper control limit for the field moisture content for embankment material within 5 feet or less of finished subgrade is 105.0 percent of the optimum moisture as determined by AASHTO T 99 or T 272 for the 4-point running average.

The upper control limit for the field moisture content for embankment material greater than 5 feet below finished subgrade is 110.0 percent of the optimum moisture as determined by AASHTO T 99 or T 272 for the 4-point running average.

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

B.7.5 Corrective Action

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

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

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

B.8 Department Testing

B.8.1 General

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

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

B.8.2 Verification Testing

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

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

The department will perform verification testing as follows:

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

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

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

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

B.8.3 Independent Assurance Testing

Independent assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program, which may include one or more of the following:

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

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

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

B.9 Dispute Resolution

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

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

B.10 Acceptance

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

C (Vacant)

D (Vacant)

E Payment

Costs for all sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor does not perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the Non-performance of QMP administrative item.

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47. 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)

48. QMP Base Aggregate Dense 1 1/4-Inch Compaction, Item 371.1000.S.

A Description

(1) This special provision describes modifying the compaction and density testing and documentation requirements of work done under the Base Aggregate Dense 1 1/4-Inch bid items. Conform to standard spec 305 as modified in this special provision and to the contract QMP Base Aggregate article.

(2) Provide and maintain a quality management program. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process related to construction of dense graded base which meets all the requirements of this provision.

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

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

(4) This special provision applies to Base Aggregate Dense 1 1/4-Inch material placed on the mainline traveled way and adjacent mainline shoulders according to the typical finished sections. Unless otherwise specified by the contract, all Base Aggregate Dense 1 1/4-Inch material placed on side roads, private and public entrances, ramps, tapers, turn lanes, and other locations not described as the mainline traveled way and its adjacent mainline shoulders is exempt from the compaction and density requirement modifications and testing contained within this special provision.

B (Vacant)

C Construction

C.1 General

(1) The engineer shall approve the grade before placement of the base. Approval of the grade shall be in accordance with applicable provisions of the Standard Specifications.

Add the following to standard spec 305.3.2.2:

(3) Compact the 1 1/4-Inch dense graded base to a minimum of 93.0% of the material target density. Ensure that adequate moisture is present during placement and compaction operations to prevent segregation and to help achieve compaction.

(4) The material target density will be identified using one of the following methods:

1. For 1 1/4-Inch dense graded base composed of ≤20% reclaimed asphaltic pavement (RAP) or crushed concrete (RCA), as determined by classification of material (aggregate or RAP and/or RCA) and percentage by weight of each material type retained on the No. 4 Sieve: maximum dry density in accordance with AASHTO T-180, Method D, with correction for coarse particles as determined by AASHTO T224, and modified to require determination of Bulk Specific Gravity (Gm) in accordance with AASHTO T 85. Bulk Specific Gravities determined in accordance with standard spec 106.3.4.2.2 for aggregate source approval may be utilized
2. For 1 1/4-Inch dense graded base composed of >20% RAP or RCA, as determined by classification of material (aggregate or RAP and/or RCA) and percentage by weight of each material type retained on the No. 4 Sieve, the contractor may choose from the following options:
    2.1. Maximum dry density as determined by AASHTO T-180, Method D, with correction for coarse particles as determined by AASHTO T224, and modified to require determination of Bulk Specific Gravity (G_m) in accordance with AASHTO T 85.
    2.2. Maximum wet density as determined by AASHTO T-180, Method D, modified to define *Maximum Density* as the wet density in pounds per cubic foot of soil at optimum moisture content using Method D specified compaction, with correction for coarse particles as determined by AASHTO T224, and modified to require determination of Bulk Specific Gravity (G_m) in accordance with AASHTO T 85.
    2.3. Average of 10 random control strip wet density measurements as described in section C.2.5.1.

(5) Base Aggregate Dense 1 1/4-Inch will be accepted for compaction on a target density lot basis.

(6) Field density tests on materials using contractor elected target density methods C.1(4).2.2 or C.1(4).2.3 will not be considered for lot acceptance on the basis of compaction under the requirements of this provisions until the moisture content of the in-place material is less than 2.0 percentage points above the maximum wet density optimum moisture or 2.0 percentage points of the average moisture content of the 10 density tests representing a control strip, respectively.

C.2 Quality Management Program

C.2.1 Quality Control Plan

(1) Submit a comprehensive written quality control plan to the engineer no later than 10 business days before placement of material. Do not place any dense graded base before the engineer reviews and accepts the plan. Construct the project as the plan provides.

(2) Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post 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 description of placement methods and operations. Including, but not limited to: staging, construction of an initial working platform, lift thicknesses, and equipment.

C.2.2 Pre-Placement Meeting

A minimum of two weeks before the start of placement of Base Aggregate Dense 1 1/4-Inch material, hold a pre-placement meeting at a mutually agreed upon time and location. Present the Quality Control Plan at the meeting. Attendance at the pre-placement meeting is mandatory for the project superintendent, quality control manager, project inspection and testing staff, all appropriate contractor personnel involved in the sampling, testing, and quality control including subcontractors, and the engineer or designated representatives.

C.2.3 Personnel

(1) Perform the quality control sampling, testing, and documentation required under this provision using technicians certified by the Department's Highway Technician Certification Program (HTCP). Have a HTCP Nuclear Density Technician I, or ACT certified technician, perform field density and field moisture content testing.

(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.

C.2.4 Equipment

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

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

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

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

(4) For all target density methods, conform to ASTM D 6938 and CMM 8.15 for wet density testing and gauge monitoring methods.

(5) For the specified target density determined using method C.1(4).1, compute the dry densities for the compacted dense graded base, composed of ≤20% RAP or RCA, according to ASTM D 6938.

(6) For contractor elected target density method C.1(4).2.1 compute dry densities of dense graded base composed of >20% RAP or RCA using a moisture correction factor and the nuclear wet density value. Determine the moisture correction value, for each Proctor produced under the requirements of C.2.5, using the moisture bias as shown in CMM 8.15.12.1 and 8.15.12.2, except the one-point Proctor tests of the 5 random tests is not required. Conduct a moisture bias test for every 9000 tons of Base Aggregate Dense 1 1/4-Inch placed. Determine natural moistures in the laboratory.

(7) Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position on the same date of placement of the Base Aggregate Dense 1 1/4-Inch material. Backscatter may be used only if the material being tested cannot reliably maintain an undistorted direct transmission test hole. Direct transmission tests must be performed at the greatest possible probe depth of 2 inches, 4 inches, or 6 inches, but not to exceed the depth of the compacted layer being tested. Perform each test for 4 minutes of nuclear gauge count time.

C.2.5 Contractor Testing

(1) Perform compaction testing on the mainline dense graded base material, as defined by A.(4). Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians as required in C.2.3. Conform to CMM 8.15 for testing and gauge monitoring methods.

(2) Select test sites randomly using ASTM Method D3665. Do not test less than 1 ½ feet from the unsupported edge of the dense graded base layer. Test sites must be located within the mainline traveled way or the traveled way's adjacent mainline shoulder.

C.2.5.1 Contractor Required Quality Control (QC) Testing

(1) Conduct testing at a minimum frequency of one test per lot. A lot will consist of each 1500 tons for each layer with a minimum lift thickness of 2" of Base Aggregate Dense 1 1/4-Inch material placed, regardless of the location of placement. Each lot of in-place mainline, as defined by A.(4), Base Aggregate Dense 1 1/4-Inch material compacted will be accepted when the lot field density meets the required minimum 93.0% of target density. Lots that don't achieve 93.0% of target density must be addressed and approved in accordance with C.2.7.

(2) Notify the engineer, if a lot field density test falls below the required minimum value. Document and perform corrective actions in accordance with C.2.7. Deliver documentation of all compaction testing results to the engineer at the time of testing.

C.2.5.1.1 Target Density Determination

C.2.5.1.1.1 Density Control Strip Method

(1) For contractor elected target density method C.1(4).2.3, construct a control strip for each layer of placement to identify the target wet density for the base aggregate dense material. The control strip construction and density testing will occur under the direct observation and/or assistance of the department QV personnel.

(2) Unless the engineer approves otherwise, construct control strips to a minimum dimension of 300 feet long and one full lane width.

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

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

1. The four point moving average gradation on any one sieve differs from the original gradation test result for that sieve by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to construct the control strip. A previously determined Proctor value will remain valid for any material with gradation for all sieves within 10.0 percentage points of that Proctor's original gradation test.
2. The source of base aggregate changes.
3. The four point moving average percentage of blended recycled materials, from classification of material retained on the No. 4 sieve in the original gradation test, differs by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to construct the control strip. A previously determined Proctor value will remain valid for any material with gradation for all sieves within 10.0 percentage points of that Proctor's original gradation test.
4. The layer thickness changes more than 2.0 inches.
5. The percent target density exceeds 103.0% on two consecutive density measurements.

(5) Construct control strips using equipments and methods representative of the operations to be used to place and compact the remaining 1 1/4–Inch Base Aggregate Dense material. Wet the base, as mutually agreed upon by the contractor and engineer, to obtain and/or maintain adequate moisture content to ensure proper compaction. Discontinue water placement if the base begins to exhibit signs of saturation or instability.

(6) After compacting the control strip with a minimum of 2 passes, mark and take density measurements at 3 random locations, at least 1 ½ feet from the edge of the base. Subsequent density measurements will be taken at the same 3 locations.

(7) After each subsequent pass of compaction equipment over the entirety of the control strip, take density measurements at the 3 marked locations. Continue compacting and testing until the increase in density measurements is less than 2.0 lb/ft^3, or the density measurements begin to decrease.

(8) Upon completion of control strip compaction, take 10 randomly located density measurements within the limits of the control strip, at least 1 ½ feet from the edge of the base. The final measurements recorded at the 3 locations under article C.2.4.1.1.1(6) may be included as 3 of the 10 measurements. Average the ten measurements to obtain the control strip target density and target moisture for use in contractor elected method C.1(4).2.3.

C.2.5.1.1.2 Maximum Wet and/or Dry Density Methods

(1) For contractor elected target density methods C.1(4).2.1, C.1(4).2.2, and contractually specified target density method C.1(4).1; perform one gradation and 5-point Proctor test before placement of 1 1/4-Inch dense graded base. Perform additional gradations every 3000 tons. If sampling requirements are identical, samples/testing performed for the QMP Base Aggregate specification may be used to fulfill the gradation testing requirements of this specification.

(2) Perform additional 5-point Proctor tests, at a minimum, when:

1. The four point moving average gradation on any one sieve differs from the original gradation test result for that sieve, by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to create a 5-point Proctor. Each 5-point Proctor test will remain valid for any material with gradation for all sieves within 10.0 percentage points of that Proctor's original gradation test.
2. The source of base aggregate changes.
3. The four point moving average percentage of blended recycled materials ; from classification of material retained on the No. 4 sieve; in the original gradation test, differs by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to construct the control strip. A previously determined Proctor value will remain valid for any material with gradation for all sieves within 10.0 percentage points of that Proctor's original gradation test
4. Percent target density exceeds 103.0% on two consecutive density tests.

(3) Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

(4) Split each contractor QC Proctor sample and identify it according to CMM 8.30. Deliver the split to the engineer within one business day for department QV Proctor testing.

(5) Split each non-Proctor contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

C.2.5.2 Optional Contractor Assurance (CA) Testing

(1) CA Testing is optional and is conducted to further validate QC testing. The contractor may submit recorded CA data to provide additional information for the following:

1. Process control decisions
2. Troubleshooting possible sampling, splitting, or equipment problems.

C.2.6 Department Testing

C.2.6.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within two business days after the department obtains the sample.

C.2.6.2 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.2.3 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 gradation, density and Proctor contractor tests.

(3) The department will utilize contractor's QC Proctor results for determination of the material target density. The department will verify QC Proctor values by testing QC Proctor split sample. The department will use QC Proctor value as a target density if the QC and QV Proctor test results meet the tolerance requirements specified in section 2.6.2.(7).

(4) The department will locate gradation and nuclear density test samples, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will split each QV sample, test half for QV, and retain the remaining half for 7 calendar days.

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

(6) The department will utilize control strip target density testing results in lieu of QV Proctor sampling and testing when the contractor elected C.1 (3).2.3 target density method is used.

(7) 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 QV test results are nonconforming, take corrective actions in accordance with C.2.7 until the requirements of this special provision are met. Differing QC and QV nuclear density values of more than 2.0 pcf will be investigated and resolved. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.2.6.3 Independent Assurance (IA)

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

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

(2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.2.6.4.

C.2.6.4 Dispute Resolution

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

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

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

C.2.7 Corrective Action

(1) Lots not achieving 93.0% of target density may be addressed and accepted for compaction in accordance with the requirements of this section. Unless otherwise stated, the actions taken to address an unacceptable lot must be applied to the entire lot.

> Passing CA test results in accordance with section C.2.5.2 will reduce the limits of lot investigations and/or corrective actions.

(2) Investigate the moisture content of material in an unacceptable lot. Moisture content testing/samples collected under the QC and/or QV testing articles of this specification may be used to complete this investigation. Obtain moisture content readings in accordance with ASTM D 6938. For material composed of >20% RAP or RCA, correct the moisture content with the moisture correction value using the moisture bias, as shown in CMM 8.15.12.1 and 8.15.12.2, except the one-point Proctor tests of the 5 random tests is not required.

(3) Lots with moisture contents within 2.0 percentage points of optimum moisture for target density methods C.1(4).1, C.1(4).2.1, or C.1(4).2.2, or within 2.0 percentage points of the target moisture content for target density method C.1(4).2.3, and exhibiting no signs of deflection when subjected to loading by the heaviest roller used in the placement and compaction operations, shall be compacted a minimum of one more pass using equipment and methods representative of the operations used to place and compact the Base Aggregate Dense 1 1/4–Inch, and density tested at the same location (station and offset) as the failing

QC and/or QV density tests. If the change in density exceeds 2.0 lb/ft^3 continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density is less than or equal to 2.0 lb/ft^3, the lot is accepted as satisfying the compaction requirements of this provision.

(4) Lots with moisture contents within 2.0 percentage points of optimum moisture for target density methods C.1(4).1, C.1 (4).2.1, or C.1(4).2.2, or within 2.0 percentage points of the target moisture content for target density method C.1 (4).2.3, and exhibiting signs of deflection when subjected to loading by the heaviest roller used in the placement and compaction operations, will be reviewed by the engineer. The engineer may request subgrade improvement methods, such as excavation below subgrade (EBS), installation of geotextile fabrics, installation of breaker run material, or others to be completed, or may request an additional pass of compactive effort using equipment and methods representative of the operations used to place and compact the base aggregate dense and density test.

1. If, after an additional pass, the change in density at the same location (station and offset) as the failing QC and/or QV density tests exceeds 2.0 lb/ft^3 in a lot continue subsequent compactive efforts and density testing on that lot. If the change in density at the same location (station and offset) as the failing QC and/or QV density tests is less than or equal to 2.0 lb/ft^3, and subgrade improvement methods are not requested by the engineer, the lot is accepted as satisfying the compaction requirements of this provision.
2. If subgrade improvement methods are requested by the engineer, upon completion, including compaction of the restored base material, conduct a density test within the improved subgrade limits. This density test result will replace the prior field density value. If the lot field density equals or exceeds 93.0% of target density the lot is accepted as satisfying the compaction requirements of this provision. If the lot field density fails to achieve 93.0% of target density, compact the lot a minimum of one more pass using equipment and methods representative of the operations used to place and compact the base aggregate dense; and density test at the same location (station and offset) as the failing QC and/or QV density tests. If the change in density exceeds 2.0 lb/ft^3 continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density is less than or equal to 2.0 lb/ft^3, the lot is accepted as satisfying the compaction requirements of this provision.

(5) Unacceptable lots, with moisture contents in excess of 2.0 percentage points above or below optimum moisture for target density methods C.1(4).1, C.1(4).2.1, or C.1(4).2.2 ; or in excess of 2.0 percentage points above or below the target moisture content for target density method C.1(4).2.3; shall receive contractor performed and documented corrective action; including additional density testing.

(6) Density tests completed subsequent to any corrective action will replace previous field density test results for that lot. Continue corrective actions until 93.0% of target density is achieved or an alternate compaction acceptance criteria is met in accordance with this section.

(7) Field moisture contents of materials tested using contractor elected target density methods C.1(4).2.2 or C.1(4).2.3 cannot exceed 2.0 percentage points of the optimum moisture content or 2.0 percentage points of the target moisture content, respectively. Density tests on materials using contractor elected target density methods C.1(4).2.2 or C.1(4).2.3 will not be considered for lot compaction acceptance until the moisture content of the corresponding density test of the in-place material is less than 2.0 percentage points above of the optimum moisture content or 2.0 percentage points of the target moisture content, respectively.

