HIGHWAY WORK PROPOSAL

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

Proposal Number: 007

STATE ID	FEDERAL ID	PROJECT DESCRIPTION	HIGHWAY	COUNTY
2568-00-71	WISC 2027005	C Milwaukee, N Dr Mlk Jr Dr, Intersections W Center to W Wright	LOC STR	Milwaukee
2568-00-72	WISC 2027006	C Milwaukee, N Dr Mlk Jr Dr, Intersection With North Ave	LOC STR	Milwaukee

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

Proposal Guaranty Required: $75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: October 13, 2026 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time October 29, 2027	
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

For Department Use Only

Type of Work:
Removals, Grading, Aggregate, Concrete Pavement, Asphalt Pavement, Curb and Gutter, Concrete Sidewalk, Storm Sewer, Erosion Control, Permanent Signing, Traffic Control, Pavement Marking, Lighting, Traffic Signals, Restoration.

Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

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.

BID PREPARATION

Preparing the Proposal Schedule of Items

A. General

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

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

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

(3) The department will provide bidding information through the department's web site at:

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

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

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

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

B. Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

4. Have a properly executed annual bid bond on file with the department.
5. 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.

B 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)

Effective with March 2010 Letting

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

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

Table of Contents

STSP'S Revised April 1, 2026

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for the following projects:

2568-00-71	2568-00-72
C Milwaukee, N DR MLK Jr DR	C Milwaukee, N DR MLK JR DR
Intersections W Center to W Wright	Intersection with North Ave
Loc Str	Loc Str
Milwaukee County	Milwaukee County

Perform the work 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, 2025 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 (20260401)

2. Scope of Work.

The work under this contract shall consist of replacing existing signals with monotube mast arms, constructing curb extensions, replacing all curb ramps, replacing signage, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

Begin work within 10 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.

Construct project ID 2568-00-71 (N Dr MLK Jr Drive) in four stages, and project ID 2568-00-72 (N Dr MLK Jr Drive) in two stages, as shown in the traffic control plans and as detailed below. Complete one stage before beginning the next stage.

Do not construct the W Center St intersection at the same time as the intersections with W Wright St and W Clarke St.

During Stages 1 & 2, coordinate the work at W Wright St and W Clarke St so that the same quadrants at each intersection are being constructed at the same time while pedestrian ingress and egress is provided at the other quadrant along N Dr MLK Jr Drive between W Wright St and W Clarke St.

Interim Completion and Liquidated Damages – N Dr MLK Jr Dr Intersection with North Ave: August 3, 2027.

Complete construction operations on N Dr MLK Jr Dr Intersection with North Ave to the stage necessary to reopen it to through traffic by August 3, 2027. Do not reopen until completing the following work: All contract work for the N Dr MLK Jr Dr Intersection with North Ave under 2568-00-72.

If the contractor fails to complete the work necessary to reopen N Dr MLK Jr Dr Intersection with North Ave to traffic by August 3, 2027, the department will assess the contractor $1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on August 4,

2027. 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.

Contractor Coordination

The contractor shall arrange and conduct weekly meetings between the department, local officials, utilities, and subcontractors to discuss the project schedule of operations, traffic control, erosion control and any unresolved conflicts. The first meeting shall be held prior to the start of work under this contract.

Protection of Endangered Bats

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

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

Direct temporary lighting, if used, away from wooded areas during the bat active season April 15 to October 31, both dates inclusive.

Tree Clearing/Trimming:

Contractor means and methods to remove trees/branches will not be allowed. If it is determined that trees with a 3-inch or greater diameter at breast height (dbh), or branches of any size on those sized trees, need to be removed beyond contractor means and methods, notify the engineer to coordinate with the WisDOT REC to determine if consultation with United States Fish and Wildlife Service (USFWS) is required. The contractor must be aware that the WisDOT REC and/or USFWS may not permit modifications.

Branch trimming is incidental to other work if no other tree clearing work is necessary

4. Traffic.

General

Do not park or store equipment, vehicles, or construction materials within the clear zone (2 feet from the face of curb) or in sight distance of turning vehicles on any roadway carrying traffic during non-working hours, except at locations and periods of time approved by the engineer.

Vehicle Access

Maintain emergency vehicular access at all times to roadways located within the project limits.

Provide access for mail service, utility meter reading, and garbage pick-up.

Provide minimum of 24 hours notice to occupants of residential and commercial properties prior closing driveway approaches.

Access shall be maintained to all hydrants within the construction area for fire protection. All hydrants shall be protected from damage for the duration of the project.

Traffic Control Description

Place Traffic Control Signs PCMS 5 days prior to construction.

To facilitate storm sewer construction within the travel lanes as shown in the plans, provide flagging operations in accordance with Standard Detail Drawings. Notify the engineer 3 working days prior to the work being performed. At the conclusion of each workday, plate all trenches.

Stage 1

N Dr MLK Jr Drive & W Wright St:

Work to be completed during this stage includes the northeast and southeast quadrants of the intersection.

Northbound traffic one travel lane is shifted to the left turn lane of the existing pavement through the intersection. Parking lane and bike lane are closed.

Southbound left turn lane is closed at the intersection. The east leg of W Wright St is fully closed.

Sidewalk along the east side of N Dr MLK Jr Drive is closed at the intersection. Implement the pedestrian detour as shown in the traffic control plans.

Maintain egress from the KFC drive-through to W Wright St at all times.

N Dr MLK Jr Drive & W Clarke St:

Work to be completed during this stage includes the northeast and southeast quadrants of the intersection.

Northbound traffic one travel lane is shifted to the left turn lane of the existing pavement through the intersection. Parking lane and bike lane are closed.

Southbound left turn lane is closed at the intersection.

The east leg of W Clarke St is fully closed.

Sidewalk along the east side of N Dr MLK Jr Drive is closed at the intersection. Implement the pedestrian detour as shown in the traffic control plans.

N Dr MLK Jr Drive & W North Ave:

Work to be completed during this stage includes the northeast and southeast quadrants of the intersection.

Northbound traffic one travel lane is shifted to the left turn lane of the existing pavement through the intersection. Parking lane and bike lane are closed.

Southbound left turn lane is closed at the intersection.

Eastbound parking lane, bike lane, and left turn lane are closed.

Westbound traffic one travel lane is shifted to the left turn lane of the existing pavement on the east side of the intersection. Parking lane and bike lane are closed.

Sidewalk along the east side of N Dr MLK Jr Drive is closed at the intersection. Implement the pedestrian detour as shown in the traffic control plans.

Stage 2

N Dr MLK Jr Drive & W Wright St:

Work to be completed during this stage includes the northwest and southwest quadrants of the intersection.

Northbound left turn lane is closed at the intersection.

Southbound traffic one travel lane is shifted to the left turn lane of the existing pavement through the intersection. Parking lane and bike lane are closed.

The west leg of W Wright St is fully closed.

Sidewalk along the west side of N Dr MLK Jr Drive is closed at the intersection. Implement the pedestrian detour as shown in the traffic control plans.

N Dr MLK Jr Drive & W Clarke St:

Work to be completed during this stage includes the northwest and southwest quadrants of the intersection.

Northbound left turn lane is closed at the intersection.

Southbound traffic one travel lane is shifted to the left turn lane of the existing pavement through the intersection. Parking lane and bike lane are closed.

The west leg of W Clarke St is fully closed.

Sidewalk along the west side of N Dr MLK Jr Drive is closed at the intersection. Implement the pedestrian detour as shown in the traffic control plans.

N Dr MLK Jr Drive & W North Ave:

Work to be completed during this stage includes the northwest and southwest quadrants of the intersection.

Northbound left turn lane is closed at the intersection.

Southbound traffic one travel lane is shifted to the left turn lane of the existing pavement through the intersection. Parking lane and bike lane are closed.

Eastbound parking lane, bike lane, and left turn lane are closed.

Westbound traffic one travel lane is shifted to the left turn lane of the existing pavement through the intersection. Parking lane and bike lane are closed.

Sidewalk along the west side of N Dr MLK Jr Drive is closed at the intersection. Implement the pedestrian detour as shown in the traffic control plans.

Stage 3

N Dr MLK Jr Drive & W Center St:

Work to be completed during this stage includes the southeast and southwest quadrants of the intersection.

Northbound traffic one travel lane is shifted to the left turn lane of the existing pavement through the intersection. Parking lane and bike lane are closed.

Southbound left turn lane is closed at the intersection.

Eastbound and westbound traffic is shifted to the north through the intersection. Parking and bike lane are closed.

Sidewalk along the south side of W Center St is closed at the intersection. Implement the pedestrian detour as shown in the traffic control plans.

Stage 4

N Dr MLK Jr Drive & W Center St:

Work to be completed during this stage includes the northeast and northwest quadrants of the intersection.

Northbound left turn lane is closed at the intersection.

Southbound traffic one travel lane is shifted to the left turn lane of the existing pavement through the intersection. Parking lane and bike lane are closed.

Eastbound and westbound traffic is shifted to the south through the intersection. Parking and bike lane are closed.

Sidewalk along the north side of W Center St is closed at the intersection. Implement the pedestrian detour as shown in the traffic control plans.

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 feet)	**MINIMUM NOTIFICATION**
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Ramp closures	7 calendar days
Detours	7 calendar days
Closure type without height, weight, or width restrictions (available width, all lanes in one direction ≥ 16 feet)	**MINIMUM NOTIFICATION**
Shoulder Closures	3 calendar days
Lane 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.

5. Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying N Dr MLK Jr Drive intersections with W Center St, W Clarke St, W Wright St, W North Ave traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

- From noon Friday, May 28, 2027 to 6:00 AM Tuesday, June 1, 2027, Memorial Day;
- From noon Friday, June 18, 2027 to 6:00 AM Monday, June 21, 2027, Juneteenth Day;
- From noon Friday, July 2, 2027 to 6:00 AM Tuesday, July 6, 2027, Independence Day;
- From noon Friday, September 3, 2027 to 6:00 AM Tuesday, September 7, 2027, Labor Day.

stp-107-005 (20210113)

6. Utilities.

This contract does not come under the provision of Administrative Rule Trans 220.

The utility work plan includes additional detailed information regarding the location of known discontinued, relocated, or removed utility facilities. These can be requested from the department during the bid preparation process or from the project engineer after the contract has been awarded and executed.

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 14 to 16 calendar days in advance of when the prior work will be completed and the site will be available to the utility. Follow-up with a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

stp-107-066 (20240703)

Any utility facility locations (stations, offsets, elevations, depths) listed in this article are approximate. The location of facilities in the field shall be determined by contacting “Diggers Hotline”.

Project ID 2568-00-71:

AT&T Wisconsin

AT&T Wisconsin operates communications facilities within the limits of the project. There are no conflicts anticipated.

Bluebird Fiber

Bluebird Fiber operates communications facilities within the limits of the project. There are no conflicts anticipated.

City of Milwaukee, Communications

City of Milwaukee, Communications operates communications facilities within the limits of the project. There are no conflicts anticipated.

City of Milwaukee, Sewers

City of Milwaukee, Sewers has underground sewer facilities within the project limits. There are no conflicts anticipated.

City of Milwaukee, Water Works

City of Milwaukee, Water Works (MWW) has underground facilities within the proposed work area. MWW has water valve boxes that may need to be adjusted after paving.

MWW requests Special Provisions for adjusting (30) water gate valve boxes to be included in the project special provisions as a non-participating item to be performed by the paving contractor.

Maintain a minimum of 1'-0" of undisturbed earth from the proposed installation's trench edge (or boring) to the outside edge of any existing valve box.

Maintain a minimum of 2'-0" of undisturbed earth from the proposed installation's trench edge (or boring) to the outside edge of any existing fire hydrant.

MWW plans to relocate 4 hydrants due to conflicts with proposed work located at:

- SW corner of N Dr MLK Jr Drive and W Wright St
- SW corner of N Dr MLK Jr Drive and W Clarke St
- NE corner of N Dr MLK Jr Drive and W Clarke St
- NW corner of N Dr MLK Jr Drive and W Center St

Midwest Fiber Networks

Midwest Fiber Networks has one lateral out of CUC MH at Clarke extending SE into the walk to the handhole in the terrace just outside project limits.

Verizon Business

Verizon Business operates communications facilities within the limits of the project. There are no conflicts anticipated.

WE Energies - Electric

WE Energies - Electric has facilities within the limits of the project. There are no conflicts anticipated.

WE Energies - Gas

WE Energies - Gas has facilities within the limits of the project and provided facility maps for inclusion in the project plans. Existing main is in conflict with proposed storm on the NW corner and on the NE corner of N MLK at W Center St. Main will be relocated prior to construction starting at STA 39+68 and be discontinue running north to STA 40+85 and to R-86 at STA 40+67. New main will cross N MLK at STA 39+68 and W Center St at R-90 to re-establish system.

Any facilities not explicitly identified as being relocated and/or adjusted have been deemed to be not in conflict and will remain in place as is. We Energies has determined that the project is constructible with these facilities left within the work-zone.

Contact 1-800-261-5325 for gas emergencies, to identify if gas facilities are live, and gas valve box adjustments.

Project ID 2568-00-72:

AT&T Wisconsin

AT&T Wisconsin operates communications facilities within the limits of the project. Manhole frame and cover to be adjusted at STA 14 + 06, 19' LT in coordination with contractor during paving. Notify AT&T Wisconsin when the site is ready for manhole cover adjustments. AT&T work will take 1 working day.

Bluebird Fiber

Bluebird Fiber operates communications facilities within the limits of the project. There are no conflicts anticipated.

City of Milwaukee, Communications

City of Milwaukee, Communications operates communications facilities within the limits of the project. There are no conflicts anticipated.

City of Milwaukee, Sewers

City of Milwaukee, Sewers has underground sewer facilities within the project limits. There are no conflicts anticipated.

City of Milwaukee, Water Works

City of Milwaukee, Water Works (MWW) has underground facilities within the proposed work area. MWW has water valve boxes that may need to be adjusted after paving.

MWW requests Special Provisions for adjusting (10) water gate valve boxes to be included in the project special provisions as a non-participating item to be performed by the paving contractor.

Maintain a minimum of 1'-0" of undisturbed earth from the proposed installation's trench edge (or boring) to the outside edge of any existing valve box.

Maintain a minimum of 2'-0" of undisturbed earth from the proposed installation's trench edge (or boring) to the outside edge of any existing fire hydrant.

MWW plans to discontinue 1 hydrant due to conflicts with proposed work located at NE corner of N Dr MLK Jr Drive and W North Ave.

Midwest Fiber Networks

Midwest Fiber Networks has facilities in the CUC conduit package within the limits of the project; however, it is not in the discontinue CUC. There are no conflicts anticipated.

WE Energies - Electric

WE Energies - Electric has facilities within the limits of the project. There are no conflicts anticipated.

WE Energies - Gas

WE Energies - Gas has facilities within the limits of the project. Gas valve boxes may need to be adjusted at the following locations during construction:

- Sta 14+27, 77.6 RT
- Sta 14+34, 21 RT

To coordinate gas valve box adjustments before site is ready for gas valve adjustment coordination.

Gas work will take 1 working day per gas valve box adjustment.

7. Information to Bidders, WPDES Transportation Construction General Permit (TCGP) for Storm Water Discharges.

The calculated land disturbance for the project site is 0.69 acres for Construction ID 2568-00-71 and 0.23 acres for Construction ID 2568-00-72.

The expected land disturbance for the project site is less than one acre in size and does not require permit coverage. Therefore, the department has not requested or obtained coverage under the TCGP.

If additional land disturbance is necessitated for the project due to proposed contractor means and methods, including temporary support activity sites, and the additional land disturbance results in a total

cumulative land disturbance for the project of one acre or greater, permit coverage will need to be obtained. The department will be responsible for obtaining permit coverage following department approval of the associated ECIP. Contractor necessitated changes resulting in the need for permit coverage will not be cause for schedule delays or other damages.

Permit coverage for additional land disturbing construction activities related to contractor means and methods will be considered as part of the ECIP review and approval process. Coverage under the TCGP for additional land disturbance areas will be considered if the areas meet all the following:

- Must meet the permit's applicability criteria.
- Must be for the exclusive use of a WisDOT project.
- Ground disturbance first commences after the ECIP approval, and the areas are fully restored to meet the final stabilization criteria of the permit upon completion of the work.

If permit coverage is deemed necessary and obtained for the project, conform to all permit requirements and post the "Certificate of Permit Coverage" in a conspicuous place at the construction site.

Permit coverage, if necessary, will be under the Wisconsin Pollutant Discharge Elimination System, Transportation Construction General Permit, (WPDES Permit No. WI-S066796-2). The permit can be found at:

https://widnr.widen.net/s/s5mwp2gd7s/finalsignedwisdotcsgp

The contractor is responsible for obtaining any permits for areas that are not approved by the department for coverage under the TCGP.

stp-107-056 (20250108)

8. Erosion Control.

The contractor shall prepare and submit an erosion control implementation plan (ECIP) for the project including borrow sites, material disposal sites, dust control, and dewatering according to Chapter TRANS 401 requirements. The erosion control implementation plan shall supplement information shown on the plans and shall not reproduce it. The erosion control implementation plan will identify how the contractor intends to implement the project's erosion control plan.

Provide the ECIP 14 calendar days prior to the pre-construction conference. Provide 1 copy of the ECIP to WisDOT and 1 copy of the ECIP to the WDNR Liaison (Ryan Pappas; WDNR Southeast Region Headquarter; 1027 W. St. Paul Avenue; Milwaukee, WI 53233, Ryan.Pappas@Wisconsin.gov). Pursue operations in a timely and diligent manner, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, and re-top soiling to minimize the period of exposure to possible erosion. Do not implement the ECIP until it has been approved by the department.

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. Place sod on the 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.

When performing roadway cleaning operations, the contractor shall use equipment having vacuum or water spray mechanism to eliminate the dispersion of dust. If vacuum equipment is employed, it shall have suitable self-contained particulate collectors to prevent discharge from the collection bin into the atmosphere.

Stockpile excess material or spoils on upland areas away from wetlands, floodplains and waterways. Stockpiled materials/and/or spoils shall be protected against erosion. Piles of stockpiled soil shall be protected against erosion and shall not create nuisance dust emissions. Said materials and/or spoils shall not be stockpiled for more than 14 calendar days.

All concrete trucks shall washout into a containment system located sufficiently away from the work area to prevent runoff into wetlands, waterways, inlets, and drainage courses. Provide a construction detail and location of the containment system with the ECIP and reviewed by the engineer prior to use.

Maintaining Drainage

Maintain drainage at and through worksite during construction conforming to standard spec 107.20, 204.3.2.1(3), 205.3.3 and 520.3.1(2). 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 contract.

9. Notice to Contractor – Contamination Beyond Construction Limits.

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

Construction ID 2568-00-71:

1) Station 39+85 to 40+45, from 5 feet right of reference line to 75 feet right of reference line.

Construction ID 2568-00-72:

1) Station 14+00 to 15+00 from reference line to 150 feet left of reference line.

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

The Hazardous Materials Report is available by contacting: Andrew A. Malsom, Wisconsin Department of Transportation, 141 NW Barstow, Waukesha, WI 53187, 262-548-6705.

stp-107-100 (20230113)

10. Notice to Contractor – City of Milwaukee, Communication Underground Conduit (CUC).

Construction ID 2568-00-71:

There are existing City of Milwaukee, CUC facilities that will be impacted within the proposed limits of the project.

CUC manhole covers will need to be adjusted due change in grade at the following locations:

- MH 601: STA. 27+10.3, 19.0 RT.
- MH 602: STA. 33+73.0, 20.0 RT.
- MH 603: STA. 40+32.5, 47.0 LT.
- MH 604: STA. 40+32.5, 20.0 RT.

Construct one 4-inch PVC CUC lateral from existing CUC Manhole No. 601 to the proposed traffic signal cabinet at W. Wright Street to provide fiber-optic access. At W. Clarke Street and W. Center Street, extend the existing CUC lateral stubs to the proposed traffic signal cabinets using 3-inch Schedule 40 rigid nonmetallic conduit.

Perform the work in accordance with City of Milwaukee specifications, standard details, and applicable project special provisions.

Construction ID 2568-00-72:

There are existing City of Milwaukee, CUC facilities that will be impacted within the proposed limits of the project.

CUC manhole covers will need to be adjusted due change in grade at the following location:

- MH 600: STA. 13+79.5, 18.5 RT.

Construct a one-duct CUC lateral from existing CUC Manhole No. 600 to the proposed traffic signal cabinet in the southeast corner to provide fiber-optic access.

Perform the work in accordance with City of Milwaukee specifications, standard details, and applicable project special provisions.

11. Notice to Contractor – City of Milwaukee, Street Lighting.

Construction IDs 2568-00-71 & 2568-00-72:

The City of Milwaukee, Street Lighting has facilities located within the project limits. Some work locations have traffic signals attached to street lighting facilities that will be impacted by the work.

Notify the City of Milwaukee at 414-286-3015 to report any damage during construction.

12. Notice to Contractor – City of Milwaukee, Street Lighting

"Contact field operation manage Neal Karweik at 414-286-5943 (office) 414-708-4245 (cell) to coordinate street lighting work. Prior to saw cutting and removals, City of Milwaukee personnel will energize the temporary lighting configuration. After permanent lighting is placed, City of Milwaukee personnel will energize all new facilities and permanently disconnect any temporary street lighting spans within project limits

13. Notice to Contractor – City of Milwaukee, Traffic Signals.

Construction ID 2568-00-71:

There are three existing signalized intersection within the limits of the project at the following intersection with North Martin Luther King Jr Drive:

- West Wright Street
- West Clarke Street
- West Center Street

The City of Milwaukee will supply electrical service during both the temporary and permanent phases of the traffic signals.

All existing traffic signal facilities will be discontinued by the city for removal by contractor. The contractor shall furnish and install concrete bases, PVC conduit, cabling, and polymer concrete pull boxes. All above ground signal work including installing traffic signal standards, monotube poles, monotube arms, traffic signal heads, permanent signal cabinets, and any additional permanent traffic control equipment shall be furnished and installed by the paving contractor. Permanent electrical service for the signals will be provided by the City of Milwaukee.

The signal cabinet base will be provided by the City of Milwaukee and installed by the contractor at West Wright Street, West Clarke Street, and West Center Street. Perform this work in accordance with the requirements of Item SPV.0060.205, ATC Controller and Cabinet Installed.

Traffic signal materials shall be installed on street lighting poles. The main contractor shall coordinate construction to ensure street lighting installation does not impede traffic signal installation.

Provide a 30-working day advance notice to Rudy Gutierrez of the City of Milwaukee's Traffic Signal Field Operations at (414) 286-5941 (office) or (414) 708-5148 (mobile) to coordinate the removal of existing meter pedestal and traffic cabinet, and the installation of temporary traffic signal materials by the contractor as well as any City traffic signal concerns.

Contact Scott Reinbacher at (414) 286-3232 or sreinb@milwaukee.gov with any questions or concerns regarding City of Milwaukee, Traffic Signals facilities.

Construction ID 2568-00-72:

There is one existing signalized intersection within the limits of the project at the following intersection with North Martin Luther King Jr Drive:

- West North Avenue

The City of Milwaukee will supply electrical service during both the temporary and permanent phases of the traffic signals.

All existing traffic signal facilities will be discontinued by the city for removal by contractor. The contractor shall furnish and install concrete bases, PVC conduit, cabling, and polymer concrete pull boxes. All above ground signal work including installing traffic signal standards, monotube poles, monotube arms, traffic

signal heads, permanent signal cabinets, and any additional permanent traffic control equipment shall be furnished and installed by the paving contractor. Permanent electrical service for the signals will be provided by the City of Milwaukee.

The signal cabinet base will be provided by the City of Milwaukee and installed by the contractor at West North Avenue. Perform this work in accordance with the requirements of Item SPV.0060.205, ATC Controller and Cabinet Installed.

Traffic signal materials shall be installed on street lighting poles. The main contractor shall coordinate construction to ensure street lighting installation does not impede traffic signal installation.

Provide a 30-working day advance notice to Rudy Gutierrez of the City of Milwaukee's Traffic Signal Field Operations at (414) 286-5941 (office) or (414) 708-5148 (mobile) to coordinate the removal of existing meter pedestal and traffic cabinet, and the installation of temporary traffic signal materials by the contractor as well as any City traffic signal concerns.

Contact Scott Reinbacher at (414) 286-3232 or sreinb@milwaukee.gov with any questions or concerns regarding City of Milwaukee, Traffic Signals facilities.

14. Notice to Contractor – Monotube Stickers.

Do not place monotube number stickers on poles as shown in the SDD 09E08-k General Notes and Hardware Details for Type 9, 10, 9/10 Special, 12 and 13 Poles with Monotube Arms.

15. Notice to Contractor – Milwaukee County Transit System.

Project ID 2568-00-71:

The Milwaukee County Transit System (MCTS) operates the following bus routes within and/or directly adjacent to the construction limits: Route 19 (Martin Luther King, Jr. Drive) and Route 22 (Center Street).

Project ID 2568-00-72:

The Milwaukee County Transit System (MCTS) operates the following bus routes within and/or directly adjacent to the construction limits: Route 19 (Martin Luther King, Jr. Drive) and Route 21 (North Avenue).

Impacts to MCTS Routing

Invite MCTS to all coordination meetings between the contractor, the department, local officials and business stakeholders to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Notify MCTS at least ten business days prior to beginning project work to provide advance notice of potential service impacts.

Impacts to MCTS Signs and Posts

Notify MCTS of work impacting MCTS signs and posts in advance five or more business days. MCTS signs include "Bus Stop" and turn disc signs. MCTS signs are mounted on MCTS posts; and on assets owned by others including streetlights, traffic regulators, crosswalk and street signposts. MCTS shall be responsible for MCTS sign and post removal and installation, with the contractor granting access to MCTS personnel to perform such work. Signs stating "No Parking Bus Stop" are the under the ownership and responsibility of City of Milwaukee.

Impacts to Bus Shelters

Contractor work may require bus shelter(s) to be temporarily removed. MCTS will be responsible for the removal and reinstallation of bus shelters, with the contractor granting access to MCTS personnel for the purposes of reinstallation before new pavement opens to vehicular traffic. Notify MCTS in advance ten business days for each site-specific bus shelter location.

Non-detour Service Suspension at MCTS Bus Stops and Temporary Bus Stops

Occasions may arise when work requires neither a detour nor the physical alteration of MCTS bus stop assets, but (for passenger safety) those occasions involved require MCTS to temporarily suspend service at a bus stop location. Notify MCTS in advance five business days of the site-specific occasion, and MCTS will sign appropriately to instruct passengers to board at a temporary bus stop. Notify MCTS upon completion of work. MCTS will resume service to any suspended bus stop locations when it is safe to do so.

Temporary Bus Stops

MCTS will designate temporary bus stop boarding locations using MCTS temporary signs. Temporary bus stops will be in existing right-of-way at ADA-accessible locations outside the project's construction zone. MCTS is not requesting this project to provide temporary boarding pads.

MCTS contacts:

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

Armond Sensabaugh (primarily staging & detours)
Milwaukee County Transit System
1942 N. 17th St.
Milwaukee, WI 53205
Phone: (414) 343-1728
asensabaugh@mcts.org

16. Notice to Contractor – Environmental Protection.

Add the following to standard spec 107.18 Environmental Protection:

Store drums, buckets and other containers related to construction operations in a secure area to prevent vandalism, spills, and unwanted dumping. If an abandoned container is discovered on the project site, notify WDNR at (800) 943-0003.

17. Coordination with Businesses and Residents.

The department will arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week before the start of work under this contract and hold one meeting per month thereafter. The contractor shall arrange for a suitable location for meetings that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for meetings. The contractor shall schedule meetings with at least 2 weeks' prior notice to the engineer to allow for these notifications.

stp-108-060 (20141107)

18. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

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

Motorized equipment shall be operated in compliance with all applicable local, state, and federals laws and regulations relating to noise levels. All motorized construction equipment will be required to have mufflers constructed according to manufacturer's specifications, and it will be required that mufflers and exhaust systems be maintained in good working order, free from leaks or holes.

Upon request the City of Milwaukee's Department of Neighborhood Services (DNS), may issue a construction noise variance, to work outside of the hours listed above.

Department of Neighborhood Services

4001 South 6th Street

(414) 286-2268

19. Referenced Construction Specifications.

Construct the work enumerated below conforming to the City of Milwaukee standards. If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

Some traffic signal and street lighting work are required to be executed according to City of Milwaukee Standards. The contact person for acquiring said standards is provided in the articles where the reference to City of Milwaukee Standards is made.

stp-105-002 (20130615)

20. Protection of Concrete.

Add to standard spec 415.3.14:

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

Include the cost for providing the finisher(s), the necessary equipment, and materials in the contract unit price for each concrete item.

21. Concrete Identification Stamping.

Stamp ends of all monolithic Portland cement concrete surface with a stamp bearing the contractor's name and the year of construction. Make all letters 2 inches height.

Include the cost of this work in the contract unit price for Portland cement concrete items and no additional payment will be made.

22. Topsoil.

Replace standard spec 625.2 (1) with the following:

(1) Topsoil consists of loam, sandy loam, silt loam, silty clay loam, or clay loam humus-bearing soils adapted to sustain plant life, and ensure the topsoil consists of the following:

Topsoil Requirements	Minimum Range	Maximum Range
pH	6.0	8.0
Organic Matter*	5%	20%
Clay	5%	30%
Silt	10%	70%
Sand	10%	70%

*Organic matter determined by loss on ignition test of samples oven dried to constant weight at 212 F (100 C).

Add the following to standard spec 625.2:

(3) Furnish material that is free from large roots, sticks, weeds, brush, stones, litter, and waste products.

(4) Do not furnish 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.

Replace standard spec 625.3.3 (3) with the following:

(3) 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.

SER-625-001 (20221007)

23. Abandoning Sewer, Item 204.0291.S.

A Description

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

B Materials

B.1 Cement

Furnish cement meeting the requirements of standard spec 501.2.4.1 for Type I or II Portland Cement or Type IL Portland-Limestone Cement.

B.2 Fly Ash

Furnish Class C or F Fly Ash meeting the requirements of standard spec 501.2.4.2.2.

B.3 Sand

Furnish natural sand meeting the fine aggregate requirements of standard spec 501.2.7.2 and the size requirements of standard spec 501.2.7 except the percent passing the number 200 sieve shall be 0-5 percent by weight.

B.4 Water

Furnish water meeting the requirements of standard spec 501.2.6.

B.5 Mix Design

Use the basic proportions of dry materials per cubic yard of grout as follows:

- Cement 100 pounds
- Fly Ash 400 pounds
- Fine Aggregate 2600 pounds

or an engineer approved equal.

In addition the grout shall conform to the following:

Compressive Strength	ASTM C495	300 psi @ 28 day min
Density	ASTM C495 (no oven drying)	50 pcf min
Shrinkage	ASTM	1% by volume
Flow	ASTM C939	35 sec max

Air entraining and chemical admixtures to control fluidity of the grout are allowable. Ten days before placement, furnish to the engineer a design mix detailing all components and their proportions in the mix.

B.6 Cellular Grout

Alternatively, the contractor may use, or if the manufacturer recommends, an engineer-approved commercial cellular concrete grout conforming to the following:

Cement	ASTM C150/ ASTM C595	Type I or II/Type IL
Density	ASTM C495 (no oven drying)	50 pcf min
Compressive Strength	ASTM C495	300 psi @ 28 day min 100 psi in 24 hours
Shrinkage	ASTM	1% by volume
Flow	ASTM C939	35 sec max

C Construction

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

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

stp-204-050 (20250108)

24. Removing Poles, Item 204.9060.S.01.

A Description

This special provision describes removing an existing concrete, wood, steel, and aluminum pole and disposing. All work conforming to standard spec 204.

B Materials

Existing poles, including bracket arm(s), clamp(s), conduit, cabling, and any other equipment mounted to the poles.

C Construction

Disconnect and strip all cables and wiring that are mounted on or inside the pole and carefully remove the bracket arm(s), and other non-street lighting materials from the pole. Then remove pole and backfill resulting hole according to standard spec 206.2.

Disposing of Materials

Materials for Disposing of safely:

- Concrete, Aluminum, Steel, and Wood pole(s)
- Bracket arm(s), Bracket Arm Clamp(s) and hardware.
- LED luminaires, and decorative luminaires.
- All ballasts (High Pressure Sodium & LED “OV20”)
- Breakaway transformer Pedestal(s)
- Side Pole Mounted Wiring Pedestal(s) (Green in Color)
- Stone and brick
- Conduit and Cabling
- High- and Low-Pressure Sodium Luminaires
- And other material not designated for salvage.

Contractor is responsible to follow the Wisconsin State Law when disposing of HID luminaires appropriately away from the project area. Contractor is responsible for filling out all necessary paperwork for disposing of materials.

Wisconsin State law, as well as laws in many other states, prohibits the disposal of lamps and bulbs that contain heavy metals, such as mercury, in sanitary landfills. This ban includes fluorescent (linear and U-tube), compact fluorescent (CFL), mercury vapor, metal halide, highpressure sodium and low-pressure sodium lamps. They must be recycled or disposed of as hazardous waste. The lamps should not be broken to prevent the release of mercury and are best stored in the packaging the replacement bulbs come in until being recycled.

HID lamp ballasts contain PCB or polychlorinated biphenyls which are regulated as a hazardous waste and cannot be disposed of in landfills per Wisconsin State law. Ballasts that do not contain PCB are marked “NO PCB” and can be recycled (preferable) or disposed of in a landfill. If ballasts are not marked, it must be treated as if it contains PCB. If ballasts are leaking, they require special handing. Contact your local hazardous waste response coordinator for assistance.

D Measurement

The department will measure Removing Poles as each individual pole acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Poles	EACH

25. Removing Aerial Cable, Item 204.9090.S.01.

A Description

This special provision describes removing temporary overhead service lines as shown on the plans, including all associated guy wires, anchors, and electrical wire, and removing materials from the site. All work conforming to standard spec 204.

B (Vacant)

C Construction

Contractor shall properly dispose of materials off site.

D Measurement

The department will measure Removing Aerial Cable by linear foot from pole to pole, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.01	Removing Aerial Cable	LF

26. Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and disposing of petroleum- and metals-contaminated soil at a DNR approved bioremediation facility or landfill. The closest DNR approved bioremediation facilities or landfills are:

Waste Management Orchard Ridge Landfill
W124 N9355 Boundary Road
Menomonee Falls, WI 53051
(866) 909-4458

Green For Life (GFL) Emerald Park Landfill
W124 S10629 South 124th St.
Muskego, WI 53150
(414) 529-1360

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

A.2 Notice to the Contractor – Contaminated Soil Locations

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

1. Construction ID 2568-00-71: Station 39+85 to 40+45, from 5 feet right of reference line to 75 feet right of reference line, from 1 to 6 feet bgs. The estimated volume of contaminated soil to be excavated at this location is 143.3 CY (approximately 244 tons using a conversion factor of 1.7 tons per cubic yard).
2. Construction ID 2568-00-72: Station 14+00 to 15+00 from reference line to 150 feet left of reference line, from 1 to 4+ feet bgs. The estimated volume of contaminated soil to be excavated at this location is 138.5 CY (approximately 235.5 tons using a conversion factor of 1.7 tons per cubic yard).

If contaminated soils are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer.

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

Name: Andrew Malsom
Address: 141 NW Barstow Street, PO Box 798, Waukesha, WI 53187-0798
Phone: 262-548-6705
Fax: 262-548-6891
E-mail: andrew.malsom@dot.wi.gov

A.3 Coordination

Coordinate work under this contract with the environmental consultant:

Consultant: TRC Environmental Corporation
Address: 6737 W. Washington St., Suite 3460, West Allis, WI 53214
Contact: Warren (Tyler) Stapel
Phone: 262-825-2045 (cell)
Fax: 262-879-1220
E-mail: wstapel@trccompanies.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be hauled to the bioremediation facility or landfill;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of contaminated soil from the bioremediation facility or landfill.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days before beginning excavation activities in each of the contaminated areas.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed.

Identify the DNR approved bioremediation facility or landfill that will be used for disposal of contaminated soils and provide this information to the environmental consultant no later than 30 calendar days before beginning excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from the bioremediation facility or landfill. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

A.4 Health and Safety Requirements

Add the following to standard spec 107.1:

During excavation activities, expect to encounter soil contaminated with gasoline, diesel fuel, fuel oil, or other petroleum related products. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer before the start of work.

B (Vacant)

C Construction

Add the following to standard spec 205.3:

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite bioremediation. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

Directly load and haul soils designated by the environmental consultant for offsite bioremediation or landfilling to the DNR approved bioremediation facility or landfill. Use loading and hauling practices that are appropriate to prevent any spills or releases of petroleum-contaminated soils or residues. Before transport, sufficiently dewater soils designated for off-site bioremediation or landfilling so as not to contain free liquids.

If dewatering is required in areas of known contamination, water generated from dewatering activities may contain petroleum compounds and/or metals. Such water may require analytical testing, and with approval from the City of Milwaukee and the Milwaukee Metropolitan Sewerage District (MMSD) be discharged to the sanitary sewer as follows:

1. Meet all applicable requirements of the City of Milwaukee and the MMSD including the control of suspended solids. Perform all necessary monitoring to document compliance with the City of Milwaukee and the MMSD requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with the City of Milwaukee and the MMSD requirements.
2. Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.

Groundwater with a petroleum sheen cannot be discharged to the sanitary sewer. If dewatering is necessary where the groundwater has a sheen on the surface, the water shall be pumped into a holding tank or tanker truck for off-site testing and disposal.

Notify the engineer of any dewatering activities. Contractor shall obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

Limit excavation in the location described in A.2 to minimize the handling of groundwater. Notify the engineer of any dewatering activities and obtain any permits necessary to discharge or dispose of contaminated water. Provide copies of such Permit to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

D Measurement

The department will measure Excavation, Hauling, and Disposal of Petroleum Contaminated Soil in tons of contaminated soil, accepted by the bioremediation facility or landfill as documented by weight tickets generated by the bioremediation facility or landfill.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON

Payment is full compensation for excavating, segregating, loading, hauling, and treatment via bioremediation, or landfilling of contaminated soil; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and dewatering of soils before transport, if necessary.

stp-205-003 (20230113)

27. Signs Type II Reflective SH, Item 637.2220.

A Description

This special provision describes furnishing and installing signs in accordance with the plans and conforming to standard spec 637 as modified in this special provision.

B Materials

The contractor shall provide all necessary sign mounting hardware as shown in the detail drawings which includes but is not limited to 5/16" x 1 ¼" Stainless Steel Fender Washers, 5/16"-18 x 3/4" Stainless Steel Hex Head Bolt, 201 Stainless Steel Banding ¾" x 0.20., Stainless Steel Flared Leg Sign Mount Bracket for ¾" banding, 201 Stainless Steel Wing Seal (buckle) for ¾" banding and one- or two-sided sign mounting Z-brackets that fit 2 3/8-inch post or approved equal.

The contractor shall affix the installation date sticker on back of sign in lower right corner. Stickers will be provided at pre-construction meeting or by the Inspector.

C Construction

The contractor shall be responsible for recording the location, type, and installation date of the signage using the provided Sign Installation Log (L-101).

D Measurement

The department will measure Signs Type II Reflective SH by the square foot acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
637.2220	Signs Type II Reflective SH	SF

Payment is full compensation for furnishing and installing signs. The Sign Installation Log (L-101) shall be complete and submitted for all signing locations prior to finalization of sign item payments.

28. Field Office, Item 642.5201.

Add the following to standard spec 642.2.1:

The field office shall be located within one half mile of the project limits.

29. Traffic Control, Item 643.5000.

Provide the City of Milwaukee Police Department and the engineer a 24-hour emergency contact number with which the contractor or his representative can be contacted during non-working hours in the event a safety hazard develops.

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

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

30. Temporary Audible Message Devices, Item 644.1900.S.

A Description

This special provision describes providing, maintaining, and removing temporary audible message devices. These devices are used on temporary pedestrian facilities to guide individuals with sight disabilities.

B Materials

Furnish temporary audible message devices from the approved products lists.

C Construction

Provide and maintain temporary audible message device. Maintain and repair devices within two hours of being notified by the project engineer of an issue.

Contractors record messages as approved by the engineer.

Mount temporary audible message devices on drums, temporary sign supports, or other locations approved by the engineer. Locate motion detection areas that will be effective in activating the device to operate properly. Avoid locating motion detection areas that will cause activation by trees, traffic, or other known regular activity.

Move and adjust devices after disruptions by the work or the public.

Maintain devices in a working condition and replace batteries as needed. Replace any devices that are not working properly within 2 hours of being notified of an issue.

Use tamper-proof hardware for mounting.

D Measurement

The department will measure temporary audible message devices by the day, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
644.1900.S	Temporary Audible Message Device	DAY

Payment is full compensation for providing, maintaining, and removing temporary audible message device.

The department will not pay for devices that are inoperable.

stp-644-190 (20250108)

31. Lamp, Ballast, LED, Switch Disposal by Contractor, Item 659.5000.S.

A Description

This special provision describes the detachment and packaging of lamps, ballasts, LEDs, and mercury containing switches (e.g., overhead roadway lighting, underdeck bridge, wall packs, pedestrian signals, traffic control stop lights and warning flashers, fluorescent bulbs, and thermostats) removed under this contract for disposal as hazardous materials.

For Lamp, Ballast, LED, Switch Disposal by Contractor, coordinate removal from the work site by the department's hazardous waste disposal vendor. Disposal will be billed to the department by the hazardous waste disposal vendor.

B Material

B.1 Disposal by Contractor
Items removed under this contract will be considered the property of the department for waste generator identification. The contractor is responsible for coordinating with the department's hazardous waste vendor for disposal:
https://wisconsindot.gov/Documents/doing-bus/eng-consultants/cnslt-rsrces/environment/hazwaste-contacts.pdf

C Construction

C.1 Removal
Arrange for the de-energizing of luminaires after receiving approval from the engineer that the existing luminaires can be removed. Do not remove luminaires that cannot be replaced with proposed LED units and operational within the same workday. The new LED units need to be operational prior to sunset of the same workday.

Detach and remove luminaires and lamps from the existing traffic signal poles or respective structure.

Avoid breaking fixtures whenever possible.

Lamps, ballasts, LED, and switches will become property of the department, and will be disposed of in an environmentally sound manner.

C.2 Packaging of Hazardous Materials
Provide a secure, level location removed from the travelled way for storage of the material for disposal. Pack intact fixtures in the packaging of the new lamps used to replace them, or packaging affording the equivalent protection. Place in full, closed stackable cartons.

Pile cartons no more than four high if palletized and secure cartons with shrink wrap to prevent shifting or falling of the loads. Clearly mark each pallet with the words “Universal Waste Lamps” or “Universal Waste Ballasts”, the date, and the number of fixtures on each pallet.

Pack broken fixtures into (min.) 6 mil thick plastic bags and place inside sturdy cardboard boxes or the equivalent. Mark the outer packaging with the term “Broken Fixtures/Lamps”, the date and the number of broken fixtures clearly marked on the box.

The hazardous waste vendor will not accept fixtures improperly packaged. The vendor will reject any fixtures not removed as part of a contract pay item or otherwise required under this contract.

Pack ballasts and mercury containing switches in appropriate containers.

C.3 Disposal by Contractor

Complete the lamp and ballast inventory (https://wisconsindot.gov/Documents/doing-bus/engconsultants/cnslt-rsrces/environment/dotlampballastinventory.dotx) and contact the hazardous waste vendor to coordinate pickup and disposal at a location specified by the contractor. Consolidate all pallets and boxes from one project at a single location. Contact the hazardous waste vendor to set up an appointment for pickup. The hazardous waste vendor requires a minimum of one week advance notice to schedule pickup.

D Measurement

The department will measure Lamp, Ballast, LED, Switch Disposal by Contractor as each individual unit removed and received by the hazardous waste vendor, properly packaged and acceptably completed, matching the total number of units provided on the inventory form. The department will not measure broken fixtures that exceed a total of 10 percent of all fixtures to be disposed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH

Payment is full compensation for detachment, handling, packaging, labeling and scheduling disposal with the hazardous waste vendor; and scrapping and disposal of all other materials.

32. Temporary Traffic Signals for Intersections (Location), Item 661.0201.

Modify standard spec 661.2.1:

661.2.1 General

The City of Milwaukee will provide the temporary electrical service for temporary traffic signals.

The City of Milwaukee – Traffic Signals is the applicable electrical utility. Contacts shown in plan.

33. Utility Line Opening, Item SPV.0060.001.

A Description

This special provision describes providing excavation to uncover utilities for the purpose of determining elevation and potential conflicts on the plans or as directed by the engineer.

B (Vacant)

C Construction

Perform the excavation in such a manner that the utility in question is not damaged.

Perform the utility line openings as soon as possible and at least 10 calendar days in advance of proposed utility construction to allow any conflicts to be resolved with minimal disruption. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening will be called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Provide utility line openings with a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

Notify the utility engineers or their agents of this work a minimum of three working days prior to the work so they may be present when the work is completed. Do not perform utility line openings without the approval of the engineer.

D Measurement

The department will measure Utility Line Opening by each opening, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.001	Utility Line Opening	EACH

Payment is full compensation for the excavation required to expose the utility line, backfilling with existing material removed from the excavation, compacting the backfill material, restoring the site, and for cleanup.

Existing pavement removal necessary to facilitate utility line openings will be considered part of or paid for under Utility Line Openings. Replacement pavement, concrete curb, gutter, and sidewalk items will be considered separate from Utility Line Openings and will be measured and paid for separately.

34. Adjusting Water Valve Boxes, Item SPV.0060.002.

A Description

This special provision describes adjusting, protecting, and maintaining accessibility, for the duration of the project, to all city water service boxes and water gate valve boxes located within the project limits.

B Materials

All material for the adjustment of these facilities shall meet City of Milwaukee specifications and will be provided by the City of Milwaukee by contacting Andre Lee, Milwaukee Water Works, at (414) 708-1321 (or Syreeta Woodley, Milwaukee Water Works at (414) 286-6302). Milwaukee Water Works Distribution General Contact Number is (414) 286-3710.

If there is contractor damage, the replacement materials must be provided by the City of Milwaukee. The Contractor will be charged for all materials. Materials furnished by the City of Milwaukee and not used on the project shall be delivered back to DPW Field Headquarters – Infrastructure, Operations, Water Works at 3850 N. 35th St.

C Construction

Contact Milwaukee Water Works prior to the start of construction.

All water service boxes and water valve boxes within the project limits shall be adjusted to proposed elevations by the Contractor using materials meeting city specifications.

Ensure that all water service boxes and water valve boxes are adequately located and identified by blue paint, and that at all times, all water appurtenances remain accessible for operation by city forces.

Upon completion of the work, the City will inspect all water facilities to ensure the water boxes are clean, properly aligned, and accessible. Correct and complete any identified repairs and adjustments.

D Measurement

The department will measure Adjusting Water Valve Boxes by each valve box, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.002	Adjusting Water Valve Boxes	EACH

Payment is full compensation for all excavation, backfilling, disposal of surplus materials, water box adjustments, water box clean-out, and restoration of the work site.

35. Inlet Covers Type MS 57, Item SPV.0060.102.

A Description

This special provision describes providing work under these items according to the requirements of standard spec 611 and the details as shown on the plans.

B Materials

Furnish materials under these items according to the requirements of standard spec 611 and the details as shown on the plans.

C Construction (Vacant)

D Measurement

The department will measure Inlet Covers Type MS 57 by 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.0060.102	Inlet Covers Type MS 57	EACH

Payment is full compensation for furnishing and installing the inlet covers including the frame and grate.

36. Manhole Covers Type MS 58-A, Item SPV.0060.103.

A Description

This special provision describes providing work under these items according to the requirements of standard spec 611 and the details as shown on the plans.

B Materials

Furnish materials under these items according to the requirements of standard spec 611 and the details as shown on the plans.

C Construction (Vacant)

D Measurement

The department will measure Manhole Covers Type MS-58A by 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.0060.103	Manhole Covers Type MS 58-A	EACH

Payment is full compensation for removing the existing covers; providing new covers, including frames, lids, and adjusting each cover. Old covers that are removed shall be disposed of by the contractor.

37. Catch Basin Type 44A, Item SPV.0060.110.

A Description

This special provision describes furnishing and installing catch basins Type 44A. Perform work under this item according to the requirements of standard spec 611 and the details as shown on the plans.

B Materials

Furnish materials under these items according to the requirements of standard spec 611 and the details as shown on the plans.

C Construction

Construct according to the requirements of standard spec 611.3 and the details as shown in the plans.

D Measurement

The department will measure Catch Basin Type 44A by 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.0060.110	Catch Basin Type 44A	EACH

Payment will be made according to the standard spec 611.5.2 and the details as shown in the plans.

38. Install City Precast Controller Base, Item SPV.0060.201.

A Description

This special provision describes the installation of precast controller bases furnished by the City of Milwaukee, for traffic signal control cabinets as shown on the plans.

B Materials

The 36”x21.25”x20” pre-cast concrete foundation for traffic signal cabinets P1 and P2 will be furnished by the City of Milwaukee. The contractor shall contact Rudy Gutierrez, Electrical Services Manager (414) 286-5941-office, (414) 708-5148-mobile; or the Electrical Services Dispatcher at (414) 286-3687 to coordinate pickup of the concrete foundation at the City of Milwaukee Electrical Services headquarters located at 1540 W Canal Street Milwaukee, WI 53233.

C Construction

Install concrete traffic cabinet bases according to the plans. Plan changes must be approved by a City of Milwaukee Electric Services Manager or Traffic Engineer. The primary contacts are Rudy Gutierrez, Electrical Services Manager (414) 286-5941-office, (414) 708-5148-mobile; or Scott Reinbacher, Traffic Control Engineer III (414) 286-3232.

D Measurement

The department will measure Install City Precast Controller Base 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.0060.201	Install City Precast Controller Base	EACH

Payment is full compensation for installing city furnished controller base; for excavation, backfilling and disposal of surplus material.

39. ATC Controller and Cabinet Installed, Item SPV.0060.205.

A Description

This special provision describes furnishing and installing an ATC Traffic Signal Controller and NEMA TS2 Type 1 Traffic Signal Control Cabinet in accordance to the following standards.

B Materials

Furnish equipment and assemble the cabinet conforming to the latest revision of NEMA Standards Publication TS 2-2021, Traffic Controller Assemblies with NTCIP requirements, National Electrical Manufacturers Association, hereinafter called NEMA TS2 Standard.

The cabinet shall be designed for TS2 Type 1 operation.

All equipment, materials, and cabinet features shall be the same type, make, and model on all cabinets delivered under any one order.

Furnish a shelf mount ATC controller with a linux 3.12 or later kernel based OS and have an engine board conforming to the ATC 5201 standard. The engine board shall have 128MB of DDRS DRAM, 64MB of FLASH, and 2MB of SRAM. The shelf mount controller shall be natively compatible with CENTRACS ATMS, and it should be possible to upgrade the software via USB, SD, or ethernet. The controller shall also have a built in speaker for audio feedback and an integral carrying handle. Though the controller should not have a touch screen.

Furnish any equipment and materials not specifically described but required in order to perform the intended functions in the cabinet.

C Construction

Conform all work to the Wisconsin State Electrical Code (WSEC). Conform all work to section 651 of the Wisconsin Standard Specifications for Highway and Structure Construction, 2025 Edition, as supplemented or modified in this specification.

C.1 Terminal Facility

Fully wire the terminal facility with sixteen load switch sockets; eight flash transfer relay sockets; one flasher socket; and two terminal facility Bus Interface Unit (BIU) rack slots. The use of printed circuit boards is not acceptable on the terminal facility, except for the BIU interface with the load bay. Position the 16 load switch sockets in two horizontal rows of eight sockets each. Support the load switches and flasher by a bracket or shelf extending at least three inches from the terminal facility.

Label all terminals, load switches, and flash transfer relay sockets. Label reference designators by silk-screening on the front and rear of the terminal facility to match drawing designations.

Provide rack mounted BIU’s. Provide a dual-row, 64-pin female DIN 41612 Type B connector for each BIU rack position. Provide card guides for both edges of the BIU. Terminal and facilities BIU mounting shall be an integral part of the terminal facility.

Provide a 16-channel, 8-position, TS2 detector rack, with an integrally mounted BIU mounting. Racks shall be addressable. Power a detector rack by the cabinet power supply. Fasten the loop detector rack towards the left side of the lower shelf.

For BIU rack connectors, provide pre-wired address pins or jumper plugs corresponding to the requirements of the NEMA TS2 Standard. The address pins or jumper plugs shall control the BIU mode of operation. BIUs shall be capable of being interchanged with no additional programming.

For the terminal facility, contain all field wires within one or two rows of horizontally-mounted heavy duty terminal blocks. Terminate all field output circuits on an unfused terminal block with a minimum rating of 10 amps. Use mechanical connector lugs rated for copper wire.

Angle the lower section of the terminal block out from the back of the cabinet at approximately a 45 degree angle.

Identify all field input/output (I/O) terminals by permanent alphanumeric labels. All labels shall use standard nomenclature per the NEMA TS2 Standard.

All field flash sequence programming at the field terminals shall be able to be accomplished with the use of only a screwdriver.

Wire field terminal blocks to use three positions per vehicle or overlap phase (green, yellow, red).

Wire one RC network in parallel with each flash transfer relay coil.

Permanently label all logic-level, NEMA-controller and MMU input and output terminations on the terminal facility. Identity the function of each terminal position on the cabinet drawings.

Terminal blocks for DC signal interfacing shall have a number 6-32 x 7/32 inch screw as minimum.

Functions to be terminated shall be as specified in the listing of Input/Output Terminals in Section 5 of the NEMA TS2 Standard.

Conform all terminal facility and cabinet wiring to the WSEC. The green/walk, yellow, and red/don't walk load switch outputs shall be minimum 16 gauge wire. The MMU (other than AC power), controller I/O, and logic ground shall be minimum 22 gauge wire. All wire colors shall be consistent.

C.2 Vehicle Detection Interface Panel

Provide a 16-position interface panel. Interface panel shall allow for the connection of 16 independent field loops. The panels shall have barrier strip type terminals using 8-32 screws and be rated for 20 inch pounds of torque. Provide a ground bus terminal between each loop pair terminal to provide a termination for the loop lead-in cable ground wire. Secure the interface panels to a mounting plate attached to the left interior side wall of the cabinet. The panel shall also include inputs for up to 4 preempts.

Provide a cable consisting of 20 AWG twisted pair wires to enable connection to and from the interface panel to a detector rack. The twisted pair wires shall be color-coded wires. Provide a cable of sufficient length to allow the detector rack to be placed on either shelf.

Identify all termination points by a unique number silk screened on the panel.

C.3 Conductors and Cabling

All conductors in the cabinet shall be copper 22 AWG or larger. All 14 AWG and smaller wire shall conform to MIL-W-16878/1, Type B, 600V, 19-strand tinned copper. The wire shall have a minimum of 0.010 inches thick PVC insulation without clear nylon jacket and rated to 105 degrees Celsius. All 12 AWG and larger wire shall be UL or NRTL listed THHN/THWN 90 degrees Celsius, 600V, 0.020 inches thick PVC insulation, and clear nylon jacketed.

Provide controller and MMU cables of sufficient length to allow the units to be placed on either cabinet shelf in the operating mode. Connecting cables shall be sleeved in a braided nylon mesh. Exposed tie-wraps and interwoven cables are unacceptable.

Provide the cabinet configuration with up to 6 SDLC RS-485 Port 1 communication cables to allow full capabilities of that cabinet. Each communication cable connector shall be a 15-pin metal shell D subminiature type. The cable shall be a shielded cable suitable for RS-485 communications. Secure all connecting cables and wire runs by mechanical clamps. Stick-on type clamps are not acceptable.

Pre-wire the terminal facility for a Type 16 MMU.

All wiring shall be neat in appearance. Stow excess cable behind the terminal facility or below the shelves in order to allow easy access to the terminal facility and cabinet components. All cabinet wiring shall be continuous from its point of origin to its termination point. Butt type connections/splices are not acceptable.

Wire the grounding system in the cabinet into three separate circuits: AC Neutral, Earth Ground, and Logic Ground.

Optoisolate all pedestrian pushbutton inputs from the field to the controller through the BIU and operate at 12 VAC.

Hook or loop all wire, size 16 AWG or smaller, at solder joints around the eyelet or terminal block post prior to soldering to ensure circuit integrity. Lap joint soldering is not acceptable.

C.4 Cabinet Switches

The above switches shall function as follows:

Off: Signals Dark

Signal: Signals On and operating as follows:

Auto	Hand
Flash: Signals Flash	Signals Flash
Normal: Signals Normal	Signals Advance by use of hand control

Provide manual detector switches. Provide four pedestrian detector switches. The switches shall be spring loaded and automatically return to the center position. Wire the pedestrian switches to the T&F BIU slot 1. The switches shall operate as follows:

Position	Function
Up	Detector Disabled
Center	Detector Enabled
Down	Detector Called

C.5 Bus Bar

Provide a minimum 20-position neutral bus bar capable of connecting three #12 AWG wires per position.

C.6 Circuit Breakers

House in the power panel the following vertically mounted, single pole, 120 volts AC, 60 Hertz circuit breakers, with the ON position being up:

- One 30-amp signal breaker. This breaker shall supply power for all cabinet functions not powered through one of the other breakers or fuses listed below. Streetlights will be powered from outside the cabinet in the meter breaker pedestal. This breaker shall feed a signal bus supplied through a solid state bus relay and a radio interference line filter. The bus relay, in all cases, shall be a solid state contactor and shall not be jack mounted. Breakers shall be thermal magnetic type, UL or NRTL listed, with a minimum of 22,000 amp interrupting capacity.
- One 15-amp auxiliary breaker. This breaker shall supply power to the fan and heater.
- One 10-amp breaker. This breaker shall supply power for control equipment: controller, MMU, and cabinet power supply.
- One 20-amp circuit breaker for future use.

Power the cabinet light through the GFI fuse, not a circuit breaker.

C.7 Radio Interference Suppressor

Equip each control cabinet with a single radio interference suppressor (RIS) of sufficient ampere rating to handle the load requirements. Install the RIS at the input power point. The RIS shall minimize interference in both the broadcast and the aircraft frequencies, and shall provide a maximum attenuation of 50 DB over a frequency range from 200 KHZ to 75 MHZ, when used in connection with normal installations. The RIS shall be hermetically sealed in a substantial metal case filled with a suitable insulating compound. The terminals shall be nickel-plated brass studs of sufficient external length to provide space to connect two #8 AWG wires and shall be so mounted that they cannot be turned in the case. Ungrounded terminals shall be properly insulated from each other, and shall maintain a surface leakage distance of not less than 6.35 mm between any exposed current conductor and any other metallic parts. The terminals shall have an insulation factor of 100-200 megaohms dependent upon external conditions. The RIS shall be rated at minimum 50 amperes. Design the RIS for operation on 115 VAC +/- 10%, 60HZ, single-phase circuits, and to meet the standards of UL or a NRTL and Radio Manufacturer's Association.

C.8 Bus Relay

Provide a normally-open, 60 amp, solid state relay.

C.9 Surge Protector

Install a plug-in type EDCO SHA-1250, Atlantic/Pacific or approved equal, surge protector across the load terminal of the 10-amp circuit breaker. Install a base mounted metal oxide varistor rated for 130VAC and a peak current of 100A , at the load terminals of the circuit breaker from the hot line to the grounded current carrying neutral conductor

C.10 Power receptacles

Mount a 120 VAC 20 amp**,** NEMA 5-20R GFCI convenience outlet at each of these two locations:

- On the interior right side wall above the power panel. The outlet shall be fully operational and fuse protected.
- Near the power panel where it will not interfere with power panel maintenance. This outlet is to be wired by field installation personnel.

C.11 Suppressors and RC Network

Provide a suppressor for each 120 VAC circuit that serves an inductive device, such as a fan motor or a mechanical relay, to protect the controller's solid state devices from excessive voltage surges. Such suppressors shall be in addition to the surge protector at the input power point. Wire one RC network in parallel with each inductive device.

C.12 Auxiliary Devices

C.12.1 Load Switches

Provide 16 solid state load switches conforming to the requirements of section 6.2 of the NEMA TS2 Standard.

C.12.2 Flashers

Provide one solid state flasher conforming to the requirements of section 6.3 of the NEMA TS2 Standard.

C.12.3 Flash Transfer Relays

Provide 4 flash transfer relays conforming to the requirements of section 6.4 of the NEMA TS2 Standard.

C.12.4 Cabinet Power Supply

Provide one cabinet power supply with each cabinet conforming to the requirements of section 5.3.5 of the NEMA TS2 Standard. Provide LED indicators for the 12 VDC, 12 VAC, and 24 VDC outputs. Provide jack plugs on the front panel for access to the +24 VDC for test purposes.

C.13 Bus Interface Units (BIU)

Provide three BIUs conforming to the requirements of section 8 of the NEMA TS2 Standard.

Provide two BIUs with the main panel and one BIU with one of the detector racks.

C.14 Malfunction Management Unit (MMU)

Provide one shelf-mountable, 16 channel, solid-state MMU with Ethernet capability. The MMU shall meet the requirements of Section 4 of the NEMA TS2 Standard. The MMU shall be an Eberle Design Inc. Model MMU2-16LE or preapproved equal.

The MMU shall be capable of the following:

- Detecting simultaneously active inputs of Green (Walk), Yellow, or Red (Don’t Walk) on the same channel.
- Determining if the field signal input states detected as active or inactive by the MMU correspond with the data provided by the Controller Unit.
- Monitoring an optional external watchdog output from a Controller Unit or other external cabinet device.
- Monitoring an intersection with up to four approaches using the Flashing Yellow Arrow (for protected/permissive left and right turn movements).
- Event logging for the following; AC Line log, Prior/Previous Faults log, and Monitor Reset Log. All log entries shall include a date and time stamp.
- All monitor functions shall be capable of being programmed through the front panel, without the need for computers or special programs cards.
- A built-in Diagnostic Wizard shall be provided that displays detailed diagnostic information regarding the fault being analyzed. This mode shall provide a concise view of the signal states involved in the fault, pinpoint faulty signal inputs, and provide guidance on how the technician should isolate the cause of the malfunction.

The MMU shall have an LCD display that allows for viewing of log files and field indications, as well as the viewing and setting of date and time and configuration parameters.

C.15 Cabinet Delivery

Deliver cabinets to City of Milwaukee Electrical Services headquarters located at 1540 West Canal Street Milwaukee, WI 53233. Final wiring/terminations in all cabinets that are to be city owned will be performed by city forces. Coordinate final cabinet wiring with the City of Milwaukee’s Traffic Signal Field Operations unit.

Notify the electrical shop of the intent to deliver a minimum of two business days ahead of the desired delivery time. The City of Milwaukee will provide a list of names, phone numbers, and email addresses for contact information.

C.16 Acceptance Testing

Determine a time with the City of Milwaukee for the acceptance testing. In addition to the cabinet as specified in this specification, add-on accessory items, traffic signal interconnect, system communication, and closed loop system operation are included in the acceptance testing.

Provide an IMSA certified Traffic Signal Bench Technician, Level II, or an IMSA certified Traffic Signal Field Technician, Level II, with a minimum of three years of experience in construction and operation of traffic signal cabinets similar to the cabinets specified in this specification. Alternatively, provide a technician or electrician with a minimum of three years of experience in construction and operation of traffic signal cabinets similar to the cabinets specified in this specification. The technician shall be on-site during the entire acceptance testing, and shall be capable and equipped to make in-field revisions and/or repairs to the signal cabinet to conform to this specification.

C.17 Certification

Provide a written certification with the cabinet delivery that the equipment meets the requirements of the plans and specifications and will fully run the sequence of operation and the signal timing, including closed loop system operation if applicable. The certification shall be on the manufacturer's company letterhead, shall be addressed to both the City of Milwaukee and the construction contractor, and shall be signed by a company officer authorized to legally obligate the company.

C.18 Warranty

Provide the City of Milwaukee with all manufacturer warranties and guarantees customarily provided for the equipment, naming the City of Milwaukee as the obligee. Ensure all warranties and guarantees are issued to and remain enforceable by the City of Milwaukee.

D Measurement

The department will measure ATC Controller and Cabinet Installed by 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.0060.205	ATC Controller and Cabinet Installed	EACH

Payment is full compensation for furnishing and installing the traffic signal controller and control cabinet; for furnishing and installing all other items necessary (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.

40. Fiber Optic Patch Panel, Item SPV.0060.212.

A Description

This special provision describes furnishing and installing a fiber optic patch panel according to the following standards.

B Materials

Furnish a Fiber Optic Patch Panel with cable lengths as specified in the plans. The patch panel shall have 6 steps, 12 count single-mode OS2 fiber, ST connectors, and a pigtail end. The cable shall be for indoor or outdoor use and shall be riser cable. The body of the patch panel shall be black in color. No pull kit should be pre-installed.

C Construction

Have a certified fiber optic technician perform work for fiber optic terminations, splicing and testing. Have a certified fiber optic technician supervise all fiber optic cable installation. Test the panel and demonstrate that all equipment is operational to the inspector. Ensure termination does not exceed attenuation limits specified in standard spec 678.3.4.

D Measurement

The department will measure Fiber Optic Patch Panel by 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.0060.212	Fiber Optic Patch Panel	EACH

Payment is full compensation for furnishing and installing fiber optic patch panel and for testing the equipment.

41. Ethernet Switch, Item SPV.0060.213.

A Description

This special provision describes furnishing and installing an Ethernet switch according to the following standards.

B Materials

Furnish an Ethernet Switch with a compatible power supply.

Environmental: This equipment shall meet the NEMA environmental, power and surge ratings as set forth in NEMA TS2 specifications.

Mounting: This equipment must be DIN Rail mountable.

Interfaces: This equipment must support a minimum of 12 Ethernet interfaces, with a minimum of three being shared or dedicated SFP interfaces for pluggable optical connections and support for PoE+ on four or more interfaces.

Management: This equipment must be a managed switch with the ability to support 802.1Q VLAN Tagging, 802.1D Spanning Tree Protocol, and 802.1p Quality of Service. Multicast, broadcast, and flooding storm control should be features.

LEDs: This equipment must have a power input status LED, a ring status LED, and LEDs showing the port link and speed status per port.

Memory: This equipment must have a minimum of 128MB of DRAM, and a minimum of16MB of flash memory

C Construction

Install Ethernet switch into field cabinet. Connect switch to the devices as directed by the engineer. Contact Scott Reinbacher at (414) 286-3232 for more information.

D Measurement

The department will measure Ethernet Switch by 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.0060.213	Ethernet Switch	EACH

Payment is full compensation for furnishing and installing Ethernet switch and making necessary connections.

42. Electrical Service Pedestal, Item SPV.0060.215.

A Description

This special provision describes furnishing and installing meter breaker pedestal.

B Materials

Furnish 240/480V meter breaker pedestal conforming to state standard Spec 656.2.3., except do not supply service.

C Construction

Install service pedestal at location shown in plans. Install grounding electrodes as required by local utility, and install appropriate grounding conductors. Contact Rudy Gutierrez, Electrical Services Manager (414) 286-5941-office, (414) 708-5148-mobile when pedestal will be ready for service with two working days notice.

D Measurement

The department will measure Electrical Service Pedestal by 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.0060.215	Electrical Service Pedestal	EACH

Payment is full compensation for furnishing and installing meter breaker pedestal.

43. EVP 1 Direction Detector, Item SPV.0060.218.

A Description

This special provision describes furnishing and installing an Emergency Vehicle Preemption (EVP) 1 Direction Detector Channel in accordance to the following standards.

B Materials

Furnish a 1 Channel 1 Direction Infrared Detector.

C Construction

Install detector as shown in the plans and according to manufacturer’s recommendations.

D Measurement

The department will measure EVP 1 Direction Detector by 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.0060.218	EVP 1 Direction Detector	EACH

Payment is full compensation for furnishing EVP 1 Direction Detector.

44. EVP Phase Selector Card 4 Channel, Item SPV.0060.221.

A Description

This special provision describes furnishing and installing an Emergency Vehicle Preemption (EVP) Phase Selector Card 4 Channel.

B Materials

Furnish a NEMA TS-2 compliant four-channel, dual priority, multimode phase selector card. The selector card shall include its own power supply and be capable of use in IR and GPS applications both individually and simultaneously. It shall be capable of discriminating between high, low and probe priorities based on IR emitter frequency rate and by GPS equipment transmission. It shall further be able to differentiate 10,000 or more total frequency rate codes. The phase selector shall also internally record each system activation including the date, time, the ID number of the activating vehicle, the channel called, priority, and duration of activation.

C Construction

Install phase selector card into the appropriate slot in the controller cabinet and make all necessary wiring connections to EVP detectors.

D Measurement

The department will measure EVP Phase Selector Card 4 Channel by 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.0060.221	EVP Phase Selector Card 4 Channel	EACH

Payment is full compensation for furnishing and installing the phase selector card; making necessary connections.

45. EVP Confirmation Light, Item SPV.0060.223.

A Description

This special provision describes furnishing and installing an Emergency Vehicle Preemption (EVP) Confirmation Light Assembly.

B Materials

Furnish a typical confirmation light assembly and LED flood light.

C Construction

Install confirmation lights as described in the plans.

D Measurement

The department will measure EVP Confirmation Light by 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.0060.223	EVP Confirmation Light	EACH

Payment is full compensation for furnishing and installing the EVP confirmation light assembly.

46. Vehicular Video Detection System 1-Camera, Item SPV.0060.224.

A Description

This special provision describes furnishing and installing a Vehicular Video Detection System of 1 Camera in accordance to the following standards.

B Materials

This specification sets forth the requirements for a system that detects vehicles on a roadway and provides detection outputs to a traffic signal controller. The materials shall also include all brackets, risers, mounting hardware, cable, terminations, interface panels, and all other incidentals for the installation of the equipment. This equipment shall meet the NEMA environmental, power and surge ratings as set forth in NEMA TS2 specifications.

The video detection system shall include one video detector with a high definition camera of at least 720p resolution with a 10x optical zoom with real time iris and shutter speed control by the integrated processor. The faceplate shall be glass with a hydrophilic coating on the exterior and with an indium tin oxide heater applied to the inner surface.

All communications to the video sensor shall be broadband-over-power via three conductor cable. No coaxial cable shall be used. The system shall not include a cellular data plan.

The video detection system shall include an interface panel that manages communication between sensors, remote access to the sensors, and the cabinet itself. The interface panel shall provide connection points for four video sensors. Each sensor connection shall have a power switch and a resettable fuse. All communications to the detection system shall be to a single IP address. The interface panel shall weigh less than 3 pounds.

All incidental mountings required for pole or mast arm mounted units to install the detector are included in this item.

C Construction

The video detection system shall be installed by supplier factory-certified installers and as recommended by the supplier and documented in installation materials provided by the supplier.

In the event, at installation or turn on date, a noticeable obstruction is present in line with the detection zone(s), the contractor shall be obligated to advise the engineer before setting the zone.

All cables associated with the video detection system shall be routed to the controller. Each lead shall be appropriately marked as to which street or avenue it is associated. Provide 6 feet of cable slack.

The video detection system, as shown in the traffic signal plans, shall be complete, in place, tested, and in full operation.