D Measurement

(1) The department will measure QMP Base Aggregate Dense 1 1/4-Inch Compaction by the ton acceptably completed. The measured tons of QMP Base Aggregate Dense 1 1/4-Inch Compaction equals the tons of Base Aggregate Dense 1 1/4-Inch acceptably completed, regardless of placement location and density testing eligibility.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
371.1000.S	QMP Base Aggregate Dense 1 1/4-Inch Compaction	TON

(2) Payment is full compensation for performing compaction testing; for sampling and laboratory testing; and for developing, completing, and documenting the compaction quality management program. The department will pay separately for providing aggregate under the Base Aggregate Dense 1 1/4-Inch bid item.

stp-370-010 (20171130)

49. Concrete Pavement Joint Layout 2704-00-77, Item 415.5110.S.001; Concrete Pavement Joint Layout 3763-00-73, Item 415.5110.S.002.

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.001	Concrete Pavement Joint Layout 2704-00-77	LS
415.5110.S.002	Concrete Pavement Joint Layout 3763-00-73	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)

50. Cold Patch, Item 495.1000.S.

A Description

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

B Materials

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

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

Conform to the following gradation:

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

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

C Construction

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

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
495.1000.S	Cold Patch	TON

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

stp-495-010 (20160607)

51. Storm Sewer

Supplement standard spec 204.5.1 with the following:

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

Supplement standard spec 608.2 with the following:

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

Supplement standard spec 608.3.1 with the following:

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

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

Supplement standard spec 608.3.3 with the following:

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

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

Replace standard spec 608.5(2) with the following:

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

52. Catch Basins, Manholes, and Inlets.

Supplement standard spec 611.3.1 with the following:

Use a Grade "A" concrete for final adjustment of manhole cover. Provide a butyl rubber gasket or butyl rubber rope for joints of precast reinforced concrete manhole sections. Butyl Rubber gasket joint used for manholes conforms to 8.41.6 of the Standard Specification for Sewer and Water Construction in Wisconsin, latest Edition. Provide non-rocking covers for all drainage structures subject to traffic loading.

Submit shop drawings for all drainage structures. For structures where WisDOT standard detail drawings are not available, provide shop drawings prepared, verified and stamped by a professional engineer currently registered in the State of Wisconsin. Submit one electronic copy of shop drawings in portable document format for engineer's review two weeks before fabrication. Show clearly on shop drawings information for all pipe connections to the structure. The contractor is responsible for all errors of detailing and fabrication. The omission from the shop drawings of any pipe connection shall not relieve contractor of the responsibility of providing such materials, even though the shop drawings may have been reviewed and accepted by the engineer.

Supplement standard spec 611.3.2 with the following:

Conform to storm sewer concrete collar detail for storm sewer pipes to structure connections as shown on the plans.

Supplement standard spec 611.3.3 with the following:

Use monolithic concrete shimming as the plan shows for final adjustment of drainage structures located within the concrete pavement, concrete shoulders, concrete curb and gutter and concrete barrier wall.

Supplement standard spec 611.3.7 with the following:

Construct height adjustments of 4-inches or more with concrete grade rings. Never use grade rings less than 2-inches thick.

Replace standard spec 611.5.2 (1) with the following:

Payment for Catch Basins, Manholes, and Inlets bid items is full compensation for providing all submittals; materials, including all masonry, and concrete bricks, for Grade "A" concrete adjustments and monolithic concrete shimming; adjusting rings; conduit and sewer connections, steps, and other fittings; for providing and installing butyl rubber joints; for furnishing backfill, backfilling; all excavating, disposing of surplus material, and for cleaning out and restoring the work site; except that the department will pay for covers, including frames, grates and lids separately.

Cost of non-rocking covers for all drainage structures subject to traffic loading is incidental to new cover on proposed structure or reconstructing/adjusting manholes or inlets on existing structure.

53. Fence Safety, Item 616.0700.S.

A Description

This special provision describes providing plastic fence at locations the plans show.

B Materials

Furnish notched conventional metal "T" or "U" shaped fence posts.

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

C Construction

Drive posts into the ground 12 to 18 inches. Space posts at 7 feet.

Use a minimum of three wire ties to secure the fence at each post. Weave tension wire through the top row of strands to provide a top stringer that prevents sagging.

Overlap two rolls at a post and secure with wire ties.

D Measurement

The department will measure Fence Safety by the linear foot along the base of the fence, center-to-center of posts, 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
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.

stp-616-030 (20160607)

54. Landscape Planting Surveillance and Care Cycles.

This item applies to the plantings required under the items Bioretention Type A Item SPV.0060.725; Bioretention Type B, Item SPV.0060.726.

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 $1000 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.

Replace standard spec 632.3.18.1.1 (1) with the following:

The plant establishment period shall follow the completion of planting and will end at the contract completion.

Delete standard spec 632.3.18.1.2 Two Growing Season Plant Establishment Period.

Delete standard spec 632.3.18.1.3 One Growing Season Plant Establishment Period.

Replace standard spec 632.3.19.1 (2) with the following:

Proper care of plants consists of watering, weeding, cultivating, mowing perennials in early November, removing mowing debris, pruning, spraying, tightening braces and guys, retying wrapping, re-mulching, and other work necessary to keep plants and planting beds in a neat appearance. Between May 15 and October 15 care shall be provided until the contract is closed and accepted.

Perform planting surveillance care cycles once every two weeks.

55. Furnishing and Planting Plant Materials.

Add the following to standard spec 632.2.2.1 (1):

All plants shall be grown within the states of Wisconsin, Minnesota, Michigan, or parts of northern Illinois located within Zone 5 of the "Plant Hardiness Zone Map" produced by the United States Department of Agriculture, Miscellaneous Publication No. 1475, issued January 2012.

56. Signs Type II.

Furnish and install mounting brackets per approved product list for type II signs on overhead sign supports incidental to sign. For type II signs on sign bridges use aluminum vertical support beams noted above incidental to sign.

Supplement standard spec 637.2.4 with the following:

Use stainless steel bolts, washers and nuts for type II signs mounted on sign bridges. Use clips on every joint for Sign Plate A 4-6 when mounted on a sign bridge or overhead sign support. Inspect installation of clips and assure bolts and nuts are tightened to manufacturers recommended torque values.

Use aluminum vertical sign support beams that have a 5-inch wide flange and weigh 3.7 pounds per foot, if the L-brackets are 4 inches wide then use 4-inch wide flange beams weighing 3.06 pounds per foot. Contractor shall measure the width of the L-brackets on existing structures of determine the width needed for sign support beams.

Use beams a minimum of 6 feet in length or equal to the height of the sign to be supported, whichever is greater. Use U-bolts that are made of stainless steel, 1/2 inch diameter and of the proper size to fit the truss cords of each sign bridge. Install vertical sign support beams on each sign and use new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss.

For type II signs on overhead sign supports follow the approved product list for mounting brackets.

Replace standard spec 637.2.4.1(2)2 with the following:

Clips may be either stainless steel or aluminum conforming to ASTM B 108, alloy 356.0-T6.

Supplement standard spec 637.3.3.3(3) with the following:

Furnish and install new aluminum vertical sign support beams on each sign and new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss for Type II Signs.

Add the following to standard spec 641.2:

Submit shop drawings for sign bridges and overhead sign supports to SE Region Traffic Operations Engineer, Tom Heydel and Bureau of Structures Design.

~~SER-637.1 (20170405)~~

57. Field Facilities.

Replace standard spec 642 with the following:

The department has procured its own Field Facilities.

58. Covering Signs.

Replace standard spec 643.2.3.3(2) with the following:

(2) Ensure that covers are flat black, blank, and opaque.

Add the following to standard spec 643.3.4.1 as paragraph four:

(4) If multiple messages on a single sign are required to be covered, minimize the number of holes created by covering the sign with a single rectangular shaped covering. Multiple coverings on a single sign is only permissible where necessary to avoid covering necessary content or as directed by the engineer. Submit sign covering plans to the engineer for single signs requiring multiple coverings 3 days before performing work. Obtain engineer approval before covering signs. Remove sign coverings before placing fixed messages signs unless otherwise directed by the engineer.

sef-643-005 (20180104)

59. Traffic Control.

Supplement standard spec 643.3.1 with the following:

Provide the Racine County Sheriff's Department, the Wisconsin State Patrol, Village of Mount Police Department and the engineer a current telephone number with which the contractor or his representative can be contacted during non-working hours in the event a safety hazard develops.

Do not park or store equipment, contractor’s and personal vehicles or construction materials within the clear zone or on any roadway carrying traffic during working and non-working hours except at locations and periods of time approved by the engineer.

Do not permit construction or personnel equipment or vehicles to directly cross the live traffic lanes of CTH KR. Yield to all through traffic at all locations. Equip all vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders, except when parked behind barrier wall. Do not park personal vehicles within the access control limits of the freeway. Do not cross live traffic lanes of CTH KR with equipment or vehicles.

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

Do not disturb, remove or obliterate any traffic control signs, advisory signs, sand barrel array, shoulder delineators or beam guard in place along the traveled roadways without the approval of the engineer.

Flagging operations shall follow standard spec 104.6.1.(4) of the standard specs and chapter 6E of the WMUTCD.

Replace 643.3.1(7) of the standard specs with the following:

Provide equipment, forces, and materials to promptly restore any traffic control devices or pavement markings damaged or disturbed within 2 hours of being contacted.

SER-643.1 (20170808)

60. Temporary Pavement Marking

Add the following to standard spec 649.3:

(1) On pavements not scheduled for removal under this project, remove markings using air blasting, water blasting, or a combination of thereof. Do not use grinding on these pavements.

61. General Requirements for Electrical Work.

Replace standard spec 651.3.3(3) with the following:

(3) Request a signal inspection of the completed signal installation to the engineer at least five working days prior to the time of the requested inspection. Notify the department’s Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The department’s Region Electrical personnel will perform the inspection. In the event of deficiencies, request a re-inspection when the work is corrected. The engineer will not authorize continuation to aboveground work or turn-on until the contractor corrects all deficiencies.

62. Traffic Signals, General.

Work under this item shall consist of furnishing and installing materials and installing department provided materials for the traffic signal at CTH KR and Foxconn Driveway, and CTH KR and Wisconn Valley Way.

Do not order any aboveground traffic signal equipment until you receive permission from the engineer that all aboveground equipment will be installed for the project.

63. Electrical Conduit.

Replace standard spec 652.5(2) with the following:

(2) Payment for Conduit Rigid Metallic, Conduit Rigid Nonmetallic, Conduit Reinforced Thermosetting Resin, and Conduit Special bid items is full compensation for providing the conduit, conduit bodies, and fittings; for providing all conduit hangers, clips, attachments, and fittings used to support conduit on structures; for pull wires or ropes; for expansion fittings and caps; for making necessary connections into existing pull box, manhole, junction box or communication vault; for excavating, bedding, and backfilling, including any sand, concrete, or other required materials; for disposing of surplus materials; and for making inspections.

Replace standard spec 652.5(5) with the following:

(5) Payment for Conduit Loop Detector is full compensation for providing all materials, including conduit, compacted backfill, surface sealer if required, pull wire if required, condulets, conduit fittings, and for making necessary connections into existing pull box, manhole, junction box or communication vault.

64. Electrical Service Meter Breaker Pedestal CTH KR & 100th Street/Foxconn Driveway, Item 656.0200.301; Electrical Service Meter Breaker Pedestal CTH KR & Wisconn Valley Way, Item 650.0200.302.

Append standard spec 656.2.3 with the following:

(2) The department will be responsible for the electrical service installation request for any department maintained facility. Notify the maintaining authority if the signal is not state maintained that it is their responsibility to arrange for the electrical service installation.

(3) Electrical utility company service installation and energy cost will be billed to and paid for by the maintaining authority.

(4) Install the cabinet base and meter breaker pedestal first, so the electrical utility company can install the service lateral. Install a 3" conduit from the point of service from the utility to the meter breaker pedestal. Finish grade the service trench, replace topsoil that is lost or contaminated with other materials, fertilize, seed, and mulch all areas that are disturbed by the electrical utility company.

Append standard spec 656.5 with the following:

(8) Payment is full compensation for grading the service trench; replacing topsoil; and for fertilizing, seeding, and mulching to restore the disturbed area of the service trench.

65. Traffic Signal Faces.

Append standard spec 658.3 with the following:

(5) Connect all ungrounded conductors with wire nuts in the appropriate sections of the signal heads. Connect the neutral conductors to the terminal strip. Be certain to twist wires prior to installing the wire nuts. All wire nuts must be installed facing up to prevent the entrance of water.

66. Pedestrian Push Buttons.

Replace standard spec 658.2(5) with the following:

(5) Furnish freeze-proof ADA compliant pedestrian push buttons made by a department-approved manufacturer. Place a Size 1, Type H reflective (R10-3EL, R, D) sign sticker (per state sign plate), message series – B directly above each push button. Include a directional arrow or arrows on the sign as the plans show.

67. Optimized Aggregate Gradation Incentive, Item 715.0710.

Description

This special provision describes optional contractor optimized aggregate gradation, optional optimized mixture designs, and associated additional requirements for class 1 concrete used in concrete pavements. Conform to standard specification part 7 and as follows:

Optimized Aggregate Gradation

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 in accordance with 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:

1. Notify the engineer of the test results within 1 business day from the time of sampling.
2. Make immediate adjustments to the JMF, within the limits specified in Table 3;
3. Review JMF adjustments with the engineer. Both the contractor and engineer will sign the adjusted JMF if the adjustments comply with Table 3.
4. If the moving average of four falls outside the adjusted allowable working range, stop production and provide a new mix design including JMF to the engineer.

TABLE 3 ALLOWABLE JMF ADJUSTMENTS

SIEVE SIZES	ALLOWABLE ADJUSTMENT (PERCENT)
>= No. 4	+/- 5
No. 8 – No. 30	+/- 4
No. 50	+/- 3
No. 100	+/- 2

Dispute Resolution

The department will resolve disputes as specified in standard spec 106.3.4.3.5 using QV split samples.

Sublot and Lot Size

A sublot consists of up to 1,500 cubic yards. A lot consists of two sublots.

Optimized Concrete Mixtures

The contractor may use a reduced cementitious content for concrete pavement placed if the contractor does the following:

1. Use an optimized aggregate gradation as defined in this special provision.
2. Conform to the additional testing requirements for flexural strength as specified in the contract special provisions.
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:

   http://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:

   http://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:

   http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/qmp/default.aspx
9. Submit trial batch workability results when submitting the mix design.
10. Submit the CP Tech center computer spreadsheet concrete mix design to the engineer for review at least 3 business days before producing concrete.

11. Provide a minimum cement content of 520 pounds per cubic yard, except if using type I, IL, or III cement in a mix where the geologic composition of the coarse aggregate is primarily igneous or metamorphic materials, provide a minimum cement content of 660 pounds per cubic yard.
12. The contractor may use class C fly ash or grade 100 or 120 slag as a partial replacement for cement. For binary mixes use up to 30% fly ash or slag. For ternary mixes use up to 30% fly ash plus slag in combination. Replacement values are in percent by weight of the total cementitious material in the mix.
13. See CMM 8-70.2.2.3 for additional guidance.

Measurement

The department will measure Optimized Aggregate Gradation Incentive by the dollar, for each combined averaged lot of QC test results meeting Table 1.

Payment

The department will pay incentive of 3 percent of the contract unit price for concrete pavement under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
715.0710	Optimized Aggregate Gradation Incentive	DOL

stp-715-005 (20180628)

68. 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)

69. EBS Excavation, Item SPV.0035.001.

A Description

This special provision describes excavating and disposing of material taken below the subgrade of future pavement structures at locations determined by the engineer. The removal of excess topsoil will be paid under common excavation.

B Materials

Excavate all materials below subgrade not classified as rock, stone piles and stone fences, or marsh excavation. Perform work according to standard spec 205.2.2 and as hereinafter provided.

C Construction

Perform work according to the pertinent provisions of standard spec 205.3 and as hereinafter provided.

C.1 Yielding Subgrade

After rough grading on all or a portion of the subgrade in cut areas and in areas requiring 2 feet or less embankment is complete and the grade is ready for blue tops, point out areas of yielding subgrade to the engineer. The engineer will evaluate the subgrade to determine if EBS Excavation is required.

If the engineer requests, provide loaded trucks and run the subgrade as the engineer directs to confirm yielding areas. Perform EBS Excavation in yielding areas as directed by the engineer.

C.2 Excavation Below Subgrade

Excavate materials as directed by the engineer. Remove deposits of frost-heave material, unstable silty soils, wet and unstable soil, material salvaged from old road cores in marshes, topsoil containing considerable amounts of humus or vegetable matter, rocks, or other undesirable foundation material to the depth below finished grade as the engineer directs.

Compact, or prepare otherwise as required, the existing ground within the roadway foundation as necessary to support the roadway and attain the specified density.

Dispose of all excavated materials offsite at no expense to the department. Locate disposal sites outside the right-of-way and comply with all regulations relating to disposal of solid waste. Ensure that disposal sites are neatly constructed. In performing these operations, do not create a nuisance or cause pollution or siltation of natural watercourses, streams, lakes, wetlands, or reservoirs. Obtain written permits for disposal from the owner of the property where placing the material, unless disposing of the material at a licensed waste disposal operation. Furnish permits, or copies of permits, to the engineer before disposal. Do not deposit waste in wetlands.

C.3 Temporary Drainage

During construction, slope and drain the excavation bottoms to prevent water accumulation. If it is necessary in the prosecution of the work to interrupt existing surface drainage, sewers, or under drainage, provide temporary drainage until completing permanent drainage work.

D Measurement

The department will measure EBS Excavation by the cubic yard acceptably completed as computed using the method of average end areas, with no correction for curvature.

The department will not measure for payment materials excavated in forming benches or steps in preparing the foundation for embankments placed on slopes.

The department will not measure for payment materials excavated to remove frost from newly constructed embankments or cut subgrades unless directed by the engineer.

If undercutting designated slopes to provide for placing topsoil or salvaged topsoil, the undercut is incidental to the Topsoil Special bid item.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.001	EBS Excavation	CY

Payment for EBS Excavation is full compensation for performing excavation below subgrade after receiving engineer approval; for the satisfactory disposal of all resulting material offsite; for obtaining and furnishing copies of permits; for furnishing, placing, and removing all temporary drainage installations; and for providing loaded trucks and running them on the subgrade to confirm yielding areas.

The department will only pay for engineer-approved EBS Excavation to correct problems beyond the contractor's control. Work performed under standard spec 105.3 to correct unacceptable work is the contractor's responsibility.

ASP-5 will be applied to this item. The Fuel Usage Factor is 0.29.

70. EBS Backfill, Item SPV.0035.002.

A Description

This special provision describes backfilling EBS Excavation with breaker run. Areas of backfilling in locations of existing topsoil removal to be paid under Roadway Embankment.

B Materials

Furnish all materials according to standard spec 311.2 and as hereinafter provided.

C Construction

Place breaker run where EBS Excavation was performed or as the engineer directs. Compact breaker run using standard compaction conforming to standard spec 301.3.

D Measurement

The department will determine weight or volume, adjust for moisture, and convert between weight and volume as specified in standard spec 301.4.

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.002	EBS Backfill	CY

Payment for EBS Backfill is full compensation for providing and compacting breaker run in areas of EBS Excavation.

The department will only pay for EBS Backfill at engineer-approved EBS Excavation locations. Work performed under standard spec 105.3 to correct unacceptable work is the contractor's responsibility.

The department will not pay for EBS Backfill to replace materials excavated to remove frost from newly constructed embankments or cut subgrades.

71. Roadway Embankment, Item SPV.0035.003.

A Description

This special provision 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; or material obtained off site as specified under these special provisions.

B Materials

B.1 Embankment

Furnish roadway embankment conforming with standard spec 207.2 except as follows:

Supplement standard spec 207.2(1) with the following:

If the contractor utilizes offsite material to construct embankments, the material shall conform to standard spec 208 except as follows:

Delete standard spec 208.2.2(2).

C Construction

Construct roadway embankment according to standard spec 207.3 except as follows:

Supplement standard spec 207.3.6 with the following:

Prior to placing any material for a succeeding layer, ensure the previous layer does not have excessive rutting, displacement, or distortion under the compacting or hauling equipment. If rutting, displacement, or distortion is observed, the contractor shall inform the engineer how yielding material will be addressed prior to continuing roadway embankment construction.

If off site material is utilized, construction must conform to standard spec 208.3.

D Measurement

The department will measure Roadway Embankment without any correction for shrinkage or expansion factors by the cubic yard acceptably completed in its final location using the method of average end areas, except as follows:

a) The engineer and contractor mutually agree to an alternative volume calculation method.

b) 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 three-dimensional measurements.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.003	Roadway Embankment	CY

Payment is full compensation for furnishing offsite and onsite sources, for forming, compacting, shaping, sloping, trimming, finishing, and maintaining the embankments. If offsite materials are utilized for roadway embankments, payment includes full compensation for all items listed in standard spec 208.5 (2), for obtaining all required permits, and all other incidental work required under this section.

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

72. Temporary Stone Ditch Checks, Item SPV.0060.002.

A Description

Furnish and install temporary stone ditch checks; clean and maintain ditch checks as shown on the plans or as directed by the engineer, and as hereinafter provided. This item also includes the removal and disposal of the ditch checks as directed by the engineer.

B Materials

Conform to standard spec 606.2.1 using the following gradation:

	VOLUME OCCUPIED
INCHES	BY STONES
>8	0%
4-6	50% - 90%
<2	5% or less

Material shall be visually inspected and approved by the engineer.

C Construction

Place stone ditch checks immediately after shaping of the ditches or slopes are completed. Place stone checks at right angles to the direction of flow and construct according to the details shown in the plans.

Remove sediment from behind the stone ditch checks when it has accumulated to one-half of the original height of the dam. Perform cleaning according to standard spec 628.

D Measurement

The department will measure Temporary Stone Ditch Checks by each item, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.002	Temporary Stone Ditch Checks	EACH

Payment is full compensation for furnishing, installing, maintaining, and cleaning; disposal of sediment; and for removing temporary ditch check.

Restoration of the area after ditch check removal shall be paid for with restoration items included in the contract.

(NER14-1104)

73. Sand Bags, Item SPV.0060.003.

A Description

This special provision describes the construction of dikes or barriers with sand filled bags as shown on the plans.

B Materials

Provide bags made of canvas, burlap, nylon or other approved material. Use bags that will contain a minimum of one half cubic foot of sand, be of one size and shape and be securely closed.

Use sand that conforms to standard spec 501.2.5.3 except that standard spec 501.2.5.3.4 shall be deleted. The maximum size of particle shall pass a No. 4 sieve.

C Construction

Remove and dispose of the sand bags and all surplus material upon completion of its use under this contract.

D Measurement

The department will measure Sand Bags as each individual sand bag placed 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.0060.003	Sand Bags	EACH

Payment is full compensation for furnishing and installing sand filled bags; for all excavation; for removal and disposal of the sand bags and all waste or surplus materials, including eroded materials and for shaping and restoring the area.

Any required topsoiling, fertilizing, seeding or mulching will be paid for under the applicable bid item.

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74. Temporary Sediment Traps, Item SPV.0060.004.

A Description

Design, construct, and maintain temporary sediment traps used to intercept sediment-laden runoff and to retain the sediment.

B Materials

Materials shall be according to Wisconsin DNR Technical Standard 1063 (Sediment Trap).

C Construction

Design, construct, maintain and remove temporary sediment traps following the guidance in Wisconsin DNR Technical Standard 1063 (Sediment Trap) and according to the detail shown in the plans, and at the direction of the engineer. Locations as directed by the engineer. General locations requiring Temporary Sediment Traps are upstream of streams and wetlands which receive sediment laden runoff. Install prior to major grading operations. Do not remove until directed by the engineer.

D Measurement

The department will measure Temporary Sediment Traps as each individual sediment trap, installed according to the contract and 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.0060.004	Temporary Sediment Traps	EACH

Payment is full compensation for design; furnishing and maintaining each basin; for removal of the basin; and for stabilization of disturbed area after removal.

75. Erosion Control Filter Bags, Item SPV.0060.005.

A Description

This special provision describes furnishing, installing, maintaining, and removing erosion control filter bags under other contract items at locations designated on the plans or as directed by the engineer, and according to plan details and as hereinafter provided.

B Materials

Bags shall be made of synthetic net with a mesh size of 1/8-inches by 1/8-inches that is of sufficient strength to hold the aggregate and to be lifted vertically.

Fill material shall be clean, sound, hard, durable coarse aggregate meeting the approval of the engineer and conforming to the size and gradation requirements for Size No. 1 coarse aggregate as specified in standard spec 501.2.5.4.4.

C Construction

Furnish bags filled with fill material as specified, secured to prevent loss of fill material during transportation, placement, maintenance and removal operations as hereinafter described. Completed erosion control filter bags shall have minimum in-place filled dimensions of 24-inches long by 12-inches wide by 6-inches high.

Install the erosion control filter bags as directed by the engineer and per plan detail. Place erosion control filter bags before starting any construction operation that may cause sedimentation or siltation at the site of the proposed filter bags.

D Measurement

The department will measure Erosion Control Filter Bags by each individual erosion control filter bag, acceptably completed.

The department will not measure individual erosion control filter bags specified to be installed as part of silt fence drainage outlet protection. In those installations erosion control filter bags are part of and incidental to the appropriate bid items.

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. 005	Erosion Control Filter Bags	EACH

Payment is full compensation for furnishing all specified materials; for delivering, assembling, placing, maintaining, and removing and disposing erosion control filter bags; for removing and disposing of the accumulated sediments; and for repairing and restoring damaged areas.

The department will not pay for individual erosion control filter bags specified to be installed as part of silt fence drainage outlet protection. In those installations erosion control filter bags are part of and incidental to the appropriate bid items.

76. Inlet Covers Beehive, Item SPV.0060.008

A Description

The work under these items shall be according to the requirements of standard spec 611 and the details as shown on the plans.

B Materials

Conform to standard spec 611.

C Construction

Conform to standard spec 611.

D Measurement

The department will measure Inlet Cover (Types) by the unit in place, furnished, installed and 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.0060.008	Inlet Covers Beehive	EACH

Payment is full compensation conforming to standard spec 611.5.

77. Mobilizations Emergency Pavement Repair, Item SPV.0060.009.

A Description

This special provision describes furnishing and mobilizing personnel, equipment, traffic control, and materials to the project site to repair the existing pavement for emergencies as the engineer directs. An emergency is a sudden occurrence of a serious and urgent nature, beyond normal maintenance of the existing pavement.

B (Vacant)

C Construction

Mobilize with sufficient personnel, equipment, traffic control, materials, and incidentals on the jobsite within 4 hours or as directed in the engineer's written order to repair the existing pavement on an emergency basis. This work shall be scheduled during night time hours outside of the lane rental fee hours shown in the Prosecution and Progress article and the Lane Rental Fee Assessment article unless the pavement repair emergency requires an immediate lane or full roadway closure.

D Measurement

The department will measure Mobilizations Emergency Pavement Repair as each individual mobilization acceptably completed. The department will not include delivering and installing pavement repair or maintenance materials provided for in specific contract bid items. All traffic control items used for each Mobilization will be considered incidental to the Mobilization.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.009	Mobilizations Emergency Pavement Repair	EACH

Payment is full compensation for the staged moving of personnel, moving equipment, setting up and removing traffic control, traffic control materials, and moving materials. Payment also includes any premium charges related to night work if the repair is completed during overnight hours. The department will pay separately for delivery and installation of pavement repair materials under the other bid items in this contract. The department will not pay separately for traffic control items and materials even though they may be included in other bid items in this contract and will consider them incidental to each Mobilization.

78. Section Corner Monuments, Item SPV.0060.010.

A Description

Coordinate with Southeastern Wisconsin Regional Planning Commission (SEWRPC) for the perpetuation and replacement of a section corner (Public Land Survey System- PLSS) monument.

B Materials

SEWRPC will provide a pre-cast concrete monument or brass disk to be used to mark the PLSS corner.

Furnish base aggregate dense materials that conform to standard spec 305 and concrete, asphalt, topsoil or other materials depending on the surface surrounding the corner.

C Construction

SEWRPC will perpetuate existing section corner monument. The contractor is responsible to coordinate with SEWRPC and the WisDOT Project Manager throughout the perpetuation and replacement process. The engineer will contact SEWRPC at (262) 953-4295 at least two weeks before starting construction operations or the preconstruction meeting to allow for section corner monument perpetuation.

Contractor must excavate and completely remove the existing monument. Contractor is responsible for providing a backfilled 3 to 4 foot deep hole where existing monument was removed. Contractor is responsible to coordinate the materials and methodology to complete the construction of the surface surrounding the monument. This may include but is not limited to a 2’ x 2’ “box out” or 24” diameter core hole in concrete, asphalt pavement/paving rings, coring to facilitate poured in place monuments, topsoil, seed and mulching or other materials or methodologies as agreed to by the contractor and SEWPRC.

Contact Information:

Attn: John Washburn
Southeastern Wisconsin Regional Planning Commission
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607
Phone: (262) 547-6721
Cell: (262) 953-4295
Fax: (262) 547-1103
E-mail: jwashburn@sewrpc.org

D Measurement

The department will measure Section Corner Monuments by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0010	Section Corner Monuments	EACH

Payment is full compensation for all excavating; removal of existing monument, for placing and compacting backfill material; for disposing of surplus materials; for concrete or asphalt material, finishing of roadway or other surfaces, and for all coordination with SEWRPC.

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79. Slip-In Check Valve for 30-inch Inside Diameter Pipe, Item SPV.0060.011; Slip-In Check Valve for 36-inch Inside Diameter Pipe, Item SPV.0060.012.

A Description

The specification covers furnishing and installing Slip-In Check Valves (Check Valves) at locations as shown on the plans and in accordance with manufacturer's instructions.

B Materials

Contractor shall provide an in-line elastomeric type check valve with compression clamps and a slip-in cuff connection. Check Valve shall slip into downstream end of RCCP pond outlets and be attached with 316 stainless steel expansion clamps which shall expand outward to seal the valve against the RCCP pipe wall without use of a separate valve body or pipe.

Check Valve shall be one-piece pure gum rubber construction with reinforcement throughout the body, disc, and bill and resilient to freezing and UV exposure.

Check Valve shall open to allow passage of flow in one direction when line pressure exceeds the backpressure. When backpressure exceeds line pressure the bill and disc are forced closed preventing reverse flow. Valves shall be designed to crack open with less than 2-inch water depth above the valve invert and the following parameters:

The (size) Check Valve into structure at location as shown on the plan shall be designed to open with less than 2-inches of line pressure and rated for a maximum of 20 feet of backpressure. Check Valve shall have less than 0.2-feet of head loss for the 2-year design flow rate of 5 cubic feet per second.

Manufacturer shall have designed, fabricated and have at least three current installation of this style of check valves within a size range of 24" to 72" diameters within the United States. Manufacturer shall provide documentation, including project name, location, and references.

Manufacturer shall have conducted hydraulic testing to determine head loss, jet velocity and vertical opening height characteristics on a minimum of three sizes of valves. The testing must have been conducted for free discharge (pressurized and open channel flow discharging to atmosphere) and submerged conditions.

C Construction

Furnish and install Check Valve at the locations identified on the plans.

Check Valves will be placed Inside the diameter pipes. Due to small variations in RCCP fabrication depending on manufacturer, the contractor is responsible for providing the proper size Check Valve for the actual inside diameter of the RCCP being used. Check Valve shall be sized to fit such that the upstream and downstream sections of the valve shall be circumferentially in tight contact with the inside diameter of the outlet pipe. After installation, the Check Valve shall not protrude beyond the end of the outlet pipe.

Contractor to provide any clamps or hardware required for installation of Check Valve. Such items are considered incidental to this work.

The contractor will be responsible for installing the Check Valve as shown in the plans and details and per the manufacturer's instructions. Contractor shall make manufacturer's authorized representative available to assist during valve installation.

D Measurement

Check Valve (size) shall be measured by each unit installed in place, and the quantity measured for payment shall be the number of units each of the various locations completed and accepted in accordance with the contract and plans. All clamps and hardware necessary for installing Check Valve are considered incidental to this work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.011	Slip–In Check Valve for 30-Inch Inside Diameter Pipe	EACH
SPV.0060.012	Slip–In Check Valve for 36-Inch Inside Diameter Pipe	EACH

Providing all labor, materials, incidentals, and hardware necessary for installing Slip-In Check Valve for (size) Inside Diameter Pipe are considered incidental to this work.

80. Connect Drain Tile, Item SPV.0060.013.

A Description

This special provision describes connecting existing drain tiles to proposed structures or proposed storm sewer pipes.

B (Vacant)

C Construction

Identify drain tile invert elevations through Drain Tile Exploration. Connect the exposed drain tile with the appropriate coupling, concrete collar or by means approved by the engineer to reestablish the connection. Use concrete masonry for concrete collar conforming to standard spec 520.2.4. Ensure that the connection does not negatively impact the current flow capacity of the drain tile.