D Measurement

The department will measure Vehicular Video Detection System 1-Camera by 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.0060.224	Vehicular Video Detection System 1-Camera	EACH

Payment is full compensation for furnishing and installing video detection system; making necessary connections; and testing video detection.

47. Electrical Riser, Item SPV.0060.228.

A Description

This special provision describes fabricating and installing an electrical riser.

B Materials

Furnish appropriate weatherproof electrical box, banding, and ½” aluminum conduit as shown in electrical riser detail.

C Construction

Install materials as shown in electrical riser detail.

D Measurement

The department will measure Electrical Riser by each riser, 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.0060.228	Electrical Riser	EACH

Payment is full compensation for providing electrical risers, including all appurtenances.

48. Removing Traffic Signals (MLK & Wright), Item SPV.0060.243; Removing Traffic Signals (MLK & Clarke), Item SPV.0060.244; Removing Traffic Signals (MLK & Center), Item SPV.0060.245; Removing Traffic Signals (MLK & North), Item SPV.0060.246.

A Description

This special provision describes removing existing Traffic Signals in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

B Materials

Existing Traffic Signal bases and any other equipment mounted to the poles.

C Construction

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

Notify the City of Milwaukee at least five working days prior to the removal of the traffic signals. Complete the removal work as soon as possible following shut down of this equipment.

Remove all standards from their concrete footings. Remove the transformer bases from each pole. Remove the cabinet, signal heads, emergency vehicle preemption heads (EVP), mast arms, wiring/cabling, and traffic signal mounting devices from each signal standard, arm or pole. Dispose of all equipment and cable off the right-of-way.

Lamps, ballasts, LEDs, and switches to be removed and disposed of under item 659.5000.S

D Measurement

The Department will measure Removing Traffic Signals by 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.0060.243	Removing Traffic Signals (MLK & Wright)	EACH
SPV.0060.244	Removing Traffic Signals (MLK & Clarke)	EACH
SPV.0060.245	Removing Traffic Signals (MLK & Center)	EACH
SPV.0060.246	Removing Traffic Signals (MLK & North)	EACH

Payment is full compensation for removal and disposal of existing Traffic Signals.

49. Pedestrian Countdown Signal Face 12-Inch, Item SPV.0060.267.

A Description

This special provision describes furnishing and installing Pedestrian Countdown Signal Face 12-Inch in accordance with the following standards.

B Materials

Furnish a 12-Inch Light Emitting Diode (LED) Pedestrian Countdown Module that meets ITE PTCSI-STD Part 2 from March 2004 or current Institute of Transportation Engineer (ITE) standards. The countdown digits shall be displayed with an LED color/type of Portland Orange. The unit shall be able to operate when exposed to temperatures between -40 to 165 degrees Fahrenheit. The operating voltage shall be between 80 to 135VAC, and the wattage drawn shall be 7W.

C Construction

Install Pedestrian Countdown Signal Face 12-Inch as shown in the plans. Install following 658.3 from the standard specifications. The Pedestrian Countdown Signal Face 12-Inch shall be installed in the same housing and immediately below the Pedestrian Signal Face 12-Inch.

D Measurement

The department will measure Pedestrian Countdown Signal Face 12-Inch by 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.0060.267	Pedestrian Countdown Signal Face 12-Inch	EACH

Payment is full compensation for installing Pedestrian Countdown Signal Face 12-Inch.

50. Voice Instruction Audible Push Button, Item SPV.0060.268.

A Description

This special provision describes furnishing and installing a Voice Instruction Audible Push Button.

B Materials

The Voice Instruction Audible Push Button shall be a 2-wire push button that meets ADA requirements. The push button shall be capable of providing audio cues with sound emanating from both the front and back of the unit. Sound shall be synchronized between units and automatically adjust to ambient sound levels. Changing settings and firmware updates shall be done wirelessly over Bluetooth. The switch operating life shall be greater than 20 million operations. The push button station shall have an MUTCD compliant sign on its faceplate.

C Construction

Install a Voice Instruction Audible Pushbutton as shown on plans. Comply with applicable requirements for Accessible Pedestrian Signals and Detectors in Chapter 4 of the MUTCD, 11th Edition. Pushbutton plates and related signage should provide the direction of travel with a single or double arrow as required and shall be properly focused upon installation.

D Measurement

The department will measure Voice Instruction Audible Push Button by 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.0060.268	Voice Instruction Audible Push Button	EACH

Payment is full compensation for furnishing and installing voice instruction audible push button; focusing arrows.

51. Voice Instruction Audible Control Unit, Item SPV.0060.269.

A Description

This special provision describes furnishing and installing a Voice Instruction Audible Control Unit.

B Materials

The Voice Instruction Audible Control Unit shall be a rack mount card able to be used in a 300 series cabinet. An interconnect panel shall provide enough connection for 16 or more push buttons. The panel shall have a separate power supply connection. No polarity requirement shall be needed for the push buttons. The control unit shall have LCD display showing status information. Setup shall be performable via Ethernet or Wi-Fi using a PC or by using an app. Any connection option should allow access to setup and configuration of the control unit and any attached voice instruction audible push button.

C Construction

Install a Voice Instruction Audible Control Unit into the controller cabinet's detector rack. Mount the panel to the side of the cabinet in the side panel access. Terminate all push button connections to the panel. Complete setup of the system and demonstrate the push buttons are correctly wired and configured.

D Measurement

The department will measure Voice Instruction Audible Control Unit by 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.0060.269	Voice Instruction Audible Control Unit	EACH

Payment is full compensation for furnishing and installing voice instruction audible control unit; making necessary connections; and configuring the system.

52. Round Aluminum Sign Post System in Concrete Surface 7-FT, Item SPV.0060.284; Round Aluminum Sign Post System in Concrete Surface 10-FT, Item SPV.0060.285.

A Description

This special provision describes furnishing and installing sign post, post anchor, anchoring cement and sign mounting hardware at the locations shown on the plans. All sign posts shall be round tubular aluminum and installed as shown in the plans.

B Materials

Furnish a round aluminum 2-inch Schedule 40 6061-T6 Extruded Aluminum post, a V-loc Concrete 8-inch post anchor for 2 3/8-inch round post (TAPCO SKU 037-00012B, Traffic Safety Supply Company SKU DP00241, Custom Products Corporation Item RPORZVR12382OR or approved equal), 5/16-inch x 1 ¼-inch Stainless Steel Fender Washers, one- or two-sided sign mounting Z-brackets that fit 2 3/8-inch post and pourable hydraulic cement for setting of concrete post anchor, as shown in plans.

C Construction

Install Round Aluminum Sign Post System in Concrete Surface as shown in plans.

D Measurement

The department will measure Round Aluminum Sign Post System in Concrete Surface 7-FT and Round Aluminum Sign Post System in Concrete Surface 10-FT by each unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.284	Round Aluminum Sign Post System in Concrete Surface 7-FT	EACH
SPV.0060.285	Round Aluminum Sign Post System in Concrete Surface 10-FT	EACH

Payment is full compensation for furnishing and installing the Round Aluminum Sign Post System in Concrete Surface.

53. Round Aluminum Sign Post System in Concrete Surface 10-FT, Item SPV.0060.285.

A Description

This special provision describes furnishing and installing sign post, post anchor, anchoring cement and sign mounting hardware at the locations shown on the plans. All sign posts shall be round tubular aluminum and installed as shown in the plans.

B Materials

Furnish a round aluminum 2-inch Schedule 40 6061-T6 Extruded Aluminum post with a length of 10 feet, a V-loc Concrete 8-inch post anchor for 2 3/8-inch round post (TAPCO SKU 037-00012B, Traffic Safety Supply Company SKU DP00241, Custom Products Corporation Item RPORZVR12382OR or approved equal), 5/16-inch x 1 ¼-inch Stainless Steel Fender Washers, one- or two-sided sign mounting Z-brackets that fit 2 3/8-inch post and pourable hydraulic cement for setting of concrete post anchor, as shown in plans.

C Construction

Install Round Aluminum Sign Post System in Concrete Surface as shown in plans.

D Measurement

The department will measure Round Aluminum Sign Post System in Concrete Surface 10-FT by 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.0060.285	Round Aluminum Sign Post System in Concrete Surface 10-FT	EACH

Payment is full compensation for furnishing and placing the Round Aluminum Sign Post System in Concrete Surface 10-FT.

54. Sign Mounting Hardware on Existing Pole, Item SPV.0060.288.

A Description

This special provision describes furnishing and installing Mounting Hardware on Existing Pole (concrete, aluminum or steel pole) with current City of Milwaukee practices.

B Materials

201 Stainless Steel Banding ¾" x 0.20., Stainless Steel Flared Leg Sign Mount Bracket for ¾" banding, 201 Stainless Steel Wing Seal (buckle) for ¾" banding, 5/16" x 1-¼" Stainless Steel Fender Washers, 5/16"-18 x 3/4" Stainless Steel Hex Head Bolt.

C Construction

Install and orient Mounting Hardware on Existing Pole (Concrete, aluminum or steel) as shown on the plans.

D Measurement

The department will measure the Sign Mounting Hardware on Existing Pole by each pole location, 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.0060.288	Sign Mounting Hardware on Existing Pole	EACH

Payment is full compensation for furnishing and installing Sign Mounting Hardware on Existing Pole.

55. Street Name Sign Mounting Hardware on Existing Pole, Item SPV.0060.290.

A Description

This special provision describes furnishing and installing Street Name Mounting Hardware on Existing Pole (concrete, aluminum, steel or wood pole) with current City of Milwaukee practices.

B Materials

Street Name Sign 24" Wing L-Bracket, 201 Stainless Steel Banding ¾" x 0.20., 201 Stainless Steel Wing Seal (buckle) for ¾" banding.

C Construction

Install and orient Mounting Hardware on Existing Pole (Concrete, aluminum, steel or wood) as shown on the plans.

D Measurement

The department will measure Street Name Sign Mounting Hardware on Existing Pole by each pole location, acceptably completed.

E Basis of Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.290	Street Name Sign Mounting Hardware on Existing Pole	EACH

Payment is full compensation for furnishing and installing Street Name Mounting Hardware.

56. Street Name Sign Mounting Hardware on Mast Arm, Item SPV.0060.291.

A Description

This special provision describes furnishing and installing Mounting Hardware on Mast Arm with current City of Milwaukee practices.

B Materials

201 Stainless Steel Banding ¾" x 0.20., Stainless Steel Flared Leg Sign Mount Bracket for ¾" banding, 201 Stainless Steel Wing Seal (buckle) for ¾" banding, 5/16" x 1-¼" Stainless Steel Fender Washers, 5/16"-18 x 3/4" Stainless Steel Hex Head Bolt.

C Construction

Install and orient Mounting Hardware on Mast Arm as shown on the plans.

D Measurement

The department will measure Street Name Sign Mounting Hardware on Mast Arm by mast arm, acceptably completed.

E Basis of Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.291	Street Name Sign Mounting Hardware on Mast Arm	EACH

Payment is full compensation for furnishing and installing the Street Name Mounting Hardware.

57. Sign Mounting Hardware on Round Aluminum Sign Post, Item SPV.0060.292.

A Description

This special provision describes furnishing and installing Sign Mounting Hardware on Round Aluminum Sign Post at the locations shown on the plans.

B Materials

Furnish 5/16" x 1 ¼" Stainless Steel Fender Washers and one- or two-sided sign mounting Z-brackets that fit 2 3/8 inch post or approved equal, as shown in plans.

C Construction

Install Sign Mounting Hardware on Round Aluminum Sign Post as shown in plans.

D Measurement

The department will measure the Sign Mounting Hardware on Round Aluminum Sign Post by each post location, 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.0060.292	Sign Mounting Hardware on Round Aluminum Sign Post	EACH

Payment is full compensation for furnishing and placing the Sign Mounting Hardware on Round Aluminum Sign Post.

58. Pull Boxes 13-Inch x 24-Inch x 24-Inch, Item SPV.0060.302.

A Description

This special provision describes furnishing and installing Fiberglass/Polymer Concrete Pull Box at the locations shown on the plans according to standard spec 653.

B Materials

Pull Box (Fiberglass/polymer concrete) of rectangular composite enclosure with Tier 15 Rating (15,000 lb. Design Load) & (22,500 lb. Test Load), and nominal 13” wide x 24” long and 24” total depth, flared wall. Cover shall be Tier 15 Rating (15,000 lb. Design Load) & (22,500 lb. Test Load), bolted cover with logo “Street Lighting” and use pentagon shaped, 5-point bolts to secure cover. The pull box listed and labeled by (UL) or other Nationally Recognized Testing Laboratory.

C Construction

Conform to standard spec 653.3 and City of Milwaukee standards. The pull box installation covers the excavation, 12-inches of crushed stone, end bell connectors for conduit connection, backfilling and for disposing of surplus material. Rigid nonmetallic PVC bell end connectors are to be use when connecting conduit to the pull box.

D Measurement

The department will measure Pull Boxes 13-Inch x 24-Inch x 24-Inch by 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.0060.302	Pull Boxes 13-Inch x 24-Inch x 24-Inch	EACH

Payment is full compensation for providing and installing all materials including pull boxes, covers, bolts, washers, caulking; for excavating, bedding, backfilling, and restoration of ground to original condition including sand, aggregate, concrete, or other required materials; and for disposing of surplus materials.

59. Pull Boxes 17-Inch x 30-Inch x 24-Inch, Item SPV.0060.303.

A Description

This special provision describes furnishing and installing Fiberglass/Polymer Concrete Pull Box at the locations shown on the plans according to standard spec 653.

B Materials

Furnish fiberglass/polymer concrete pull box of rectangular composite enclosure with Tier 15 Rating (15,000 lb Design Load) & (22,500 lb Test Load), and nominal 17” wide x 30” long and 24” total depth, flared wall style #CHB173024 as by Highline Products or #B12173024A as by Hubbell Power Systems, or approved equal. Cover shall be Tier 15 Rating (15,000 lb Design Load) & (22,500 lb Test Load), bolted cover with logo “Traffic Signals” #CHC1730HL1 as by Highline Products or #C12173002A41 as by Hubbell Power Systems, or approved equal. The pull box shall be listed and labeled by (UL) or other Nationally Recognized Testing Laboratory.

C Construction

Conform to standard spec. 653.3 and City of Milwaukee standards. The pull box shall be installed on 12-inches of crushed stone, set flush with grade and backfilled.

D Measurement

The department will measure Pull Boxes 17-Inch x 30-Inch x 24-Inch by 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.0060.303	Pull Boxes 17-Inch x 30-Inch x 24-Inch	EACH

Payment is full compensation for furnishing and installing all materials, including pull box, crushed aggregate, for excavation, backfill, for disposing of surplus material.

60. Poles Type 25-AL-BD Aluminum, Item SPV.0060.320.

A Description

The work under this item is for furnishing and installing poles and all miscellaneous hardware required to complete the installation of light poles, in accordance with section 657 of the standard specifications, and as shown on the plans.

B Materials

B.1 Pole

The bolt down 25’-0” aluminum street lighting pole assembly shall be in accordance with this specification and City of Milwaukee (DPW-Infrastructure Services Division) Drawing #B-14-13.
Minor deviations on the rest of the pole assembly that will not affect the strength, appearance, vertical and horizontal stability of the pole will be permitted, but all such deviations shall be approved by the City of Milwaukee Street Lighting Engineering.
The 25’-0” aluminum pole shaft shall be tapered from the top of the pole to the mounting plate.
Dimensions from the pole top to the bracket mounting plate and from the base plate to the top of the pole, as shown on the drawing, shall be rigidly adhered to.
The base plate shall be cast from either type 319 or 356T6 aluminum. The four elongated mounting holes shall be on 90-degree centers on an 11” bolt circle. The mounting slots shall be sized for 1-inch mounting bolts. The base shall be welded to the shaft so the arms bisect the angle between mounting holes at 45 degrees.
The poles shall be built as a double bracket unit and supplied with one cover plate per pole.
The pole cap is to be cast aluminum, and be secured to the pole by three equally spaced ¼”-20 hex head stainless steel screws.

B.2. Hand Hole & Grounding

The hand hole shall be 4" x 6" nominal. A ¼”-20 NC taped hole and bolt shall be provided in the shaft opposite the hand hole for grounding purposes. The hand hole cover shall be secured to the pole using ¼"-20 NC by ¾" long 18-8 stainless steel button head Torx T27H tamper proof screws. The hand hole is to be 90 degrees from the arms. The center line of the hand hole shall be 14 inches above the mounting plate.

B.3 Loading and Stability

The 25’-0” assembly furnished under this specification shall support a fifty-pound fixture of an EPA of 3 on each arm when equipped with a pair of 6' upsweep arms. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.
The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table 3-5.
All Welding shall be in accordance with the latest applicable A.S.M.E. Standards.
The manufacturer warrants that the pole supplied will be of merchantable quality will conform to applicable specifications, drawings, designs, samples, or descriptions, will be free from defects in materials and workmanship and will be fit for the particular purpose intended.

B.4 Plaque

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft using high intensity reflective 2" silver numerals on black background.

B.5 Riser Cable

Pole is to be wired as noted on the plans. A separate riser cable will be required to be installed inside of pole for each lighting fixture on the pole. The riser cable(s) shall be 35 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground to be green. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices.

C Construction

The lighting unit shall be assembled and installed per the manufacturer's instructions. The Contractor shall install unit on a concrete base with proper arm/luminaire orientation as indicated on the plans. Install the bolt down pole as specified in the plan and details. After raising the pole, use normal pole shaft raking techniques to ensure the centerline of shaft appears vertical to the horizon.
Grass areas that were disturbed during construction shall be filled with 3 inches of topsoil and sod to match the adjacent finished grade.
Pole addresses are to be installed on the pole as shown on the plans.

D Measurement

The department will measure Poles Type 25-AL-BD Aluminum by 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.0060.320	Poles Type 25-AL-BD Aluminum	EACH

Payment is full compensation for the pole, riser cable(s), and all connections.

61. Poles Type 25-AL-BD Black, Item SPV.0060.320.02.

A Description

The work under this item is for furnishing and installing poles and all miscellaneous hardware required to complete the installation of light poles, in accordance with section 657 of the standard specifications, and as shown on the plans.

B Materials

B.1.1. Pole

The 25'-0" aluminum pole shaft shall be tapered from the top of the pole to the mounting plate. Dimensions from the pole top to the bracket mounting plate and from the base plate to the top of the pole, as shown on the drawing, shall be rigidly adhered to.

B.1.2.

The base plate shall be cast from either type 319 or 356T6 aluminum. The four elongated mounting holes shall be on 90-degree centers on an 11" bolt circle. The mounting slots shall be sized for 1-inch mounting bolts. The base shall be welded to the shaft so the arms bisect the angle between mounting holes at 45 degrees.

B.1.3.

The poles shall be built as a double bracket unit and supplied with one cover plate per pole.

B.1.4.

The pole cap is to be cast aluminum, and be secured to the pole by three equally spaced ¼"-20 hex head stainless steel screws.

B.1.5. Hand Hole & Grounding

The hand hole shall be 4" x 6" nominal. A ¼"-20 NC taped hole and bolt shall be provided in the shaft opposite the hand hole for grounding purposes. The hand hole cover shall be secured to the pole using ¼"-20 NC by ¾" long 18-8 stainless steel button head Torx T27H tamper proof screws. The hand hole is to be 90 degrees from the arms. The center line of the hand hole shall be 14 inches above the mounting plate.

B.1.6. Loading and Stability

The 25'-0" assembly furnished under this specification shall support a fifty-pound fixture of an EPA of 3 on each arm when equipped with a pair of 6' upsweep arms. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other

certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table 3-5.

B.1.7.

All Welding shall be in accordance with the latest applicable A.S.M.E. Standards.

B.1.8.

The manufacturer warrants that the pole supplied will be of merchantable quality will conform to applicable specifications, drawings, designs, samples, or descriptions, will be free from defects in materials and workmanship and will be fit for the particular purpose intended.

B.1.9.

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft using high intensity reflective 2" silver numerals on black background.

B.2. Pole Finish

Pole surface is to be prepared to accept a finish powder coat of Tiger dry lacquer or equivalent as follows:

Black Gloss, Polyester powder coat, RAL 9005, Jet Black.

(one (1) coat applied electrostatically 8 mils dry film)

B.3. Riser Cable

Pole is to be wired as noted on the plans. A separate riser cable will be required to be installed inside of pole for each lighting fixture on the pole. The riser cable(s) shall be 35 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground to be green. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices.

C Construction

Install the bolt down pole as specified in the plan and details. After razing the pole use normal pole shaft raking techniques to ensure the centerline of shaft appears vertical to the horizon.

D Measurement

The department will measure Poles Type 25-AL-BD Black by 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.0060.320	Poles Type 25-AL-BD Black	EACH

Payment is full compensation for the pole, riser cable(s), and all connections.

62. Poles Type 30-AL-BD Aluminum, Item SPV.0060.322.

A Description

The work under this item is for furnishing and installing poles and all miscellaneous hardware required to complete the installation of light poles, in accordance with section 657 of the standard specifications, and as shown on the plans.

B Materials

B.1 Pole

The 30’-0” aluminum pole shaft shall be tapered from the top of the pole to the mounting plate. Dimensions from the pole top to the bracket mounting plate and from the base plate to the top of the pole, as shown on the drawing, shall be rigidly adhered to.

The base plate shall be cast from either type 319 or 356T6 aluminum. The four elongated mounting holes shall be on 90-degree centers on an 11” bolt circle. The mounting slots shall be sized for 1-inch mounting bolts. The base shall be welded to the shaft so the arms bisect the angle between mounting holes at 45 degrees.

The poles shall be built as a double bracket unit and supplied with one cover plate per pole.

The pole cap is to be cast aluminum and be secured to the pole by three equally spaced ¼”-20 hex head stainless steel screws.

B.2 Hand Hole & Grounding

The hand hole shall be 4" x 6" nominal. A ¼”-20 NC taped hole and bolt shall be provided in the shaft opposite the hand hole for grounding purposes. The hand hole cover shall be secured to the pole using ¼"-20 NC by ¾" long 18-8 stainless steel button head Torx T27H tamper proof screws. The hand hole is to be 90 degrees from the arms. The center line of the hand hole shall be 14 inches above the mounting plate.

B.3 Loading and Stability

The 30’-0” assembly furnished under this specification shall support a fifty-pound fixture of an EPA of 3 on each arm when equipped with a pair of 6' upsweep arms. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table 3-5.

All Welding shall be according to the latest applicable A.S.M.E. Standards.

The manufacturer warrants that the pole supplied will be of merchantable quality will conform to applicable specifications, drawings, designs, samples, or descriptions, will be free from defects in materials and workmanship and will be fit for the particular purpose intended.

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft using high intensity reflective 2" silver numerals on black background.

B.4 Riser Cable

Pole is to be wired as shown on the plans. A separate riser cable will be required to be installed inside of pole for each lighting fixture on the pole. The riser cable(s) shall be 35 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground to be green. All splicing is to be done inside the metal housing. The ground wires shall be spliced inside the metal housing and grounded to the housing and each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

C Construction

Install the bolt down pole as specified in the plan and details. After razing the pole use normal pole shaft raking techniques to ensure the centerline of shaft appears vertical to the horizon.

The bolt down 30’-0” aluminum street lighting pole assembly shall be according to this specification and City of Milwaukee (DPW-Infrastructure Services Division) Drawing #B-14-14.

Minor deviations on the rest of the pole assembly that will not affect the strength, appearance, vertical and horizontal stability of the pole will be permitted, but all such deviations shall be approved by the City of Milwaukee Street Lighting Engineering.

The aluminum street lighting pole assembly to be furnished under this specification is to be round and tapered. The pole assembly shall be complete with shaft, pole cap, hardware, and base coating. All screws and fasteners shall be stainless steel or other approved materials.

D Measurement

The department will measure Poles Type 30-AL-BD Aluminum by 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.0060.322	Poles Type 30-AL-BD Aluminum	EACH

Payment is full compensation for the pole, riser cable(s), and all connections.

63. Poles Type 30-AL-BD Black, Item SPV.0060.323.

A Description

The work under this item is for furnishing and installing poles and all miscellaneous hardware required to complete the installation of light poles, in accordance with section 657 of the standard specifications, and as shown on the plans.

B Materials

B.1.1. Pole

The 30’-0” aluminum pole shaft shall be tapered from the top of the pole to the mounting plate. Dimensions from the pole top to the bracket mounting plate and from the base plate to the top of the pole, as shown on the drawing, shall be rigidly adhered to.

B.1.2.

The base plate shall be cast from either type 319 or 356T6 aluminum. The four elongated mounting holes shall be on 90-degree centers on an 11” bolt circle. The mounting slots shall be sized for 1-inch mounting bolts. The base shall be welded to the shaft so the arms bisect the angle between mounting holes at 45 degrees.

B.1.3.

The poles shall be built as a double bracket unit and supplied with one cover plate per pole.

B.1.4.

The pole cap is to be cast aluminum, and be secured to the pole by three equally spaced ¼”-20 hex head stainless steel screws.

B.1.5. Hand Hole & Grounding

The hand hole shall be 4" x 6" nominal. A ¼”-20 NC taped hole and bolt shall be provided in the shaft opposite the hand hole for grounding purposes. The hand hole cover shall be secured to the pole using ¼"-20 NC by ¾" long 18-8 stainless steel button head Torx T27H tamper proof screws. The hand hole is to be 90 degrees from the arms. The center line of the hand hole shall be 14 inches above the mounting plate.

B.1.6. Loading and Stability

The 30’-0” assembly furnished under this specification shall support a fifty-pound fixture of an EPA of 3 on each arm when equipped with a pair of 6' upsweep arms. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS. The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table 3-5.

B.1.7.

All Welding shall be in accordance with the latest applicable A.S.M.E. Standards.

B.1.8.

The manufacturer warrants that the pole supplied will be of merchantable quality will conform to applicable specifications, drawings, designs, samples, or descriptions, will be free from defects in materials and workmanship and will be fit for the particular purpose intended.

B.1.9.

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft.

B.2. Pole Finish

Pole surface is to be prepared to accept a finish powder coat of Tiger dry lacquer or equivalent as follows:

Black Gloss, Polyester powder coat, RAL 9005, Jet Black.

(one (1) coat applied electrostatically 8 mils dry film)

B.3. Riser Cable

Pole is to be wired as shown on the plans. A separate riser cable will be required to be installed inside of pole for each lighting fixture on the pole. The riser cable shall be 40 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground can be either bare or green. All splicing is to be done inside the metal housing. The ground wires shall be spliced inside the metal housing and grounded to the housing and each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

C Construction

Install the bolt down pole as specified in the plan and details. After razing the pole use normal pole shaft raking techniques to ensure the centerline of shaft appears vertical to the horizon.

D Measurement

The department will measure Poles Type 30-AL-BD Black by 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.0060.323	Poles Type 30-AL-BD Black	EACH

Payment is full compensation for the pole, riser cables, and all connections.

64. Poles Wood 40-FT, Item SPV.0060.324.

A Description

This special provision describes furnishing and installing wood poles for temporary lighting as shown on plans and according to requirements of the plans, specifications and contract.

B Materials

Furnish a Class 4 wood poles conforming to the American Standard Specifications and Dimensions for Wood Poles (ANSI O5.1.) unless the engineer specifies otherwise.

Shaving

All poles shall be machine shaved the entire length.

Gaining and Drilling

Poles shall be slab gained from the top of the pole to a point 48” below the top of the pole. 1st and 2nd gains are to be drilled with a 11/16 “diameter drill. 1st gain 8” from the top of the pole and 2nd gain 24” below 1st gain.

Incising

All poles shall be incised throughout that portion of the pole surface terminating one foot above and two feet below the standard ground line per A.W.P.A. Specifications #C8-73.

Treatment

According to the requirements and recommendations of AWPA Standard C1 and the applicable AWPA Commodity Standards. Do not use Creosote for treatment.

Inspection and Acceptance

An independent inspection agency to check the poles shall be inspected per A.W.P.A. Specifications #M2-83. A certified copy of the test report must be delivered with each load shipped.

A.W.P.A. Designations

Reference to A.W.P.A. designation shall mean the latest revision of the particular A.W.P.A. specification and/or test procedure in effect at time this bid is let for the item/product described herein.

Pea Gravel

The pea gravel must consist of particles from natural gravel deposits and shall be composed of clean, hard, tough, durable pebbles free from adherent coatings, soft, flat, or elongated particles, and organic or other deteriorative matter.

The following limits apply to deteriorative substances in the pea gravel.

Chert	not over 4% by weight
Coal	not over ½% by weight
Clay lump and friable particles	not over ½% by weight
Soft fragments	not over 1% by weight
Any combination of the above	not over 4% by weight
Flat, elongated or laminated pcs.	Not over 10% by weight
(Flat and elongated particles are those having a length more than five times the average thickness)	

Grading requirements of the pea gravel are as follows:

Passing 3/8-inch sieve	95% to 100%
Passing No.4 sieve	25% to 50%
Passing No.8 sieve	0% to 5%
Each unit will require approximately 0.25 cubic yard of pea gravel.	

Grounding Electrode and Conductor

Furnish and install an approved 5/8-Inch diameter x 8-foot-long copper clad grounding electrode per NEC, WSEC, and local utility codes. Run a single unbroken length of stranded bare #6 copper wire from the grounding electrode to the top of wood pole leaving a 2-foot coil. Make the electrical connection between the grounding electrode conductor and grounding electrode by the exothermic weld method.

C Construction

Wood Poles shall be installed to an embedment depth of 6 foot for a 40 ft. pole, and according to plan details. The holes can be bored, hydro-vac, or hand dug but all shall be cylindrical. If any part of the hole is within three feet of a buried utility, the holes must be hand dug or hydro-vac. No other method of setting poles is acceptable. The poles should be blocked and or raked as noted on the construction drawings.

In some cases, the poles are to be installed in areas of concrete walk. Prior to concrete removal, the concrete is to be saw cut to such size to allow for adequate room for pole and cable installation. Saw cutting for removal should be rectangular in shape. The contractor will be responsible for disposing all debris from excavation and sidewalk removal. The spoils are not to be used as backfill.

There is to be a minimum of a 6-inch bed of tamped pea gravel as a base for the pole. The area around the pole is to be backfilled with pea gravel and be tamped every 12 inches and filled to finished grade.

There will be no extras for these materials, which include such items as hardware, clevises, yokes, and all other materials and devices needed to fully complete the job in a neat and orderly fashion.

All fasteners used to attach items to wood poles will be of the appropriate strength steel which has been hot dipped galvanized.

No cable will be directly attached to any pole. Clevises, yokes and other overhead hardware must be used.

D Measurement

The department will measure Poles Wood 40-FT by each pole, 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.0060.324	Poles Wood 40-FT	EACH

Payment is full compensation for furnishing, shipping to the site, excavating, and placement of the pole.

65. Inline 5A Fast Acting Fuse with Holder, Item SPV.0060.334.

A Description

This section describes materials, general requirements, personnel qualifications, construction methods, and testing requirements used to perform electrical connections/splices required.

All work shall be according to standard spec 651.

B Materials

Furnish materials conforming to the WSEC, consisting of chapter comm. 16 of the WEC combined with the NEC.

All materials furnished under this contract for street lighting installation are subject to approval by the City of Milwaukee street lighting engineer. A prototype maybe requested for submittal by the engineer with a cable sample installed and spliced for approval prior to field installation.

The contractor shall furnish a complete list of materials to be furnished and used for street lighting. Such list shall include names and addresses of manufactures, together with catalog numbers, certificates of compliance, specifications, and other product information requests by the engineer. The list shall be submitted within 10 calendar days of execution of contract. No material shall be incorporated into the lighting system prior to the written approval of the engineer. Approval does not change the intent of the specifications. The contractor shall not substitute or make changes in material without resubmitting for approval

Use either the KLM-5 Bussmann Limitron Fast Acting Fuse housed in 1-Pole Midget Fuse Holder HEB-AA Bussmann 10A 600V with 2A0600 Bussmann insulator fuse boot or else an equal fuse assembly compatible with internal raceway of light unit.

C Construction

C.1 General Requirements

Work under items related to the street lighting system shall conform to the National Electrical Code (NEC), 2020 Edition, or the latest edition adopted by the State of Wisconsin, Wisconsin Department of Commerce Chapter Comm 16 (Electrical) State of Wisconsin electrical code, City of Milwaukee code, and these special provisions and good electrical practices. The contractor shall not take advantage of lack of details in plans or these specifications where to do so would conflict with the applicable code and standards.

C.2 Personnel Qualifications

An electrician holding all appropriate licenses (including City of Milwaukee Licenses) shall supervise all work done referring to the street lighting system. All splices shall be made by an electrician. For the purposes of this contract, an electrician is a person who served a four year apprenticeship and passed state exams.

C.3 Splices

The contractor shall perform water tight connections at pole's handhole with materials listed or equal on Street Lighting Standard Details 142. Conductor runs shall be continuous between pole locations, and no splicing of conductors outside the pull box will be allowed. The water tight splices shall reside in the pull box and above the wiring coils called for in Street Lighting Standard Details 145. The 2#12UF with ground cable (per luminaire) shall be brought to the pole hand hole where it will be spliced with the riser cable to the light fixture. See luminaire specification for information on the installation of an in-line watertight fuse holder installed in-line with the hot conductor that leads to the luminaire and accessible in pole at the hand hole.

C.4 In Service Distribution Systems

The contractor shall not make splices to any underground connections or to any existing distribution system. As indicated on plans, underground splices and connections to existing underground circuitry will be completed by city electricians.

C.5 Testing

After the city makes preliminary acceptance of the street lighting system, it shall be monitored by the City of Milwaukee, Street Lighting Electrical Services during a 60-calendar day operational "burn in". Final acceptance of the lighting system will be based on its meeting standard operational criteria as stated in these specifications. The contractor shall be responsible for all necessary repairs and adjustments to the lighting system to meet standard operational criteria.

D Measurement

The department will measure this item Inline 5A Fast Acting Fuse with Holder by the 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.0060.334	Inline 5A Fast Acting Fuse with Holder	EACH

Payment is full compensation for furnishing and installing inline fuse holder assemblies, fuse, holder, and insulated boot in the hand hole of the light pole, incidental waterproof connections and for disposing of surplus material.

66. Primary or Secondary Riser, Item SPV.0060.339.

A Description

This special provision describes furnishing and installing City of Milwaukee secondary riser as the plans show.

B Materials

Furnish rigid, 1-inch inner diameter aluminum pipe, C type condulet fitting, and all other needed materials in conformance with sections 651.2, 652.2, 655.2, 656.2, and 657.2 of the standard specifications.

C Construction

Install secondary riser according to plan and in conformance with sections 651.3, 652.3, 655.3, 656.3, and 657.3 of the standard specifications.

D Measurement

The department will measure Primary or Secondary Riser bid item by 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.0060.339	Primary or Secondary Riser	EACH

Payment is full compensation for furnishing and installing Secondary Riser; for furnishing and installing all other items necessary (such as wire nuts, splice kits and/or connectors, tape, insulating varnish, ground

lug fasteners, and banding) to make the proposed system complete from the source of supply to the most remote unit and for clean-up and waste disposal.

67. Submersible Multitap 3-Port Pre-Insulated Connector, Item SPV.0060.342; Submersible Multitap 4-Port Pre-Insulated Connector, Item SPV.0060.343.

A Description

This section describes materials, general requirements, personnel qualifications, construction methods, and testing requirements used to perform electrical connections/splices required.

All work shall be according to standard spec 651.

B Materials

B.1

Furnish materials conforming to the WSEC, consisting of chapter comm. 16 of the WEC combined with the NEC.

B.2

All materials furnished under this contract for street lighting installation are subject to approval by the City of Milwaukee street lighting engineer. A prototype maybe requested for submittal by the engineer with a cable sample installed and spliced for approval prior to field installation.

B.3

The contractor shall furnish a complete list of materials to be furnished and used for street lighting. Such list shall include names and addresses of manufactures, together with catalog numbers, certificates of compliance, specifications, and other product information requests by the engineer. The list shall be submitted within 10 calendar days of execution of contract. No material shall be incorporated into the lighting system prior to the written approval of the engineer. Approval does not change the intent of the specifications. The contractor shall not substitute or make changes in material without resubmitting for approval.

Use either the Polaris Edge (ISPB2) or Morris Product submersible insulated connector or else an equal connector that is 3, or 4 Port Pre-Insulated, that is designed for use in below grade boxes, direct burial, and submersible. The Conductors Range from #2/0 - #14 Rated for 600 Volts Dual Rated for CU. or AL.

C Construction

C.1 General Requirements

Work under items related to the street lighting system shall conform to the National Electrical Code (NEC), 2020 Edition, or the latest edition adopted by the State of Wisconsin, Wisconsin Department of Commerce Chapter Comm 16 (Electrical) State of Wisconsin electrical code, City of Milwaukee code, and these special provisions and good electrical practices. The contractor shall not take advantage of lack of details in plans or these specifications where to do so would conflict with the applicable code and standards.

C.2 Personnel Qualifications

An electrician holding all appropriate licenses (including City of Milwaukee Licenses) shall supervise all work done referring to the street lighting system. All splices shall be made by an electrician. For the purposes of this contract, an electrician is a person who served a four year apprenticeship and passed state exams.

C.3 Splices

The contractor shall perform water tight splicing in a pull box. Conductor runs shall be continuous between pole locations, and no splicing of conductors outside the pull box will be allowed. The water tight splices shall reside in the pull box and above the 3 foot wiring coils. The 2#12UF with ground cable (per luminaire) shall be brought to the pole hand hole where it will be spliced with the riser cable to the light fixture. An in-line watertight fuse holder needs to be installed in-line with the hot conductor that leads to the luminaire and should be accessible in pole at the hand hole. Oxide inhibitor (OX4) or equivalent shall be applied on all splice’s points.

Contractor is to bundle circuit conductors together and identify circuit at every split point.

Hand hole splices if needed should be completed using a multi-tap connector. The connector should be rated for 600 volts, conductor range #1/0 through #14 AL-CU, have a insulating cover rated at 105 degrees Celsius, and meet or exceed ANSI 119.4 Class A specifications for reliability.

C.4 In Service Distribution Systems

The contractor shall not make splices to any underground connections or to any existing distribution system. As indicated on plans, underground splices and connections to existing underground circuitry will be completed by city electricians.

C.5 Testing

After the city makes preliminary acceptance of the street lighting system, it shall be monitored by the City of Milwaukee, Street Lighting Electrical Services during a 60-calendar day operational “burn in”. Final acceptance of the lighting system will be based on its meeting standard operational criteria as stated in these specifications. The contractor shall be responsible for all necessary repairs and adjustments to the lighting system to meet standard operational criteria.

D Measurement

The department will measure Submersible Multitap 3-Port Pre-Insulated Connector and Submersible Multitap 4-Port Pre-Insulated Connector as each splice location, acceptable 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.0060.342	Submersible Multitap 3-Port Pre-Insulated Connector	EACH
SPV.0060.343	Submersible Multitap 4-Port Pre-Insulated Connector	EACH

Payment is full compensation for furnishing labor, equipment, coordination and all materials such as the multi-port submersible insulated connectors, anti-oxidant for wire connections, and incidentals necessary to complete the work to make operational one luminaire.

68. Luminaire Arms Single Member 6-FT, Item SPV.0060.345.

A Description

This special provision describes providing and installation of the following material as shown in plans and according to the following. All work shall be according to standard spec 651.

B Materials

City of Milwaukee per City Spec. and drawing C-87-76. Bracket arm material is Aluminum Alloy, with a satin finish.

- Bracket arm is 2” schedule 80 (2.375” O.D. x .218” wall) Aluminum pipe arm (6061-T6 Alloy).
- Bracket arm has a 7’-3” radius bend, with a 9-inch straight piece at the end of the arm for mounting the luminaire.
- Mounting plate is ½” thick Aluminum (6061-T6 Alloy).
- ¾” I.D. rubber grommet inserted in 1 1/16” Diameter hole located 8 inches from mounting plate.
- 1-inch I.D. rubber grommet for use in pole shaft.

C Construction

The bracket shall be attached to the pole with two ½” x 13 NC x 1 ½” long stainless-steel hex bolts, two 1 ¼” O.D. stainless steel flat washers and two ½” stainless steel lock washers. Anti-seize needs to be applied to the threads of the bolts before assembly.

D Measurement

The department will measure Luminaire Arms Single Member 6-FT, by 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.0060.345	Luminaire Arms Single Member 6-FT	EACH

Payment is full compensation for the bracket arm and all connections.

69. Luminaire Arms Single Member 6-FT WP Mount, Item SPV.0060.346.

A Description

This special provision describes providing and installation of the following material as shown in plans and according to the following.

B Materials

Furnish 6-FT Aluminum Mounting Bracket – The aluminum bracket shall be fabricated from 2” aluminum pipe schedule 80. It shall have a 27” rise, and a 9” straight end section that is suited for use with a slip fit luminaire. Wire-The wire shall be copper 2#12 UF with ground wire. One wire shall be black, the other shall be white. The ground wire shall be grounded to fixture. The cable shall conform to NEC Article 339.

Fabricated per City of Milwaukee City Spec. and drawing C-81-27.

C Construction

Mounting height - The height to light center shall be 26’ unless otherwise specified on the drawing or indicated in the field by the engineer. The bracket shall be attached to the wood pole with two 3/8”x 3” long) galvanized wood lag bolts, and one 5/8”x (10” to 12” long) galvanized through bolt with galvanized washers and nut.

D Measurement

The department will measure Luminaire Arms Single Member 6-FT WP Mount by 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.0060.346	Luminaire Arms Single Member 6-FT WP Mount	EACH

Payment is full compensation for the bracket arm and all connections.

70. Equipment Grounding Electrode, Item SPV.0060.353.

A Description

This special provision describes providing and installing grounding protection to provide personnel and equipment protection against faults, surge currents and lightning transients.

B Materials

Ground Rod – Use ground rods meeting the requirement of UL-467. Ground rods must be made of copper-clad steel with a nominal diameter of 5/8 inches. Ground rod sections must be a minimum of 8 feet in length and manufactured for the sole purpose of providing electrical grounding.

Grounding Conductors – Use 7 strand #6 AWG copper insulated (green) conductor for electrical protection ground. The grounding conductor shall be continuous without splices from the grounding electrode through the handhole grounding clip of the pole and of minimum length to make connection.

Mechanical bonding – Provide connection to the grounding electrode using G5 acorn ground clamp. Apply an anti-oxidant compound to all mechanical connections.

C Construction

Provide a ground rod assembly driven into the earth at a single point (single point ground). Licensed electrician to install the primary ground rod assembly in an electrical pull box so that the top four inches are accessible for inspection, resistance testing, and maintenance.

D Measurement

The department will measure Equipment Grounding Electrode by 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.0060.353	Equipment Grounding Electrode	EACH

Payment is full compensation for the grounding electrode and all connections.

71. Install A21-A26 City Furnished Mounting Clamp Single Bracket, Item SPV.0060.355.

A Description

This special provision describes a two-piece mounting clamp fabricated for the City of Milwaukee. The clamp is furnished and installed as hereinafter specified. All work shall be in accordance with section 651.

B Materials

The two-piece mounting clamp is cast aluminum alloy #713 and is fabricated per City Specification.

Drawings: D-79-9 (*Front Bracket Plate*), D-79-10 (*Rear Bracket Plate*).

Manufacturer: City of Milwaukee Street Lighting Shop

Contact Storeroom Inventory Manager at (414) 286-5947.

C Construction

The clamp shall be attached to the pole by aligning the cable slot on the pole with cable slot on bracket and securing bracket to pole using four stainless steel 1/2” bolts, washers, lock washers, and nuts.

D Measurement

The department will measure these two halves as one complete unit measured as each, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.355	Install A21-A26 City Furnished Mounting Clamp Single Bracket	EACH

Payment is full compensation for Install A21-A26 City Furnished Mounting Clamp Single Bracket.

72. Install A31 City Furnished Mounting Clamp Single Bracket, Item SPV.0060.357.

A Description

This special provision describes Install A31 City Furnished Mounting Clamp Single Bracket. The clamp is furnished and installed as hereinafter specified. All work shall be in accordance with section 651.

B Materials

The two-piece mounting clamp assembly is cast aluminum alloy #319 or 356 T6 and is fabricated per City Specification with black finish.

Drawings: C-14-4 (Front and back plates*)*.

Contact Storeroom Inventory Manager at (414) 286-5947

C Construction

The clamp shall be attached to the pole by aligning both cable slots on the pole with the cable slots on brackets and securing bracket to pole using four (4) stainless steel 1/2” bolts, washers, lock washers and nuts.

D Measurement

The department will measure the front plate, back plate, and associated hardware of the A31 City Furnished Mounting Clamp Single Bracket by each unit, acceptably completed. One unit includes the front plate, back plate, and associated hardware.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.357	Install A31 City Furnished Mounting Clamp Single Bracket	EACH

Payment is full compensation for Install A31 City Furnished Mounting Clamp Single Bracket.

73. Luminaire Utility 3LED2, Item SPV.0060.376.

A Description

This special provision describes providing and installing street lighting fixture according to current City of Milwaukee Electrical methods as shown in Typical Installation section and National Electrical Code standards. All work shall be according to standard spec 651 and latest City of Milwaukee specifications.

B Materials

TABLE 1A Luminaire Utility Specification

	Luminaire 90W LED (Type II distribution)
Factory set input power (Watt)	135 ± 1%
# of LED	≥ 40
NEMA Label	3LED2 (for Type II) 3LED3 (for Type III)
Max. Dimension	23.25” (D) * 4.38” (H) *11”(D)
EPA (sq. ft.)	≤ 0.53
Weight	≤ 12.2 lbs
BUG Rating	B3-U0-G3
Min. Efficacy (lumen/Watt)	112
Min. Delivered Lumens	14,250

Technical Specifications: All features below shall be incorporated into the equipment and all items shall be furnished and installed into a complete unit ready for operation.

- Type: The luminaires shall be designed so it can efficiently produce uniform illumination according to I.E.S. Type II, III and V light distribution according to the lighting plan and Table 1A.
- Housing: The housing and door shall be rugged, high quality, cast aluminum for maximum strength, durability and lasting beauty. All castings shall be free from pits, blowholes, or other irregularities. All edges are to be free from burrs. The housing shall have an integral leveling pad or other suitable means for quick, easy and proper positioning of the luminaire.
- Door: The door shall be hinged and easily opened for routine maintenance. All component parts shall be easily accessible with the lower housing opened. Tool-less entry is required.
- Leveling: A Bubble level is to be located inside the electrical compartment for easy leveling at installation.
- Hinges: Hinges shall be so constructed and designed to accurately position the door and assure a positive locking with the housing. The hinges shall be provided with a safety catch to prevent the accidental disengagement of the door during servicing.
- Finish: The entire housing shall be polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process shall yield a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).
- Color: The luminaire shall be grey in color unless otherwise specified.

- Label: There shall be a NEMA label (see Table 1A) clearly visible at 30 feet height attached to the door of the luminaire. In addition, the luminaire complete model number and manufacturing date shall be indicated inside the housing.
- Smart Inventory and Maintenance: Each luminaire should be uniquely identifiable by having a QR Code on each luminaire for app scanning to access the luminaire specification and configuration, in addition to the geographical location at point of installation. The app should be free of charge to purchaser for the lifetime of the luminaire.
- Sensor Ready: The luminaire is to be equipped with D4i driver and Zhaga socket in protective cap for future sensor installation.

B.1 LED/Optical Assembly

The LED module is to be enclosed and sealed with a borosilicate Prismatic Glass optical assembly. The combination shall be NEMA IP66 rated for dust and water resistant. The L70, per IES TM-21, must be greater or equal to 60,000 hours of operation time at 25°C. The color temperature is to be 3,000K CCT.

B.2 Power Supply

- The Electronic driver must have an expected life of 60,000 hours at a 25°C ambient. It is to be rated at 240 volts, 60Hz. A driver with multiple input voltages can be supplied as long as it can operate at 240 volts.
- The luminaire is to be equipped with a field adjustable output wattage selector and dimmable driver for output dimming. The field adjustable wattage chart shall be attached on the inside of the door opening
- Energy Efficiency: The luminaire is to be DLC certified for energy efficiency.

B.3 Surge Protection

A surge protector which provides a minimum of 20kV/10 kA protection as per IEEE/ANSI C62.41 Category C is to be included. There shall be a visual indicator showing the surge protector is operational.

B.4 Terminal Block

A heavy duty terminal block shall be provided which will accept wire sizes up to #6 A.W.G. The terminal block shall be compatible with either aluminum or copper wire.

B.5 Mounting

Mast arm mount is adjustable for arms from 1-1/4” to 2” (1-5/8” to 2-3/8” O.D.) diameter. Provide 2 bolts clamping mechanism with 3G vibration rating per ANSI C136.

B.6 Hardware

All nuts, bolts, latches, etc. furnished with the luminaire shall be fabricated from stainless steel or non-ferrous materials.

B.7 Photocontrol

Luminaire shall be supplied with 7-pin NEMA socket and shorting cap.

WARRANTY: The contractor and/or the manufacturer warrants that goods sold hereunder will be merchantable quality, will conform to applicable specifications, drawings designs, samples or descriptions, will be free from defects in material and workmanship and will be fit for the particular purpose intended by City of Milwaukee.

- This warranty will remain in effect for 10 years from date of acceptance.
- Under this provision, the manufacturer agrees to repair or replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the city.

C Construction

Install lighting fixture on the six-foot or eight-foot mounting bracket on the pole according to current City of Milwaukee standards. The lighting fixture is to be installed at 0 degree to the horizon. Contractor is responsible to scan the QR code of each fixture with mobile cellphone with the Signify app at point of installation. Details will be provided by Street Lighting field office.

D Measurement

The department will measure Luminaire Utility 3LED2 by 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.0060.376	Luminaire Utility 3LED2	EACH

Payment is full compensation for furnishing and installing Luminaire Utility 3LED2.

74. Milwaukee Light Base Type 1, Item SPV.0060.390.

A Description

This special provision describes construct and pour concrete base in accordance with current City of Milwaukee design standards and Detail 136 of the design set, with the Wisconsin Standard Specifications for Highway and Structure Construction (WSSHSC).

B Materials

Use schedule 40 PVC electrical conduit conforming to the electrical conduit specified in section 652 (WSSHSC).

Furnish 1” anchor rods, nuts, and washers conforming to ASTM F1554, grade 105. Hot-dip galvanized the entire length of the anchor rods, and the nuts and washers conforming to ASTM A153. Thread at least 12 inches of the anchor rod. Use zinc coated nuts manufactured with sufficient allowance to allow nuts to run freely on the threads. Refer to corresponding detail drawing in plan set for additional material info and sizes.

Furnish bar steel reinforcement conforming to 505.2 (WSSHSC)

Furnish grade A, A-FA, A-S, A-T, A-IS, or A-IP concrete conforming to 501.2 (WSSHSC) as modified in section 716 (WSSHSC). Provide QMP for class III ancillary concrete as specified in section 716

C Construction

Construct concrete base including necessary hardware, of specified type according to current City of Milwaukee design methods and standards.

Construct concrete bases as specified in section 501 (WSSHSC), and provide the surface finished specified in 502.3.7.2 (WSSHSC) and plan Detail 136. Inspect the forming and applicable reinforcement for concrete bases before pouring the concrete. Cure exposed portions of concrete bases as specified in 415.3.12 (WSSHSC) except the contractor may use curing compound conforming to 501.2.9. (WSSHSC).

Wait at least 7 days before installing poles.

D Measurement

The department will measure Milwaukee Light Base Type 1 by 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.0060.390	Milwaukee Light Base Type 1	EACH

Payment is full compensation for furnishing and installing Milwaukee Light Base Type 1.

75. Transformer Bases Breakaway 11 1/2-Inch Bolt Circle Black, Item SPV0060.399.

A Description

This special provision describes providing and installing grounding black finished breakaway light pole base. All work shall be in accordance with standard spec 657.2.6:

B Materials

Hot-dipped galvanized steel (matching ASTM A123) or approved aluminum alloys

C Construction

Configured with 11 1/2-Inch Bolt Circle Black and a black exterior finish, factory applied and powder-coated included connecting bolts, hold-down lugs, nuts, washers. Must be mounted on a flat, level concrete foundation.

D Measurement

The department will measure Transformer Bases Breakaway 11 1/2-Inch Bolt Circle Black by 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.0060.399	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle Black	EACH

Payment is full compensation for the base and installation.

76. Installing Conduit into Existing Manhole, Item SPV.0060.425.

A Description

This special provision describes furnishing and installing new conduit connections to existing communication conduit manholes in accordance to the following standards.

B Materials

Furnish conduit, as provided and paid for under other items in this contract. All materials shall conform to the provisions of the standard specifications unless otherwise noted.

C Construction

Carefully expose the outside of the existing structure without disturbing any existing conduits or cabling. Drill the appropriately sized hole in a concrete structure or saw and remove full sections of block or bricks from the existing structure for the entering of conduit at a location within the structure that will not disturb the existing cabling and will not hinder the installation of new cabling within the installed conduit. This work may include the removal of the existing abandoned conduit from the structure to allow for the installation of the new conduits as indicated on the plans.

Fill any void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure.

Carefully tamp backfill into place.

All disturbed areas shall be repaired and restored in kind.

Notify Lamar Jones at (414) 708-3009 or lamjones@milwaukee.gov a minimum of 3 business days for inspection and acceptance of the work performed. The contractor will receive no payment until the above work is approved by City Underground Conduit.

D Measurement

The department will measure Installing Conduit into Existing Manhole by each unit, acceptably installed. Up to six conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of six, or conduits entering at significantly different entry points into the existing manhole will constitute multiple units.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.425	Installing Conduit into Existing Manhole	EACH

Payment is full compensation for drilling holes; sawing; removing blocks: removing bricks; removing abandoned conduit; furnishing and installing all materials, including bricks, and coarse aggregate; for excavation, bedding and backfilling, including any sand or other required materials; furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for disposal of surplus materials; for making inspections.

77. Adjusting CUC Manhole Cover Using EPP System, Item SPV.0060.430.

A Description

This special provision describes adjusting existing Communications Underground Conduit (CUC) manholes to the required finished grade using a manhole adjustment-ring system in accordance to the following standards.

B Materials

The EPP adjustment rings must meet material requirements such as ASTM D 3575 and ASTM D 4819-13, be manufactured to a minimum finished density, and be designed and tested according to AASHTO M 306 HS-25 load requirements. The adhesive or sealant for watertight installation should meet ASTM C 920, Type S, Grade NS, Class 35 or 50. The rings shall be designed to allow final adjustment of the frame and cover within approximately ¼“ (one quarter inch) to ½“ (one half inch) of the specified final elevation. Contractor shall contact Jaime Ortiz-Zuasnabar at (414) 286-8676 to obtain the “Castings Requisitions Form” required to obtain the covers. Contractor shall also contact Ricardo Lopez, Inventory Manager at (414) 286-6123 prior to obtaining the frames and lids from the DPW Field Headquarters at 3850 N. 35th St. Contractor must have the “Castings Requisitions Form” in hand in order to obtain the castings.

C Construction

Report any pre-existing problems to Curt Campagna, Communication Underground Conduit (CUC) Manhole Maintenance Manager at (414) 286-5967 three (3) working days in advance of any construction on manholes.

Before removing the pavement around the manhole, the contractor shall place a ¾-inch plywood cover or equal over existing active Street Lighting, Traffic Control, Communications or private vendor communications/electrical cables. This cover shall be properly supported to/at the manhole floor.

Break out and remove pavement around manhole. Remove existing covers and store and secure them properly. Any damaged, lost, or stolen covers shall be the responsibility of the contractor and shall be replaced at contractor’s expense.

Remove existing chimney to surface of concrete roof slab. If manhole does not have an existing concrete roof slab, remove sufficient brick corbel and place a ½“ to 1” thick bed of high early strength cementitious grout on the manhole surface and rough in to fit new EPP system, cast iron frame and cover.

Installation of EPP adjustment rings should follow the manufacturer's recommendations. If existing structure roof slab is not level, contractor must use a non-shrink mortar of grout to create a level base prior to installation the first adjustment ring. A continuous bead of sealant to all joints must be applied for a watertight seal. Contractor must use angle rings for cross slope and profile matching to achieve the required final grade elevation. Materials such as wood shims, concrete, brick or block are prohibited for grade adjustment.

After completion of paving, remove the temporary ¾-inch plywood cover or equal which is over the existing communications and/or electrical cables in the manhole as mentioned above.

Notify Lamar Jones at (414) 708-3009 or lamjones@milwaukee.gov three (3) working days in advance of completion of each manhole adjustment, for inspection and acceptance of work performed. The contractor will receive no payment until the above work is approved by Communication Underground Conduit.

D Measurement

The department will measure Adjusting CUC Manhole Cover Using EPP System by 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.0060.430.	Adjusting CUC Manhole Cover Using EPP System	Each

Payment is full compensation for furnishing all required materials, exclusive of frames, grates, or lids available and designated for adjusting; for removing, reinstalling and adjusting the covers. Covers to be adjusted and which are rendered unfit for use by the contractor through the contractor’s operations will be replaced by the contractor in kind at the contractor’s own cost and expense.

78. Poles Type H17, Item SPV.0060.801.

A Description

This special provision describes furnishing and installation of Poles Type H17 as shown in plans and according to the following.

B Materials

Furnish Concrete Pole. The pole shall be concrete, one-piece with dimensions, taper and cross section as shown in the plan set. The butt section may be round or octagonal in shape. The pole shall be manufactured as a prestressed and reinforced centrifugally spun pole as set forth in A.S.T.M. C1089-88 unless otherwise directed.

B.1 Concrete Aggregates

Concrete aggregates shall meet all the requirements of A.S.T.M.C33. All aggregate employed in the manufacture of the concrete poles shall be a combination of hard black stone and white crystalline stone. The texture and color of the aggregates shall be approved by the engineer.

The aggregates shall be of adequate strength in resisting crushing stresses and impervious to moisture; of such character as not to deteriorate or change as a result of continued exposure for years to the weather; and of such character that it crushes into masses approximately cubical in form, not in flakes. Aggregates shall all pass a 3/8-inch sieve, with a minimum size passing a #100 sieve.

Cement:

The cement shall be fresh and free from lumps and shall conform to specifications of the American Society of Testing Materials, serial designation C-150, Type I or Type III.

Water:

The water employed shall be free from acids, alkalis, oil, or organic matter.

Materials Proportion:

The materials combined to produce the concrete shall be proportioned by weight.

Steel:

The surface of all steel shall be free from dirt, oil, or grease. The steel used as either reinforcing or prestressing shall be adequately sized to meet the strength requirements of the finished poles, as herein specified. Longitudinal reinforcement, prestressing and spiral wrap shall comply with the latest version of the applicable ASTM standards. All prestressed wire shall be stressed to not less than 60% or more than 70% of its tensile strength.

Test of Materials:

Any and all of the above materials shall be subject to test at any time before use, as may be directed, and samples for this purpose shall be furnished by the contractor upon request.

B.2 Pole Strength

All poles furnished shall withstand a 90-mph wind load plus 30 percent gust factor and 400 lbs. working load.

2.1 The pole design shall allow for a maximum load of not less than twice the working load.

2.2 The elastic limit at which any pole will actually fail to withstand any additional stress without permanent injury shall not be less than two and one-half times the working load.

B.3 Loading and Stability

The H17 supplied under this specification shall support a tenon mount 100-pound fixture with an EPA of 5. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS handbook.

> *The manufacturer shall submit engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.*

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table

B.4 Cable Raceway

Each concrete pole shall have a hollow raceway at least one and one-half inches in diameter and continuous in a straight line, without appreciable offset, throughout its entire length.

The raceway shall be free from sharp projections or edges that might injure the insulated wire or cable sheath.

Dimensions and locations for lateral opening in the raceway are shown on the drawings.

All poles shall be furnished with hand hole. The hand hole shall be located on the face 90 degrees from the lateral opening in the butt of pole and shall have the minimum dimensions of 2-1/2" x 8". The cover shall be heat-treated cast aluminum, or other material as approved by the city, fastened to non-ferrous insert in the pole. The cover shall be secured to the pole using 1/4"-20 NC by 3/4" long 18-8 stainless button head Torx T27H tamper proof screws. Bolt down poles are to have the hand hole 90º to the slot opening at the top of the pole and be 2½” x 8”.

Two lateral openings into the raceway, of dimensions and locations as shown on the drawings, shall be provided in the butt of the pole.

B.5 Concrete

5.1 Strength: The concrete strength shall meet the following requirements when tested according to A.S.T.M. C39.

Release of Prestressing Steel: Concrete cylinders made according to A.S.T.M. C31 shall attain a minimum strength of 3,500 p.s.i. at the time that prestressing is released.

28 Days: Concrete cylinders made according to A.S.T.M. C31 shall attain a minimum strength of 8,000 p.s.i. at twenty-eight days.

5.2 Admixture: All poles shall be manufactured with quality HSF (high silica fume) cement to reduce porosity in the concrete and increase compressive strength.

5.3 The city may sample and test the concrete at any time. Concrete samples made according to A.S.T.M. C31 shall be furnished by the contractor upon request of the city.

5.4 Process and Surface Finish: The finished concrete used in the manufacture of poles shall be a very dense product, free from undesirable air pockets or voids.

a. The concrete shall be compacted by the centrifugal process so that the surface is dense, with the coarse and fine aggregate evenly distributed. If requested to do so by the Purchasing Division - DOA, a sample shall be produced that is representative of the pole cross-section and at least three inches in length. The sample shall be submitted to the city for approval with respect to color, texture and finish. The concrete mix from which the sample was made shall be noted and submitted with the sample. A representative sample of all aggregates used also shall be submitted.

b. The mixture of aggregates shall be essentially uniform over the entire exterior surface of concrete poles furnished.

c. Size of the duct shall be controlled so that the prestressed and/or reinforcing rods are not embedded in "slurry" (i.e., water-cement-sand mix that collects in the pole core during the spinning process).

d. Following the casting operation, the pole shall be cured with low-pressure steam for as long as needed to reach the necessary strength to allow handling and release of prestressing wires. Poles shall remain in storage for as long as needed for the concrete to reach the required compressive strength. Poles shall meet the design strength before shipment is allowed.

e. To assure that poles are not prematurely exposed to freeze-thaw action and deicer, adequate curing of the concrete for development of sufficient strength to resist scaling and for reduction of water content of the concrete shall be the responsibility of the manufacturer.

f. The finished surface must be polished so that the color and surface smoothness are uniform over the entire surface. The face surface shall be sealed with a siloxane penetrating sealer and a high molecular weight acrylic copolymer or other sealing compounds that will yield equivalent degree of protection from water, salt, and/or other chemical infiltration and does not discolor or fade.

g. The entire lot of concrete poles to be furnished under this specification shall be uniformly consistent in color and finish.

h. Treatment with diluted acid to obtain the desired finish is not permitted.

i. The finished surface of all poles shall be free from visible pits, fins, grooves, patches, or other surface markings not specifically enumerated herein.

j. The top of the pole shall be flat and perpendicular to the longitudinal axis of the pole so that the pole cap will have a positive seat.

k. Chloride accelerators shall not be used in the manufacturing process.

B.6 Reinforcement

The reinforcing cage, spiral reinforcement and prestressing steel shall be placed in position and maintained in place during the centrifugal manufacturing process. The longitudinal reinforcement, prestressing and spiral reinforcement shall continue throughout the entire length of the pole.

6.1 Cover: All steel shall be covered at all points by at least 1/2-inch of concrete, except where it may be necessary in the process of manufacture to have the rods and/or wire extend beyond the ends of the poles. In such case, the rods and/or wires shall be cut off afterward, even with the face of the molded product, unless otherwise noted on the drawings included herein.

Where the above minimum coverage cannot be maintained next to cable entrance, wire outlet, etc., the reinforcing shall be protected with a suitable sleeve.

Drawings of the reinforcing cage, spiral reinforcement and prestress steel that the manufacturer proposes to use in the manufacture of concrete poles, showing the size, shape and arrangement of reinforcing prestressing spiral reinforcement, ties, method of holding cage in place, etc. SHALL BE SUBMITTED TO STREET LIGHTING DIVISION.

B.7 Waterproofing

The top and bottom of the poles shall be properly coated with bitumastic waterproofing material.

Waterproofing material shall be of such quality and consistency that it will not crack or chip when subjected to extremely cold weather, and that it will not flow when subjected to extremely hot weather.

B.8 Accessories

Miscellaneous: All pipes, bolts, nut wire, washers, pole caps, casting, fittings, and appurtenances of any sort are to be furnished by the contractor and made of approved rust-proof metal of such design, composition, and dimensions as may be approved by the city before the contractor begins manufacture.

B.9 Marking

Every pole shall bear an impressed marking, or other type of marking acceptable to the city, of the type of pole, contractor's insignia, and casting date (month and year). Type of pole and contractor's insignia shall have letters at least 1 inch tall. The casting date shall have digits not less than 1/2-inches tall. All markings shall be located in line with the cable entrance in the butt of the pole and shall be placed 15 inches to 20 inches above the ground line.

B.10 Color Pigments

Poles with a colored finish shall be furnished where specified. The coloring is to be done by mixing a pigment into the concrete before casting. The color of the pole shall be uniform throughout the body of the pole, shall not fade and shall be maintenance free. The type of coloring pigment shall be indicated with the bid and a sample which represents the finished colored pole shall be furnished for approval of the Purchasing Division - DOA, if requested.

B.11 Anti-Graffiti Shield

All poles shall include a non-sacrificial anti-graffiti shield coating on the entire above ground length in the bid price. Test results from the latest ASTM G53, D2247, B117 tests and test method should be included with the bid documents.

B.12 Plaque

A plaque with the pole number as shown on the plans shall be affixed onto the pole shaft.

C Construction

The poles are to be set as illustrated in the plans. The holes are to be 14 inches in diameter and to a depth of 4 or 5 feet depending on manufacturers' pole butt length. The holes can be bored, hydrovac, or hand dug but all shall be cylindrical. If any part of the hole is within 3 feet of a buried utility; the holes must be hand dug or hydrovac. No other method of setting poles is acceptable.

The pea gravel backfill around the pole is to be tamped every 12 inches and filled to within 3 inches of finished grade. The H17 poles are to be set parallel and perpendicular to the horizon.

The pea gravel must consist of particles from natural gravel deposits and shall be composed of clean, hard, tough, durable pebbles free from adherent coatings, soft, flat, or elongated particles, and organic or other deteriorative matter. The following limits apply to deteriorative substances in the pea gravel.

Chert	not over 4% by weight
Coal	not over ½% by weight
Clay lump and friable particles	not over ½% by weight
Soft fragments	not over 1% by weight
Any combination of the above	not over 4% by weight
Flat, elongated or laminated pcs. (Flat and elongated particles are those having a length more than five times the average thickness)	not over 10% by weight

Grading requirements of the pea gravel are as follows:

Passing 3/8-inch sieve	95% to 100%
Passing No.4 sieve	25% to 50%
Passing No.8 sieve	0% to 5%

Each unit will require approximately 0.25 cubic yard of pea gravel.

Parkway areas that were disturbed during construction shall be filled with 6 inches of topsoil and sodded to match the adjacent finished grade. Addresses are to be stenciled to the pole as shown on the plan.

Poles are to be wired as shown on the plans. Riser cables in pole shall be 20 feet in length and cut from 2#12 UF copper with ground. The wires are to be color coded as one black, one white and the ground are to be either green or bare. The cable shall conform to NEC Article 339. The riser cable shall be continuous without splices.

The Milwaukee Harp fixture is set on the pipe tenon that is attached to the top of the pole and is secured to the pole using standard 1-1/2" stainless steel hex head nut. Perform all splices and connections for the operation of fixture.

D Measurement

The department will measure Poles Type H17 by 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.0060.801	Poles Type H17	EACH

Payment is full compensation for furnishing and installation of Poles Type H17.

79. Poles Type 15-OCT, Item SPV.0060.804.

A Description

This special provision describes furnishing 15’-6” Octa fluted Aluminum Pole with Decorative Shroud in finish color specified in plan, in accordance with the City of Milwaukee Specifications, and all necessary miscellaneous hardware to complete the installation of the pole. All work shall be in accordance with section 651.

B Materials

The octafluted aluminum pole assembly shall be in accordance with Drawing B-18-13A.

See 15’-6” Octafluted Aluminum Pole detail in the plan set.

B.1 Light Pole

The assembly shall be complete with pole, base castings, four (4) anchor bolt sets, and 2-inch hexagonal nut, with a minimum thickness of 5/8". All screws and fasteners shall be stainless steel unless otherwise noted in these specifications or on the attached drawings

Pole should be designed to support a one hundred (100) pound tenon mounted fixture with an EPA of 5. The pole shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS,LUMINAIRES AND TRAFFIC SIGNALS.

The maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements.

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5 and height and exposure factors from table 3-5.

The pole shaft is either spun or extruded from 6000 series alloy aluminum, it shall be continuous tapered 15’-6” octafluted pole with eight (8) flutes uniformly spaced. The shaft shall have a 2" x 7.5" heat treated to T-6 pipe tenon at the top with the top four (4) inches threaded. A 1 ½ -inch stainless steel nut is to be supplied. The nut is to be a minimum of 5/8” thick. The tenon is to be an integral part of the pole and non-removable.

A nominal 4" x 8" handhole with cover shall be provided (hand hole shall be located min.12" from base plate). An easily accessible grounding lug shall be provided on the back side of the pole opposite of the hand hole. Grounding lug shall be ¼” X20 NC, with non-ferrous nuts and washers.

Each shaft shall be identified with name of the manufacturer and year manufactured. The identification shall be located on the pole, below the hand hole and on the same side as the hand hole. This information shall be permanently attached or stamped into the pole.

The cast aluminum base plate shall be cast from ASTM #356 alloy aluminum; it is to be a minimum of ¾” thick and be 12” by 12”. It is to be centered on the pole and welded to it after machining. It is to be machined with slots so that it fits 11" to 12" bolt circles. The slots are to be open on the outside ends of the plate.

The complete assembly is to be heat treated to T-6 after structural welding is completed. The crown cap on top of the pole is a separate piece which slips over the tenon on top of the pole and matches the flute pattern on the pole. It is held in place by the luminaire. The top is to be 7” diameter and flat to allow the harp fixture to set on it and be locked in place.

B.2 Decorative Shroud Base Casting

The standard shall have a detailed decorative cast aluminum base. The casting shall be cast from ASTM #356 Alloy Aluminum, free from pits, blowholes or other irregularities and shall have a smooth surface after heat treated to T6 temper. The base casting shall have long flutes evenly spaced around the body of the casting. The base casting shall be a split assembly for ease of installation and shall be securely held after it is assembled. The decorative base shall have a tapered access door as shown on drawing, which shall be secured to the base using 1/4"-20 NC by 3/4" long 18-8 stainless button head torx T27H tamper-proof screws. The decorative base shall be 60" + 1".

The decorative base assembly shall include a separate two-piece closing ring to effectively provide a fit and finished appearance and closure of gaps between the pole and base.

B.3 Pole Finish

Pole surface is to be prepared to accept a finish powder coat of Tiger dry lacquer or equivalent as follows:

Black Gloss, Polyester powder coat, RAL 9005, Jet Black.

or

Green Gloss, Polyester powder coat, RAL 6009, Fir Green

(one (1) coat applied electrostatically 8 mils dry film)

B.4 Decorative Shroud Base Finish

The finish shall consist of one (1) primer coat (2 to 3 mils) using City Specification Number 29-A-4, white lacquer resistant, Esser S-4196 or equal. The base castings shall have two (2) finish coats applied electrostatically, both interior and exterior, and the color shall be specified upon order and as follows:

Black Gloss, powder coat, RAL 9005, Jet Black.

or

Green Gloss, Polyester powder coat, RAL 6009, Fir Green (2 coats applied electrostatically 2 to 2.5 mils dry film) .