D Measurement

The department will measure Connect Drail Tile as each new drain tile connection to a structure or pipe, acceptably completed. Measurement will include connections of new underdrain structures placed in previous stages of the project, in addition to pipe or structures constructed under previous projects.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.013	Connect Drain Tile	EACH

Payment is full compensation for performing all work; removing seals, end walls and concrete collars, providing all materials, couplings, concrete collars. Any additional pipe or materials required to connect the drain tile shall be considered incidental to this bid item. The new pipe that restores drainage will be paid separately under their respective bid items.

81. Maintain Crash Cushions Temporary Left In Place, Item SPV.0060.014.

A Description

This special provision describes maintaining temporary crash cushions left in place according to standard spec 614 and as hereinafter provided.

B Materials

Furnish any replacement materials for the temporary crash cushions left in place by others according to the pertinent requirements of standard spec 614.2.

C Construction

Maintain the temporary crash cushion according to standard spec 614.3.4.

D Measurement

The department will measure Maintain Crash Cushions Temporary Left In Place as each individual crash cushion location, 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.0060014	Maintain Crash Cushions Temporary Left In Place	EACH

Payment is full compensation for maintaining the crash cushions.

82. Inlet Covers Type 57, Item SPV.0060.015.

A Description

The work under these items shall be according to the requirements of standard spec 611 and the details as shown on the plans.

B Materials

Conform to standard spec 611.

C Construction

Conform to standard spec 611.

D Measurement

The department will measure Inlet Cover (Types) by each unit in place, furnished, installed and 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.0060.015	Inlet Covers Type 57	EACH

Payment shall conform to standard spec 611.5.

83. Removing Cover Plates Left In Place, Item SPV.0060.016.

A Description

This section describes removing steel cover plates placed and left in place on storm sewer structures under previous contracts.

B (Vacant)

C Construction

Excavate and carefully remove steel cover plates at locations shown on the plan or as directed by the engineer. Saw cuts may be required to remove cover plates. Do not damage storm sewer structures and pipes while removing cover plates.

D Measurement

The department will measure Removing Cover Plates Left In Place as each unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.016	Removing Cover Plates Left In Place	EACH

Payment is full compensation for excavating, sawcutting, and disposing of excavated material and cover plates. Temporary cover plates placed under this contract are paid under that bid item and no payment will be made for those as part of this bid item. Placing new frame and grate, adjusting and/or reconstructing inlets or manholes are paid under appropriate bid items. No additional payments will be made for replacing damaged storm sewer structures and pipes when removing cover plates.

84. Removing Bulkhead, Item SPV.0060.017.

A Description

This special provision describes removing existing bulkhead as shown in the plans, and as hereinafter provided.

B (Vacant)

C Construction

Carefully remove the bulkhead without damaging the pipe. Replace portion of damaged pipe with similar size and material.

D Measurement

The department will measure Removing Bulkhead by each bulkhead, removed 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.0060.017	Removing Bulkhead	EACH

Payment is full compensation for furnishing all materials; removing bulkhead, replacing damaged pipe material including concrete collar around the pipe; and excavating and backfilling where necessary.

85. Bioretention Type A Item SPV.0060.725; Bioretention Type B, Item SPV.0060.726.

A Description

This special provision describes constructing bioretention at locations as shown on the plans furnishing and planting perennial plants of the species, varieties and sizes specified, according to standard spec 632, and as hereinafter provided.

B Materials

B.1 Drainage Course (Gravel) Bioretention

Provide double washed gravel meeting the course aggregate #2 conforming to standard spec 501.2.5.

B.2 Sand for Bioretention Cell:

Provide the sand component consists of mostly SiO2, but sand consisting of dolomite or calcium carbonate may also be used. Manufactured sand or stone dust is not allowed. Wash and drain the sand to remove clay and silt particles prior to mixing and meet one of the following:

- USDA Course Sand (0.02 – 0.04-inches)
- ASTM C 33; fine aggregate.
- Standard spec 501.2.5.3.4 (Fine Aggregate Concrete Sand).

B.3 Compost for Bioretention Soil

Provide well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1- inch sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:

PART 1 – Organic Matter Content: 50 to 60 percent of dry weight

PART 2 – Conform compost to Wisconsin Department of Natural Resources Specifications S100 Compost.

B.4 Engineered Soil for Bioretention Cell

Provide planting mixture consisting of sand and compost in a ratio of 70% sand and 30% compost per the WDNR technical standard. Engineered soils to have adequate nutrient content to support plant growth, have a ph range of 5.5 to 6.5, be free of rocks, stumps, roots, brush, or other material over 1 inch in diameter, and contain no other materials that may be harmful to plant growth or prove a hindrance to planting or maintenance.

B.5 Geotextile Filter Fabric for Bioretention

Provide nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; complying with the following:

Refer to current standard spec 645.2.2.4 for Geotextile, type DF (Drainage Filtration) Schedule B.

B.6 Bioretention Liner

Provide 45 mil EPDM unless otherwise specified.

B.7 Poly Edging Material

Furnish 5-inch to 5 ¼-inch tall medium density polyethylene edging with UV inhibitor, black in color, with pins/stakes as necessary to stabilize edging.

B.8 Plans

Provide plants of the specific species, variety, size, color and other characteristics as shown on the plans and Planting Data chart unless prior written approval of the engineer is provided in advance for any substitution.

B.8 PVC pipe and cleanout

Provide PVC pipe and cleanout as shown on the plan conforming to ASTM SDR 35.

C Construction

C.1 Excavation for Bioretention

Conform to construction methods as per Wisconsin Department of Natural Resources Conservation Practice Standard 1004 for “Bioretention For Infiltration,” except herein modified:

- In bioretention area, excavate as shown on plans and details for installation of underground piping system, gravel, geotextiles, and engineered soils. Dispose of excess material.
- Maintain supervision of excavations during working hours. Keep excavations covered or otherwise protected when unattended by contractor’s personnel. Do not over excavate.
- Minimize compaction of bioretention base and fill soil. If compaction has occurred, alleviate by using a chisel plow, ripper, or subsoiler to refracture the soil profile through the 12” compaction zone.

C.2 Bioretention Geotextile, Liner, Gravel and Soil Fill Installation

Do not mix or place gravels, soils and soils amendments in frozen, wet, or muddy conditions.

After compaction has been rectified or if no compaction has occurred, install gravels, perforated pipe, drain basins, overflow pipes, liner and geotextile filter fabric. Install engineered soil mix as specified on plans and details in 8”-12” lifts to meet final grades after natural settlement. Do not compact engineered soils during installation.

Install bioretention liner per manufacturers’ specifications. Protect underside from puncture by installing a geotextile fabric prior to bioretention liner installation. If installing stone or other material that may puncture the liner on top of liner, install a geotextile fabric on top of liner

Lightly watering lifts to promote natural settlement is permitted if the lift is allowed to dry before adding the next lift. Do not install if engineered soils or subgrade is frozen, muddy, or excessively wet.

C.3 Planting in Bioretention Cells

In planted areas of the Bioretention Cell located over the engineered soil area, no fertilizer are necessary. Mulch area prior to planting to minimize compaction during the installation process. Move mulch away at each individual plant location for installation and rake mulch back afterwards. Do not use pre-emergent or weed fabric in Bioretention Cell area.

In planted areas of the Bioretention Cell not located over the engineered soil area, such as side slopes and berm tops, loosen subgrade of planting areas to a minimum depth of 4 inches. Remove stones larger than 2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and dispose them properly. Spread planting soil to a depth of 4 inches but not more or less than required to meet finish grades after natural settlement and no fertilizer is necessary. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet. Spread approximately one-half the thickness of planting soil over loosened subgrade. Mix thoroughly into top 4 inches of subgrade. Spread remainder of planting soil.

For shrub areas outside engineered soil area, add the following: 2” composted manure over entire planting area.

For perennial and groundcover areas outside engineered soil area, add the following: 2” composted manure over entire planting area, peat moss at 4 cubic foot bale per 100 square feet, Milorganite at 5 pounds per 1000 square feet, and Bonemeal at 5 pounds per 1000 square feet.

Grade planting areas and engineered soil to a smooth, uniform surface plane with loose, uniformly fine texture. Roll non-engineered soils only, rake, remove ridges, and fill depressions to meet finish grades after settling. Uniformly roll 2-inch thick shredded bark as shown on the plans.

C.4 Poly Edging Material

Install poly edging material where the plans show or where the engineer directs. Install poly edging material so top of edging is 1-inch above top of mulch height. Install poly edging material with pins/stakes as necessary to anchor and stabilize edging.

C.5 Planting in Bioretention Cells

Maintain Bioretention Cell plant material by watering through the first growing season and during dry periods there-after as necessary. Inspect, treat, or replace diseased plant material as necessary but no less than twice per year.

Inspect Bioretention Cell for weed germination twice per month during the Landscape Planting Surveillance and Care Cycles. Remove weed growth, preferably including roots.

Inspect for and repair soil erosion. Inspection and work associated with restoration of erosion are incidental to item Landscape Planting Surveillance and Care Cycles.

C.6 Planting Perennials

Plant perennials in prepared beds that are a minimum of 6” deep and backfilled with Planting Mixture (standard spec 632.2.3.4). Incorporate timed-release fertilizer thoroughly into the top 3" inches of planting soil at the manufacturers recommended rate. Use a fertilizer conforming to the following minimum requirements:

Nitrogen……14%

Phosphoric Acid……14%

Potash……14%

Thoroughly water-in plants to eliminate all air pockets in the planting pit.

Plant all perennials between May 1 and September 1 unless directed otherwise by the engineer.

Contractor shall remove and dispose of all excess material from site.

D Measurement

The department will measure Bioretention (type) as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.725	Bioretention Type A	EACH
SPV.0060.726	Bioretention Type B	EACH

Payment is full compensation for all furnishing, excavation, drainage course gravel, sand, geotextile fabric, bioretention liner, installation, poly edging material, all plants and plantings, planting soil, PVC 6-inch SDR 35 pipe and cleanout, shredded bark mulch, complete installation, and for removing and disposing of excess material.

86. Pavement Cleanup Project 3763-00-73 Item SPV.0075.001; Pavement Cleanup Project 2704-00-77, Item SPV.0075.002.

A Description

This special provision describes cleanup of dust and debris from pavements as the engineer directs.

B Materials

B.1 Pavement Cleanup

Furnish a vacuum-type street sweeper equipped with a power broom, water spray system, and a vacuum collection system.

Use vacuum equipment with a self-contained particulate collector capable of preventing discharge from the collection bin into the atmosphere.

Use a vacuum-type sweeper as the primary sweeper, except as specified in this special provision or approved by the engineer.

C Construction

C.1 Surveillance

Provide daily surveillance of active haul routes to identify if material is being tracked from the jobsite. Document the condition of the roads and all sweeping recommendations in a daily report. Submit reports to the engineer daily, including hourly metered tickets for that day's sweeping activities.

C.2 Pavement Cleanup

Keep all pavements, sidewalks, driveways, curb lanes and gutters within the project boundaries, free of dust and debris generated from all activity under the contract.

Conduct sweepings as the engineer directs or approves, to eliminate dust problems that might arise during off-work hours or emergencies. Provide the engineer with a contact person available at all times to respond to requests for emergency sweeping. Coordinate with engineer to determine deadlines for responding to emergency sweeping requests and cleaning up spillage and material tracked to/from the project.

Skid steers with mechanical power brooms may only be used on sidewalks and driveways whose pavements will not support the weight of a street sweeper, unless otherwise approved by the engineer. Do not dry sweep. Ensure all broomed equipment used for sweeping has a functioning water bar.

D Measurement

The department will measure Pavement Cleanup (Project) by the hour, acceptably completed and only with prior approval by the engineer.

Tickets shall include:

- Date
- Company
- Operator name
- Equipment make/model
- Routes swept
- Total hours.

Total hours shall be to the nearest 0.25 hour that work under this item was performed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.001	Pavement Cleanup Project 3763-00-73	HR
SPV.0075.002	Pavement Cleanup Project 2704-00-77	HR

Payment is full compensation for daily surveillance; preparing and submitting the daily surveillance report with hourly metered tickets; mobilization; sweeping; and disposing of materials.

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87. Seeding Mixture Special, Item SPV.0085.001.

A Description

Supply native seed for planting in the following zones as indicated in the plans:

Sreambank/Flood Plain Planting Zone

Supply seed samples, germination test data, provide storage and deliver seed, all according to the Special Provisions provided herein.

Seed Sources

Supply seed from Wisconsin nurseries specializing in growing native species from Wisconsin genotypes.

B Material

Seed Specifications

Supply native seed and cover crop. Transport the seed from the vendor to the construction site. Notify the seed vendor and the engineer a minimum of ten working days in advance of the required pick-up date and/or delivery to the construction site. The following native seed specifications shall be used in the acquisition of the seed.

(a) Native seed shall be true to species, packed separately, and labeled as follows:

Botanical and common name

Quantity (in ounces)

Date and location picked (1/4, 1/4 section, township, range and county)

Name of company supervising the picking

(b) Seed shall be free of non-seed debris and of noxious weeds including reed canary grass, purple loosestrife, box elder, buckthorn, phragmites (giant reed grass) and Canada thistle.

(c) Seed shall be of local ecotype and origin shall be no further than 150 linear miles from the project location.

(d) Seed shall be picked at the appropriate time for ripeness and shall be viable. A random sample of each species shall be tested and certified for germination prior to delivery to the contractor. Provide written documentation of germination tests to the engineer before seeding can begin. Provide seed with a minimum germination rate of 80 percent to be accepted. If the seed does not meet the minimum required 80 percent germination rate, supply additional seed at the cost of the seed supplier/contractor to meet the total viable seed quantity.

(e) Deliver a representative sample of each species to the engineer for inspection and identification prior to the acceptance of the seed. Deliver all seed samples before seeding can begin.

(f) Cover crop in the planting zones will be perennial ryegrass (*Lolium perenne*) for spring plantings and winter wheat (*Triticum aestivum*) for dormant fall plantings.

Seed

The following seeding schedule shall be used in each of the designated zones. Prior to seeding, the engineer must approve substitutions or changes to the seeding schedule. Seeding rates and species mixes shall be as follows, or as directed by the engineer:

All common and scientific species names are referenced from National List of Plant Species that Occur in Wetlands: Wisconsin (U.S. Fish and Wildlife Service May 1988).

All seed quantities provided assume a minimum 80% germination rate.

1) Streambank/Floodplain Planting Zone Seed Mix (0.07 acres). The seed mix for the Streambank and Floodplain Planting Zone shall be applied at a rate of 12 pounds/acre, thus composed of 0.21 pounds of sedges and rushes, 0.21 pounds of grasses, 0.42 pounds of forbs. Cover crop will be applied at a rate of 35 pounds/acre, or 2.5 pounds of cover crop.

Sedges and Rushes. 0.06 acres at 3 pounds per acre for a total of 0.21pounds. Provide a minimum of 3 species, with no individual species comprising more than 35% of the total sedge seed mix. (*required species)

Scientific Name	**Common Name**
Carex hystricina	porcupine sedge
*Carex stipata**	awl-fruited sedge
*Carex vulpinoidea**	fox sedge
Scirpus atrovirens	green bulrush

Grasses: 0.07 acres at 3 pounds per acre for a total of 0.21 pounds. A minimum of 3 species, with no individual species comprising more than 35% of the total grass seed mix. (*required species)

Scientific Name	Common Name
*Elymus Canadensis**	Canada wild rye
*Glyceria striata**	fowl manna grass
Calamagrostis canadensis	Canada blue joint
Leersia oryzoides	rice cut grass
Elymus virginicus	Virginia wild rye

Forbs. 0.07 acres at 6 pounds per acre for a total of 0.42 pounds. A minimum of 6 species, with no individual species comprising more than 20% of the forb seed mix shall be supplied. (*required species)

Scientific Name	Common Name
Solidago gigantean	giant goldenrod
Aster novae-angliae	New England aster
Helenium autumnale*	sneezeweed
Verbena hastata*	blue vervain
Mimulus ringens	monkey flower
Vernonia fasciculata	Ironweed
Asclepias incarnata*	marsh milkweed
Eupatorium maculatum	joe pye weed
Euthamia graminifolia*	grass-leaf goldenrod

C Measurement

The department will measure Seeding Mixture Special, meeting the required 80 percent germination rate, by actual pounds of native seed supplied, acceptably completed.

The equivalent pounds, based on the following formula for each species will be used to measure native seed not meeting the required 80 percent germination rate:

Equivalent pounds = (number of actual pounds of native seed supplied) X (actual percent germination rate/80).

D 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 Special	LB

Payment is full compensation for supply and delivery of native seed and cover crop to the project site; and for providing seed samples and germination data.

88. Heavy Duty Silt Fence, Item SPV.0090.001.

A Description

This special provision describes the delivery, installation, maintenance, and removal of Heavy Duty Silt Fence. Install fence as directed by the engineer. Do not remove fence until directed by the engineer.

B Materials

Provide Heavy Duty Silt Fence consisting of a composite of woven wire fence fabric, posts, geotextile, fasteners, and to be assembled by the contractor. Woven wire fence fabric shall be a standard field fence type a minimum of 4 feet high, a maximum mesh spacing of 6-inches and minimum 14-$^{1}/_{2}$ gauge wire.

Provide “studded tee” or “U” type metal posts with a minimum length of 7 feet –6 inches and a minimum weight of 1.3 lb/ft.

Provide geotextile fabric meeting the following requirements:

Property	Unit	Test Method	Minimum Average Roll Value
Grab Tensile Strength	LB.	ASTM D4632	380
Grab Tensile Elongation	%	ASTM D4632	50
Puncture Strength	LB.	ASTM D4833	240
Trapezoid Tear Strength	LB.	ASTM D4533	145
Apparent Opening Size	U.S. Standard Sieve	ASTM D4751	170 (0.09 mm)
Permittivity	sec^{-1}	ASTM D4491	0.7
Water Flow Rate	$Gal/min/ft^2$	ASTM D4491	50
UV Resistance after 500 hours	% strength retained	ASTM D4355	70

Furnish a manufacturer's Certified Report of Test or Analysis that the geotextile fabric delivered for use in the work meets the above requirements to the engineer at least 15 days prior to use in the work. Provide geotextile fabric bearing markings to clearly identify it with the applicable test report furnished to the engineer.

Supply material in 15'9" wide rolls and cut in half.

C Construction

Install the Heavy Duty Silt Fence as directed by the engineer and shown on the attached detail drawing. Space ties and anchors to adequately support system. Include or add acceptable guy lines, where required, for additional support.

Maintenance work, when required, will be specified on erosion control orders. Maintenance includes replacement of failed 12GA wire ties; re-anchoring of metal posts (standing lying sections back-up); entrenchment of the bottom fabric; and guy line repairs, if required. Geotextile fabric and woven wire fence fabric replacement not required for maintenance.

D Measurement

The department will measure Heavy Duty Silt Fence by the linear foot, acceptably completed. The department will measure along the base of the fence, center-to-center of end post, for each section of fence.

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	Heavy Duty Silt Fence	LF

Payment is full compensation for all furnishing, assembling, erecting, maintaining, and removal of the silt fence; and for anchoring the silt fence.

89. Pipe Underdrain 6-Inch Special, Item SPV.0090.002.

A Description

This special provision describes providing necessary subsurface drainage by constructing trenches, placing the required geotextile fabric, installing the designated pipes or drainage devices, connecting the wrapped underdrain to receiving structures, providing cored connection holes, back-plastering and or mortaring connections to storm sewer structures (both on the external and internal sides of the receiving structure), providing and installing PVC or HDPE fittings, and caps or plugs ,for excavating, plowing, backfilling the trenches with the specified backfill material according to standard spec 310, 612 and 645, salvaging; disposing of surplus material; and restoring the work site as shown on the plans and details, and as hereinafter provided.

B Materials

B.1 Base Aggregate

Use only base aggregate open graded conforming to standard spec 310.2.

B.2 Geotextile Fabric

Utilize geotextile fabric consisting of Type DF Schedule A and conforming to standard spec 645.2.4. Completely wrap the installation trench with geotextile fabric.

C (Vacant)

D Measurement

The department will measure Pipe Underdrain 6-Inch Special by the linear foot, acceptably completed. The department will measure along the centerline of the pipe, center to center of junctions and fittings.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.002	Pipe Underdrain 6-inch Special	LF

Payment is full compensation for providing, handling, and placing all materials, including pipe, base aggregate open graded, geotextile fabric Type DF Schedule A, providing cored connections, making all necessary connections to the receiving structures, performing back-plastering and or mortaring of wrapped underdrain connections to storm sewer structures, providing and installing all fittings, and caps or plugs; for furnishing all excavating, plowing, and re-compacting, salvaging; disposing of surplus material; and restoring the work site.

90. Coconut Fiber Rolls Delivered, Item SPV.0090.003; Coconut Fiber Rolls Installed, Item SPV.0090.004.

A Description

Furnish, deliver, and place Coconut Fiber Roll(s) at the locations shown on the plans, or as directed by the engineer.

B Materials

Obtain approval from the engineer for the coconut fiber roll material prior to use.

C Method

Deliver and install coconut fiber rolls according to the plan details. Securely anchor coconut fiber rolls by burying the bottom one-third of the roll and fastening them to stakes.

D Measurement

The department will measure Coconut Fiber Roll Delivered and Coconut Fiber Roll Installed by the linear foot, in place for each roll, complete and accepted according to the terms of the contract.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0090.003	Coconut Fiber Roll Delivered	LF
SPV. 0090.004	Coconut Fiber Roll Installed	LF

Payment is full compensation for furnishing and installing, transporting, placing, and anchoring the coconut fiber rolls; and for supplying fastening materials.

91. Maintain Concrete Barrier Temporary Precast, Item SPV.0090.005.

A Description

This special provision describes maintaining existing concrete barrier temporary precast including attached temporary glare screen and reflectors, and steel rail connections and steel cap rail for installations abutting permanent barrier. The temporary barrier has been left in place under a previous contract. Assume ownership and responsibility of the temporary barrier, temporary glare screen and reflectors, and steel rail connections and steel cap rail upon the contract's Notice to Proceed. The location of this temporary barrier is shown in the Traffic Control plans.

Any Concrete barrier temporary precast, including attached temporary glare screen and reflectors that are to remain in place at the end of this contract as shown in the Traffic Control plans, becomes property of the department after final acceptance by the engineer.

B Materials

The concrete barrier temporary precast left in place from a previous project is Wisconsin type concrete barrier temporary precast.

C Construction

Maintain Wisconsin type concrete barrier temporary precast left in place conforming to standard spec 603.

Realign the wall after snow plow operations or as directed by the engineer. Maintain reflectors and hardware in a condition similar to when new on the project.

Keep drainage/lifting slot holes free from debris.

D Measurement

The department will measure Maintain Concrete Barrier Temporary Precast by the linear foot of concrete barrier temporary precast, acceptably maintained.

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	Maintain Concrete Barrier Temporary Precast	LF

Payment is full compensation for receiving, maintaining, keeping concrete barrier temporary precast drainage/lifting slot holes free from debris, and leaving on the project site concrete barrier temporary precast including attached temporary glare screen and reflectors. Payment also includes maintaining steel rail connections and steel cap rail for installations abutting permanent barrier.

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92. Cold Weather Marking Epoxy 4-inch Item SPV.0090.006; Cold Weather Marking Epoxy 8-inch SPV.0090.007.

A Description

This section describes providing and removing pavement marking

B Materials

Conform to standard spec 646.2.

C Construction

Conform to standard spec 646.3 and the following:

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.

Do not place permanent paint or permanent tape marking if the ambient or pavement temperature is below 50 F. Choose an epoxy marking compatible with field conditions when placed. Do not place permanent epoxy marking if the ambient or pavement temperature is below 35 F unless the engineer allows in writing.

If the engineer allows or requires marking below the specified minimum temperatures, apply epoxy from the department's APL in the exact location and width where permanent marking would be installed. Place epoxy at the mil thickness and the glass bead application rate specified for permanent epoxy. Maintain until weather permits permanent placement.

Using the failure criteria specified in standard spec 646.3.1.5, perform corrective maintenance whenever the failure rate exceeds 25 percent of any section of marking. Completely remove and replace cold weather marking with permanent marking when weather permits. The proving period for the final marking begins after replacement.

D Measurement

The department will measure the Cold Weather Marking Epoxy bid items by the linear feet of initial marking acceptably placed, maintained, and removed. The department will not measure work under these bid items as follows:

- If the contractor fails to maintain and remove the initial marking as required in standard spec 646.3.1.3(2).
- If initial marking is placed on days when the department is assessing liquidated damages.

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	Cold Weather Marking Epoxy 4-inch	LF
SPV.0090.007	Cold Weather Marking Epoxy 8-inch	LF

Payment for the Cold Weather Marking Epoxy bid items is full compensation for providing the initial marking including maintenance and removal.

The department will pay separately for the final marking under the associated marking bid items.

93. Survey Project 3763-00-73, Item SPV.0105.001; Survey Project 2704-00-77, Item SPV.0105.007.

A Description

This special provision describes modifying standard spec 105.6 and 650 to define the requirements for construction staking for this contract. Conform to standard spec 105.6 and 650 except as modified in this special provision.

Replace standard spec 650.1 with the following:

This section describes the contractor-performed construction staking required under individual contract bid items to establish the horizontal and vertical position for all aspects of construction including:

- storm sewer
- subgrade
- base
- curb
- gutter
- curb and gutter
- curb ramps
- pipe culverts
- drainage structures
- structure layout
- bridges
- all retaining wall layout
- pavement

- pavement markings (temporary and permanent)
- barriers (temporary and permanent)
- overhead signs
- freeway and local street lighting
- electrical installations
- supplemental control
- slope stakes
- detention ponds
- traffic signals
- ITS
- FTMS
- paths
- utilities
- conduit
- landscaping elements
- installation of community sensitive design elements
- traffic control items
- fencing
- multi-use path

B (Vacant)

C Construction

Supplement standard spec 650.3.1 (5) with the following:

Global positioning methods will not be allowed to establish the following:

1. Structure layout horizontal or vertical locations.
2. Concrete pavement vertical locations.
3. Curb, gutter, and curb and gutter vertical locations.
4. Concrete barrier vertical locations.
5. Storm Sewer layout horizontal or vertical locations, including structure centers, offsets, access openings, rim and invert elevations.

Replace standard spec 650.3.1(6) with the following:

(6) Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. This includes:

- Raw data files
- Digital stakeout reports
- Control check reports
- Supplemental control files (along with method used to establish coordinates and elevation)
- Calibration report

Make the survey notes and computations available to the engineer within 24 hours as the work progresses unless a longer period is approved by the engineer.

Replace standard spec 650.3.3.1 with the following:

Under the Survey Project bid item, global positioning system (GPS) machine guidance for conventional subgrade staking on all or part of the work may be substituted. The engineer may require reverting to conventional subgrade staking methods for all or part of the work at any point during construction if the GPS machine guidance is producing unacceptable results.

Replace standard spec 650.3.3.3.4.1 with the following:

The department will provide the contractor staking packet as described in the Construction and Materials Manual (CMM) 7.10. At any time after the contract is awarded, the available survey and design information may be requested. The department will provide that information within 5 business days of receiving the contractor's request. The department incurs no additional liability beyond that specified in standard spec 105.6 or standard spec 650 by having provided this additional information.

Add the following to standard spec 650.3.3.3.6.2 as paragraph (4):

Record all subgrade elevation checks and submit a hard copy to the engineer within 24 hours or as requested by the engineer.

D Measurement

Replace standard spec 650.4 with the following:

(1) The department will measure Survey Project (project ID) as a single lump sum unit of work, acceptably completed.

E Payment

Replace standard spec 650.5 with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.001	Survey Project 3763-00-73	LS
SPV.0105.007	Survey Project 2704-00-77	LS

Payment is full compensation for performing all survey work required to lay out and construct all work under this contract and for adjusting stakes to ensure compatibility with existing field conditions. The department will not make final payment for this item until the contractor submits all survey notes and computations used to establish the required lines and grades to the engineer within 24 hours of completing this work. Re-staking due to construction disturbance and knock-outs will be performed at no additional cost to the department.

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94. Control of Water Project 2704-00-77, Item SPV.0105.010; Control of Water Project 3763-00-73, Item SPV.0105.011.

A Description

This section addresses the provision for designing, furnishing all labor and material needed to control, handle, dispose and treat groundwater and surface water that may be encountered in all excavations as required for performance of the work as shown in the plans.

This special provision does not cover temporary drainage. Conform to standard specification standard spec 205 for temporary drainage.

Refer to the dewatering guidelines of WisDNR Storm Water Management Technical Standards, Code #1061, “Dewatering”. This document can be found at the WisDNR website:

http://dnr.wi.gov/runoff/stormwater/techstds.htm

B Materials

The contractor is responsible to determine materials required to meet this special provision.

C Construction

C.1 Submittals

C.1.1 General

The discharge permits and water control plan shall be submitted to the engineer at least 30 days prior to start of excavation, unless otherwise noted.

C.1.2 Subsurface Conditions

The contractor shall review pertinent geotechnical reports for groundwater information and soil types.

C.1.3 Submittals

Discharge Permit: Submit discharge and well permit applications to Wisconsin Department of Natural Resources (WDNR) if dewatering wells are to be used. Also submit design and calculations for the sedimentation tank or clarifier system to be utilized to reduce sediment levels to minimum levels required by WDNR prior to discharging.

Water Control Plan: Water control plan shall be coordinated with requirements of special provisions, and Geotechnical Instrumentation. The following items shall be included in the water control plan, as a minimum.

a. Descriptions of proposed groundwater and surface water control facilities including, but not limited to, equipment, methods, installation, standby equipment and power supply, pollution control facilities including silt removal facilities, discharge locations to be utilized, removal of water control systems, and provisions for immediate temporary water supply as required by this section.

b. The contractor shall submit shop drawings showing locations, dimensions, and relationships of elements of each water control system.

Design calculations demonstrating dewatering zone of influence, and adequacy of proposed water control systems and components. The contractor may be required to demonstrate the systems proposed in the water control plan and to verify that adequate equipment, personnel, and materials are provided to dewater the excavations at all locations and times required. The contractor shall provide manufacturer's literature

a. Describing installation, operation, and maintenance procedures for all components of the water control system.

b. Monitoring plans including measurement of: pumping rates at excavated locations and wells, reading of piezometers, and water quality sampling of discharge.

c. Method(s) to measure discharge quantities.

d. If system is modified during installation or operation, revise or amend and resubmit Water Control Plan.

Quality Control: During construction, submit rate of discharge, pumping rate measurements, water level readings taken at piezometers, groundwater quality data, and sediment content test results. Contractor’s readings shall be performed in addition to any readings taken by the engineer. Submit the data and test results within 24 hours of readings.

C.1.4 Acceptance

All information submittals shall be submitted to the engineer. The engineer can reject the submittals which do not contain adequate detail, as required herein. The contractor shall resubmit the rejected submittals within 7 days upon the receipt of the engineer’s rejection notice.

C.2 General Requirements

The contractor shall continuously control, handle, treat and dispose water at all times during the course of construction, and provide adequate backup systems to accomplish control of water in conformance with this special provision to obtain satisfactory working conditions and to maintain the progress of the work. Water to be controlled includes groundwater, contaminated groundwater; and surface water (precipitation and run-off).

All required drainage, pumping, treatment, and disposal shall be done without damage to adjacent property or structures and without interference with the operations of other contractors, or the rights of public and private owners, or pedestrian and vehicular traffic.

The contractor shall modify the water control system at their own expense if, after installation and while in operation, it causes or threatens to cause damage to adjacent property or to existing buildings, structures, or utilities.

C.3 Regulatory Requirements

Storm water discharge to storm sewers, watercourses, lakes, and wetlands shall conform to the requirements of local, state, and Federal regulations. Water from excavations shall be kept separate from storm water discharge associated with surface construction.

In the event that contaminated waters are encountered, the contractor is required to notify the department prior to discharging contaminated water. Comply with WDNR regulations regarding disposal of contaminated groundwater. Obtain additional permits, if required.

C.4. Surface Water Control

Intercept and divert surface drainage away from the work sites by the use of dikes, curbwalls, ditches, sumps, or other means. Design surface drainage systems to prevent erosion either on or off the site. Control surface runoff to prevent entry of surface water into excavations and to prevent erosion either on or off the site. Remove drainage systems when no longer needed.

C.5 Water Control in Excavations

Use water control methods that are appropriate, as determined by the contractor, to permit conditions, ground conditions, construction operations, and requirements of these plans and special provisions. The methods shall involve removal of water accumulating within excavations from precipitation and groundwater infiltration, and may involve removal of water outside excavations by means such as the use of dewatering or pressure relief wells.

Water control methods shall minimize adverse effects of elevated or reduced water pressure on the work, the surrounding ground and adjacent facilities and structures. Design and operate the water control measures to prevent removal of in-situ materials (development of lost ground), or loosening or softening of subgrade soils within excavations.