B.5 Riser Cable

Pole is to be wired as shown on the plans. A separate riser cable will be required to be installed inside of pole for lighting fixture on the pole. The riser cable shall be 30 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground can be either bare or green.

C Construction

Install the bolt down Black Aluminum Harp Pole as specified in the plan and details. After razing the pole use normal pole shaft raking techniques to ensure the centerline of shaft appears vertical. After pole is secured to the concrete base install the Decorative Shroud Base around base of pole.

D Measurement

The department will measure Poles Type 15-OCT by each pole acceptably installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.804	Poles Type 15-OCT	EACH

Payment is full compensation for the complete pole, decorative shroud base, riser cables, and all connections and hardware.

80. Poles Type A26-BD, Item SPV.0060.818.

A Description

This special provision describes furnishing and installing the material as shown in plans and in accordance with the following:

B Materials

B.1 General

The concrete poles to be furnished are shown on the print of drawing that form a part of this specification and are attached hereto. The dimensions given are not intended to be exact or precision measurements. Slight variations in dimensions and design that are immaterial to strength and appearance will be permitted, but all such variations shall be approved by the Street Lighting Division.

Manufacturer	Catalog Number
StressCrete	P-260-BPO-G-S35
Traditional Concrete or approved equal	City of Milwaukee A-26, drawing C-25-28

B.2 Description

The pole shall be concrete, one-piece with dimensions, taper and cross section as shown in the drawings. The butt section shall be square in shape or as indicated in the drawings. The pole shall be manufactured as a prestressed and reinforced centrifugally spun pole as set forth in A.S.T.M. C1089-88 unless otherwise directed.

B.3 Materials

Concrete Aggregates: Concrete aggregates shall meet all the requirements of A.S.T.M. C33. All aggregate employed in the manufacture of the concrete poles shall be salt & pepper. The texture and color of the aggregates shall be approved by Street Lighting Division.

The aggregates shall be of adequate strength in resisting crushing stresses and impervious to moisture; of such character as not to deteriorate or change as a result of continued exposure for years to the weather; and of such character that it crushes into masses approximately cubical in form, not in flakes. Aggregates shall all pass a three-eight-inch sieve, with a minimum size passing a #100 sieve.

Cement: The cement shall be fresh and free from lumps and shall conform to specifications of the American Society of Testing Materials, serial designation C-150, Type IL.

Water: The water employed shall be free from acids, alkalis, oil, or organic matter.

Materials Proportion: The materials combined to produce the concrete shall be proportioned by weight.

Steel: The surface of all steel shall be free from dirt, oil, or grease. The steel used as either reinforcing or prestressing shall be adequately sized to meet the strength requirements of the finished poles, as herein specified. Longitudinal reinforcement, prestressing and spiral wrap shall comply with the latest version of the applicable ASTM standards. All prestressed wire shall be stressed to not less than 60% or more than 70% of its tensile strength.

Test of Materials: Any and all of the above materials shall be subject to test at any time before use, as may be directed, and samples for this purpose shall be furnished by the contractor upon request.

Pole Strength: All poles furnished shall withstand a 90 mph wind load plus 3S gust factor and a 400 lbs working load.

- The pole design shall allow for a maximum load of not less than twice the working load.
- The elastic limit at which any pole will actually fail to withstand any additional stress without permanent injury shall not be less than two and one-half (2-1/2) times the working load.

B.4 Loading and Stability

All the square poles furnished under this specification shall support two brackets mounted 36 inch, 40 pound arms each with an one hundred pound fixture of an EPA of 5. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS handbook.

Within 30 days of the bid award, submit the manufacturer’s engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table

B.5 Cable Raceway

Each concrete pole shall have a hollow raceway at least one and one-half inches in diameter and continuous in a straight line, without appreciable offset, throughout its entire length.

The raceway shall be free from sharp projections or edges that might injure the insulated wire or cable sheath.

Dimensions and locations for lateral opening in the raceway are shown on the drawings.

All poles shall be furnished with hand hole. The hand hole shall be located on the face 90 degrees from the lateral opening in the butt of pole and shall have the minimum dimensions of 3-1/2" x 10-1/2". The cover shall be heat-treated cast aluminum, or other material as approved by the City, fastened to non-ferrous insert in the pole. The cover shall be secured to the pole using 1/4"-20 NC by 3/4" long 18-8 stainless button head Torx T27H tamper proof screws.

Two lateral openings into the raceway, of dimensions and locations as shown on the drawings, shall be provided in the butt of the pole.

B.6 Concrete

Strength: The concrete strength shall meet the following requirements when tested in accordance with A.S.T.M. C39.

a. Release of Prestressing Steel: Concrete cylinders made in accordance with A.S.T.M. C31 shall attain a minimum strength of 3,500 p.s.i. at the time that prestressing is released.

b. Twenty-Eight Days: Concrete cylinders made in accordance with A.S.T.M. C31 shall attain a minimum strength of 8,000 p.s.i. at twenty-eight days.

Admixture: All poles shall be manufactured with quality HSF (high silica fume) cement to reduce porosity in the concrete and increase compressive strength.

The City may sample and test the concrete at any time. Concrete samples made in accordance with A.S.T.M. C31 shall be furnished by the contractor upon request of the City.

Process and Surface Finish: The finished concrete used in the manufacture of poles shall be a very dense product, free from undesirable air pockets or voids.

a. The concrete shall be compacted by the centrifugal process so that the surface is dense, with the coarse and fine aggregate evenly distributed. If requested to do so by the Purchasing Division - DOA, a sample shall be produced that is representative of the pole cross-section and at least three inches in length. The sample shall be submitted to the City for approval with respect to color, texture and finish. The concrete mix from which the sample was made shall be noted and submitted with the sample. A representative sample of all aggregates used also shall be submitted.

b. The mixture of aggregates shall be essentially uniform over the entire exterior surface of concrete poles furnished.

c. Size of the duct shall be controlled so that the prestressed and/or reinforcing rods are not embedded in "slurry" (i.e., water-cement-sand mix that collects in the pole core during the spinning process).

d. Following the casting operation, the pole shall be cured with low-pressure steam for as long as needed to reach the necessary strength to allow handling and release of prestressing wires. Poles shall remain in storage for as long as needed for the concrete to reach the required compressive strength. Poles shall meet the design strength before shipment is allowed.

e. To assure that poles are not prematurely exposed to freeze-thaw action and deicer, adequate curing of the concrete for development of sufficient strength to resist scaling and for reduction of water content of the concrete shall be the responsibility of the manufacturer.

f. The finished surface must be polished so that the color and surface smoothness are uniform over the entire surface. The face surface shall be sealed with a siloxane penetrating sealer and a high molecular weight acrylic copolymer or other sealing compounds that will yield equivalent degree of protection from water, salt, and/or other chemical infiltration and does not discolor or fade.

g. The entire lot of concrete poles to be furnished under this specification shall be uniformly consistent in color and finish.

h. Treatment with diluted acid to obtain the desired finish is not permitted.

i. The finished surface of all poles shall be free from visible pits, fins, grooves, patches, or other surface markings not specifically enumerated herein.

j. The top of the pole shall be flat and perpendicular to the longitudinal axis of the pole so that the pole cap will have a positive seat.

k. Chloride accelerators shall not be used in the manufacturing process.

B.7 Reinforcement

The reinforcing cage, spiral reinforcement and prestressing steel shall be placed in position and maintained in place during the centrifugal manufacturing process. The longitudinal reinforcement, prestressing and spiral reinforcement shall continue throughout the entire length of the pole.

Cover: All steel shall be covered at all points by at least one-half inch (1/2") of concrete, except where it may be necessary in the process of manufacture to have the rods and/or wire extend beyond the ends of the poles. In such case, the rods and/or wires shall be cut off afterward, even with the face of the molded product, unless otherwise noted on the drawings included herein.

Where the above minimum coverage cannot be maintained next to cable entrance, wire outlet, etc., the reinforcing shall be protected with a suitable sleeve.

Drawings of the reinforcing cage, spiral reinforcement and prestress steel that the manufacturer proposes to use in the manufacture of concrete poles, showing the size, shape and arrangement of reinforcing prestressing spiral reinforcement, ties, method of holding cage in place, etc. SHALL BE SUBMITTED TO Street Lighting Dept.

B.8 Waterproofing

The top and bottom of the poles shall be properly coated with bitumastic waterproofing material.

Waterproofing material shall be of such quality and consistency that it will not crack or chip when subjected to extremely cold weather, and that it will not flow when subjected to extremely hot weather.

B.9 Accessories

Pole cap: Each pole, when the design calls for a pole cap, shall have a removable aluminum pole cap, firmly and securely fastened in proper position by the contractor.

Miscellaneous: All pipes, bolts, nut wire, washers, pole caps, casting, fittings, and appurtenances of any sort are to be furnished by the contractor and made of approved rust-proof metal of such design, composition, and dimensions as may be approved by the City before the contractor begins manufacture.

B.10 Marking

Every pole shall bear an impressed marking, or other type of marking acceptable to the City, of the type of pole, contractor's insignia, and casting date (month and year). Type of pole and contractor's insignia shall have letters at least on inch (1") tall. The casting date shall have digits not less than one-half inch (1/2") tall. All markings shall be located in line with the cable entrance in the butt of the pole and shall be placed fifteen inches (15") to twenty inches (20") above the ground line.

B.11 Color Pigments

Poles with a colored finish shall be furnished where specified. The coloring is to be done by mixing a pigment into the concrete before casting. The color of the pole shall be uniform throughout the body of the pole, shall not fade and shall be maintenance free. The type of coloring pigment shall be indicated with the bid and a sample which represents the finished colored pole shall be furnished for approval of the Street Lighting Dept. at 841 N. Broadway, Room 920, Milwaukee WI 53202.

B.12 Inspection

General inspection for acceptance of the concrete poles shall be made upon delivery at job-site in Milwaukee. Decision as to the compliance with the specification and the quality of the poles shall be made by the City.

Tests and inspections for compliance of any of the specified characteristics of the poles also may be made upon the finished product after delivery, at any time before installation.

B.13 Rejection

Poles failing to meet the requirements of this specification will be rejected by the City, and the contractor shall immediately remove the same, and furnish at their own expense, poles in conformity with this specification. The contractor shall pay all freight charges for all material furnished under this contract and all unloading and handling charges for any material that may be rejected by the City, including freight charges for return or disposal of such rejected material.

The cost of testing poles that are subsequently rejected for non-compliance with the specification shall be charged to the contractor.

B.14 Pea Gravel

The pea gravel must consist of particles from natural gravel deposits and shall be composed of clean, hard, tough, durable pebbles free from adherent coatings, soft, flat, or elongated particles, and organic or other deteriorative matter. The following limits apply to deteriorative substances in the pea gravel.

Chert	not over 4% by weight
Coal	not over ½% by weight
Clay lump and friable particles	not over ½% by weight
Soft fragments	not over 1% by weight
Any combination of the above	not over 4% by weight
Flat, elongated or laminated pcs.	not over 10% by weight

(Flat and elongated particles are those having a length more than five (5) times the average thickness).

Grading requirements of the pea gravel are as follows:

Passing 3/8 inch sieve	95% to 100%
Passing No.4 sieve	25% to 50%
Passing No.8 sieve	0% to 5%

Each unit will require approximately 0.25 cubic yard of pea gravel.

C Construction

The direct bury pole is to be set as illustrated in the plans. The excavated holes are to be 14 or 16 inches in diameter and to a depth of 6 feet 6 inches depending on manufacturers' pole butt length. The holes can be bored, hydrovaced, or hand dug but all shall be cylindrical. If any part of the hole is within three feet of a buried utility, the holes must be hand dug or hydrovaced. No other method of setting poles is acceptable. The poles should be parallel and perpendicular to the horizon once set.

In some cases, the poles are to be installed in areas of concrete walk. Prior to concrete removal, the concrete should be saw cut to allow adequate room for pole and cable installation. Saw cutting for removal should be square or rectangular in shape. The contractor shall be responsible for disposing all debris from excavation and removed from site.

There is to be a minimum 6 inch bed of tamped pea gravel for the pole to set on. Then pea gravel is to be backfill around the pole and be tamped every 12 inches and filled to within 3 inches of finished grade.

In areas where concrete walk was removed, felt paper is to be installed around the base of pole and 3 inches of concrete installed. Concrete shall be the standard 5 bag mix, and the finished surface should match adjacent grades.

Grass areas that were disturbed during construction shall be filled with 4 inches of topsoil and sod to match the adjacent finished grade. Addresses are to be stenciled to the pole as shown on the plan.

Pole is to be wired as shown on the plans. A riser cables in pole shall be 50 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground can be either bare or green. All splicing is to be done inside the hand hole. The ground wires shall be spliced inside the hand hole and grounded to the housing of each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

D Measurement

The department will measure Poles Type A26-BD by 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.0060.818	Poles Type A26-BD	EACH

Payment is full compensation for the pole, riser cable or cables, pea gravel, and all connections.

81. Poles Type A31-BD, Item SPV.0060.819.

A Description

This special provision describes furnishing and installing the material as shown in plans and in accordance with the following:

B Materials

B.1 General

The concrete poles to be furnished are shown on the print of drawing that form a part of this specification and are attached hereto. The dimensions given are not intended to be exact or precision measurements. Slight variations in dimensions and design that are immaterial to strength and appearance will be permitted, but all such variations shall be approved by the Street Lighting Division.

Manufacturer	Catalog Number
StressCrete	E-370-BPD-G-S35-AG
Traditional Concrete or approved equal	City of Milwaukee A-31, drawing E-54-56

B.2 Description

The pole shall be concrete, one-piece with dimensions, taper and cross section as shown in the drawings. The butt section shall be square in shape or as indicated in the drawings. The pole shall be manufactured as a prestressed and reinforced centrifugally spun pole as set forth in A.S.T.M. C1089-88 unless otherwise directed.

B.3 Materials

Concrete Aggregates: Concrete aggregates shall meet all the requirements of A.S.T.M. C33. All aggregate employed in the manufacture of the concrete poles shall be white crystalline stone. The texture and color of the aggregates shall be approved by Street Lighting Division.

The aggregates shall be of adequate strength in resisting crushing stresses and impervious to moisture; of such character as not to deteriorate or change as a result of continued exposure for years to the weather; and of such character that it crushes into masses approximately cubical in form, not in flakes. Aggregates shall all pass a three-eight-inch sieve, with a minimum size passing a #100 sieve.

Cement: The cement shall be fresh and free from lumps and shall conform to specifications of the American Society of Testing Materials, serial designation C-150, Type IL.

Water: The water employed shall be free from acids, alkalis, oil, or organic matter.

Materials Proportion: The materials combined to produce the concrete shall be proportioned by weight.

Steel: The surface of all steel shall be free from dirt, oil, or grease. The steel used as either reinforcing or prestressing shall be adequately sized to meet the strength requirements of the finished poles, as herein specified. Longitudinal reinforcement, prestressing and spiral wrap shall comply with the latest version of the applicable ASTM standards. All prestressed wire shall be stressed to not less than 60% or more than 70% of its tensile strength.

Test of Materials: Any and all of the above materials shall be subject to test at any time before use, as may be directed, and samples for this purpose shall be furnished by the contractor upon request.

Pole Strength: All poles furnished shall withstand a 90 mph wind load plus 3S gust factor and a 400 lbs working load.

- The pole design shall allow for a maximum load of not less than twice the working load.
- The elastic limit at which any pole will actually fail to withstand any additional stress without permanent injury shall not be less than two and one-half (2-1/2) times the working load.

B.4 Loading And Stability

All the square poles furnished under this specification shall support two brackets mounted 36 inch, 40 pound arms each with an one hundred pound fixture of an EPA of 5. All pole designs shall meet the latest revision of the AASHTO specifications for these poles as defined in their STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS handbook.

Within 30 days of the bid award, submit the manufacturer’s engineering calculations for lighting poles to show that maximum stress and deflections do not exceed specified performance requirements under full design loading, as well as other certified reports and data which indicate that the poles meet all load requirements, within 30 days of the bid award. Engineering calculations shall be prepared and sealed by an engineer licensed in the State of Wisconsin.

The entire horizontal and vertical “wind sail” area of the pole assembly subject to wind load including arm and luminaire shall be designed to withstand the AASHTO standard specifications, from above, for wind load requirements for a 90 MPH wind load with gust factor computed per section 3.8.5.and height and exposure factors from table

B.5 Cable Raceway

Each concrete pole shall have a hollow raceway at least one and one-half inches in diameter and continuous in a straight line, without appreciable offset, throughout its entire length.

The raceway shall be free from sharp projections or edges that might injure the insulated wire or cable sheath.

Dimensions and locations for lateral opening in the raceway are shown on the drawings.

All poles shall be furnished with hand hole. The hand hole shall be located on the face 90 degrees from the lateral opening in the butt of pole and shall have the minimum dimensions of 3-1/2" x 10-1/2". The cover shall be heat-treated cast aluminum, or other material as approved by the City, fastened to non-ferrous insert in the pole. The cover shall be secured to the pole using 1/4"-20 NC by 3/4" long 18-8 stainless button head Torx T27H tamper proof screws.

Two lateral openings into the raceway, of dimensions and locations as shown on the drawings, shall be provided in the butt of the pole.

B.6 Concrete

Strength: The concrete strength shall meet the following requirements when tested in accordance with A.S.T.M. C39.

c. Release of Prestressing Steel: Concrete cylinders made in accordance with A.S.T.M. C31 shall attain a minimum strength of 3,500 p.s.i. at the time that prestressing is released.

d. Twenty-Eight Days: Concrete cylinders made in accordance with A.S.T.M. C31 shall attain a minimum strength of 8,000 p.s.i. at twenty-eight days.

Admixture: All poles shall be manufactured with quality HSF (high silica fume) cement to reduce porosity in the concrete and increase compressive strength.

The City may sample and test the concrete at any time. Concrete samples made in accordance with A.S.T.M. C31 shall be furnished by the contractor upon request of the City.

Process and Surface Finish: The finished concrete used in the manufacture of poles shall be a very dense product, free from undesirable air pockets or voids.

l. The concrete shall be compacted by the centrifugal process so that the surface is dense, with the coarse and fine aggregate evenly distributed. If requested to do so by the Purchasing Division - DOA, a sample shall be produced that is representative of the pole cross-section and at least three inches in length. The sample shall be submitted to the City for approval with respect to color, texture and finish. The concrete mix from which the sample was made shall be noted and submitted with the sample. A representative sample of all aggregates used also shall be submitted.

m. The mixture of aggregates shall be essentially uniform over the entire exterior surface of concrete poles furnished.

n. Size of the duct shall be controlled so that the prestressed and/or reinforcing rods are not embedded in "slurry" (i.e., water-cement-sand mix that collects in the pole core during the spinning process).

o. Following the casting operation, the pole shall be cured with low-pressure steam for as long as needed to reach the necessary strength to allow handling and release of prestressing wires. Poles shall remain in storage for as long as needed for the concrete to reach the required compressive strength. Poles shall meet the design strength before shipment is allowed.

p. To assure that poles are not prematurely exposed to freeze-thaw action and deicer, adequate curing of the concrete for development of sufficient strength to resist scaling and for reduction of water content of the concrete shall be the responsibility of the manufacturer.

q. The finished surface must be polished so that the color and surface smoothness are uniform over the entire surface. The face surface shall be sealed with a siloxane penetrating sealer and a high molecular weight acrylic copolymer or other sealing compounds that will yield equivalent degree of protection from water, salt, and/or other chemical infiltration and does not discolor or fade.

r. The entire lot of concrete poles to be furnished under this specification shall be uniformly consistent in color and finish.

s. Treatment with diluted acid to obtain the desired finish is not permitted.

t. The finished surface of all poles shall be free from visible pits, fins, grooves, patches, or other surface markings not specifically enumerated herein.

u. The top of the pole shall be flat and perpendicular to the longitudinal axis of the pole so that the pole cap will have a positive seat.

v. Chloride accelerators shall not be used in the manufacturing process.

B.7 Reinforcement

The reinforcing cage, spiral reinforcement and prestressing steel shall be placed in position and maintained in place during the centrifugal manufacturing process. The longitudinal reinforcement, prestressing and spiral reinforcement shall continue throughout the entire length of the pole.

Cover: All steel shall be covered at all points by at least one-half inch (1/2") of concrete, except where it may be necessary in the process of manufacture to have the rods and/or wire extend beyond the ends of the poles. In such case, the rods and/or wires shall be cut off afterward, even with the face of the molded product, unless otherwise noted on the drawings included herein.

Where the above minimum coverage cannot be maintained next to cable entrance, wire outlet, etc., the reinforcing shall be protected with a suitable sleeve.

Drawings of the reinforcing cage, spiral reinforcement and prestress steel that the manufacturer proposes to use in the manufacture of concrete poles, showing the size, shape and arrangement of reinforcing prestressing spiral reinforcement, ties, method of holding cage in place, etc. SHALL BE SUBMITTED TO Street Lighting Dept.

B.8 Waterproofing

The top and bottom of the poles shall be properly coated with bitumastic waterproofing material.

Waterproofing material shall be of such quality and consistency that it will not crack or chip when subjected to extremely cold weather, and that it will not flow when subjected to extremely hot weather.

B.9 Accessories

Pole cap: Each pole, when the design calls for a pole cap, shall have a removable aluminum pole cap, firmly and securely fastened in proper position by the contractor.

Miscellaneous: All pipes, bolts, nut wire, washers, pole caps, casting, fittings, and appurtenances of any sort are to be furnished by the contractor and made of approved rust-proof metal of such design, composition, and dimensions as may be approved by the City before the contractor begins manufacture.

B.10 Marking

Every pole shall bear an impressed marking, or other type of marking acceptable to the City, of the type of pole, contractor's insignia, and casting date (month and year). Type of pole and contractor's insignia shall have letters at least on inch (1") tall. The casting date shall have digits not less than one-half inch (1/2") tall. All markings shall be located in line with the cable entrance in the butt of the pole and shall be placed fifteen inches (15") to twenty inches (20") above the ground line.

B.11 Color Pigments

Poles with a colored finish shall be furnished where specified. The coloring is to be done by mixing a pigment into the concrete before casting. The color of the pole shall be uniform throughout the body of the pole, shall not fade and shall be maintenance free. The type of coloring pigment shall be indicated with the bid and a sample which represents the finished colored pole shall be furnished for approval of the Street Lighting Dept. at 841 N. Broadway, Room 920, Milwaukee WI 53202.

B.12 Inspection

General inspection for acceptance of the concrete poles shall be made upon delivery at job-site in Milwaukee. Decision as to the compliance with the specification and the quality of the poles shall be made by the City.

Tests and inspections for compliance of any of the specified characteristics of the poles also may be made upon the finished product after delivery, at any time before installation.

B.13 Rejection

Poles failing to meet the requirements of this specification will be rejected by the City, and the contractor shall immediately remove the same, and furnish at their own expense, poles in conformity with this specification. The contractor shall pay all freight charges for all material furnished under this contract and

all unloading and handling charges for any material that may be rejected by the City, including freight charges for return or disposal of such rejected material.

The cost of testing poles that are subsequently rejected for non-compliance with the specification shall be charged to the contractor.

B.14 Pea Gravel

The pea gravel must consist of particles from natural gravel deposits and shall be composed of clean, hard, tough, durable pebbles free from adherent coatings, soft, flat, or elongated particles, and organic or other deteriorative matter. The following limits apply to deteriorative substances in the pea gravel.

Chert	not over 4% by weight
Coal	not over ½% by weight
Clay lump and friable particles	not over ½% by weight
Soft fragments	not over 1% by weight
Any combination of the above	not over 4% by weight
Flat, elongated or laminated pcs.	not over 10% by weight

(Flat and elongated particles are those having a length more than five (5) times the average thickness).

Grading requirements of the pea gravel are as follows:

Passing 3/8 inch sieve	95% to 100%
Passing No.4 sieve	25% to 50%
Passing No.8 sieve	0% to 5%

Each unit will require approximately 0.25 cubic yard of pea gravel.

C Construction

The direct bury pole is to be set as illustrated in the plans. The excavated holes are to be 14 or 16 inches in diameter and to a depth of 6 feet 6 inches depending on manufacturers' pole butt length. The holes can be bored, hydrovaced, or hand dug but all shall be cylindrical. If any part of the hole is within three feet of a buried utility, the holes must be hand dug or hydrovaced. No other method of setting poles is acceptable. The poles should be parallel and perpendicular to the horizon once set.

In some cases, the poles are to be installed in areas of concrete walk. Prior to concrete removal, the concrete should be saw cut to allow adequate room for pole and cable installation. Saw cutting for removal should be square or rectangular in shape. The contractor shall be responsible for disposing all debris from excavation and removed from site.

There is to be a minimum 6 inch bed of tamped pea gravel for the pole to set on. Then pea gravel is to be backfill around the pole and be tamped every 12 inches and filled to within 3 inches of finished grade.

In areas where concrete walk was removed, felt paper is to be installed around the base of pole and 3 inches of concrete installed. Concrete shall be the standard 5 bag mix, and the finished surface should match adjacent grades.

Grass areas that were disturbed during construction shall be filled with 4 inches of topsoil and sod to match the adjacent finished grade. Addresses are to be stenciled to the pole as shown on the plan.

Pole is to be wired as shown on the plans. A riser cables in pole shall be 50 feet in length and cut from copper 2#12 UF with ground cable. One wire shall be black, the other shall be white, and the ground can be either bare or green. All splicing is to be done inside the hand hole. The ground wires shall be spliced inside the hand hole and grounded to the housing of each fixture. The cable shall conform to NEC Article 340. The riser cable shall be continuous without splices. The electrical system in use utilizes a full system ground. The neutral is not to be grounded at any point.

D Measurement

The department will measure Poles Type A31-BD by 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.0060.819	Poles Type A31-BD	EACH

Payment is full compensation for the pole, riser cable or cables, pea gravel, and all connections.

82. Concrete Base Type 5 Modified; Item SPV.0060.820.

A Description

This special provision describes constructing and installing of street lighting pole concrete bases according to the current City of Milwaukee design standards and WisDOT section 654 Bases.

B Materials

Use Schedule 40 PVC electrical conduit conforming to the electrical conduit specified in standard spec 652.

Furnish bar steel reinforcement conforming to WisDOT 505.2.4.

Furnish concrete conforming to WisDOT 531.2.1.

Furnish anchor rods conforming to ASTM F1554 grade 105 and Supplementary Specification S4, ASTM A563 nuts, and ASTM F436 washers. Hot-dip galvanized according to ASTM F2329 or mechanically galvanized according to ASTM B695 Class 55; ensure that the same galvanization process is used for all parts of the assembly.

Concrete pole base fabricated by contractor per standard detail 151.

C Construction

Construct drilled shaft concrete bases conforming to 531.3

Base construction, materials, and installation shall conform to WisDOT Specification 654 Bases. Bar steel reinforcement shall be coated with powdered epoxy resin in accordance with Section 505 of the WisDOT Standard Specifications (latest edition).

D Measurement

The department will measure Concrete Base Type 5 Modified by 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.0060.820	Concrete Base Type 5 Modified	EACH

Payment is full compensation for the construction of base with all the connections needed.

83. Concrete Base Type 2 Modified; Item SPV.0060.821.

A Description

This special provision describes constructing and installing of street lighting pole concrete bases according to the current City of Milwaukee design standards and WisDOT section 654 Bases.

B Materials

Use Schedule 40 PVC electrical conduit conforming to the electrical conduit specified in standard spec 652.

Furnish bar steel reinforcement conforming to WisDOT 505.2.4.

Furnish concrete conforming to WisDOT 531.2.1.

Furnish anchor rods conforming to ASTM F1554 grade 105 and Supplementary Specification S4, ASTM A563 nuts, and ASTM F436 washers. Hot-dip galvanized according to ASTM F2329 or mechanically galvanized according to ASTM B695 Class 55; ensure that the same galvanization process is used for all parts of the assembly. Type 2 Modified base anchor rod to have an extension of 6” +/- ¼” as shown in standard detail 152.

C Construction

Construct drilled shaft concrete bases conforming to 531.3.

Base construction, materials, and installation shall conform to WisDOT Specification 654 Bases. Bar steel reinforcement shall be coated with powdered epoxy resin in accordance with Section 505 of the WisDOT Standard Specifications (latest edition). Cure exposed portions of concrete footings as specified in

502.3.8.1. Wait until the concrete has attained 3500 psi compressive strength or 7 equivalent days as specified in 502.3.10 before erecting any portion of the structure on the footing.

D Measurement

The department will measure Concrete Base Type 2 Modified by 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.0060.821	Concrete Base Type 2 Modified	EACH

Payment is full compensation for the construction of base with all the connections needed.

84. Luminaire Historic Milwaukee Harp LED 1, Item SPV.0060.865.

A Description

This special provision describes furnishing and installing of the following material as shown in plans and in accordance with the following.

B Materials

The Historic Milwaukee Harp in Fir Green shall replicate and conform to the shape and size as shown in the plans. The Harp fixture to be equipped with Keystone KT-LED45HUD-EX39-830D LED, or Halco HID45-CS-EX39-LED, or approved equal screw in bulb.

Technical Requirements: All features listed below shall be incorporated in the design of the Milwaukee Harp. All listed items shall be furnished and installed into a complete unit ready for installation and operation and satisfying all electrical codes and industrial standards for outdoor luminaires. All parts shall be interchangeable between luminaires of different manufactures.

Housing: The Milwaukee Harp’s housing and components shall be cast from ASTM #356T6 or 319 aluminum. All castings shall be free from pits, blowholes, or other irregularities. All surfaces shall be smooth with edges free of flashing burrs and imperfections. Manufacturer's identification or logo will not be permitted on the exterior of the housing.

Reflector: The reflector shall be aluminum not less than 0.046" in thickness, and of such uniform thickness and strength to protect against dents or deformations. The entire surface of the reflector shall have a minimum of an Alzak finish to provide a permanent and efficient reflecting surface, which may be easily cleaned and maintained. The reflector is to be mounted in such a manner to allow its removal without removal of mounting hardware. The reflector shall not extend beyond the frame of the luminaire in such a manner that it interferes with the proper operation of the refractor hinge assembly.

Refractor: The refractor is to be manufactured from thermal resistant borosilicate glass in a teardrop shape and size which is similar to original Milwaukee Harp refractors. It shall not extend beyond the frame of the luminaire in such a manner that it interferes with the proper operation of the refractor hinge assembly.

Lighting Distribution: The reflector/refractor combination shall be available in A.S.A.- IES Type IV distribution patterns. Light patterns shall be with the street side optics perpendicular to the harp frame. Manufacturer shall provide the City with a printed photometric report based on IES Testing Procedures showing footcandles, lumens, coefficient of utilization and isocandela from an independent test facility. Manufacturer shall also provide the City the photometric report in I.E.S. recommended standard file format for electronic transfer of photometric data (IES Publication LM-63-1986 or later).

Mounting: The Harp Luminaire shall accommodate a tenon with 1½” standard pipe thread with a hex locking nut for mounting to pole. The hex nut and washer are to be supplied for each unit as part of the bid price.

Gasketing: A durable gasket, made from non-deteriorating, sunlight resistant 1/8 inch thick rubber or neoprene, shall be installed where the lantern housing and the harp arms mate.

Ballast: There will be no ballast or ignitor in the harp fixture.

Surge Protector: The luminaire is to be wired with a surge protector module to provide transient overvoltage protection for outdoor LED lighting fixtures. Maximum lighting surge current is 20kA wired in

series on the hot and neutral between the input power and the mogul socket in order to protect the LED lamp. The surge protector shall be secured inside the harp fixture, easily accessible without causing any interference with the wiring.

Hardware: All clips, springs, blots, etc. which are required to assemble the Harp luminaire shall be made of stainless steel, brass or aluminum. This requirement includes the hinge pin. There shall be no ferrous materials used.

Socket: The Mogul socket shall be constructed from rugged, high grade porcelain, rated 0at not less than 600 volts and be able to withstand the voltage stresses generated by the starting device. It shall have lamp grips to hold the lamp securely. The center contact shall be spring loaded for positive electrical contact. The socket shall be located so the lamp's light center is at the focal point of the reflector/refractor combination.

Hinge And Latch Assembly: The hinge assembly shall not be an integral part of the main housing casting. It shall be a replaceable part attached to the main housing casting with hardware. The hinge assembly shall be consistent from unit to unit. The latch assembly must allow release without tools. All materials shall be aluminum.

Finish: The finish shall consist of one primer coat (2 to 3 mils) X-I-M Flash Bond 400 White or equal and two prime finish coats, applied electrostatically with the color specified on the order and as follows:

- Green enamel: Gloss, oil, quick dry enamel, RAL 6009 Fir Green.

  (2 coats applied electrostatically 2 to 2.5 mils dry film)

- Accent panels: Gloss, oil, quick dry enamel, RAL 1000 Green Beige

  (2 coats applied electrostatically 2 to 2.5 mils dry film).

The accent panels may also be highlighted with tape colored to the RAL 1000, (Green Beige) specification. The tape must be able to withstand all environmental conditions that could be reasonably be encountered in the typical use of the Harp. The tape must be fade resistant.

LAMP: The luminaire shall be equipped with Keystone KT-LED45HID-EX39-830D LED, or Halco HID45-CS-EX39-LED, or approved equal screw-in bulb.

C Construction

The Milwaukee Harp fixture is set on the pipe tenon that is attached to the top of the pole and is secured to the pole using standard 1-1/2" stainless steel hex head nut. Perform all splices and connections for the operation of fixture.

D Measurement

The department will measure Luminaire Historic Milwaukee Harp LED 1 by 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.0060.865	Luminaire Historic Milwaukee Harp LED 1	EACH

Payment is full compensation for the Luminaire Historic Milwaukee Harp, surge protector, LED lamp and all connections needed to complete installation.

85. Luminaire Historic Milwaukee Lantern LED 3, Item SPV.0060.867.

A Description

This special provision describes furnishing and installation of the following material as Milwaukee Lantern shown in plans and according to the following.

B Materials

General Appearance: The Historic Milwaukee Lantern shall replicate and conform to the shape and size as shown on plan set.

Housing: The Lantern Housing shall be cast from ASTM #319 or #356T6 aluminum alloy. The casting shall be free from pits, blowholes, or other irregularities and shall have smooth surfaces. Manufacturer's Logo or identification shall not be visible on the exterior of the casting.

Reflector: The reflector shall be aluminum not less than 0.046" in thickness, and of such uniform thickness and strength to protect against dents or deformations. The entire surface of the reflector shall have a minimum of an Alzak finish to provide a permanent and efficient reflecting surface, which may be easily cleaned and maintained. The reflector is to be mounted in such a manner to allow its removal without removal of mounting hardware. The reflector shall not extend beyond the frame of the luminaire in such a manner that it interferes with the proper operation of the refractor hinge assembly.

Refractor: The refractor is to be manufactured from thermal resistant borosilicate glass in a teardrop shape and size similar to original Milwaukee Lantern refractors. It shall not extend beyond the frame of the luminaire in such a manner that it interferes with the proper operation of the refractor hinge assembly. Refractor gasket(s) are not to be installed.

Surge Protector: The Luminaire is to be wired with a surge protector, rated 20kVA in series on the hot and neutral between the input power and the mogul socket in the arm, in order to protect the LED bulb. The surge protector shall be easily accessible without causing wiring interference.

Mounting: The Milwaukee Lantern is to be pendant mounted using the ball coupling and canopy lock nut. The lock nut used to secure the lantern to the arm is to be provided with the lantern. It is to be made from stainless steel.