Water control methods shall be capable of lowering and maintaining the free water and piezometric levels to an elevation at least 2 feet below excavation bottoms regardless of the water volume. The methods shall have sufficient capacity to accomplish this desired result allowing for normal variations in precipitation and soil and aquifer properties.

Control groundwater and surface water such that the construction of trenches and other structures can be performed without adverse effects of water on the facilities being constructed, including prevention of hydrostatic uplift pressures on the new facilities until construction has been adequately completed. If the water level cannot be maintained at the specified levels, contractor shall, at no additional cost to the department, control seepage of groundwater by whatever means are necessary to assure that there is no loss of ground by erosion or piping of fines with seepage through shoring or lagging into excavated areas and no instability of slopes due to seepage. Control water during periods when excavating, installing ground support systems, installing subgrade protection measures, placing concrete (except tremie concrete), placing pipe, and at such other times as is necessary for efficient and safe execution of the work.

If water enters the excavation in volumes that could adversely affect the performance of the work or has the potential to cause loss or damage to adjacent property or structures, take immediate steps to reduce or mitigate the water inflow.

Provide standby pumps and standby power supply where disruption of water control systems could allow water inflows to threaten the work or the safety of personnel.

C.6 Monitoring of Groundwater Levels

Monitor groundwater levels as necessary to evaluate the sufficiency of the water control system. A system of construction piezometers is required to evaluate the effectiveness of the water control system in fulfilling the requirements specified herein. Piezometers shall be of adequate numbers and in suitable arrangements and depths for determining the free water surface elevations and piezometric elevation over the area. A minimum of one piezometer per four dewatering wells or one piezometer per excavation location shall be installed with the dewatering system at locations and depths proposed by the contractor.

Piezometers shall be installed using direct rotary drilling methods with drilling fluid that does not impact the development of the piezometer and conforms to ASTM D5783. During drilling, soil samples shall be obtained at intervals of 2.5 feet or less using standard penetration tests in accordance to ASTM D1586. Piezometers shall be constructed and developed in accordance to ASTM D5092, with development a minimum of 24 hours after completion. The contractor’s engineer shall determine the depth of the sensing zone for each piezometer based on observations of retained soil samples.

Make a minimum of one reading at each piezometer, per 24-hour period, 5 days per week during the period of dewatering activities (including dewatering by pumping seepage from sumps within shafts or other excavation areas) and one reading at each piezometer per week until the end of construction during periods of no dewatering.

C.7 Dewatering Wells

Obtain a site-specific dewatering discharge or construction site storm water discharge permit if the WDNR has specific concerns that are not addressed by other permits that might otherwise apply.

Obtain a WDNR permit for operation of any well or well system that has a combined pumping capacity of 70 gallons per minute or more (a high capacity extraction system). For purposes of permitting, a well is defined as any opening made in the ground where the depth of the opening is greater than its largest surface dimension and extends more than 10 feet below ground surface. The permit will require that wells be constructed, operated, and abandoned in accordance to Chapter NR 812, Wisconsin Administrative Code.

Keep dewatering influence zone to the minimum necessary for execution of the work. Obtain any additional geotechnical information necessary for design of a dewatering well system, including performing pump tests, grain size analyses, groundwater chemical analyses, and subsurface investigations. Design and operate wells so as to prevent removal of fine soils with seepage through backpack material and screens. Provide means by which water discharge from each well can be measured and flow rates adjusted. Construct and operate wells in accordance to WDNR requirements. Monitor the rate of discharge from each well on a daily basis with an accuracy of at least 2 percent of the flow.

Wells shall be designed, installed and operated in a manner that will preclude removal of materials by the pumping operation (hereafter referred to as "piping of fines"). After installation, each well shall be individually pump-tested at maximum design flow to verify acceptability with respect to piping of fines (sediment mostly consisting of silt and sand) as measured using a centrifugal tester. Any well or wellpoint segment found to be causing piping of fines at a rate exceeding 2 parts per million (ppm) by volume during the individual pump-test at the maximum design flow shall be replaced in a manner acceptable to the engineer, and at no additional cost to the department. Each well shall be checked for sediment piping using a centrifugal tester immediately after installation and at least once per month during operation. Measure the sediment content of the total dewatering effluent using a centrifugal tester at least once every 30 days. If the sediment content of the total effluent is greater than 1 ppm, contractor shall identify and abandon wells that are producing excessive sediments and replace them. All sediment content tests shall be performed in the presence of the engineer.

C.8 Ground Loss from Dewatering Operations

Support any structure including, but not limited to, buildings, bridges, freeway surfaces, streets, and utilities, or portions of such structure, including footings, foundations, basements, walls or concrete driveways that become unstable or vulnerable to settlement due to removal or disturbance of groundwater. Cease excavation and other construction operations that result or have the potential to result in further settlement until corrective measures are implemented. Support shall include but not be limited to shoring; sheeting; bracing; underpinning; compaction grouting; driving piles; excavating, backfilling, and placing new structural concrete beneath or adjacent to the unstable structure; or other means necessary to rectify the particular problem involved.

The contractor shall bear the costs of all loss or damage arising from removal or disturbance of groundwater including, but not limited to claims for subsidence and loss of structure support that may occur in the prosecution of the work. If the contractor fails to correct the damage resulting from his operations, the engineer may deem the work to be unacceptable work as defined in standard spec 105.3.2.2.

C.9 Treatment and Disposal of Water

Discharge all water removed from the construction site through pipes or hoses. Do not convey water in open ditches or trenches. Discharge water in a manner that will not cause soil erosion at the discharge point. Discharge shall not cause sediment accumulation or flooding in any stream, storm sewer, or on adjacent properties.

Treat all water to remove suspended solids, oils, cement, bentonite, and other contaminants by use of settling basins, on-site treatment plant, or other means selected by the contractor. Design the treatment systems for the maximum discharge rates. Treatment systems shall be capable of expansion if greater capacity becomes necessary during the course of the work. The contractor shall provide copies of all records required by the WDNR.

Obtain permission to use storm sewers or drains for water disposal purposes from the authority having jurisdiction. Protection of storm sewers and drains shall be in conformance with the Wisconsin Construction Site Best Management Practices Handbook, latest revision and the requirements by authority having jurisdiction. Any requirements and costs for such use shall be the responsibility of the contractor. Do not cause flooding by overloading or blocking the flow in the drainage facilities, and leave the facilities unrestricted and as clean as originally found. Document the condition of the drainage facilities prior to and subsequent to their use. The engineer may independently verify the condition of such facilities. Repair or restore any damage to facilities as a result of the contractor's operations as directed by the authority having jurisdiction, at the contractor's expense.

Should requirements of any permit be different than requirements herein, the more stringent requirements shall control.

Ventilate enclosures around wells and water discharge points to prevent the accumulation of combustible gas that may escape from solution in groundwater.

On completing the work, clean out and dispose of all sediments and residues in settling basins, treatment facilities, and the like. Dispose of sediments and residues in accordance to applicable regulations.

C.10 Abandonment of Piezometers and Dewatering Wells

Abandon the design phase piezometers and all piezometers and dewatering wells installed during construction in accordance to standard spec 204.3.3.3 and in accordance to NR 812 Wisconsin Administrative Code, whichever is more stringent.

D Measurement

The department will measure Control of Water (Project) as a lump sum unit of work, acceptably completed. The contractor is responsible for removing all surface and ground water regardless of the quantity during construction to accomplish the work.

E Payment

The department will pay for Control of Water at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.010	Control of Water Project 2704-00-77	LS
SPV.0105.011	Control of Water Project 3763-00-73	LS

Payment for Control of Water is full compensation for, but not limited to complete dewatering system design, installation, monitoring, discharge, and all necessary incidental work as specified in this special provision.

95. Transport and Install State Furnished Traffic Signal Cabinet CTH KR & 100th Street/Foxconn Driveway, Item SPV.0105.301; Transport and Install State Furnished Traffic Signal Cabinet CTH KR & Wisconn Valley Way, Item SPV.0105.306.

A Description

This special provision describes the transporting and installing of department furnished materials for traffic signals as the plans show and as follows.

B Materials

Use materials furnished by the department including: the traffic signal controller and the traffic signal cabinet.

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials five (5) working days prior to picking the materials up.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2 of the standard specs.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 of the standard specs except as specified below.

Request a signal inspection of the completed signal installation to the engineer at least five (5) working days prior to the time of the requested inspection. The departments' Region Electrical personnel will perform the inspection.

Coordinate directly with the department's traffic signal cabinet vendor {TAPCO at (262) 814-7327 or rickk@tapconet.com / TCC at (651) 439-1737 or mallwood@trafficcontrolcorp} to schedule the cabinet acceptance testing. Coordinate with the department's Electrical Field Unit at (414)-266-1170 to participate in the acceptance testing. The department has final determination of the cabinet acceptance testing date and time.

D Measurement

The department will measure Transport and Install State Furnished Traffic Signal Cabinet (location) as a single lump sum unit of work, in place and 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.0105.301	Transport and Install State Furnished Traffic Signal Cabinet CTH KR & 100th Street/Foxconn Driveway	LS
SPV.0105.306	Transport and Install State Furnished Traffic Signal Cabinet CTH KR & Wisconn Valley Way	LS

Payment is full compensation for transporting and installing the traffic signal controller and the traffic signal cabinet; for furnishing and installing all other items necessary (such as, wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, etc.) to make the proposed system complete from the source of supply to the most remote unit and for clean-up and waste disposal.

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96. Transport and Install State Furnished Radar Vehicle Detection System CTH KR & 100th Street/Foxconn Driveway, Item SPV.0105.302; Transport and Install State Furnished Radar Vehicle Detection System CTH KR & Wisconn Valley Way, Item SPV.0105.307.

A Description

This special provision describes the transporting and installing of department furnished multi-sensor detection system for installation on monotube poles or arms and as follows.

B Materials

Pick up the department furnished Radar System at the department's electrical shop located at 935 South 60th Street, West Allis. Notify the department's electrical field unit (EFU) at (414) 266-1170 to make arrangements for picking up the department furnished materials at least five working days prior to material pick-up.

C Construction

Install the department furnished pole/arm mounting brackets, extension arms (if required), and radar units per manufacturer recommendations in the locations determined by the department.

Install the power and communication cable to run continuously (without splices) from the traffic signal cabinet to the pole handhole plus an additional 16-feet in each pull box and an extra 10-feet in the pole handhole. Install the detector unit cable whip from the detector unit to the pole handhole. Splice the detector unit cable whip to the power and communication cable in the pole handhole using the provided junction box.

Mark each end of the lead in the traffic signal cabinet and each cable in the pole handhole to indicate the equipment label (i.e. RA1, RA2, etc.) on the plans. For a cabinet that is not operating the signal, the contractor will terminate the ends. If the cabinet is operating the signal, the cabinet wiring will be done by the department.

Notify department's Electrical Shop at (414) 266-1170 upon completion of the installation and aiming of the radar units.

The department will provide the vendor's contact information. Coordinate directly with the department's radar detection system vendor to arrange for the vendor to program the radar detection system on site. Notify the department and vendor at least five working days prior to the date of programming. Assist the department and vendor with fine adjusting of the radar units during the radar system programming, if necessary.

D Measurement

The department will measure Transport and Install State Furnished Radar Detection System [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.0105.302	Transport and Install State Furnished Radar Vehicle Detection System CTH KR & 100th Street/Foxconn Driveway	LS
SPV.0105.307	Transport and Install State Furnished Radar Vehicle Detection System CTH KR & Wisconn Valley Way	LS

Payment is full compensation for transporting and installing the radar detection system, cable, mounting hardware, and radar units; and assisting the department and vendor during the radar system programming.

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97. Transport and Install State Furnished Emergency Vehicle Preemption (EVP) Detector Heads With Confirmationn Beacons CTH KR & 100th Street/Foxconn Driveway, Item SPV.0105.303; Transport and Install State Furnished Emergency Vehicle Preemption (EVP) Detector Heads With Confirmationn Beacons CTH KR & Wisconn Valley Way, Item SPV.0105.308.

A Description

This special provision describes transporting and installing department furnished emergency vehicle preemption (EVP) detector heads and mounting brackets at CTH KR & Foxconn Driveway and CTH KR & Wisconn Valley Way as the plans show and as follows.

B Materials

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials five working days prior to picking the materials up.

C Construction

Install the EVP detector heads as shown on the plans. The department will determine the exact location to ensure that the installation does not create a sight obstruction. Mount the EVP detector heads and wire them per manufacturer instructions. For a cabinet that is not operating the signal, the contractor will terminate the ends and install the discriminators and card rack in the cabinet. If the cabinet is operating the signal, the cabinet wiring will be done by the department.

Notify the department's Electrical shop at (414) 266-1170 upon completion of the installation of the Emergency Vehicle Preemption (EVP) Detector Heads.

D Measurement

The department will measure Transport and Install State Furnished Emergency Vehicle Preemption (EVP) Detector Heads With Confirmation Beacons (location) 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.0105.303	Transport and Install State Furnished Emergency Vehicle Preemption (EVP) Detector Heads With Confirmation Beacons CTH KR & Foxconn Driveway and CTH KR & Wisconn Valley Way	LS
SPV.0105.308	Transport and Install State Furnished Emergency Vehicle Preemption (EVP) Detector Heads With Confirmation Beacons CTH KR & Wisconn Valley Way	LS

Payment is full compensation for transporting and installing department furnished Emergency Vehicle Preemption (EVP) Detector Heads and mounting brackets.

SER-658.8 (20170419) ELEC

98. Transport Traffic Signal and Intersection Lighting Materials CTH KR & 100th Street/Foxconn Driveway, Item SPV.0105.304; Transport Traffic Signal and Intersection Lighting Materials CTH KR & Wisconn Valley Way, Item SPV.0105.309.

A Description

This special provision describes the transporting of department furnished materials for traffic signals and intersection lighting.

B Materials

Transport materials furnished by the department including: anchor rods, monotube arms/poles and luminaire arms (to be installed on monotube assemblies).

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials a minimum of five (5) working days prior to picking the materials up.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

D Measurement

The department will measure Transport Traffic Signal and Intersection Lighting Materials (location) 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.0105.304	Transport Traffic Signal and Intersection Lighting CTH KR & 100th Street/Foxconn Driveway and CTH KR & Wisconn Valley Way	LS
SPV.0105.309	Transport Traffic Signal and Intersection Lighting CTH KR & Wisconn Valley Way	LS

Payment is full compensation for transporting the anchor rods, monotube poles/arms and luminaire arms (to be installed on monotubes). Installation of these materials is paid under a separate pay items.

SER-658.2 (20170414) ELEC

99. Removal and Disposal of Invasive Plant Species, Item SPV.0170.001.

A Description

(1) This work shall consist of removing and disposal of invasive plant species, including but not limited to Phragmites, Cut-leaved teasel and Wild Parsnip per the Invasive Species Identification, Classification, and Control Rule (Chapter NR 40, Wis. Adm. Code). Plants shall be removed and disposed from areas designated as follows. It shall include furnishing all necessary materials and performing all necessary work such as excavating topsoil, cutting stems, removing individual plants including roots, disposing of plants, and such work necessary and incidental to complete the item according to the plans, specifications, and contract.

B (Vacant)

C Construction

(1) The WDNR Liaison will determine locations of invasive plant species.

C.1 Removing and Disposing of Phragmites (Common Reed)

(1) All phragmite plants shall be removed from areas designated by the WDNR Liaison. Removal of phragmites shall include removal of the entire plant and root system. Removal shall be performed by removal of all existing topsoil and plant biomass from the areas designated by the WDNR Liaison. Topsoil and biomass removed from invasive plant areas shall be kept in a separate stockpile than topsoil intended for reuse on the project under the Salvaged Topsoil item.

(2) All plants removed shall be disposed either on-site under a minimum of 5 feet of fill or plants shall be taken to a solid waste landfill. Transport of plants to any location other than a licensed landfill shall require approval by the WisDNR. Disposal of plants under fill or at a licensed landfill shall occur within 1 day of removal.

C.2 Removing and Disposing of Cut-leaved Teasel and/or Wild Parsnip

(1) All Cut-leaved Teasel and/or Wild Parsnip plants shall be removed from areas designated by the WDNR Liaison. Removal of Cut-leaved Teasel and Wild Parsnip shall by cut at the stem or completely excavated. Removal shall be performed by either removal of each individual plant by hand or by removal of all existing topsoil and plant biomass from the areas designated by the WDNR Liaison. If excavation methods are used to remove plants, the topsoil shall be kept in a separate stockpile than topsoil intended for reuse on the project under the Salvaged Topsoil item.

(2) All plants removed shall be disposed either on-site under a minimum of 5 feet of fill or plants shall be taken to a solid waste landfill. Transport of plants to any location other than a licensed landfill shall require approval by the WisDNR. Disposal of plants under fill or at a licensed landfill shall occur within 1 day of removal.

C.3 Wild Parsnip Safety

(1) Care shall be taken when handling Wild Parsnip. When sap contacts skin in the presence of sunlight, it can result in severe rashes, blisters, and discoloration of the skin (phytophotodematitis). Wear gloves, long sleeves, and long pants when handling this species.

C.3 404 Permit

(1) Areas of invasive species designated by the WDNR Liaison may be outside of wetland fill areas covered under the 404 permit. Excavation shall not be performed in these areas. For Cut-leaved Teasel and Wild Parsnip in these areas, the plants shall be cut at the stem, removed and disposed according to Section C.2.

C.5 DNR Contact

(1) A minimum of two weeks prior to excavation within invasive plant species areas, contact WisDNR for identification and delineation of invasive species in the field. The DNR contact is:

Kristina Betzold
Environmental Analysis and Review Specialist
Wisconsin Department of Natural Resources
2300 North Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212
Phone: (414) 507-4946
krisitna.betzold@wisconsin.gov

D Measurement

The department will measure Removal and Disposal of Invasive Plant Species by the full 100-foot station acceptably completed, measured along the roadway reference line with each full 100-foot station starting and ending at a +00 station. The department will measure along the project reference line and will apply for a removal and disposal of invasives required from the outside topsoil removal limits.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0170.001	Removal and Disposal of Invasive Plant Species	STA

(2) Payment is full compensation for removing, stockpiling, excavating, loading, hauling, and either on-site disposal or licensed landfill disposal of these invasive plants.

If invasive plants are removed by excavation methods, the department will pay for restoring topsoil under the Salvaged Topsoil or Topsoil items.

100. Topsoil Special, Item SPV.0180.001.

A Description

This special provision section describes furnishing, placing, spreading, and finishing humus-bearing soil, adapted to sustain plant life, commonly known as topsoil, from locations the contractor furnishes beyond the limits of the right-of-way.

This special provision also describes removing topsoil from the sites of proposed roadway excavations and embankments in quantities and depths available and necessary to cover the work slopes. This work also includes reclamation, placing, spreading, and finishing of this topsoil.

B Materials

Furnish material that is relatively free from large roots, sticks, weeds, brush, stones, litter, and waste products.

Furnish material, either obtained offsite, or material obtained within project limits, consisting of loam, sandy loam, silt loam, silty clay loam, or clay loam humus-bearing soils adapted to sustain plant life. Do not use surface soils from ditch bottoms, drained ponds, and eroded areas, or soils which are supporting growth of NR 40 listed plants and noxious weeds or other undesirable vegetation. Ensure that the material conforms to the following:

Topsoil Requirements	Minimum Range	Maximum Range
Material Passing 2.00 mm (#10) Sieve[1]	90%	100%
PH Range	6.0	7.0
Organic Matter[2]	5%	20%
Clay	5%	30%
Silt	10%	70%
Sand and Gravel	10%	70%

[1] See standard spec 625.3.3 for sieve requirements when using either sod or seed mixture 40.

[2] Organic matter determined by loss on ignition test of samples oven dried to constant weight at 212 F (100 C).

C Construction

C.1 Preparing the Roadway for Topsoil

Undercut or underfill all areas designated to receive topsoil to a degree that if covered to the required depth with topsoil the finished work conforms to the required lines, grades, slopes and cross sections the plans and drawings show.

C.2 Processing Topsoil

Mow topsoil procurement areas to a height of approximately 6 inches. Remove litter such as brush, rock, and other materials that will interfere with subsequent vegetation establishment.

Strip off the humus-bearing soil. Take care to minimize removing the underlying sterile soil. Then stockpile the topsoil on the right-of-way or place it directly on the designated areas.

Obtain topsoil from embankment areas outside the roadway foundation only if that additional material is required to cover the slopes, and conforms to the requirements of section B in this special provision. Use excess topsoil on the project or dispose of as specified in standard spec 205.3.12.

C.3 Placing Topsoil

After preparing and finishing the areas designated for topsoil to the required lines, grades, slopes and cross section, place and spread the topsoil to a uniform depth as the plans show or the contract requires. If no depth is shown, place and spread the topsoil to a minimum depth of 4 inches in rural areas and a minimum depth of 6 inches in urban areas, or as the engineer designates.

Break down all clods and lumps using appropriate equipment to provide a uniformly textured soil.

Where using either sod or seed mixture 40 ensure that, for the upper 2 inches, 100 percent of the material passes a one-inch sieve and at least 90 percent passes the No. 10 sieve.

Remove rocks, twigs, foreign material, and clods that cannot be broken down. Dress the entire surface to present a uniform appearance. The engineer will not require rolling.

If light sandy soils are covered with heavier clay bearing loam topsoil, then mix or blend the 2 types of soils to a more or less homogeneous mixture by using the appropriate equipment.

D Measurement

The department will not measure Topsoil Special. 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 items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.001	Topsoil Special	SY

Payment for Topsoil Special is full compensation for removing, stockpiling, reclaiming, providing, processing, excavating, loading, hauling, and placing this material; and for undercutting excavations, or underfilling embankments necessary to receive this material. The department will make no deductions from the Excavation bid items for quantities of Topsoil Special obtained from cut sections. The department will not measure or pay for volumes of Topsoil Special obtained from the sites of proposed embankments under the Excavation bid items. Additionally, the department will make no allowance, adjustment, or measurement for payment under the Excavation bid items for undercutting cut sections necessary to receive Topsoil Special. The department will not measure and pay for volumes of topsoil placed under the Roadway Embankment bid item.

If an area is damaged by erosion after partial acceptance, the department will pay for restoring topsoil in these areas at a unit price determined by multiplying the contract unit price bid for Topsoil multiplied by 3, the department will pay for restoration under the Restoration Post Acceptance Topsoil administrative item.

The department will not pay for removing topsoil from outside the roadway foundation in embankment areas unless that material is necessary to cover the slopes.

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101. Stream Bed Material, Item SPV.0195.001.

A Description

This work shall consist of furnishing, transporting, stockpiling, maintaining and placing for construction of the proposed channel relocation and at the end of culvert pipes as shown on the plan or as directed by the engineer. Work under this item shall be done according to standard spec 606, modified as follows.

B Materials

Coarse aggregate mix for stream bed material furnished and used in this work shall be natural, rounded, uncrushed coarse aggregate. The mix shall consist of roughly 75% Number 2 stone (standard spec 209) and 25% 3/8-inch pea gravel, thoroughly mixed. The mix must be approved by the engineer prior to installation.

C Construction

Thoroughly compact the coarse aggregate mix as construction progresses. The finished surface shall present an even, tight surface.

D Measurement

The department will measure the Stream Bed Material by the tons in place and completed work, and the quantity thereof to be paid will be the summation of tons of all aggregate incorporated in the work, acceptably completed, according to the contract. Only accepted work will be measured for payment and the computation of the quantity thereof will be based on the volume within the limiting dimensions designated on the plans, in the contract, or as established by the engineer.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.001	Stream Bed Material	Ton

Payment is full compensation for furnishing and placing Stream Bed Material.

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-S
Electronic Labor Data Submittal for
State Funded Only Projects

(1) Use the Workforce Utilization Report Microsoft Excel spread sheet, or other compatible spread sheet (i.e., Google Spread Sheet), to report required labor data. Details and the Excel spreadsheet are available online through the department's highway construction contract information (HCCI) site on the Labor, Wages, and EEO Information page at:

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

(2) Ensure that all tiers of subcontractors, including all trucking firms, submit their labor data electronically via the Excel spread sheet to the prime contractor within 14 calendar days of the end of each quarter (quarters are defined as January-March, April-June, July-September, and October-December). The prime contractor shall coordinate collection of their subcontractors' spread sheets and forward them to the Regional Labor Compliance Specialist within 21 calendar days of the end of each quarter. Every company or contractor providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected companies or contractors aware of the requirements under this special provision and arrange for them to receive an Excel spreadsheet as part of their subcontract documents.

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

Non-discrimination Provisions

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);

- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

Effective August 2015 letting

BUY AMERICA PROVISION

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

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

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

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

Proposal ID: 20181113018 Project(s): 2704-00-77, 3763-00-73

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	108.4400 CPM Progress Schedule	1.000 EACH	_____.____	_____.____
0004	201.0105 Clearing	54.000 STA	_____.____	_____.____
0006	201.0120 Clearing	766.000 ID	_____.____	_____.____
0008	201.0205 Grubbing	54.000 STA	_____.____	_____.____
0010	201.0220 Grubbing	766.000 ID	_____.____	_____.____
0012	203.0100 Removing Small Pipe Culverts	20.000 EACH	_____.____	_____.____
0014	204.9060.S Removing (item description) 001. Crash Cushion Temporary Left In Place	4.000 EACH	_____.____	_____.____
0016	204.9090.S Removing (item description) 001. Draintile	6,500.000 LF	_____.____	_____.____
0018	204.9090.S Removing (item description) 002. Underdrain	3,500.000 LF	_____.____	_____.____
0020	204.9090.S Removing (item description) 003. Concrete Barrier Temporary	350.000 LF	_____.____	_____.____
0022	205.0100 Excavation Common	127,843.000 CY	_____.____	_____.____
0024	213.0100 Finishing Roadway (project) 001. 2704-00-77	1.000 EACH	_____.____	_____.____
0026	213.0100 Finishing Roadway (project) 002. 3763-00-73	1.000 EACH	_____.____	_____.____
0028	305.0110 Base Aggregate Dense 3/4-Inch	131.000 TON	_____.____	_____.____
0030	305.0120 Base Aggregate Dense 1 1/4-Inch	46,596.000 TON	_____.____	_____.____

Proposal ID: 20181113018 Project(s): 2704-00-77, 3763-00-73

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0032	311.0110 Breaker Run	101,167.000 TON	_____.____	_____.____
0034	371.1000.S QMP Base Aggregate Dense 1 1/4-Inch Compaction	46,596.000 TON	_____.____	_____.____
0036	415.0100 Concrete Pavement 10-Inch **P**	85,380.000 SY	_____.____	_____.____
0038	415.0210 Concrete Pavement Gaps	7.000 EACH	_____.____	_____.____
0040	415.5110.S Concrete Pavement Joint Layout 001. 2704-00-77	1.000 LS	_____.____	_____.____
0042	415.5110.S Concrete Pavement Joint Layout 002. 3763-00-73	1.000 LS	_____.____	_____.____
0044	416.0160 Concrete Driveway 6-Inch	85.000 SY	_____.____	_____.____
0046	416.0260 Concrete Driveway HES 6-Inch	142.000 SY	_____.____	_____.____
0048	416.0620 Drilled Dowel Bars	76.000 EACH	_____.____	_____.____
0050	416.1010 Concrete Surface Drains	39.600 CY	_____.____	_____.____
0052	440.4410 Incentive IRI Ride	18,863.000 DOL	1.00000	18,863.00
0054	455.0605 Tack Coat	71.000 GAL	_____.____	_____.____
0056	460.2000 Incentive Density HMA Pavement	240.000 DOL	1.00000	240.00
0058	460.6223 HMA Pavement 3 MT 58-28 S	212.000 TON	_____.____	_____.____
0060	460.6224 HMA Pavement 4 MT 58-28 S	142.000 TON	_____.____	_____.____
0062	465.0105 Asphaltic Surface	2,217.000 TON	_____.____	_____.____

Proposal ID: 20181113018 Project(s): 2704-00-77, 3763-00-73

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0064	465.0310 Asphaltic Curb	80.000 LF	_____.____	_____.____
0066	465.0315 Asphaltic Flumes	24.000 SY	_____.____	_____.____
0068	495.1000.S Cold patch	300.000 TON	_____.____	_____.____
0070	520.2018 Culvert Pipe Temporary 18-Inch	120.000 LF	_____.____	_____.____
0072	520.8000 Concrete Collars for Pipe	4.000 EACH	_____.____	_____.____
0074	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	212.000 LF	_____.____	_____.____
0076	522.0418 Culvert Pipe Reinforced Concrete Class IV 18-Inch	60.000 LF	_____.____	_____.____
0078	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	2.000 EACH	_____.____	_____.____
0080	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	2.000 EACH	_____.____	_____.____
0082	522.2434 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 34x53-Inch	124.000 LF	_____.____	_____.____
0084	522.2634 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	4.000 EACH	_____.____	_____.____
0086	601.0409 Concrete Curb & Gutter 30-Inch Type A **P**	478.000 LF	_____.____	_____.____
0088	601.0555 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A **P**	33,193.000 LF	_____.____	_____.____
0090	602.0410 Concrete Sidewalk 5-Inch	17,885.000 SF	_____.____	_____.____

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0092	602.0505 Curb Ramp Detectable Warning Field Yellow	697.000 SF	_____.____	_____.____
0094	606.0100 Riprap Light	25.700 CY	_____.____	_____.____
0096	606.0200 Riprap Medium	1.200 CY	_____.____	_____.____
0098	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	600.000 LF	_____.____	_____.____
0100	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	3,295.000 LF	_____.____	_____.____
0102	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	2,103.000 LF	_____.____	_____.____
0104	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	1,447.000 LF	_____.____	_____.____
0106	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	376.000 LF	_____.____	_____.____
0108	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	3,382.000 LF	_____.____	_____.____
0110	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	53.000 LF	_____.____	_____.____
0112	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	942.000 LF	_____.____	_____.____
0114	608.0430 Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	859.000 LF	_____.____	_____.____
0116	608.0436 Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	889.000 LF	_____.____	_____.____

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SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0118	608.2319 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	302.000 LF	_____.____	_____.____
0120	608.2419 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	1,223.000 LF	_____.____	_____.____
0122	608.2429 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	657.000 LF	_____.____	_____.____
0124	611.0420 Reconstructing Manholes	1.000 EACH	_____.____	_____.____
0126	611.0430 Reconstructing Inlets	1.000 EACH	_____.____	_____.____
0128	611.0535 Manhole Covers Type J-Special	20.000 EACH	_____.____	_____.____
0130	611.0624 Inlet Covers Type H	3.000 EACH	_____.____	_____.____
0132	611.0627 Inlet Covers Type HM	214.000 EACH	_____.____	_____.____
0134	611.2004 Manholes 4-FT Diameter	2.000 EACH	_____.____	_____.____
0136	611.2005 Manholes 5-FT Diameter	63.000 EACH	_____.____	_____.____
0138	611.2006 Manholes 6-FT Diameter	17.000 EACH	_____.____	_____.____
0140	611.2007 Manholes 7-FT Diameter	1.000 EACH	_____.____	_____.____
0142	611.3003 Inlets 3-FT Diameter	11.000 EACH	_____.____	_____.____
0144	611.3004 Inlets 4-FT Diameter	172.000 EACH	_____.____	_____.____
0146	612.0212 Pipe Underdrain Unperforated 12-Inch	6,500.000 LF	_____.____	_____.____

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0148	612.0700 Drain Tile Exploration	6,500.000 LF	_____.____	_____.____
0150	616.0206 Fence Chain Link 6-FT	400.000 LF	_____.____	_____.____
0152	616.0700.S Fence Safety	4,500.000 LF	_____.____	_____.____
0154	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0156	620.0300 Concrete Median Sloped Nose **P**	1,073.000 SF	_____.____	_____.____
0158	623.0200 Dust Control Surface Treatment	19,500.000 SY	_____.____	_____.____
0160	624.0100 Water	1,670.000 MGAL	_____.____	_____.____
0162	627.0200 Mulching	19,500.000 SY	_____.____	_____.____
0164	628.1104 Erosion Bales	400.000 EACH	_____.____	_____.____
0166	628.1504 Silt Fence	13,508.000 LF	_____.____	_____.____
0168	628.1520 Silt Fence Maintenance	13,508.000 LF	_____.____	_____.____
0170	628.1905 Mobilizations Erosion Control	12.000 EACH	_____.____	_____.____
0172	628.1910 Mobilizations Emergency Erosion Control	20.000 EACH	_____.____	_____.____
0174	628.2004 Erosion Mat Class I Type B	105,728.000 SY	_____.____	_____.____
0176	628.2008 Erosion Mat Urban Class I Type B	3,375.000 SY	_____.____	_____.____
0178	628.2027 Erosion Mat Class II Type C	385.000 SY	_____.____	_____.____
0180	628.7005 Inlet Protection Type A	299.000 EACH	_____.____	_____.____