Electrical Connections: All electrical connections shall be accessible by removing the reflector only. Electrical components are to be listed by Underwriters Laboratory or other nationally recognized testing organizations.

Leads: The power leads are to be routed through the top of the luminaire, (through the ball socket) and have a pigtail length of 12 inches minimum. They are to be #16 AWG stranded copper wire with insulation able to withstand the pulses from the starters and all environmental conditions that could be reasonably encountered in the typical use of the Lantern. They will consist of a black wire (line) white wire (neutral) and green wire (ground, connected to the casting). All paths of the leads are to be protected by insulating bushings or other suitable protection per standard or code.

Hardware: All clips, springs, bolts, etc. which are required to assemble the luminaire shall be made of stainless steel, brass or aluminum. This requirement includes the hinge pin. There shall be no ferrous materials used.

Socket: The Mogul socket shall be constructed from rugged, high grade porcelain, rated at not less than 600 volts and be able to withstand the voltage stresses generated by the starting device. It shall have lamp grips to hold the lamp securely. The center contact shall be spring loaded for positive electrical contact. The socket shall be located so the lamp's light center is at the focal point of the reflector/refractor combination.

Hinge and Latch Assembly: The hinge assembly shall not be an integral part of the main housing casting. It shall be a replaceable part attached to the main housing casting with hardware. The hinge assembly shall be consistent from unit to unit. The latch assembly must allow release without tools. All materials shall be aluminum.

Finish: The finish shall consist of one primer coat (2 to 3 mils) X-I-M Flash Bond 400 White or equal and two prime finish coats, applied electrostatically with the color specified on the order and as follows:

- Black enamel: Gloss, oil, quick dry enamel, RAL 9005, Jet Black.

  (2 coats applied electrostatically 2 to 2.5 mils dry film)

- Accent panels: Gloss, oil, quick dry enamel, RAL 1000 Green Beige

  (2 coats applied electrostatically 2 to 2.5 mils dry film).

The accent panels may also be highlighted with tape colored to the RAL 1000 (Green Beige) specification. The tape must be able to withstand all environmental conditions that could be reasonably be encountered in the typical use of the Harp. The tape must be fade resistant.

Note: Supplier to submit color sample and specification data for approval and supply one gallon of finish paint and one quart of accent panel paint per 25 luminaires.

Lamp: The luminaire shall be equipped with Keystone KT-LED80HID-EX39-830-D, or Halco HID80-CS-EX39-LED, or approved equal screw in bulb.

C Construction

The Lantern 1-1/4” tenon is to be threaded into the bracket and 1-1/4” stainless steel hex head nut installed on pipe tenon, lock nutting the fixture to the bracket. Perform all splices and connections needed for the operation of fixture.

D Measurement

The department will measure Luminaire Historic Milwaukee Lantern LED 3 by 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.0060.867	Luminaire Historic Milwaukee Lantern LED 3	EACH

Payment is full compensation Luminaire Historic Milwaukee Lantern LED fixture, surge protector, screw in bulb, and all connections.

86. Concrete Curb & Gutter Integral 19-Inch, Item SPV.0090.010.

A Description

This special provision describes constructing integral concrete curb and gutter.

B Materials

Furnish materials according to standard spec 601.2.

C Construction

Construct integral concrete curb and gutter according to standard spec 601.3.

D Measurement

The department will measure Concrete Curb & Gutter Integral 19-Inch by the linear foot, acceptably completed, according to standard spec 601.4.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.010	Concrete Curb & Gutter Integral 19-Inch	LF

Payment is full compensation according to standard spec 601.5.

87. Electrical Cable 3#4/1#8 XLP, Item SPV.0090.240.

A Description

This special provision describes furnishing and installing XLP electrical service cable.

B Materials

The furnished cable shall comply with manufacture and test requirements for ICEA Specification N. S-61-402, NEMA WC5, latest revision. The conductors shall be of soft round annealed uncoated stranded copper per ASTM B-3, ASTM B-8 Class B, and UL Standard UL-44.

The insulation shall be XLPE thermosetting crosslinked polyethylene insulation in accordance with industry standard ICEA Pub. No S-95-658/Nema WC-70 (2009), with a nominal thickness of 60mils; at no point should the thickness be less than 90% of the thickness specified in the schedule. The insulation shall be rated for 600 volts. The insulation compound shall be color coded, the individual cables shall be black, white and red for the #4 conductors, and green for the #8 conductor.

Identification for each conductor must be provided with colors in accordance to IMSA standards. The outer insulation shall be marked with the following at minimum: conductor size (AWG), 600V, XLPE, USE-2, manufacturer name, date of manufacture. All markings must be a minimum of 1/8” in height. Marking

shall be at two foot intervals. A sequential footage marking must be located on the opposite side of the jacket. All markings must be legible and in permanent ink.

Each length of the individual conductors shall comply with all requirements of ICEA Standards S-61-402, with sampling and testing in accordance with Part 6. A certified report of the tests made on the cable to show compliance with this specification may be required prior to shipment. If requested, a sample of the cable shall also be submitted.

C Construction

The cable shall be installed in conduit as indicated on plans. Splices are not allowed in conduit or directly underground. Do not leave wire or cable ends uncovered or submerged in water. The cable length can be rejected by an engineer if it is observed to have exposed or submerged ends. Cover tape with a liberal coating of varnish or sealant providing protection from oil, moisture, and corrosion. Identify cable in each pull box at the line side with a fade resistant tag.

D Measurement

The department will measure Electrical Cable 3#4/1#8 XLP by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.240	Electrical Cable 3#4/1#8 XLP	LF

Payment is full compensation for furnishing and installing Electrical Cable 3#4/1#8 XLP.

88. Electrical Cable Type 3#6 AL, Item SPV.0090.302.

A Description

This special provision describes furnishing and installing the service cable according to current City of Milwaukee Electrical methods and National Electrical Code standards. All work shall be according to standard spec 651, 655, and 659.

B Materials

#6 Triplex ASCR (Aluminum conductor steel reinforced)

#6 stranded aluminum wires with 3/64 polyethylene insulation 7 strands

1 #6 bare neutral, 6 strands of Aluminum conductors around a steel messenger, ASCR 6/1

Voltage of 600 volts phase-to-phase or less and at conductor temperatures not to exceed 75°C for polyethylene insulated conductors or 90°C for crosslinked polyethylene (XLP) insulated conductors.

Service drop cable meets or exceeds the following ASTM specifications:

- B-230 Aluminum Wire, 1350-H19 for Electrical Purposes.
- B-231 Aluminum Conductors, Concentric-Lay-Stranded.
- B-232 Aluminum Conductors, Concentric-Lay-Stranded, Coated Steel Reinforced (ACSR).
- B-399 Stranded 6201-T81 Aluminum Alloy Conductors.
- B-901 Compressed Round Stranded Aluminum Conductors Using Single Input Wire.

Conductors are concentrically stranded, compressed 1350-H19 aluminum. Insulated with either polyethylene or crosslinked polyethylene (XLP). Neutral messengers are concentrically stranded 6201, AAC, or ACSR. Cable meets or exceeds all applicable requirements of ANSI/ICEA S-76-474.

C Construction

The cable shall be installed to supply power, usually from a pole, to the user's service head where connection to the service entrance cable is made. All splices must be completed by the contractor unless otherwise designated on plans.

D Measurement

The department will measure Electrical Cable Type 3#6 AL by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.302	Electrical Cable Type 3#6 AL	LF

Payment is full compensation for furnishing and installing Electrical Cable Type 3#6 AL.

89. Electrical Cable Type 2#2/1#4 AL, Item SPV.0090.304.

A Description

This special provision describes furnishing and installing the cable according to current City of Milwaukee specifications. Electrical methods and National Electrical Code standards. All work shall be according to standard spec 651.

B Materials

2#2/1#4 Triplex ASCR (Aluminum conductor steel reinforced)

Unless otherwise specified, the cable to be furnished shall comply with the manufacture and test requirements of the Insulated Cable Engineers Association (ICEA) specifications No S-61-402, NEMA WC5, and No S-66-524 NEMA WC7, latest revisions.

2 #2 stranded aluminum wires with 3/64 polyethylene insulation 7 strands

1 #4 bare neutral, 6 strands of Aluminum conductors around a steel messenger, ASCR 6/1

B.2 Voltage

Voltage of 600 volts phase-to-phase or less and at conductor temperatures not to exceed 75°C for polyethylene insulated conductors or 90°C for crosslinked polyethylene (XLP) insulated conductors.

B.3 Specifications

Service drop cable meets or exceeds the following ASTM specifications:

- B-230 Aluminum Wire, 1350-H19 for Electrical Purposes.
- B-231 Aluminum Conductors, Concentric-Lay-Stranded.
- B-232 Aluminum Conductors, Concentric-Lay-Stranded, Coated Steel Reinforced (ACSR).
- B-399 Stranded 6201-T81 Aluminum Alloy Conductors.
- B-901 Compressed Round Stranded Aluminum Conductors Using Single Input Wire.

B.4 Insulated Conductors

All Aluminum conductors are concentrically stranded and shall be Class A or Class B 3% compressed 1350-H19 aluminum. Solid conductors shall be H16 temper.

B.5 Insulation

Shall be 600V either black extruded high molecular weight polyethylene (PE) or black extruded crosslinked polyethylene (XLP). Insulation shall be a nominal 45 mils thickness.

B.6 Bare Neutral Messenger

Neutral messengers are concentrically stranded 6201, AAC, or ACSR. Cable meets or exceeds all applicable requirements of ANSI/ICEA S-76-474. The direction of lay of the outer layer is right hand.

B.7 Protection of Ends

Before shipment, the ends of all wire and cable shall be carefully sealed to protect the insulation from moisture. Both ends of the wire and cable shall be accessible for testing, but shall be covered and protected from injury.

B.8 Lengths

Ten percent of the reels of any one item may be shipped in random length of not less 50% of the specified nominal length. This tolerance is permitted so that the cable manufacturers may avoid brazing together lengths of copper conductor. All conductors shall be free from brazes or splices.

B.9 Service Drop Cable Schedule

Triplex Service Drop 600 Volt PE or XLP ASCR reduced size neutral messenger.

CITY OF MILWAUKEE P/N	CODE WORD	SIZE AWG	NO# WIRE	INSUL (INS)	BARE NTRL SIZE AWG	BARE NTRL NO# WIRE	REEL LNG (FT)	WGHT LBS/ 1000' ALUM	WEIGHT LBS/ 1000' CABLE
3400-032	Cockle 2	7	0.045	4	6/1	1800'	163	227	
3400-034	Strombus	4	7	0.045	6	6/1	1500'	103	154
3400-036	Voluta 6*	7	0.045	6	6/1	2200'	73	116	

* ACSR Full Size Neutral Messenger

C Construction

The cable shall be installed to supply power, usually from a pole-mounted transformer, to the user's service head where connection to the service entrance cable is made. All splices must be completed by the contractor unless otherwise designated on plans.

D Measurement

The department will measure Electrical Cable Type 2#2/1#4 AL by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.304	Electrical Cable Type 2#2/1#4 AL	LF

Payment is full compensation for furnishing and installing Electrical Cable Type 2#2/1#4 AL.

90. Liquidtight Flexible Nonmetallic Conduit 1 1/2-Inch, Item SPV.0090.319.

A Description

This special provision describes furnishing and installing Liquidtight flexible nonmetallic conduit for street lighting according to standard spec 652.

B Materials

The Liquidtight flexible nonmetallic conduit shall be Type LFNC-B. The conduit shall be nonconductive, noncorrosive to oil, acid, ozone, and alkaline. The conduit shall have a smooth inner surface with integral reinforcement within the conduit wall.

The flexible nonmetallic conduit shall be UL listed for use as indicated in Article 356 of the latest NEC, and for outdoor use and sunlight resistant.

The fittings and adapters shall be of the same manufacturer as the conduit.

C Construction

Install the fittings, adapters, and conduit in conjunction with street lighting. Install per the manufacturer's instructions and as shown on the plans.

D Measurement

The department will measure Liquidtight Flexible Nonmetallic Conduit 1 1/2-Inch by the linear foot of conduit installed, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.319	Liquidtight Flexible Nonmetallic Conduit 1 1/2-Inch	LF

Payment is full compensation for furnishing and installing the conduit, including the connectors.

91. Electrical Cable Type 4#6/1#8 XLP, Item SPV.0090.322; Electrical Cable Type 4#2/1#8 XLP, Item SPV.0090.324.

A Description

This special provision describes furnishing and installing service cable in accordance with current City of Milwaukee Electrical methods and National Electrical Code standards.

B Materials

Unless otherwise specified, the cable to be furnished shall comply with the manufacture and test requirements of the Insulated Cable Engineers Association (ICEA) Specification No. S-61-402, NEMA WC5, latest revision.

B.1.2 Conductors

The conductors shall be of soft round annealed uncoated stranded copper conductor per ASTM B-3, ASTM B-8, and UL Standard UL-44. Conductors No. 8 A.W.G. or larger shall be stranded. Conductors smaller than No. 8 A.W.G. shall be solid unless otherwise specified. Stranding must meet the requirements of ASTM B8, Class B.

B.2. Insulation

B.2.1 600V

The insulation for cable rated 600V shall be cross XLPE thermosetting chemically crosslinked polyethylene insulation in accordance with industry standard ICEA Pub. No. S-95-658/Nema WC-70 (2009), latest revision, and shall be a nominal 45 mils. thickness. Insulation shall meet the ANSI/ASTM D2220-74 (latest revision) accelerated water absorption requirements and -30°C (-22°F) cold bend test with a separator applied between the stranded conductor and insulation to facilitate cable stripping. The outside diameter of the insulating covering must be circular and extruded concentrically over the conductor.

B.2.2 Nominal Thickness

The nominal insulation thickness around each individual conductor shall be not less than 90% of the thickness specified in the schedule.

B.2.3 Color Code

The insulation compound which covers each conductor making up a cable shall be color coded in conformance with the N.E.M.A. Color Code Standard, unless otherwise specified; however, printed color designations as in I.3.2 or I.3.3. will not be acceptable under this specification (see schedule). Individual cable will be black, white, red, gray and green.

B.3 Marking

2. Identification for each conductor must be provided by colors in accordance with I.M.S.A.

Standards. The outer insulation must be marked with the following information at a minimum: conductor size (AWG), 600V, XLPE, USE-2, manufacturer’s name, date of manufacture. All markings must be a minimum of one-eighth inch (1/8”) in height. Marking shall be at approximately two (2) foot intervals. A sequential footage marking must be located on the opposite side of the jacket. All marking must be perfectly legible with permanent white ink.

B.4 Round Cable

This cable shall consist of stranded, uncoated, conductors each concentrically encased with a cross linked polyethylene USE-2 rubber insulation.

B.4.1 Inspection and Tests

Each length of the individual insulated conductor and completed cable shall comply with all requirements of I.C.E.A. Standards S-61-402. Sampling and Test Methods shall be in accordance with Part 6. A

certified report of the tests made on the cable to show compliance with this specification may be required prior to shipment. If requested, a sample of the cable covered by the report shall also be submitted.

POWER, CABLE SCHEDULE FOR SPECIFICATION

	4#2/1#8		4#4/1#8	
Size of Conductor	#2	#8	#4	#8
Number of Conductors	4	1	4	1
Number of Wires in Conductor	7	7	7	7
Type of Insulation	4 Cross-Linked Polyethylene (XLPE)	1 Cross-Linked Polyethylene (XLPE)	4 Cross-Linked Polyethylene (XLPE)	1 Cross-Linked Polyethylene (XLPE)
Insulation Thickness	60 mils	60 mils	60 mils	60 mils
Insulation Voltage Rating	600 volt	600 volt	600 volt	600 volt
Insulation Color Code	1-black (hot) 1-white (neutral) 1-red (hot) 1-gray (neutral)	1-green (ground)	1-black (hot) 1-white (neutral) 1-red (hot) 1-gray (neutral)	1-green (ground)
Non-Hydroscopic Fill	None		None	
Moisture Resisting Sheath				
Jacket Thickness	None		None	

	4#6/1#8		4#8/1#8	
Size of Conductor	#6	#8	#8	#8
Number of Conductors	4	1	4	1
Number of Wires in Conductor	7	7	7	7
Type of Insulation	4 Cross-Linked Polyethylene (XLPE)	1 Cross-Linked Polyethylene (XLPE)	4 Cross-Linked Polyethylene (XLPE)	1 Cross-Linked Polyethylene (XLPE)
Insulation Thickness	60 mils	60 mils	60 mils	60 mils
Insulation Voltage Rating	600 volt	600 volt	600 volt	600 volt
Insulation Color Code	1-black (hot) 1-white (neutral) 1-red (hot) 1-gray (neutral)	1-green (ground)	1-black (hot) 1-white (neutral) 1-red (hot) 1-gray (neutral)	1-green (ground)
Non-hydroscopic Fill	None		None	
Moisture Resisting Sheath				
Jacket Thickness	None		None	

All conductors shall be uncoated annealed soft copper.

C Construction

The cable shall be installed in HDPE, PVC, and Liquidtight Flexible Non-Metallic conduit when indicated on plans. Any turf damage during installation of cable shall be restored (grass, asphalt or concrete) by the contractor, all splices in luminaires, pull boxes, and transformer bases / hand holes, must be completed by the contractor unless otherwise designated on plans. Do not splice directly in underground or conduit.

Do not leave wire or cable ends uncovered or submerged in water. If the engineer observes this condition, the engineer may reject the entire length of cable or wire. Make all electrical connections and splices in the luminaire, pole or transformer base with approved pressure or compression type fittings.

Cover tape with a liberal coating of an electrical varnish or sealant providing flexible protection from oil, moisture, and corrosion. Obtain the engineer's approval of this electrical coating before using. Extend wire for termination 15 inches beyond the pole hand hole. Make all electrical splices in the pull box with pre-approved insulated direct burial and submersible multi-port splice and tap connectors with wire range 2/0 - #14 AWG.

For all cables entering each pull box/vault, provide an extra loop, approximately 3 feet in length, to remain in each pull box/vault. This loop of cable is in addition to the amount needed to reach from the entrance conduit raceway end to the opening in the exiting conduit raceway. When there is more than one circuit, bundle the circuit conductors with nylon cable ties or engineer approved electrical tape at access points.

At each pull box, identify the line side of each circuit with an attached tag using a fade-resistant waterproof black marker pen and provide the following Info:

Circuit ID: (Cir.WD-E)

Line Side coming from unit street light unit is on: (Street Name)

Side of street light unit is on: (N,S,E,or W)

Number of street lighting units from nearest crossing street: (1,2,3,4,5)

Direction from the nearest crossing street: (N,S,E,or W)

Name of the nearest crossing street: (Street Name)

Example of Tag Info:

Cir.WD-E,

Line Side from: *W. Canal St. / N. / 1 / W. /of Potawatomi Cir.*

Install conductors in continuous lengths without splices from termination to termination. The contractor may only splice at pull boxes that connect to light poles by using pre-approved insulated direct burial and submersible multi-port splice and tap connectors with wire range 2/0 - #14 AWG. At locations where no pull box or transformer bases exist, splice at the hand-holes in poles.

D Measurement

The department will measure Electrical Cable Type 4#6/1#8 XLP and 4#2/1#8 XLP by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.322	Electrical Cable Type 4#6/1#8 XLP	LF
SPV.0090.324	Electrical Cable Type 4#2/1#8 XLP	LF

Payment is full compensation for furnishing and installing Electrical Cable Type 4#6/1#8 XLP and 4#2/1#8 XLP.

92. Conduit 3-Inch HDPE Schedule 40; Item SPV.0090.325.

A Description

This special provision describes providing conduit 3-inch-high density polyethylene HDPE schedule 40 for lighting, and/or other electrical work.

B Materials

General

Furnish electrical conduit and fittings with a UL or NRTL label on each piece installed.

High-Density Polyethylene HDPE Conduit

Furnish red, smooth, high-density polyethylene (HDPE), solid-wall conduit rated for outdoor and underground use conforming to ASTM F2160, schedule 40.

The construction and testing of the conduit must comply with applicable EIA/TIA, ANSI, and ASTM standards.

Furnish bends, adapters, couplings, fittings, and other materials used to install conduits. They are to meet duct manufacturer’s installation recommendations.

Pull Tape

Provide pull tape for empty ducts in the run. The pull tape must have documentation as duct cutting resistant, tensile strength of greater than 1,500 pounds, nominal width of 5/16 inch, and marked every foot. Dry silk or equal.

Contractor must submit a certificate of compliance certifying that the conduit rigid nonmetallic as furnished conform to the above requirements. Send a copy of the certificate of the conduit rigid nonmetallic to:

Eng Kie Lee
City of Milwaukee
Infrastructure Services Division
Transportation Section
Street Lighting & City Underground Conduit
841 N. Broadway (Room 920)
Milwaukee WI. 53202

C Construction

General

Use conduit of the nominal inside diameter the plans show. Make each run of conduit the distance the plans show or as the engineer directs. Install each run of conduit between adjacent access points using one size for its entire length. A run is the conduit from pull box to pull box, junction box to junction box, or pull box to junction box. If the engineer approves, the contractor may substitute a larger size of conduit than the contract shows for that run.

Install pull tape in each conduit run that will receive future conductors as the conduit is laid.

Cap or plug rigid nonmetallic conduit immediately after installation, unless the conduit terminates in a pull box, and keep capped or plugged until installing the wire or cable. Install end bells on rigid nonmetallic conduit raceway access points before installing pull tape or cable. Ream non-metallic conduits to eliminate internal sharp edges before installing end bells.

Excavate trenches true to line and grade to provide the conduit uniform bearing throughout its length. Do not backfill the trench before inspecting the conduit. Carefully tamp the backfill in place as specified for placing backfill in layers in 651.3. Place at least 0.7 cubic feet of size No. 2 coarse aggregate conforming to 501.2.7.4.2 directly under each drainage hole.

Installing HDPE Conduit

Install conduit by directional boring, or trenching.

Do not exceed the minimum bending radius of the cable installed in the conduit. Do not pull cable over edges or corners, over or around obstructions, or through unnecessary curves or bends.

Use directional bore installations if the contract specifies.

Repairs are not allowed. Remove broken, chipped, cracked, or impaired lengths of fittings or conduit and replace with new materials. Do not install conduit above ground or on structures.

Marking and Inspecting

Mark the location of each conduit as shown on plans.

After the conduit installation is complete, inspect each installed conduit before any wire is pulled. During this inspection, ensure that the conduit raceway is fully open for its entire length. Replace any conduit that the engineer determines is crushed, damaged, or unsatisfactory.

If the engineer directs, expose the conduit at a randomly selected conduit arrow mark. If the distance from that conduit's centerline to a plumb line projected down from the tip of the arrow mark is more than six inches, expose all arrow marked conduits. Destroy arrow marks not meeting the 6-inch limit and remark the conduit.

D Measurement

The department will measure Conduit 3-Inch HDPE Schedule 40 by the linear foot of conduit installed, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.325	Conduit 3-Inch HDPE Schedule 40	LF

Payment is full compensation for furnishing and installing the conduit, including any necessary connectors.

93. 1-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60, Item SPV.0090.401.

A Description

This special provision describes furnishing and installing cement encased multiple duct conduit packages below grade as shown on the plans and as hereinafter described.

B Materials

B.1 Conduit

Furnish and install DB-60 polyvinyl chloride (PVC) conduit. Conduit will be accepted on the basis of a Manufacturer’s Certificate of Compliance and WisDOT field inspection upon delivery to a project.

PVC conduit and fittings shall conform to the requirements of Standard Specifications for Smooth-Wall Poly (Vinyl Chloride) (PVC) Conduit and Fittings for Underground Installation, ASTM Designation: F512 (latest edition).

B.2 Conduit Spacers

Furnish and install nonmetallic interlocking base spacers and intermediate spacers that provide a 1-1/2" vertical and 1-1/2" horizontal separation between PVC pipes. The base spacers shall provide a 3" vertical separation from the trench bed to the bottom of the PVC pipes.

B.3 Conduit Bed

Furnish and install a minimum 2" conduit bed of stone chips or crushed stone screenings conforming to the following:

3/8-Inch Crushed Stone Chips

Sieve Sizes	% Passing by Weight
½"	100
3/8"	90-100
No. 8	0-15
No. 30	0-3

Crushed Stone Screenings

Sieve Sizes	% Passing by Weight
½"	100
No. 4	75-100
No. 100	10-25

B.4 Concrete

The type of concrete mix to be used to encase the ducts will be:

Type IL Cement	280 lbs.
Fly Ash	100 lbs.
Sharp Torpedo Sand	3100 lbs.
Water	35 gals
Chryso Air 260 or approved equal	2.0 ozs
Chryso Plast 209 or approved equal	7.0 ozs
Air	5%

Mix the materials to provide an approximate 3-inch slump

B.5 Slurry Backfill

Aggregate slurry backfill consists of No. 1 concrete aggregate Class 'C' concrete mix with the cement deleted.

Fly Ash (Class C)	75 lbs.
Concrete Sand (Damp)	1830 lbs.
No. 1 Concrete Aggregate	1830 lbs.

Mix the materials with water to inundate the aggregate sufficiently to provide an approximate 3 inch slump. Deposit the mix in the trench directly from a concrete transit mix truck.

B.6 Pull Rope

Pull rope specifications will be:

- Flat construction (7/16" to 5/8" wide)
- 100% woven aramid fiber (may include tracer wire)
- 1500 lbs. Minimum pull strength prelubricated
- sequential footage markings for location

For any questions on materials, contact Karen Rogney at (414) 286-3243.

C Construction

C.1 Excavation

The excavation shall have the minimum or maximum dimensions shown on the plans and as follows:

Number of Ducts Wide	Minimum (Inches)	Maximum (Inches)
1	8 1/2	11
2	14 5/8	17 1/8
3	20 3/4	23 1/4.
4	26 7/8	29 3/8
5	33	35 1/2
6	39 1/8	41 5/8
7	45 1/4	47 3/4
8	51 3/8	53 7/8

These minimum and maximum trench widths apply to standard 4-inch PVC electrical duct only. When required, the excavation may be widened for the handling and placing of materials.

Sheath and brace open-cut trenches as required by code and as necessary to maintain safety. The cost of furnishing, placing and removing of sheathing and bracing shall be included in the unit bid for the work.

The dimensions of the excavation will be governed by the number, configuration and the grade (cover) to which the conduit is to be installed as shown on the plan. The walls of the excavation shall be clean and true.

Prior to excavating trenches, expose the existing manhole and conduit lines. The object of this is to permit adjustments in line and grade to avoid special construction methods. Protect the exposed manhole and conduit from damage.

Lay the conduit at a depth so that sufficient protection from damage is provided. Allowable covers shall be as follows:

The standard cover for mainline conduit is 39 inches and the minimum cover acceptable is 28 inches.

Maintain the standard cover wherever possible and any deviation less than the minimum cover requires the approval of the engineer.

Grade the trench to have a minimum pitch of three inches per 100 feet. When an obstruction is encountered in the trench and it is necessary to excavate a deeper trench than would otherwise be required, in order to obtain drainage, refer the matter to the engineer to determine whether the extra excavation should be made.

In grading a trench for mainline conduit, there are three general practices for direction of pitch.

(a) When grading a trench in a street with a level grade, the high point of the trench bottom should ordinarily be centered between manholes and pitched downward equally toward each manhole.

(b) Where the street slopes in one direction, locate the high point of the trench bottom approximately 30 feet from the end wall of the higher manhole and grade toward both manholes.

(c) Where a steep grade is encountered, grade the trench at the minimum pitch from the end wall of the higher manhole to a point 20 feet plus or minus toward the lower manhole. From this point, follow the street grade at the standard cover to a point 20 feet plus or minimum away from the end wall of the lower manhole. From this point, the remainder of the section shall be laid at the normal pitch.

After the rough excavation is completed, prepare the bottom of the trench to receive the conduit. Bring the duct bed to the final grade by grading uniformly from the high point to the low or drainage points. Use stone chips or crushed stone screenings to grade the trench. The duct bed shall be a minimum of 2” in depth.

C.2 Placing Duct

Proceed with placing the ducts as soon as the duct bed has been completed. Inspect all ducts before placing to see that the bores are clean and free from mud, sand, etc. Use only ducts with a smooth bore, free from burrs, rough projections etc. Smooth off burrs or other rough areas likely to damage cable are found in the duct by rasping or scraping.

Place the duct on base spacers with the ends staggered so no two couplings are adjacent. This may be accomplished by the use of the short lengths in stock or cutting back full length sections to the desired lengths. If cut pieces are used, place the cut end at the manhole. Locate the base spacers within 2 feet of the end of each duct and one base spacer located in the middle of the duct.

Use full length pieces for the balance of the conduit line.

Formations of two ducts or more in height are to be carried forward in full formation, that is, as each tier of twenty foot lengths is laid, the next higher tier of ducts shall then be placed on the intermediate spacers. Place these intermediate spacers on top of the base spacers located within two feet from each duct end and one in the middle of each duct. Place the intermediate spacers and ducts for the remaining tiers. Glue each length into the adjoining coupling. A twist and push on the duct being placed will suffice for a water tight joint. Exercise caution in the driving operation, so that neither the coupling nor the duct will be split or damaged in any way. After the full formation has been completed, place wood trench and duct bracing on the ducts to prevent shifting or floating while the concrete envelope is being placed and during driving operation.

This procedure shall be followed with succeeding lengths, providing spacers at the proper intervals, until sufficient trench footage of completed formation has been placed and is ready to receive concrete encasement.

The terminating point for mainline conduit will be the inside manhole wall. Install a standard end bell fitting flush with the wall on all duct access points.

Install a #10 copper tracer wire along and above the centerline of the duct for encasement in the concrete. The wire shall be 4 feet longer than the run of conduit and be at least 2 feet long at each access point.

Install a pull rope in each run of conduit, as laid. The rope shall be 4 feet longer than the run of conduit and shall be doubled back at least 2 feet at each raceway access point. Anchor the pull rope at each access point in a manner acceptable to the engineer.

C.3 Concreting

Begin concreting after sufficient conduit has been laid and the trench and duct have been inspected. The minimum concrete encasement of the ducts is three (3) inches on the top, two (2) inches on the sides, and three (3) inches on the bottom. After placing, puddle the concrete with a splicing bar or similar tool so that complete duct encasement is accomplished. Remove wood braces used to keep the conduit from floating before the concrete sets completely and the resultant encasement voids filled with concrete.

Allow the concrete encasement to set for a minimum of 6 hours before backfilling is commenced.

C.4 Slurry Backfill

Commence backfilling of the conduit immediately after the duct has been inspected, approved and has set to withstand the load.

An aggregate slurry as specified shall be used to backfill the concrete encased conduit. The trench shall be backfilled to the proposed or existing subgrade. The mix shall be deposited in the trench directly from a concrete transit mix truck.

D Measurement

The department will measure 1-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60 by the linear foot, acceptably installed. The measured quantity will equal the linear feet of encased duct, based on the distance along the centerline of duct between ends of conduit. City of Milwaukee shall have final acceptance by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.401	1-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	LF

Payment is full compensation for furnishing the conduit, conduit bodies, conduit fittings, conduit spacers, end caps and trace wire; for excavating, bedding, encasement and backfilling including any concrete, stone, aggregate slurry, bracing, or other related materials; for disposing of surplus materials; and for making inspections, and for installing the conduit.

94. Marking Crosswalk Epoxy Block Style 12-Inch, Item SPV.0090.705.

A Description

This special provision describes furnishing and installing Marking Crosswalk Epoxy Block Style 12-Inch white according to the requirements of standard spec 646 and the details as shown on the plans, with the exception of the differences noted here within.

B Materials

Furnish epoxy pavement marking and glass bead material according to the standard spec 646.

C Construction

Construction of pavement markings shall be according to manufacturer application and installation procedures, standard spec 646, and engineer.

All pavement marking areas shall be laid out by the contractor and then reviewed by the engineer. Approval of the marking layout shall be approved by the engineer prior to placement of material.

The contractor shall protect the pavement markings from damage and allow them to fully cure prior to allowing traffic to drive over markings. Any damage shall be corrected by the contractor at the contractor's expense.

D Measurement

The department will measure Marking Crosswalk Epoxy Block Style 12-Inch by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.705	Marking Crosswalk Epoxy Block Style 12-Inch	LF

Payment shall be according to standard spec 646.5.

95. Marking Stop Line Epoxy 24-Inch, Item SPV.0090.706.

A Description

This special provision describes furnishing and installing Marking Stop Line Epoxy 24-Inch according to the requirements of standard spec 646 and the details as shown on the plans, with the exception of the differences noted here within.

B Materials

Furnish epoxy pavement marking and glass bead material according to the standard spec 646.

C Construction

Construction of pavement markings shall be according to manufacturer application and installation procedures, standard spec 646, and the engineer.

All pavement marking areas shall be laid out by the contractor and then reviewed by the engineer. Approval of the marking layout shall be approved by the engineer prior to placement of material.

The contractor shall protect the pavement markings from damage and allow them to fully cure prior to allowing traffic to drive over markings. Any damage shall be corrected by the contractor at the contractor's expense.

D Measurement

The department will measure Marking Stop Line Epoxy 24-Inch by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.706	Marking Stop Line Epoxy 24-Inch	LF

Payment is full compensation for preparing the surface, furnishing, and installing all materials.

ADDITIONAL SPECIAL PROVISION 1 (ASP 1)
HIGHWAY CONSTRUCTION SKILLS TRAINING (HCST)
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including "pipeline" activities. The core programs include: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

The Wisconsin Department of Transportation OJT program was originally established in 1995. Highway Construction Skills Training (HCST) was previously known as Transportation Alliance for New Solutions (TrANS) and underwent a name change in early 2023. HCST is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities, and disadvantaged persons as laborers and apprentices in the highway skilled trades. Candidate preparation and contractor coordination services (OJT Supportive Services) are provided by contracted community-based organizations.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or advancement to apprenticeship of Highway Construction Skills Training (HCST) graduates and employing eligible trainees in qualifying trades will be made as follows:

1) **On-the-Job Training, Item ASP.1T0G, ASP 1 HCST Graduate.** At the rate of $5.00 per hour on Federal-aid projects when HCST graduates are initially hired, or seasonally rehired, as unskilled laborers or equivalent.

Eligibility and Duration: To the employing contractor, for up to 2,000 hours or two years, whichever comes first from the point of initial hire as a HCST placement.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 6 HCST Graduate(s) be utilized for 3600 hours on this contract.

2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of $5.00 per hour on Federal-aid projects at the point when an employee who came out of the HCST Program is subsequently entered into an apprenticeship contract in a qualifying trade.

Eligibility and Duration: To the employing contractor, for the length of time that the HCST graduate is in apprenticeship status.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 2 HCST Apprentice(s) be utilized for 1400 hours on this contract.

3) The maximum duration of reimbursement is two years as a HCST graduate plus time in apprentice status.

4) If a HCST program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified

under Items ASP.1T0G and ASP.1T0A. For more information, contact the Department of Transportation Labor Development Specialist at the phone number listed below.

5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

II. RATIONALE AND SPECIAL NOTE

The $5.00 per hour now being paid for HCST placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the $5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit HCST candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of HCST graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that HCST placements still contribute toward fulfilling the new hire goal of 50% women and minorities. Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.

III. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL page 2 Dated January 2012 OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level. It is the contractor’s responsibility to note on their Certified Payrolls if their employee is a HCST graduate or a HCST apprentice. The compliance specialists utilize the information on the Certified Payrolls to track the hours accumulated by HCST Graduates and HCST apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources. HCST is nondiscriminatory by regulation and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry’s skilled trades.

IV. HCST TRAINING

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows: The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also ensure that this training special provision is made applicable to such subcontract. Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training

special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not. No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons, and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical underrepresentation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

(1) To increase the overall effectiveness of the State highway agencies' approved training programs.