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0182	628.7010 Inlet Protection Type B	184.000 EACH	_____.____	_____.____
0184	628.7020 Inlet Protection Type D	129.000 EACH	_____.____	_____.____
0186	628.7504 Temporary Ditch Checks	1,100.000 LF	_____.____	_____.____
0188	628.7555 Culvert Pipe Checks	73.000 EACH	_____.____	_____.____
0190	628.7560 Tracking Pads	7.000 EACH	_____.____	_____.____
0192	628.7570 Rock Bags	130.000 EACH	_____.____	_____.____
0194	629.0210 Fertilizer Type B	69.100 CWT	_____.____	_____.____
0196	630.0140 Seeding Mixture No. 40	1,905.000 LB	_____.____	_____.____
0198	630.0200 Seeding Temporary	2,864.000 LB	_____.____	_____.____
0200	632.9101 Landscape Planting Surveillance and Care Cycles	18.000 EACH	_____.____	_____.____
0202	633.5200 Markers Culvert End	8.000 EACH	_____.____	_____.____
0204	634.0618 Posts Wood 4x6-Inch X 18-FT	95.000 EACH	_____.____	_____.____
0206	637.2210 Signs Type II Reflective H	932.130 SF	_____.____	_____.____
0208	637.2215 Signs Type II Reflective H Folding	96.980 SF	_____.____	_____.____
0210	637.2230 Signs Type II Reflective F	184.000 SF	_____.____	_____.____
0212	638.2102 Moving Signs Type II	1.000 EACH	_____.____	_____.____

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SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0214	638.2602 Removing Signs Type II	8.000 EACH	_____.____	_____.____
0216	638.3000 Removing Small Sign Supports	7.000 EACH	_____.____	_____.____
0218	638.4000 Moving Small Sign Supports	1.000 EACH	_____.____	_____.____
0220	643.0300 Traffic Control Drums	7,854.000 DAY	_____.____	_____.____
0222	643.0420 Traffic Control Barricades Type III	8,839.000 DAY	_____.____	_____.____
0224	643.0500 Traffic Control Flexible Tubular Marker Posts	261.000 EACH	_____.____	_____.____
0226	643.0600 Traffic Control Flexible Tubular Marker Bases	261.000 EACH	_____.____	_____.____
0228	643.0705 Traffic Control Warning Lights Type A	17,679.000 DAY	_____.____	_____.____
0230	643.0715 Traffic Control Warning Lights Type C	847.000 DAY	_____.____	_____.____
0232	643.0900 Traffic Control Signs	6,527.000 DAY	_____.____	_____.____
0234	643.0920 Traffic Control Covering Signs Type II	80.000 EACH	_____.____	_____.____
0236	643.1050 Traffic Control Signs PCMS	28.000 DAY	_____.____	_____.____
0238	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0240	645.0120 Geotextile Type HR	20.000 SY	_____.____	_____.____
0242	645.0130 Geotextile Type R	145.200 SY	_____.____	_____.____
0244	646.1020 Marking Line Epoxy 4-Inch **P**	33,499.000 LF	_____.____	_____.____

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SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0246	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch **P**	7,681.000 LF	_____.____	_____.____
0248	646.3040 Marking Line Grooved Wet Ref Epoxy 8-Inch **P**	5,470.000 LF	_____.____	_____.____
0250	646.5020 Marking Arrow Epoxy	20.000 EACH	_____.____	_____.____
0252	646.5120 Marking Word Epoxy	7.000 EACH	_____.____	_____.____
0254	646.6120 Marking Stop Line Epoxy 18-Inch	390.000 LF	_____.____	_____.____
0256	646.7120 Marking Diagonal Epoxy 12-Inch	168.000 LF	_____.____	_____.____
0258	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	1,663.000 LF	_____.____	_____.____
0260	646.8120 Marking Curb Epoxy	442.000 LF	_____.____	_____.____
0262	646.8220 Marking Island Nose Epoxy	9.000 EACH	_____.____	_____.____
0264	646.9000 Marking Removal Line 4-Inch	6,500.000 LF	_____.____	_____.____
0266	646.9010 Marking Removal Line Water Blasting 4-Inch	59,000.000 LF	_____.____	_____.____
0268	646.9110 Marking Removal Line Water Blasting 8-Inch	6,000.000 LF	_____.____	_____.____
0270	649.0105 Temporary Marking Line Paint 4-Inch	57,735.000 LF	_____.____	_____.____
0272	649.0205 Temporary Marking Line Paint 8-Inch	5,445.000 LF	_____.____	_____.____
0274	649.0805 Temporary Marking Stop Line Paint 18-Inch	61.000 LF	_____.____	_____.____

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0276	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	8,694.000 LF	_____.____	_____.____
0278	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	4,262.000 LF	_____.____	_____.____
0280	652.0800 Conduit Loop Detector	2,270.000 LF	_____.____	_____.____
0282	653.0135 Pull Boxes Steel 24x36-Inch	13.000 EACH	_____.____	_____.____
0284	653.0140 Pull Boxes Steel 24x42-Inch	31.000 EACH	_____.____	_____.____
0286	654.0101 Concrete Bases Type 1	20.000 EACH	_____.____	_____.____
0288	654.0102 Concrete Bases Type 2	4.000 EACH	_____.____	_____.____
0290	654.0105 Concrete Bases Type 5	38.000 EACH	_____.____	_____.____
0292	654.0110 Concrete Bases Type 10	3.000 EACH	_____.____	_____.____
0294	654.0113 Concrete Bases Type 13	4.000 EACH	_____.____	_____.____
0296	654.0217 Concrete Control Cabinet Bases Type 9 Special	2.000 EACH	_____.____	_____.____
0298	654.0230 Concrete Control Cabinet Bases Type L30	1.000 EACH	_____.____	_____.____
0300	655.0210 Cable Traffic Signal 3-14 AWG	2,628.000 LF	_____.____	_____.____
0302	655.0230 Cable Traffic Signal 5-14 AWG	1,249.000 LF	_____.____	_____.____
0304	655.0240 Cable Traffic Signal 7-14 AWG	7,754.000 LF	_____.____	_____.____
0306	655.0260 Cable Traffic Signal 12-14 AWG	1,253.000 LF	_____.____	_____.____

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SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0308	655.0270 Cable Traffic Signal 15-14 AWG	577.000 LF	_____.____	_____.____
0310	655.0320 Cable Type UF 2-10 AWG Grounded	1,922.000 LF	_____.____	_____.____
0312	655.0510 Electrical Wire Traffic Signals 12 AWG	9,370.000 LF	_____.____	_____.____
0314	655.0515 Electrical Wire Traffic Signals 10 AWG	6,661.000 LF	_____.____	_____.____
0316	655.0610 Electrical Wire Lighting 12 AWG	987.000 LF	_____.____	_____.____
0318	655.0700 Loop Detector Lead In Cable	5,833.000 LF	_____.____	_____.____
0320	655.0800 Loop Detector Wire	7,994.000 LF	_____.____	_____.____
0322	655.0900 Traffic Signal EVP Detector Cable	2,628.000 LF	_____.____	_____.____
0324	656.0200 Electrical Service Meter Breaker Pedestal (location) 301. CTH KR & 100th Street / Foxconn Driveway	LS	LUMP SUM	_____.____
0326	656.0200 Electrical Service Meter Breaker Pedestal (location) 302. CTH KR & Wisconn Valley Way	LS	LUMP SUM	_____.____
0328	657.0100 Pedestal Bases	20.000 EACH	_____.____	_____.____
0330	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	42.000 EACH	_____.____	_____.____
0332	657.0305 Poles Type 2	1.000 EACH	_____.____	_____.____
0334	657.0310 Poles Type 3	3.000 EACH	_____.____	_____.____
0336	657.0322 Poles Type 5-Aluminum	1.000 EACH	_____.____	_____.____

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SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0338	657.0405 Traffic Signal Standards Aluminum 3.5-FT	2.000 EACH	_____.____	_____.____
0340	657.0420 Traffic Signal Standards Aluminum 13-FT	8.000 EACH	_____.____	_____.____
0342	657.0425 Traffic Signal Standards Aluminum 15-FT	4.000 EACH	_____.____	_____.____
0344	657.0430 Traffic Signal Standards Aluminum 10-FT	6.000 EACH	_____.____	_____.____
0346	657.0609 Luminaire Arms Single Member 4-Inch Clamp 6-FT	5.000 EACH	_____.____	_____.____
0348	657.0610 Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	2.000 EACH	_____.____	_____.____
0350	657.1350 Install Poles Type 10	3.000 EACH	_____.____	_____.____
0352	657.1355 Install Poles Type 12	3.000 EACH	_____.____	_____.____
0354	657.1360 Install Poles Type 13	1.000 EACH	_____.____	_____.____
0356	657.1515 Install Monotube Arms 15-FT	1.000 EACH	_____.____	_____.____
0358	657.1520 Install Monotube Arms 20-FT	1.000 EACH	_____.____	_____.____
0360	657.1525 Install Monotube Arms 25-FT	1.000 EACH	_____.____	_____.____
0362	657.1540 Install Monotube Arms 40-FT	1.000 EACH	_____.____	_____.____
0364	657.1545 Install Monotube Arms 45-FT	3.000 EACH	_____.____	_____.____
0366	657.1815 Install Luminaire Arms Steel 15-FT	6.000 EACH	_____.____	_____.____
0368	658.0173 Traffic Signal Face 3S 12-Inch	31.000 EACH	_____.____	_____.____

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SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0370	658.0174 Traffic Signal Face 4S 12-Inch	6.000 EACH	_____.____	_____.____
0372	658.0416 Pedestrian Signal Face 16-Inch	12.000 EACH	_____.____	_____.____
0374	658.0500 Pedestrian Push Buttons	18.000 EACH	_____.____	_____.____
0376	658.5069 Signal Mounting Hardware (location) 301. CTH KR & 100th Street / Foxconn Driveway	LS	LUMP SUM	_____.____
0378	658.5069 Signal Mounting Hardware (location) 302. CTH KR & Wisconn Valley Way	LS	LUMP SUM	_____.____
0380	659.1125 Luminaires Utility LED C	13.000 EACH	_____.____	_____.____
0382	670.0200 ITS Documentation 001. 2704-00-77	LS	LUMP SUM	_____.____
0384	670.0200 ITS Documentation 002. 3763-00-73	LS	LUMP SUM	_____.____
0386	671.0122 Conduit HDPE 2-Duct 2-Inch	8,300.000 LF	_____.____	_____.____
0388	673.0105 Communication Vault Type 1	12.000 EACH	_____.____	_____.____
0390	673.0200 Tracer Wire Marker Posts	11.000 EACH	_____.____	_____.____
0392	690.0150 Sawing Asphalt	130.000 LF	_____.____	_____.____
0394	690.0250 Sawing Concrete	122.000 LF	_____.____	_____.____
0396	715.0415 Incentive Strength Concrete Pavement	25,614.000 DOL	1.00000	25,614.00
0398	715.0710 Optimized Aggregate Gradation Incentive	87,408.000 DOL	1.00000	87,408.00
0400	SPV.0035 Special 001. EBS Excavation	31,819.000 CY	_____.____	_____.____

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0402	SPV.0035 Special 002. EBS Backfill	31,819.000 CY	_____.____	_____.____
0404	SPV.0035 Special 003. Roadway Embankment	224,385.000 CY	_____.____	_____.____
0406	SPV.0060 Special 002. Temporary Stone Ditch Checks	30.000 EACH	_____.____	_____.____
0408	SPV.0060 Special 003. Sand Bags	200.000 EACH	_____.____	_____.____
0410	SPV.0060 Special 004. Temporary Sediment Traps	15.000 EACH	_____.____	_____.____
0412	SPV.0060 Special 005. Erosion Control Filter Bags	200.000 EACH	_____.____	_____.____
0414	SPV.0060 Special 008. Inlet Covers Beehive	11.000 EACH	_____.____	_____.____
0416	SPV.0060 Special 009. Mobilizations Emergency Pavement Repair	6.000 EACH	_____.____	_____.____
0418	SPV.0060 Special 010. Section Corner Monuments	6.000 EACH	_____.____	_____.____
0420	SPV.0060 Special 011. Slip-In Check Valve for 30-Inch Inside Diameter Pipe	1.000 EACH	_____.____	_____.____
0422	SPV.0060 Special 012. Slip-In Check Valve for 36-Inch Inside Diameter Pipe	1.000 EACH	_____.____	_____.____
0424	SPV.0060 Special 013. Connect Drain Tile	30.000 EACH	_____.____	_____.____
0426	SPV.0060 Special 014. Maintain Crash Cushions Temporary Left In Place	4.000 EACH	_____.____	_____.____
0428	SPV.0060 Special 015. Inlet Covers Type 57	20.000 EACH	_____.____	_____.____
0430	SPV.0060 Special 016. Removing Cover Plates Left In Place	2.000 EACH	_____.____	_____.____

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0432	SPV.0060 Special 017. Removing Bulkhead	4.000 EACH	_____.____	_____.____
0434	SPV.0060 Special 725. Bioretention Type A	6.000 EACH	_____.____	_____.____
0436	SPV.0060 Special 726. Bioretention Type B	5.000 EACH	_____.____	_____.____
0438	SPV.0075 Special 001. Pavement Cleanup Project 3763-00-73	60.000 HRS	_____.____	_____.____
0440	SPV.0075 Special 002. Pavement Cleanup Project 2704-00-77	30.000 HRS	_____.____	_____.____
0442	SPV.0085 Special 001. Seeding Mixture Special	68.000 LB	_____.____	_____.____
0444	SPV.0090 Special 001. Heavy Duty Silt Fence	4,477.000 LF	_____.____	_____.____
0446	SPV.0090 Special 002. Pipe Underdrain 6-Inch Special	14,200.000 LF	_____.____	_____.____
0448	SPV.0090 Special 003. Coconut Fiber Rolls Delivered	1,290.000 LF	_____.____	_____.____
0450	SPV.0090 Special 004. Coconut Fiber Rolls Installed	1,290.000 LF	_____.____	_____.____
0452	SPV.0090 Special 005. Maintain Concrete Barrier Temporary Precast	350.000 LF	_____.____	_____.____
0454	SPV.0090 Special 006. Cold Weather Marking Epoxy 4-Inch	7,681.000 LF	_____.____	_____.____
0456	SPV.0090 Special 007. Cold Weather Marking Epoxy 8-Inch	5,470.000 LF	_____.____	_____.____
0458	SPV.0105 Special 001. Survey Project 3763-00-73	 LS	LUMP SUM	_____.____
0460	SPV.0105 Special 007. Survey Project 2704-00-77	 LS	LUMP SUM	_____.____

Proposal ID: 20181113018 Project(s): 2704-00-77, 3763-00-73

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0462	SPV.0105 Special 010. Control of Water Project 2704-00-77	LS	LUMP SUM	_____.____
0464	SPV.0105 Special 011. Control of Water Project 3763-00-73	LS	LUMP SUM	_____.____
0466	SPV.0105 Special 301. Trnsp & Install State Furn Traf Sig Cab CTH KR & 100 St/Foxconn Driveway	LS	LUMP SUM	_____.____
0468	SPV.0105 Special 302. Trnsp & Inst State Furn Radar Veh Det Sys CTH KR & 100 St/Foxconn Driveway	LS	LUMP SUM	_____.____
0470	SPV.0105 Special 303. Trsp & Inst State Furn EVP Det Heads w/Conf Beacons CTH KR & 100 St/FC Drvy	LS	LUMP SUM	_____.____
0472	SPV.0105 Special 304. Trnsp Traf Sig & Intxn Lighting Materials CTH KR & 100 St/Foxconn Driveway	LS	LUMP SUM	_____.____
0474	SPV.0105 Special 306. Transport & Install State Furn Traf Sig Cabinet CTH KR & WVW	LS	LUMP SUM	_____.____
0476	SPV.0105 Special 307. Transport & Install State Furn Radar Veh Det Sys CTH KR & WVW	LS	LUMP SUM	_____.____
0478	SPV.0105 Special 308. Trsp & Inst State Furn EVP Det Heads w/Conf Beacons CTH KR & WVW	LS	LUMP SUM	_____.____
0480	SPV.0105 Special 309. Transport Traf Sig & Inter Lighting Materials CTH KR & WVW	LS	LUMP SUM	_____.____
0482	SPV.0170 Special 001. Removal and Disposal of Invasive Plant Species	20.000 STA	_____.____	_____.____
0484	SPV.0180 Special 001. Topsoil Special **P**	109,488.000 SY	_____.____	_____.____

Proposal ID: 20181113018 Project(s): 2704-00-77, 3763-00-73

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

SECTION: 0001 CONTRACT ITEMS

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0486	SPV.0195 Special 001. Stream Bed Material	80.400 TON	_____.____	_____.____
	Section: 0001		Total:	_____.____
			Total Bid:	_____.____

PLEASE ATTACH SCHEDULE OF ITEMS HERE