(2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b) (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a) (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Office of Business Opportunity & Equity Compliance (OBOEC). A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT OBOEC - Labor Development, 141 NW Barstow Street, Suite 411, PO Box 798, Waukesha, WI 53187.

VI. PROGRAM CONTACTS

Marguerite (Maggie) Givings, Labor Development Specialist
Margueritel.Givings@dot.wi.gov | 608-789-7876

Deborah Seip, Labor Development Specialist
Deborah.Seip@dot.wi.gov | 262-548-8702

ADDITIONAL SPECIAL PROVISION 3

DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM IMPLEMENTATION

Authority

Wisconsin Department of Transportation (WisDOT) is a recipient of funds from the US Department of Transportation's Federal Highway Administration. The DBE program is a federal program applicable on all contracts administered by WisDOT that include federal-aid highway funds. The authority for the DBE program is the Transportation Bill as approved by Congress periodically. DBE program guidance and requirements are outlined in the Code of Federal Regulations at 49 CFR Part 26. This contract is subject to DBE provisions because it is financed with federal-aid-highway funds. Additionally, this contract is subject to the *State of Wisconsin Standard Specifications for Highway and Structure Construction* and all applicable contract documents.

Requirements

Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE program regulatory provisions will be considered a material breach of contract. This is nonnegotiable.

If a contractor fails to carry out the DBE program requirements and/or the Required Contract Provisions for Federal Aid Contracts (FHWA 1273) referenced in this document, sanctions will be assessed depending upon the facts, reasoning, severity, and remedial efforts of the contractor that may include: termination of contract, withholding payment, assessment of monetary sanctions, and/or suspension/debarment proceedings that could result in the disqualification of the contractor from bidding for a designated period of time.

(1) The Commitment to Subcontract to DBE (Form DT1506 or digital submittal), Attachments A, and Good Faith Effort Documentation (Form DT1202) will be submitted as described in Section 2.
(2) Any change to DBE Commitments thereafter must follow modification of DBE subcontracting commitment as described in Section 9.
(3) The Department requires this list of DBE subcontractors from all bidders at time of bid to ensure the lowest possible cost to taxpayers and fairness to other bidders and subcontractors. Bid shopping is prohibited.
(4) The contractor must utilize the specific DBE firms listed in the approved DBE Commitment to perform the work and/or supply the materials for which the DBE firm is listed unless the contractor obtains written consent in advance from WisDOT. The contractor will not be entitled to payment for any work or materials on the approved DBE Commitment that is not performed or supplied by the listed DBE without WisDOT's written consent.

Description

The Wisconsin Department of Transportation is committed to the compliant administration of the DBE Program. The DBE provisions work in tandem with FHWA 1273 and WisDOT's *Standard Specifications for Highway and Structure Construction* and *Construction and Materials Manual*. The WisDOT Secretary is signatory to assurances of department-wide compliance.

The Department assigns the contract DBE goal as a percentage of work items that could be performed by certified DBE firms on the contract. The assigned DBE goal is expressed on the bid proposal as a percentage applicable to the total contract bid amount.

(1) WisDOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned contract DBE goal by subcontracting work to a DBE firm or by procuring services or materials from a DBE firm.

(2) Under the contract, the prime contractor should inform, advise, and develop participating DBE firms to be more knowledgeable contractors who are prepared to successfully complete their contractual agreement through the proactive provision of assistance in the following areas:

- Produce accurate and complete quotes
- Understand highway plans applicable to their work
- Understand specifications and contract requirements applicable to their work
- Understand contracting reporting requirements

(3) The Department encourages contractors to assist DBE subcontractors more formally by participating in WisDOT's Business Development program as a mentor, coach, or resource. For comprehensive information on the Disadvantaged Business Enterprise Program, visit the Department's Civil Rights and Compliance Section website at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx

1. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

a. **Assigned DBE Contract Goal:** The percentage shown on the cover of the Highway Work Proposal that represents the feasible level of DBE participation for each contract. The goal is calculated using the Engineer's Estimate and DBE Interest Report. Goal assignment includes review of FHWA funds, analyzes bid items for subcontract opportunity and compatibility with DBE certified firm work codes. Additional factors considered include proximity, proportion, and regulations.

b. **Bid Shopping:** In construction law, bid shopping is the practice of divulging a subcontractor's bid to another prospective contractor(s) before or after the award of a contract to secure a lower bid.

c. **DBE:** Disadvantaged Business Enterprise – A for-profit small business concern where socially and economically disadvantaged individuals own at least a 51% interest and control management and daily business operations.

d. **DBE Commitment:** The DBE Commitment is identified in the Commitment to Subcontract to DBE (Form DT1506) and is expressed as the amount of DBE participation the prime contractor has secured. The DT1506, a contract document completed by the bidder, is required to be considered a responsive bidder on an FHWA-funded contract that has an assigned DBE goal. The prime contractor will have the option to submit the DT1506 digitally, as an entry with the bid in Bid Express, or as an attachment to the bid.

e. **DBE Utilization:** The actual participation of a DBE subcontractor on a project. WisDOT verifies DBE utilization through review of the DBE Commitment, payments to subcontractors, and contract documentation. The Prime Contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved DBE Commitment, and those submitted after approved commitment with Attachment A.

f. **Good Faith Effort:** Legal term describing a diligent and honest effort taken by a reasonable person under the same set of facts or circumstances. For DBE subcontracting, the bidder must show that it took all necessary and reasonable steps to achieve the assigned DBE goal by the scope, intensity, and appropriateness of effort that could reasonably be expected for a contractor to obtain sufficient DBE participation.

g. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.

h. **Reasonable Price:** Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price.

i. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.

j. **Tied quote:** Subcontractor quote that groups multiple bid/line items at a bundled/package price with a notation that the items within the quote will not be separated.

2. WisDOT DBE Program Compliance

a. Documentation Submittal

- The Commitment to Subcontract to DBE (Form DT1506 or digital submittal) must be submitted at the time of bid (Tuesday) by all prime contractors.
- Attachments A OR quotes from all DBEs included in the Commitment must be submitted at bid (Tuesday) **OR**
- Within one-hour following bid submittal by ALL prime contractors via eSubmit (Tuesday).
- If only DBE quotes were submitted, all remaining signed Attachments A must be submitted within 24-hours of bid closing via eSubmit (Wednesday).
- If the assigned DBE contract goal is not met, Documentation of Good Faith Effort (Form DT1202) and supporting documentation must be submitted within 24-hours of bid closing (Wednesday) via eSubmit. Instructions for eSubmit.

**Bidders have the option of submitting the DBE Commitment at the time of bid via direct entry through Bid Express OR with attachment of Form DT1506 (Commitment to Subcontract to DBE). The DBE Commitment entered with bid is the digital form of the DT1506. Separate submission of Form DT1506 is not required if the DBE Commitment is entered in Bid Express. Form DT1202, if applicable, is no longer required to be submitted at time of bid; submit DT1202 within the 24-hour supplemental time frame following bid closing.

The DBE Office will not certify Good Faith Effort and the Bureau of Project Development will consider the bid nonresponsive if the contractor fails to furnish the DBE Commitment (digitally entered into the bid OR Form DT1506 as an attachment), Attachments A, and Form DT1202 if applicable, as required. See sample forms in the Appendix.

b. Verification of DBE Commitment

The documentation related to DBE subcontract commitment submitted prior to contract award is evaluated as follows:

(1) DBE Goal Met

If the bidder indicates that the contract DBE goal is met, the Department will evaluate the DBE Commitment submitted with bid OR Form DT1506, and Attachments A to verify the actual DBE percentage calculation. If the DBE Commitment is verified, the contract is eligible for award with respect to the DBE Commitment.

(2) DBE Goal Not Met

a) If the bidder indicates a bid percentage on the DBE Commitment that does not meet the assigned DBE contract goal, the bidder must request alternative evaluation of good faith effort through submission of Form DT1202 (Documentation of Good Faith Effort) within 24-hours of bid including narrative description. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. The Department will review the bidder's DBE Commitment and evaluate the bidder's good faith efforts submission.

b) Following evaluation of the bidder's Good Faith Effort documentation the bidder will be notified that the Department intends to:

1. *Approve* the request (adequate documentation of GFE has been submitted) - no conditions placed on the contract with respect to the DBE Commitment;
2. *Deny* the request (inadequate documentation of GFE has been submitted) - the contract is viewed as non-responsive per Wisconsin Standard Specifications for Highway and Structure Construction and will not be executed.

c) If the Department denies the bidder's request, the contract is ineligible for award. The Department will provide a written explanation for denying the request to the bidder. The bidder may appeal the Department's denial (see Section 4).

Supplemental good faith effort documentation must be submitted through eSubmit.

3. Department's Criteria for Good Faith Effort Documentation

The Federal-aid Construction Contract Provision, referenced as FHWA-1273, explicitly states that the prime contractor shall be responsible for all work performed on the contract by piecework, station work, or subcontract.

The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of the contract including assurances of equal employment opportunity laws, DBE regulations, and affirmative action. Compliance encompasses responsible and responsive action, documentation, and good faith effort.

Contractually, all contractors, subcontractors, and service providers on the contract are bound by FHWA 1273 and DBE program provisions. **Prime contractors should encourage subcontractors to utilize DBE firms whenever possible to contribute to the assigned DBE contract goal.**

Bidders are required to document good faith effort. Per 49 CFR Part 26.53, good faith effort is demonstrated in one of two ways. The bidder:

(1) Documents that it has obtained enough DBE participation to meet the goal; OR

(2) Documents that it made adequate good faith efforts to meet the goal, even though it did not succeed

Appendix A of 49 CFR Part 26 provides guidance concerning good faith efforts. WisDOT evaluates good faith effort on a contract basis just as each contract award is evaluated individually.

The efforts employed by the bidder should be those that WisDOT can reasonably expect a bidder to take to actively and aggressively obtain DBE participation sufficient to meet the DBE contract goal. The Department will only approve demonstration of good faith effort if the bidder documents the quality, quantity, and intensity of the variety of activities undertaken that are commensurate with expected efforts to meet the stated goal.

The Department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort activity. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

a. Solicitation Guidance for Prime Contractors:

(1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use WisDOT-approved DBE outreach tools, including the UCP DBE Directory and the Bid Express Small Business Network to foster DBE participation on all applicable contracts.

(2) As needed, request assistance with DBE outreach and follow-up by contacting the Department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Phone numbers are (414) 438-4584 and/or (608) 267-3849; Fax: (414) 438-5392; E-mail: DBE_Alert@dot.wi.gov

(3) Participate in and document a substantive conversation with at least one DBE firm per Let, to discuss questions, concerns, and any other contract related matters that may be applicable to the DBE firm. Guidelines for this conversation are provided in Appendix A of ASP-3.

(4) Request quotes by identifying potential items to subcontract and solicit. In their initial contacts, contractors are strongly encouraged to include a single page, detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in* Appendix B. Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE firms to do work in a prime contractor's area of specialization.

i. Solicit quotes from certified DBE firms who match possible items to subcontract using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which quotes are being sought to DBE_Alert@dot.wi.gov

ii. Acceptable outreach tools include SBN (Small Business Network, see Appendix C): https://www.bidx.com/wi/main, postal mail, email, fax, and phone.

a. Contractors must ask DBE firms for a response in their solicitations. See *Sample Contractor Solicitation Letter,* Appendix B. This letter may be included as an attachment to the sub-quote request.

b. Solicit quotes at least 10 calendar days prior to the letting date to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.

c. A follow up solicitation should take place within 5 calendar days of the letting date. Email and/or SBN are the preferred method for the solicitation.

iii. Upon request, provide interested DBE firms with adequate information about plans, specifications, and the requirements of the contract by letter, information session, email, phone call, and/or referral.

iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit, or insurance if requested.

v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:

a. Email to all prospective DBE firms in relevant work areas

b. Phone call log to DBE firms who express interest via written response or call

c. Fax/letter confirmation

d. Signed copy of record of subcontractor outreach effort

b. Guidance for Evaluating DBE quotes

(1) Quote evaluation practices required to evaluate DBE quotes:

i. Reasonable Price**:** Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price. See 49 CFR Part 26, Appendix A. IV.D(2).

(2) Documentation submitted by the prime of the following evaluation is required to evaluate DBE quotes by contractors:

i. Evaluation of DBE firm's ability to perform "possible items to subcontract" using legitimate reasons, including but not limited to, ***a discussion*** between the prime and DBE firm regarding its capabilities prior to the bid letting. If lack of capacity is the reason for not utilizing the DBE firm's quote, the prime is required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area indicated by the NAICS code(s) listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.

a In striving to meet an assigned DBE contract goal, contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.

b Additional evaluation - Evaluation of DBE quotes with tied bid items. Typically, this type of quoting represents a cost saving but is not clearly stated as a discount. Tied quotes are usually presented as an 'all or none' quote. When non-DBE subcontractors submit tied bid items in their quotes, the DBE firm's quote may not appear competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples:

i Compare bid items common to both quotes, noting the reasonableness in the price comparison.

ii Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

See Appendix D – *Good Faith Effort Evaluation Measures* and Appendix E - *Good Faith Effort Best Practices.*

c. Requesting Good Faith Effort Evaluation At the time of bid- if the DBE goal is not met in full, the prime contractor must indicate they will file form DT1202- Documentation of Good Faith Effort within 24-hours of bid submission. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. Supporting documentation for the DT1202 is to include the following:

(1) Solicitation Documentation: The names, addresses, email addresses, and telephone numbers of DBE firms contacted along with the dates of both initial and follow-up contact; electronic copies of all written solicitations to DBE firms. A printed copy of SBN solicitation is acceptable.

(2) Selected Work Items Documentation: Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.

(3) Documentation of Project Information provided to interested DBEs: A description of information provided to the DBE firms regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE firm.

(4) Documentation of Negotiation with Interested DBEs: Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts.

(5) Documentation of Sound Reasoning for Rejecting DBEs and copies of each quote received from a DBE firm and, if rejected, copies of quotes from non-DBEs for same items.

(6) Documentation of Assistance to Interested DBEs- Bonding, Credit, Insurance, Equipment, Supplies/Materials

(7) Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support: Contact organizations and agencies for assistance in contacting, recruiting, and providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

If the Good Faith Effort documentation is deemed adequate, the request will be approved and the DBE office will promptly notify the Prime Contractor and Bureau of Project Development.

If the DBE Office denies the request, the Prime Contractor will receive written correspondence outlining the reasons. The Department encourages the Prime Contractor to communicate with DBE staff to clarify any questions related to meeting goals and/or contractor demonstration of good faith efforts.

If the contract is awarded, the Prime Contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved DBE Commitment. No contractor, prime or subsequent tier, shall be paid for completing work assigned to a DBE subcontractor on an approved DBE Commitment unless WisDOT has granted permission for the reduction, replacement, or termination of the assigned DBE in writing. If a prime contractor or a subcontractor on any tier uses its own forces to perform work assigned to a DBE on an approved DBE Commitment, **they will not be paid for the work**. Any changes to DBE Commitment after the approval of the DBE Commitment must be reviewed and approved by the DBE Office prior to the change (see Section 9).

Additional resources for demonstrating and tracking good faith effort can be found on the “Contracting with a DBE” webpage in the ASP-3 and Good Faith Effort Guidance section.

4. Bidder's Documentation of Good Faith Effort Evaluation Request Appeal Process

A bidder can appeal the Department's decision to deny the bidder's demonstration of Good Faith Effort through Administrative Reconsideration. The bidder must provide a written justification refuting the specific reasons for denial as stated in the Department's denial notice. The bidder may meet in person with the Department if so requested. Failure to appeal within 5 business days after receiving the Department's written notice denying the request constitutes a forfeiture of the bidder's right of appeal. Receipt of appeal is confirmed by email date stamp or certified mail signed by WisDOT staff. A contract will not be executed without documentation that the DBE provisions have been fulfilled.

The Department will appoint a representative who did not participate in the original good faith effort determination, to assess the bidder's appeal. The Department will issue a written decision within 5 business days after the bidder presents all written and oral information. In that written decision, the Department will explain the basis for finding that the bidder did or did not demonstrate an adequate good faith effort to meet the contract DBE goal. The Department's decision is final.

5. Determining DBE Eligibility

Directory of DBE firms

a. The only resource for DBE firms certified in the State of Wisconsin is the Wisconsin Unified Certification Program (UCP) DBE Directory. WisDOT maintains a current list of certified DBE firms at: http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx

b. The DBE Program office is available to assist with contracting DBE firms:(608) 267-3849.

c. DBE firms are certified based on various factors including the federal standards from the Small Business Administration that assigns a North American Industrial Classification (NAICS) Codes. DBE firms are only eligible for credit when performing work in their assigned NAICS code(s). If a DBE subcontractor performs work that is not with its assigned NAICS code, the prime contractor should contact the DBE Office to inquire about compatibility with the Business Development Program.

6. Counting DBE Participation

Assessing DBE Work

The Department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the UCP agencies. The Department only counts the value of the work a DBE actually performs towards the DBE goal. The Department assesses the DBE work as follows:

a. The Department counts work performed by the DBE firm's own resources. The Department includes the cost of materials and supplies the DBE firm obtains for the work. The Department also includes the cost of equipment the DBE firm leases for the work. The Department will not include the cost of materials, supplies, or equipment the DBE firm purchases or leases from the prime contractor or its affiliate, with the exception of non-project specific leases the DBE has in place before the work is advertised.

b. The Department counts fees and commissions the DBE subcontractor charges for providing bona fide professional, technical, consultant, or managerial services. The Department also counts fees and commissions the DBE charges for providing bonds or insurance. The Department will only count costs the program engineer deems reasonable based on experience or prevailing market rates.

c. If a DBE firm subcontracts work, the Department counts the value of the work subcontracted to a DBE subcontractor.

d. The contractor will maintain records and may be required to furnish periodic reports documenting its performance under this item.

e. It is the Prime Contractor's responsibility to determine whether the work that is committed and/or contracted to a DBE firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.

f. It is the Prime Contractor's responsibility to assess the DBE firm's ability to perform the work for which it is committing/contracting the DBE to do. Note that the Department encourages the Prime Contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.

g. The Prime Contractor will inform the DBE office via email of all DBE subcontractors added to the project following execution of the contract. The Prime Contractor may omit submission of another form DT1506, but must submit signed Attachment A forms for additional DBE firms.

h. See Section 7 for DBE credit evaluation for Trucking and Section 8 for DBE credit evaluation for Manufacturers, Suppliers, and Brokers

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, Attachment A" Email: DBE_Alert@dot.wi.gov

*Note: A sublet request is required for DBE work, regardless of subcontract tier, and also for reporting materials or supplies furnished by a DBE.

- Sublet Requests via form DT1925 or WS1925 are required for 1st Tier DBEs
- For all 2nd Tier and below notification of DBE sublet is indicated by the contractor entering them in CRCS

7. Credit Evaluation for Trucking

All bidders are expected to adhere to the Department's current trucking policy posted on the HCCI website at: http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf

The prime contractor is responsible for ensuring that all subcontractors including trucking firms, receive Form FHWA 1273: https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf

See Section 8 for Broker credit.

8. Credit Evaluation for Manufacturers, Suppliers, Brokers

The Department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The Department will count the material and supplies that a DBE firm provides under the contract for DBE credit based on whether the DBE firm is a manufacturer, supplier, or broker. Generally, DBE credit is determined through evaluation of the DBE owner's role, responsibility, and contribution to the transaction. Maximum DBE credit is awarded when the DBE firm manufactures materials or supplies. DBE credit decreases when the DBE firm solely supplies materials, and minimal credit is allotted when the DBE firm's role is administrative or transactional. It is the bidder's responsibility to confirm that the DBE firm is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506 or DBE Commitment submitted with the bid.

a. Manufacturers

(1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.

(2) If the materials or supplies are obtained from a DBE manufacturer, **100%** percent of the cost of the materials or supplies counts toward DBE goals.

b. Regular Dealers of Material and/or Supplies

(1) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications

and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

(2) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.

(3) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:

i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.

ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.

(4) When DBE suppliers are contracted, additional documentation must accompany the DBE Commitment and Attachment A forms. An invoice or bill-of-sale that includes names of the bidder and the DBE supplier, along with documentation of the calculations used as the basis for the purchase agreement, subcontract, or invoice. WisDOT recognizes that the amount on the Attachment A form may be more or less than the amount on the invoice per b.(1) above.

i. The bidder should respond to the following questions and include with submission of form DT1506 or the DBE Commitment entered with bid:

a. What is the product or material?

b. Is this item in the prime's inventory or was the item purchased when contract was awarded?

c. Which contract line items were referenced to develop this quote?

d. What is the amount of material or product used on the project?

(5) Supplies purchased in **bulk** from DBE firms at the beginning of the season may be credited to current contracts if submitted with appropriate documentation to the DBE office.

i. To ensure that the appropriate credit is assigned, follow the procedure below:

a. When DBE suppliers are contracted for bulk supply or commodity purchases, an invoice or bill-of-sale that includes names of the contractor and the DBE supplier should be submitted to the DBE Office via eSubmit (preferred during letting) or the DBE_Alert email box. The supply/commodity credit may be applied during the federal fiscal year (October- September) in which the purchase was made.

b. When the contractor intends to apply the credit to a particular project, submit a copy of the original invoice, documentation of the calculations for supplies/commodities to be used on the project, and an Attachment A. Indicate on the Attachment A:

c. This supply/commodity is in the prime's inventory or pre-paid in case of commodities

d. The full value of the original invoice submitted to the DBE Office, above in (1)

e. The amount of material or product used on this project

f. Fuel estimate listed on Attachment A will be recorded as a deduction from the full fuel purchase amount shown on the invoice

ii. DBE Office Process (Applies only to bulk purchases)

a. Supply/Commodity commitment is received

b. Engineer verifies amount listed on invoice and enters the full amount into spreadsheet

c. The amount of credit applied for each project is updated on the spreadsheet until the bulk purchase is exhausted

d. Engineer informs contractor when full amount of bulk purchase has been applied

c. Brokers, Transaction Expediters, Packagers, Manufacturers' Representatives

(1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit. However, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies, or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions.

(2) Brokerage fees are calculated as **10%** of the purchase amount.

(3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, fees, or transportation charges for the delivery of materials or supplies required on a job site.

(4) Evaluation of DBE credit includes review of the contract need for the item/service, the sub-contract or invoice for the item/service, and a comparison of the fees customarily allowed for similar services to determine whether they are reasonable.

9. DBE Commitment Modification Policy (Formerly "DBE Replacement Policy")

a. Issuing a Contract Change Order

Any changes or modifications to the contract once executed are considered contract modifications and as such require a change order. In addition, the DBE office must provide consent for reduction, termination, or replacement of subcontractors approved on the DBE Commitment *in advance* of the modification for the prime contractor to receive payment for work or supplies. Additions to the DBE Commitment do not require advance notification of the DBE office. (see below e. DBE Utilization beyond the approved DBE Commitment)

b. Contractor Considerations

(1) A prime contractor cannot modify the DBE Commitment through reduction in participation, termination, or replacement of a DBE subcontractor listed on the approved DBE Commitment without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.

(2) If a prime contractor reduces participation, replaces, or terminates a DBE subcontractor who has been approved for DBE credit toward its contract, the prime is required to provide documentation supporting its inability to fulfill the contractual commitment made to the Department regarding the DBE utilization.

(3) The Prime Contractor is required to demonstrate efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE subcontractor that was terminated, to the extent needed to meet the assigned DBE contract goal. When additional opportunity is available by contract modifications, the Prime Contractor must utilize DBE subcontractors that were committed to equal work items, in the original contract.

(4) In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason, or is terminated from a contract, the Prime Contractor must undertake efforts to maintain its commitment to the assigned DBE goal.

(5) The DBE subcontractor should communicate with the Prime Contractor regarding its schedule and capacity in the context of the contract. If the DBE firm anticipates that it cannot fulfill its subcontract, they will advise the Prime Contractor and suggest a DBE subcontractor that may replace their services and provide written consent to be released from its subcontract.

i. Before the Prime Contractor can request modification to the approved DBE Commitment, the Prime Contractor must:

a. Make every effort to fulfill the DBE Commitment by working with the listed DBE subcontractor to ensure that the firm is fully knowledgeable of the Prime Contractor's expectations for successful performance on the contract. Document these efforts in writing.

b. If those efforts fail, provide written notice to the DBE subcontractor of the Prime Contractor's intent to request to modify the Commitment through reduction in participation, termination, and/or replacement of the subcontractor including the reason(s) for pursuing this action.

c. Copy the DBE Office on all correspondence related to changing a DBE subcontractor who has been approved for DBE credit on a contract, including preparation and coordination efforts.

d. Clearly state the amount of time the DBE firm has to remedy and/or respond to the notice of intent to replace/terminate. The DBE must be allowed five days from the date notice was received as indicated by email time stamp or signed certified mail, to respond, in writing. EXCEPTION: The Prime Contractor must provide a verifiable reason for a response period shorter than five days. For example, a WisDOT project engineer or project manager confirms that WisDOT has eliminated an item the DBE subcontractor was contracted for.

e. The DBE subcontractor must acknowledge the contract modification with written response to the Prime Contractor and the DBE Office. If objecting to the subcontract modification, the DBE subcontractor must outline the basis for objection to the proposed modification, providing sound reasoning for WisDOT to reject the prime's request.

c. Request to Modify DBE Subcontracting Commitment

The written request referenced above may be delivered by email or fax. The request must contain the following:

(1) Project ID number

(2) WisDOT Contract Project Engineer's name and contact information

(3) DBE subcontractor name and work type and/or NAICS code

(4) Contract's progress schedule

(5) Reason(s) for requesting that the DBE subcontractor be replaced or terminated

(6) Attach/include all communication with the DBE subcontractor to deploy/address/resolve work completion

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, MODIFICATION" Email: DBE_Alert@dot.wi.gov + Project Engineer

WisDOT will review the request and any supporting documentation submitted to evaluate if the circumstance and the reasons constitute good cause for replacing or terminating the approved DBE subcontractor.

Good Causes to Replace a DBE subcontractor according to the federal DBE program guidelines {49 CFR part 26.53}

- The listed DBE subcontractor fails or refuses to execute a written contract
- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215, and 1,200 or applicable state law
- The prime has determined that the listed DBE subcontractor is not a responsible contractor
- The listed DBE subcontractor voluntarily withdraws from the project and provides written notice of its withdrawal
- The listed DBE subcontractor is ineligible to receive DBE credit for the type of work required

- A DBE firm owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract.

d. Evaluation and Response to the Request

WisDOT's timely response to the Prime Contractor's request for modification of the approved DBE Commitment will be provided to the prime and the WisDOT project engineer via email.

If WisDOT determines that the Prime Contractor's basis for reduction in participation, replacement, or termination of the DBE subcontractor is not consistent with the good cause guidelines, the DBE office will provide a response via email within 48-hours of receipt of request from the Prime Contractor as indicated by email time stamp. The communication will include: the requirement to utilize the committed DBE, actions to support the completion of the contractual commitment, a list of available WisDOT support services, and administrative remedies, including withholding payment to the prime, that may be invoked for failure to comply with federal DBE guidelines for DBE replacement.

The WisDOT contact for all actions related to modification of the approved DBE Commitment is the DBE Program Engineer who can be reached at DBE_Alert@dot.wi.gov or (414) 335-0413.

e. DBE Utilization beyond the approved DBE Commitment

When the prime or a subcontractor increases the scope of work for an approved DBE subcontractor or adds a DBE subcontractor who was not on the approved form DT1506 or DBE Commitment submitted with bid at any time after contract execution, this is referred to as voluntary DBE contract goal achievement. The contractor must follow these steps to ensure that the participation is accurately credited toward the DBE goal:

(1) Forward a complete, signed Attachment A form to the DBE Office. A complete Attachment A includes DBE subcontractor contact information, signatures, subcontract value, and description of the work areas to be performed by the DBE. The DBE Office will verify the DBE participation and revise the DBE Commitment based on the email/discussion and the new Attachment A.

(2) When adding to an existing DBE Commitment, submit a new Attachment A to the DBE Alert mailbox

(3) OR Submit a final Attachment A to DBE Alert during the Finals Process when Compliance receives notice of "Substantially Complete"

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, New Attachment A" Email: DBE_Alert@dot.wi.gov

Special note on trucking

- DBE truckers added to the sublets in CRCS *will* be approved without DBE credit (You will see a "N" in CRCS instead of "Y")
- Prime Contractors may enter a "place holder" e.g. $1000.00, for DBE Trucking in CRCS if the full amount of trucking is unknown for sublet purposes only
- The hiring contractor may obtain the Attachment A with DBE signature included but the **Prime Contractor** must sign the Attachment A before submitting
- DBE truckers need to be added to the DBE commitment once. If the DBE trucker is on the initial commitment (DT1506/E1506) there is no requirement to submit another Attachment A for that trucker for that contract.

10. Commercially Useful Function

a. Commercially Useful Function (CUF) is evaluated after the contract has been executed, while the DBE certified firm is performing contracted work items.

b. The Department uses Form DT1011, DBE Commercially Useful Function Review and Certification to evaluate if the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

c. A DBE firm is performing a commercially useful function if the following conditions are met:

(1) For contract work, the DBE is responsible for executing a distinct portion of the work and is carrying out its responsibilities by actually performing, managing, and supervising that work.

(2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

d. Offsite Hauling – when DBE truck will haul between a pit and plant or location other than the construction site associated with the commitment

(1) Indicate Offsite Hauling on Attachment A

(2) Discuss offsite hauling at weekly progress meetings with Project Engineer (PE)

(3) PE conducts spot checks of pits/plants to verify DBE truck is hauling and/or verifying hauling log

(4) Prime should be prepared to submit haul tickets, plant/pit tickets, timecards, and other pertinent documentation if requested by PE or DBE Office

11. Credit Evaluation for DBE Primes

WisDOT calculates DBE credit based on the amount and type of work performed by DBE certified firms for work submitted with required documentation. If the prime contractor is a DBE certified firm, the Department will only count the work that the DBE prime performs with its own forces for DBE neutral credit. The Department will also calculate DBE credit for work performed by any other DBE certified subcontractor, DBE certified supplier, and DBE certified manufacturer on the contract in each firm's approved NAICS code/work areas that are submitted with required documentation. Crediting for manufacturers and suppliers is calculated consistent with Section 8 of this document and 49 CFR Part 26.

12. Joint Venture

A joint venture is an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest. If a DBE performs as a participant in a joint venture, the Department will only credit the portion of the total dollar value of the contract equal to the portion of the work that the DBE performs with its own forces.

13. Mentor-Protégé

a. If a DBE performs as a participant in a mentor-protégé agreement, the Department will credit the portion of the work performed by the DBE protégé firm.

b. DBE credit is evaluated and confirmed by the DBE Office for any contracts on which the mentor-protégé team identifies itself to the DBE Office as a current participant of the Mentor-Protégé Program.

(1) DBE credit may only be awarded to a non-DBE mentor firm for using its own protégé firm for less than one half of its goal on any contract; and

(2) Not award DBE credit to a non-DBE mentor firm for using its own protégé firm for more than every other contract performed by the protégé firm.

c. A DBE protégé firm may be eligible for conditional NAICS code extension for training with the mentor. Request permission from the DBE Office- Certification area.

d. Refer to WisDOT's Mentor-Protégé guidelines for guidance on the number of contracts and amount of DBE credit allowed on WisDOT projects.

14. Use of Joint Checks

The use of joint checks is allowable if it is a commonly recognized business practice in the material industry. A joint check is defined as a two-party check between a DBE subcontractor, a prime contractor, and the regular dealer or materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE firm in cases where the DBE subcontractor and materials have been approved for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE firm is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE firm must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

a. The Prime Contractor must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.

- **(1)** Request should be made when the DBE Commitment or the Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
- **(2)** Approval/Permission must be granted prior to the issuance of any joint checks.
- **(3)** The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
- **(4)** The joint check for supplies must be strictly for the cost of approved supplies.

b. The DBE subcontractor is responsible for furnishing and/or installing the material/work item and is not an ‘extra participant’ in the transaction. The DBE firm’s role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor’s tasks should include the following:

- **(1)** The DBE subcontractor (not the prime/payor) negotiates the quantities, price, and delivery of materials.
- **(2)** The DBE subcontractor consents to sign/release the check to the supplier by signing the Application to Use Joint Checks after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.

c. The Prime contractor/payor acts solely as a guarantor.

- **(1)** The Prime Contractor agrees to furnish the check used for the payment of materials/supplies under the contract.
- **(2)** The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractor’s negotiated unit price.

15. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

Appendix A
Substantive Conversation Guidelines

The substantive conversation is critical to all bidders' demonstration of good faith effort to meet the DBE goal prior to bid opening. Relationship building between primes and subcontractors is crucial to DBE goal attainment. Responsible bidders seek to build rapport with potential DBE subcontractors to understand capacity, areas of expertise, and assess contracting feasibility. Bidders who compete for WisDOT contracts are specialty contractors responding to a growing and changing contract environment. Just as these specialists are responsible for care of the roads, they are likewise responsible for contributing to the health of the industry. The substantive conversation drives collaboration that will build industry health and capacity. The following is intended to provide guidance for such discussions but is not an exhaustive list. Contractors are encouraged to incorporate their existing strategies for cultivating business relationships as well.

Prior to Bid Opening- this discussion should happen as early as possible (WisDOT advertisements are released weeks prior to each Let)

1. Determine DBE subcontractor's interest in quoting
2. If response indicates inexperience with quoting- offer support/assistance to the DBE in understanding the industry including fundamentals a subcontractor needs to know, required reading and/or resources.
3. Assess their interest and experience in the road construction industry by asking questions such as:

- Have you competed for other WisDOT contracts? Ratio of competed/to wins
- Have you performed on any transportation industry contracts (locally or with other states)?
- What the largest contract you've completed?
- Have you worked in the industry: apprentice, journeyman, safety, inspection etc.?
- Does this project fit into your schedule? Are you working on any contracts now?
- Have you reviewed a copy of the plans? Are you comfortable performing within the scope and quantity considerations of this contract?
- What region do you work in? Home base?
- Which line items are you considering?
- Have you read/are you familiar with WisDOT Standard Specifications? Construction Material Manual?
- Do you understand where your work fits in the project schedule, project phases?

Following Bid Opening- this discussion can happen at any time

1. After reviewing their quote, note the following in your discussion:

- Does the quote look complete? Irregular?
- Are there errors in the quote? Are items very high or very low?
- In general, does the quote look competitive?

2. Questions and Advice for the bidder to share with the potential DBE subcontractor:

- What line items would typically be in a competitive quote for a subcontractor of their specialty?
- How many employees and what is their role/experience/expertise in your firm?
- Do you have resources for labor (union member, family-based, community-resourced) and capital (banking relationship, bond agent, CPA)?
- Where have you worked: cities, states, government, commercial, residential/private sector, etc. Explain similarities or differences.
- Refer them to reliable, trusted, industry resources that can educate or connect them to relevant resources, education/certification resources, more appropriate contract opportunities.
- Discussion about prime contract and subcontract liability, critical path items, contract quantities, schedule risks, and potential profit/loss (for upcoming known projects or in general).
- Discussion of bonding, insurance, and overall business risk considerations.

Appendix B

Sample Contractor Solicitation Letter Page 1

(This sample is provided as a guide, not a formatting requirement)

DBE Solicitation - [Month] [Day], [Year] WisDOT Bid Letting

Attention all DBEs. [Prime Contractor] is actively seeking your quote for the [Month][Day], [Year] Bid Letting. [Prime Contractor] is considering bidding on the projects listed on page 2 as a prime contractor. Please see page 2 for instructions and the sub-contractable opportunities for each proposal.

Does [Prime Contractor] accept quotes in areas we might self-perform? Yes, we do! We support this federal rule and (if needed) we consider areas we might self-perform an opportunity to provide in the field assistance and training if we award your quote.

Where can DBEs find the plans, specifications & addenda? Please visit [Prime Contractor's] plan room [LINK] or on WisDOT's Highway Construction Contract Information HCCI website: Wisconsin Department of Transportation Highway Construction Contract Information (wisconsindot.gov). This same website can be checked for the contract status.

What should your quote include? All the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should also note items that you are DBE certified to perform, tied items, and any special terms. Please use page 2 as your cover sheet for your quote.

Do you have a question regarding bonding, credit, insurance, equipment, or supplies/materials? We welcome all DBE questions! Please call [Prime Contractor] and ask to speak with [Contact]. [Prime Contractor] can provide basic information as well as a referral to a trusted industry partner for insurance and bonding needs.

When are quotes due?

[Month] [Day], [Year] at [Time]. We accept quotes via SBN, email, or fax. Please make every effort to have your quotes in by this time or earlier. Quality check your quote so it includes the correct letting date, project ID, proposal number, unit price and extension.

Who can DBEs contact for questions, information, clarification or for a quote evaluation? [Project Manager Name] [Phone] [Email]. If you are quoting [Prime Contractor] for the first time, we encourage you to come meet with us in person to discuss the project. Our office hours are 7:30 a.m. – 5:00 p.m. On bid day, we are in the office by 6:30 a.m.

Why partner with [Prime Contractor]?

DBE partnership is a core part of [Prime Contractor's] mission. Including DBEs at the beginning of each project is essential in the success of each project. We consider DBEs to be important industry partners who bring dedication and knowledge at various stages during construction. We are proud to be an industry leader with our DBE partnership. Your success as a DBE is our success.

Sample Contractor Solicitation Letter Page 2

(This sample is provided as a guide, not a formatting requirement)

REQUEST FOR QUOTE

[Prime Contractor]
Letting Date: [Month] [Day], [Year]
Project IDs: 1234-56-00 (Proposal #1) & 1234-01-78 (Proposal #6)

Please check all that apply:
____Yes, we will be quoting the projects & items listed below
____ No, we are not interested in quoting on the letting or its items referenced below
____ Please take our name off your monthly DBE contact list
____ We have questions about quoting this letting. Please have someone contact me at this number:

Prime Contractor Contact:_____ DBE:_____
Phone:_____ Fax:_____
Email:_____

Please circle the proposals and items you will be quoting below and contact us with any questions

Proposal **County**	**1** **Dane County**	**6** **Crawford County**
Clearing & Grubbing	**X**	**X**
Dump Truck Hauling	**X**	**X**
Curb/Gutter/Sidewalk	**X**	
Erosion Control Items		**X**
Excavation	**X**	**X**
Pavement Marking		**X**
Traffic Control	**X**	
Sawing	**X**	**X**
QMP, Base		**X**
Pipe Underdrain	**X**	
Landscape		**X**
Beam Guard	**X**	
Electrical	**X**	
Signs/Posts/Markers		**X**
Survey/Staking		**X**

Again, please make every effort to have your quotes into our office by time deadline prior to the letting date.

Sample Contractor Solicitation Email - Simplified

(This sample is provided as a guide, not a formatting requirement)

ATTENTION DBEs

- **[Prime Contractor] specializes in municipal projects in the XX Region(s)**
- **We have successfully competed for *and* completed XX WisDOT projects over the past XX years**
- **Consider [Prime Contractor] your partner on WisDOT Projects**

[Prime Contractor] is seeking *your* subcontractor quote for the XX/XX/20XX WisDOT bid letting on the below projects:

Project	Proposal	County	Region
1234-56-00	**2**	**Dane**	**SW**
1234-01-78	**6**	**Crawford**	**SW**

- Please review the attachments **[attach Solicitation Letter]** and respond with your intent to quote (or not) along with the work items you are interested in performing and respond via fax or email by ***date***. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Please include labor, equipment, material, and related bonding or insurance.

- If you have any questions regarding bonding, credit, insurance, equipment and/or materials/supplies, please feel free to call [Prime Contractor] and ask for [Contact]. **(Include if your company is willing to answer these types of DBE questions)**

- Plans and Specifications can be found: **WisDOT HCCI Website: List webpage where plans are located**

- If you do choose to quote, please make every effort to have your quote into our office by ***time and date.*** Make sure the correct letting date, project number, unit price and extension are included in your quote.

- Should you have questions regarding the mentioned project, please call our office at (414) 555-5555 and we will direct you to the correct estimator/project manager.
  Our office hours are 7:30 a.m. - 5:00 p.m.

Thank you – we look forward to working with your company on this project!

Prime Contractor
Project Manager
Direct: 414-555-5555
Cell: 414-555-5556

Sample Contractor Solicitation Email to non-DBE WisDOT Subcontractors - Simplified

(This sample is provided as a guide, not a formatting requirement)

ATTENTION WisDOT SUBCONTRACTORS

[Prime Contractor] is considering bidding on the below projects for the XX/XX/20XX WisDOT Bid Letting:

Project	Proposal	County	Region	DBE Goal
1234-56-00	2	Dodge	SW	6.00%
1234-01-78	11	Adams	NC	3.00%
1234-00-99	20	Buffalo	NW	5.00%
1234-00-98	33	Portage	NC	6.00%

The above projects have DBE goals and [Prime Contractor] is committed to DBE inclusion with every project. As such, we are requesting:

- All WisDOT Subcontractors to **solicit and utilize** DBEs in your quotes.
- DBE participation can be achieved through purchasing materials from DBE suppliers, using DBE subcontractors and/or DBE trucking firms or any combination of these.
- If there is an opportunity to untie an item in your quote so a DBE can be utilized, please look for those opportunities as well.
- Your quote will be evaluated based on the amount of DBE participation your company is able to provide when compared to other quotes for the same work.

If you do choose to quote, please make every effort to have your quote into our office by **time and date.** Please submit all quotes to [Email]. Make sure the correct letting date, project number, unit price and extension are included in your quote.

Should you have questions regarding the mentioned project, the Project Manager contact is: [Name] [Phone Number] [Email]

Thank you for utilizing DBEs who are trusted industry partners with WisDOT projects.

Prime Contractor
Project Manager
Direct: 414-555-5555
Cell: 414-555-5556

Appendix C
Small Business Network (SBN) Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription. Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
    a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for later completion.
2. Create sub-quotes for the subcontracting community:
    a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
    b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
    c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE preferred request.
    d. Add attachments to sub-quotes.
3. View sub-quote requests & responses:
    a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
    b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.
4. View Record of Subcontractor Outreach Effort:
    a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
    b. Easily locate pre-qualified and certified small and disadvantaged businesses.
    c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
    d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs. The DBE will provide free SBN accounts to DBEs when requested. Use DBE_Alert@dot.wi.gov to request an account. **DBE firms can:**

1. View and reply to sub-quote requests from primes:
    a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
    a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
    b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes. c. Add attachments to a sub-quote.
3. Create and send unsolicited sub-quotes to specific contractors:
    a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
    a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
    b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
    c. Add attachments to a sub-quote.
    d. Add unsolicited work items to sub-quotes that you are responding to.
5. Easy Access to Valuable Information
    a. Receive a confirmation that your sub-quote was opened by a prime.
    b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
    c. View important notices and publications from DOT targeted to small and disadvantaged businesses.
6. Accessing Small Business Network for WisDOT contracting opportunities
    a. If you are a contractor not yet subscribing to the Bid Express service, go to **www.bidx.com** and select “Order Bid Express.” The Small Business Network is a part of the Bid Express Basic Service.

Appendix D

Good Faith Effort Evaluation Measures *by categories referenced in DBE regulations*

Bidders must demonstrate that they took all necessary and reasonable steps to achieve the assigned DBE contract goal. For each contract, all bidders must submit documentation indicating the goal has been met or if falling short of meeting the assigned goal, must request a DBE Goal Waiver and document all efforts employed to secure DBE subcontractor participation on Form DT1202.

DBE staff analyze the bidder's documented good faith efforts to determine if action taken was sufficient to meet the goal. Sufficiency is measured contract-by-contract. WisDOT evaluates active and aggressive efforts, quality, quantity, scope, intensity, and appropriateness of the bidder's efforts as a scale of the principles of Good Faith outlined in 49 CFR Part 26, Appendix A. Additional emphasis is placed on the bidder's demonstration of timely submission of documentation and communication with DBE subcontractors, and business development initiatives undertaken to support DBE firm growth.

The following is a sample of good faith effort activities that are rated according to the accompanying rubric. Contractors are encouraged to identify additional activities that align with their business type(s).

- Personal, tailored solicitation to firms that specialize in work types planned or desired for subcontracting
- Follow up to initial solicitation via email or phone
- Substantive conversation including topics such as contract liability, critical path work items, schedule risks, and potential profit/loss
- SBN utilization including posting quotes
- Review and response to DBE quotes including provision of information about plans, specifications,and requirements as applicable
- Documentation requesting subcontractors support DBE goal by solicitation and inclusion of DBE subcontractor quotes
- Responsive and timely submission of organized documentation
- Analysis of number of DBE firms who do work types that you typically subcontract
- Analysis of number of DBE firms who reside in geographical areas where prime seeks work
- Analysis of firms who express interest in bidding/quoting including the number of firms who declined your solicitation
- Reference check of DBE subcontractor work or training (documentation of questions and response required)
- Number of different efforts undertaken to meet the assigned DBE goal as documented in accompanying Form DT1202
- Submission of all DBE quotes received matched with a variety of work to be performed by DBEs
- Number and names of DBE firms provided written advice, or referral to industry-specific business development resources
- Overall pattern of DBE utilization on all WisDOT contracts which may include contracting with municipalities
- Documentation of resources expended to meet assigned DBE goal (#of hours, staff titles, average pay rate, actions taken)
- Analysis of subcontractable work items to be completed by prime beyond prime contractor's 30%
- Risk analysis of work items that are typically in tied quotes that could be unbundled
- List of contract work items in smallest economically feasible units, identifying schedule impact
- Submission of a Gap Analysis identifying DBE skillset and/or industry needs
- Staff training in EEO and Civil Rights laws as documented in training logs
- Written Capacity Assessment completed with DBE firm documenting its ability to perform the work quoted
- DBE engagement efforts beyond simple solicitation that include a substantive discussion, initiated as early in the acquisition process as possible (*points added for each day prior to letting*)
- Outreach and marketing efforts with minority, women, and veteran-focused organizations at least 10 days prior to bid opening
- Active involvement in WisDOT's Business Development Program, TrANS training, facilitated networking efforts, workshops
- Customized teaching/training efforts for future opportunities with DBE subcontractor, contract specific and/or annually
- Introduction and reference provided for DBE subcontractor to a prime who has not previously contracted with the DBE firm
- Prime utilization of a DBE subcontractor the prime has not contracted with previously
- Written referral/recommendation to bond/insurance agents, manufacturer, supplier
- Documented efforts fostering DBE participation through administrative and/or technical assistance
- Evidence of negotiation with the DBE firm about current and future Let opportunities
- Recommendation of local and state services that support small business and access to opportunity: DOA, SBA, WEDC, WPI, etc.
- Advice on bonding, lines of credit, or insurance as required to complete the items quoted and contract requirements

GFE Evaluation Rubric – Phase 1 – Initial Review

DT1202	Examples	Rating	OBOEC Feedback
Solicitation Documentation	Identify all reasonable and available activities performed to solicit the interest of all certified DBEs who have capacity and ability to perform work on the project. *Such as: Updated solicitation letter and email, timely solicitation, and follow-up, and/or utilized various methods to communicate solicitation (ex: letter, email, publication, posting and/or website)*		
Selected Work Items Documentation	All work items are broken out into economically feasible units to facilitate DBE participation. *Such as: Selected work items are specific to each proposal and clearly identified in all solicitation(s)*		
Documentation of Project Information provided to Interested DBEs	Provide interested DBEs with adequate information about the plans, specifications, and any other contractual requirements in a timely manner to assist DBEs in response to solicitation. *Such as: Project information is clearly identified in all solicitation(s)*		
Documentation of Negotiation with Interested DBEs	Provide sufficient evidence demonstrating that good faith negotiations took place during the bid letting. *Such as: Documented attempts with DBEs or on behalf of DBEs to increase DBE participation*		
Documentation of Sound Reason for Rejecting DBEs	Provide sufficient evidence demonstrating that DBEs are rejected for sound reasons. *Such as: Detailed and thoughtful analysis that considers both the percentage and dollar difference when rejecting a DBE including past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, and other tangible factors.*		
Documentation of Assistance to Interested DBEs- bonding, credit, insurance, equipment, supplies/materials	Documented assistance in both solicitation(s) and outreach to DBEs.		
Documentation of Outreach to Minority, Women, and Community organizations and other DBE Business Development Support	Effectively use the services of minority, women, and community organizations as well as contractors' groups, local, state, and federal business assistance offices and organization that provide assistance in recruiting and supporting DBEs, as well participation in activities that support DBE business development. *Such as: Variety of activities that translate into meaningful DBE participation*		
Documentation of other GFE activities	*Such as: Used DT1202 Excel Workbook, Diversity & Inclusion company policy, Mentor-Protégé participant, awarded neutral DBE after bid submission, included company GFE overview/strategy information and/or company website highlights DBE opportunities and participation*		
Overall Demonstration of GFE			

GFE EVALUATION RATING LEGEND – PHASE 1 – Initial Review

Documentation provided by bidder is evaluated and rated on the rubric. Bidders should include activities characterized by the following types of effort:

ACTIVE & AGGRESSIVE: Demonstrated through engaged and assertive activity
QUALITY: Demonstrated through essential character of conscientious and serious activity
QUANTITY: Demonstrated through a measurable number of activities
SCOPE & INTENSITY: Demonstrated through a rigorous approach to an appropriate and purposeful range of activities
TIMING: Demonstrated through engagement efforts beyond simple solicitation, initiated early in the process

GFE EVALUATION – PHASE 2 – Team Review

GFE Team completes:

- Review of activities included on the rubric
- Review of the intent to award and sound reasoning submitted by Prime
- Bid analysis to confirm if any bid submitted met the DBE goal
- Review average of other bidders DBE goal achievement
- Team review of combined efforts documented in Phase 1 and 2 constitute final GFE determination

Rating Scale:

- GFE Approval:
  Bona Fide = 6 or more categories color coded green.
  Genuine effort characterized by sincere and earnest activities – "Solicitation" and "Sound Reasoning" must be green

- GFE Approval:
  Sufficient = 5 or more categories color coded green or yellow
  Adequate effort documented with a variety of quality activities – "Solicitation" and "Sound Reasoning" must be green or yellow

- GFE Denial:
  Pro Forma efforts = 4 or less categories color coded green or yellow. Perfunctory effort characterized by routine or superficial activities

Green = Exceeds expectations
Yellow = Meets expectations
Red = Areas in need of attention and/or absence of documentation See OBOEC Rubric Analysis_Feedback

Excerpt from Appendix A to 49 CFR Part 26:
V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)((vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed

GFE RUBRIC ANALYSIS	
OBOEC DECISION	APPROVAL OR DENIAL
Prime Contractor	
Proposal	
Project	
Bid Letting	
DBE Goal Amount	
DBE Goal Amount Achieved	
Bid Analysis	
Goal %	Achieved %
Apparent Low Bidder	%
Bidder B	
Bidder C	
Average of OTHER Bidders (Not including Apparent Low Bidder)	
DBE Quotes Received	
DBE Quotes Awarded	
DBE Quote(s) Rejected	**Rejected Quote Analysis**
DBE Quote(s) Awarded	**Awarded DBE Amount**

Appendix E
Good Faith Effort Best Practices

This list is not a set of requirements; it is a list of potential strategies

Primes

- Prime contractor open houses inviting DBE firms to see the bid "war room" or providing technical assistance.
- Participate in speed networking and mosaic exercises as arranged by DBE office.
- Host information sessions not directly associated with a bid letting.
- Participate in a formal mentor protégé or joint venture with a DBE firm.
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Facilitate a small group DBE 'training session' clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications, and communication methods.
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Quality of communication, not quantity creates the best results. Contractors should be thorough in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the 'apparent low bidder' list and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs.
- Participate on advisory and mega-project committees.
- Sign up to receive the DBE Contracting Update.
- Consider membership in relevant industry or contractor organizations.
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the Department are the only ways to get work.

Appendix F
Good Faith Effort Evaluation Guidance
Appendix A of 49 CFR Part 26

I. When, as a recipient, you establish a contract goal on a DOT-assisted contract for procuring construction, equipment, services, or any other purpose, a bidder must, in order to be responsible and/or responsive, make sufficient good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, Part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, you have the responsibility to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made, based on the regulations and the guidance in this Appendix.

The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call. Determinations should not be made using quantitative formulas.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. (1) Conducing market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of transportation firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

(2) The bidder should solicit this interest as early in the acquisition process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. (1) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

(2) A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)((vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

VI. A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

[79 FR 59600, Oct. 2, 2014]

Appendix G

(SAMPLE) Forms DT1506 and DT1202

Official Form DT1506 can be found here: https://wisconsindot.gov/Documents/formdocs/dt1506.pdf

COMMITMENT TO SUBCONTRACT TO DBE

Clear

Wisconsin Department of Transportation

DT1506 12/2021 s.84.06(2) Wis. Stats.

☐ Non-Traditional Project

Project ID: ______

Proposal # ______

Prime Contractor: ______

County: ______

Letting Date: ______

Total $ Value of Prime Contract: $ ______

DBE Contract Goal: ______ %

DBE Goal Achieved: 0.00 %

This contract requires that a specified percentage of the work be subcontracted to a disadvantaged business enterprise and that this information be submitted as described in ASP-3. The submittal of this form with the bid proposal constitutes your DBE commitment. Include Attachment A for DBEs included on commitment.

This form must be completed and returned for this proposal. See page 2 for instructions.

1. DBE Firm	2. Work or Items to be subcontracted	3. Supplier Y/N	4. Trucking Only	5. DBE Full Subcontract $	6. DBE Amount for Credit $
			O# L#		
			O# L#		
			O# L#		
			O# L#		
			O# L#		
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			O# L#		
				$ 0.00	$ 0.00

Government Use Only Approved Amounts		
A =	$	%
V =	$	%
Total =	$	%

Signature:

Date:

Good faith effort approved: Yes ☐ No ☐

______

Prime Representative Signature & Date

______

DBE Office Signature & Date Approved

COMMITMENT TO SUBCONTRACT TO DBE
ATTACHMENT A

CONFIRMATION OF PARTICIPATION

Project I.D.:	Proposal Number:
Letting Date:	

Name of DBE Firm Participating in this Contract:	
Name of the Prime/Subcontractor who hired the DBE Firm: *(list all names of tiers if more than one)*	
Type of Work or Type of Material Supplied:	
Total Subcontract Value:	Total DBE Credit Value:

FOR PRIME CONTRACTORS ONLY: I certify that I made arrangements with the participating DBE firm to perform the type of work listed or supply the material indicated above for the subcontract value listed above.	Prime Contractor Representative's Signature
	Prime Contractor Representative's Name (Print Name)
	Prime Contractor (Print Company Name)
	Date

FOR PARTICIPATING DBE FIRMS ONLY: I certify that I made arrangements with the Prime Contractor or the Hiring Contractor to perform the type of work or supply the material indicated above for the subcontract value listed above.	Participating DBE Firm Representative's Signature	Date
	Participating DBE Firm Representative's Name (Print Name)	
FOR DBE TRUCKING FIRMS ONLY: I certify that I will utilize, for DBE credit, only trucks listed on my WisDOT approved Schedule of Owned/Leased Vehicles for DBE Credit form and I will be utilizing the number of trucks as listed below.	Participating DBE Firm (Print Company Name)	
	DBE Firm's Address:	

# Owned Trucks	# Leased Trucks	# DBE-Owned Leased Trucks	# Non-DBE-Owned Leased Trucks

☐ Off site Hauling

Official Form DT1506 can be found here: https://wisconsindot.gov/Documents/formdocs/dt1506.pdf

DOCUMENTATION OF GOOD FAITH EFFORT

Wisconsin Department of Transportation
DT1202 3/2020

Project ID *****	Proposal No. *****	Letting *****
Prime Contractor *****		County *****
Person Submitting Document *****		Telephone Number *****
Address *****		Email Address *****

All bidders must undertake necessary and reasonable steps to achieve the assigned DBE contract goal per federal regulatory guidance at 49 CFR Part 26. Bidders use this form to document all efforts employed to meet the assigned goal as a record of contractor good faith efforts (GFE). Refer to ASP3 or 49 CFR Part 26 for guidance on actions that demonstrate good faith effort.

It is critical to list all efforts, attach documentation, and follow the instructions to complete this submission. Documentation of good faith effort includes copies of each DBE and non-DBE subcontractor quote submitted to the bidder for the same line items. Utilize the sample documentation logs to document and organize efforts.

Submit good faith effort documentation per ASP-3 guidelines.

Instructions: Provide a narrative description of all activities pursued to demonstrate good faith efforts, any corresponding documentation, and applicable explanation on separate pages. Include the following items organized in the order listed below.

1. **Solicitation Documentation:**
   a. **Purpose:** To identify all reasonable and available activities the bidder performed to solicit the interest of all certified DBEs who have the capacity and ability to perform work on the project. All solicitation efforts should begin as early as possible to ensure DBEs have ample time to respond and ask questions.

   b. **Action:** Identify and list all activities engaged in to solicit DBEs using all reasonable and available means such as written notice and follow-up communications, substantive conversations, pre-bid meetings, networking events, market research, advertising.

2. **Selected Work Items Documentation:**
   a. **Purpose:** To ensure that all work items are broken out into economically feasible units to facilitate DBE participation. This must occur even when you prefer to perform the work yourself.

   b. **Action:** Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.

3. **Documentation of Project Information provided to Interested DBEs:**
   a. **Purpose:** To provide interested DBEs with adequate information about the plans, specifications, and any other contractual requirements in a timely manner to assist DBEs in response to solicitation.

   b. **Action:** Provide DBEs access to plans, specifications, and other contract requirements. Early solicitation allows ample opportunity to provide project information, links to Let advertisements, and substantive engagement with DBEs.

4. **Documentation of Negotiation with Interested DBEs:**
   a. **Purpose:** To ensure that negotiations with interested DBEs were made in good faith providing evidence as to why agreements could not be reached for DBEs to perform work.

   b. **Action:** Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts. A bidder using good business judgment considers a number of factors in negotiating with all subcontractors, and the firm's price and capabilities in addition to contract goals are taken into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for failing to meet the DBE goal as long as costs are reasonable. (see 49 CFR Part 26 Appendix A)

5. **Documentation of Sound Reason for Rejecting DBEs:**
   a. **Purpose:** To ensure that bidders avoid rejecting DBEs as unqualified without sound reasons. Reasons for rejection must be based on thorough investigation of DBE capabilities.

   b. **Action:** Provide sufficient evidence to demonstrate that DBE was rejected for sound reasons such as past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, other tangible factors.

6. **Documentation of Assistance to Interested DBEs - Bonding, Credit, Insurance, Equipment, Supplies/Materials:**
   a. **Purpose:** To assist interested DBEs in obtaining bonds, lines of credit, insurance, equipment, supplies, materials, and other assistance or services.

   b. **Action:** Assist interested DBEs in obtaining bonding, lines of credit or insurance, and provide technical assistance or information related to plans, specifications, and project requirements. Assist DBEs in obtaining equipment, supplies, materials or other services related to meeting project requirements (excluding supplies or equipment the DBE purchases from the prime).

7. **Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support:**
   a. **Purpose:** To effectively use the services of minority, women, and community organizations as well as contractors' groups, local, state, and federal business assistance offices and organization that provide assistance in recruiting and supporting DBEs, as well as participation in activities that support DBE business development.

   b. **Action:** Contact organizations and agencies for assistance in contacting, recruiting, and providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

Return to:
Wisconsin Department of Transportation
DBE Program Office
PO Box 7965
Madison, WI 53707-7965
DBE_Alert@dot.wi.gov

I certify that I have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, as demonstrated by my responses and as specified in Additional Special Provision 3 (ASP-3).

I certify that the information given in the Documentation of Good Faith Efforts is true and correct to the best of my knowledge and belief.

I further understand that any willful falsification, fraudulent statement, or misrepresentation will result in appropriate sanctions, which may involve debarment and/or prosecution under applicable state (Trans 504) and Federal laws.

(Bidder/Authorized Representative Signature)

(Print Name)

(Title)

Good Faith Effort -- Sample Documentation Logs

The sample logs below are provided as guides rather than exhaustive list. See ASP3, Appendix A for additional examples of demonstrable good faith efforts. Attach documentation for each activity listed.

Acceptable forms of documentation include copies of solicitations sent to DBEs, notes from substantive conversations and negotiations with DBEs, copies of advertisements placed, email communications, all quotes received from DBEs and from all subcontractors who were considered alongside DBE quotes, proof of attendance at applicable networking events; flyers for events or workshops for DBEs offered by the prime, and other physical records of good faith efforts activities.

SOLICITATION LOG

Date	Activity	Name of DBE Solicited	Follow-up
4/1/2020	Sent May Let solicitation	Winterland Electric	Spoke with Mark Winterland on 4/15/20 to ask if he would quote

SELECTED WORK ITEMS SOLICITED LOG

Work Type	DBE Firm	Contact Person	Date	Contact Mode
Pavement Marking	ABC Marking	Leslie Lynch	4/1/2020	Email; phone
	#1 Marking Co.	Mark Smart	4/1/2020	Email; left VM
Electrical	Winterland Electric	Tabitha Tinker	4/3/2020	Email, left VM
	Superstar Wiring	Jose Huascar	4/3/2020	Email; phone

INFORMATION PROVIDED LOG

Request Date	DBE Firm	Information Requested & Provided	Response Date
4/1/2020	Winterland Electric	Requested info on electrical requirements; provided plan and link to specs	4/3/2020
4/21/2020	Absolute Construction	Wanted to know how and when supplies are paid for by WisDOT; referred to spec that covers stockpiling	4/21/2020

NEGOTIATIONS LOG

Date	DBE Firm	Contact Name	Work Type	Quotes Rec'd?	Considered for project?	If not selected, why?
4/12/2020	ABC Landscape	John Dean	Erosion Control	Yes	No	Cannot perform all items
4/17/2020	Wild Ferns	Sandy Lynn	Erosion Control	Yes	Yes	
4/20/2020	#1 Marking	Mark Smart	Electrical	Yes	Yes	

ASSISTANCE LOG

Date	DBE Firm	Contact Person	Assistance Provided
4/1/2020	ABC Sawing	Jackie Swiggle	Informed DBE on how to obtain bonding
4/17/2020	Supreme Construction	Winston Walters	Provided contact for wholesale supply purchase

OUTREACH & BUSINESS DEVELOPMENT LOG

Date	Agency/Organization Contacted	Contact Person	Assistance Requested
4/1/2020	Women in Construction	LaTonya Klein	Contact information for woman-owned suppliers
4/28/2020	WBIC	Sam Smith	Asked for information to provide to DBE regarding financing programs through WBIC

Official Form DT1202 can be found here: https://wisconsindot.gov/pages/global-footer/formdocs/default.aspx

ADDITIONAL SPECIAL PROVISION 4

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

Payment to First-Tier Subcontractors

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

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

Payment to Lower-Tier Subcontractors

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

Acceptance and Final Payment

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.

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

Table of Contents

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

Make the following revisions to the standard specifications.

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104 Scope of Work

104.2.2 Issuing Change Orders

Replace subsection 104.2.2 with the following and rearrange to add a 104.2.2.7 effective with the February 2026 letting.

104.2.2.1 Change Orders for Differing Site Conditions

(1) During the progress of the work, if one or more of the following differing conditions are encountered at the site, the party discovering the condition must promptly notify the other party of the specific condition before further disturbing the site and before further performing the affected work.

1. A subsurface or latent physical condition, differing materially from those indicated in the contract.
2. An unknown physical condition of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work specified in the contract.

(2) If the contractor discovers the differing condition, the contractor shall provide oral notification as specified in 104.3.2, of the specific differing condition before further disturbing the site and before further performing the affected work.

(3) The project engineer will investigate the conditions. If the project engineer determines the conditions materially differ and cause an increase or decrease in the cost, time, or both, required to perform the work under the contract, the project engineer will adjust the contract price, time, or both, and modify the contract in writing accordingly. The project engineer will respond to the contractor as to whether or not an adjustment is warranted. The project engineer will follow the contractor notification procedures specified in 104.3.

(4) The department will not allow a contract adjustment unless the contractor has provided the required notice as specified in 104.3.

104.2.2.2 Change Orders for Engineer-Ordered Suspensions

(1) If the project engineer suspends or delays the performance of all or any portion of the work in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional payment, contract time, or both, is due because of the suspension or delay, the contractor shall notify the engineer as specified in 104.3.

(2) The project engineer will evaluate the contractor's request. If the project engineer agrees that the cost, time, or both, required for the performance of the contract has increased due to the suspension or delay and the suspension or delay was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the project engineer will make an adjustment and modify the contract in writing accordingly. The project engineer will respond to the contractor as to whether or not an adjustment is warranted as specified in 104.3.6.

(3) The project engineer will not consider a contract adjustment unless the contractor submits the request for adjustment within the time specified above.

(4) The project engineer will not consider a contract adjustment under this clause to the extent that the performance would have been suspended by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

104.2.2.3 Change Orders for Altered Work

(1) If original contract work is altered from what is included in the contract, the department will adjust the contract if the character of the work as altered differs materially in kind or nature from that involved or included in the original contract.

(2) Before performing altered work, reach agreement with the project engineer for any price adjustments as specified in 109.4. If the project engineer does not agree that the work has significantly changed and a price adjustment is justified, follow the notification procedures as specified in 104.3.

(3) If the alterations do not significantly change the character of the work under the contract, the department will not adjust the contract.

104.2.2.4 Change Orders for Quantity Variations

(1) If all original contract work for a bid item is completed as required in the contract, and the measured quantity for that bid item varies from the contract quantity, the department will adjust the contract if the department or contractor demonstrates that the quantity variation affects the contractor's unit cost to perform the work and

meets one of the criteria below. If the quantity variation does not significantly change the character of the work under the contract, the department will pay for the work at the contract price.

1. The quantity of a major bid item, as defined in 101.3, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity applies only to that portion in excess of 125 percent of the original contract bid item quantity, or in case of a decrease below 75 percent, to the work actually performed.
2. The quantity of a minor bid item is increased to become a major bid item. An adjustment in the contract unit price for that bid item applies only to the quantity of that bid item having a contract value as follows:

   Original Contract < $8M: In excess of 6.25 percent of the original contract.

   Original Contract >= $8M: In excess of $500,000.
3. The quantity of a minor bid item that is part of an approved subcontract and that exceeds 10 percent of the original value of that subcontract is decreased more than 50 percent from the original contract quantity for that bid item. Either party to the contract may submit a request for a revision to the contract unit price for that bid item. The department's total payment for the final reduced quantity will not exceed 75 percent of the original contract quantity at the contract price.
4. The quantity of a minor bid item that is part of an approved subcontract and that exceeds 10 percent of the original value of that subcontract is increased more than 50 percent from the original contract quantity for that bid item and which as increased does not qualify for adjustment as a major bid item. Either party to the contract may submit a request to the other for a revision of the contract unit price for that quantity of the bid item that is in excess of 125 percent of the original contract quantity.

104.2.2.5 Change Orders for Extra Work

(1) The department has the right to direct extra work not required in the original contract, as defined in 101.3.

(2) The engineer will determine payment for extra work as specified in 109.4.

104.2.2.6 Change Orders for Eliminated Work

(1) The department has the right to partially eliminate or completely eliminate work the project engineer finds to be unnecessary for the project. If the project engineer partially eliminates or completely eliminates work, the project engineer will issue a change order for a fair and equitable amount as specified in 109.5.

104.2.2.7 Change Orders for Revisions to Contract Time

(1) The department will issue a change order to revise the contract time as specified in 108.10.

104.6 Roadway Maintenance and Traffic Control

104.6.1.2.3 Drop-Off Protection

Replace subsection with the following effective with the November 2025 letting.

(1) Eliminate vertical drop-offs greater than 2 inches and edge slopes steeper than 3:1 between adjacent lanes open to traffic.

(2) If the roadway remains open to through traffic during construction and a greater than 2-inch drop-off occurs within 3 feet or less from the edge of the traveled way, eliminate the drop-off within 48 hours after completing that days work. Provide aggregate shoulder material compacted to a temporary 3:1 or flatter cross slope from the surface of the pavement edge.

(3) Unless the engineer allows otherwise address drop-offs when they exist greater than 3 and less than 8 feet from the travelled way as follows:

- Delineate vertical drop-offs 2 inches or greater and edge slopes steeper than 3:1 with drums, barricades, and signs, by the end of the workday.
- Eliminate vertical drop-offs 2 inches or greater and edge slopes steeper than 3:1 within 72 hours or before a weekend or holiday whichever comes first.
- Eliminate or use temporary concrete barrier to protect vertical drop-offs 4-inches or greater after 72 hours or before a weekend or holiday whichever comes first.

(4) If a 4-inch or greater vertical drop-off or an edge slope steeper than 3:1 exists greater than 8 and less than 15 feet from the traveled way, delineate that drop-off or edge slope with drums, barricades, and signs by the end of the workday.

(5) If a 12-inch or greater vertical drop-off exists greater than 8 and less than 15 feet from a traveled way with a posted speed limit of 55 mph or greater, eliminate or use temporary concrete barrier to protect that drop-off within 72 hours or before a weekend or holiday whichever comes first.

104.6.1.2.4 Hazard Protection on Roads Open to All Traffic

Replace subsection with the following effective with the November 2025 letting.

(1) On roads open to all traffic; conform to the following construction clear zone requirements:

- Posted speeds 45 mph or less: within 8 feet of the travelled way.
- Posted speeds from 45 mph to 55 mph inclusive: within 10 feet of the travelled way.
- Posted speeds above 55 mph: within 15 feet of the travelled way.

(2) Remove all construction debris, stored materials, and equipment not in use from the construction clear zone; or if the engineer allows, delineate and shield with concrete barrier.

(3) Delay removal of existing permanent roadside safety devices until necessary. When located within the construction clear zone and not shielded by concrete barrier, use temporary traffic control drums to delineate bridge abutments, concrete barrier blunt ends, sign bridge foundations, drainage structures, and slopes exposed by removing permanent protective measures.

- For exposed bridge abutments, concrete barrier blunt ends, sign bridge foundations, and drainage structures, eliminate the need for delineation within 5 calendar days.
- For exposed slopes steeper than 3:1, eliminate the need for delineation within 14 calendar days , or duration approved by the engineer.

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105 Control of the Work

105.13 Claims Process for Unresolved Changes

Replace subsection with the following effective with the February 2026 letting.

105.13.3 Submission of Claim

(1) Submit the claim to the project engineer as promptly as possible following the submission of the Notice of Claim. If the contractor does not submit the claim prior to the earlier of the following dates, the department will deny the claim:

1. 120 calendar days from the date of the Notice of Claim.
2. The end of the time allowed under 109.7 for the contractor to respond in writing to the engineer issued semi-final estimate.

(2) The department will not accept the submission of a claim until the resolution process in 104.3 has been completed and the contractor makes no further requests to submit updated information that may affect the region's final decision.

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107 Legal Relations and Responsibility to the Public

Add section 107.27 (Drones or Unmanned Aircraft Systems (UAS)) effective with the November 2024 letting.

107.27 Drones or Unmanned Aircraft Systems (UAS)

107.27.1 Licensing and Compliance

Add paragraph 107.27.1(5) to the information included with the November 2024 ASP-6, effective with the February 2026 letting.

(1) Obtain and possess the necessary Federal Aviation Administration (FAA) licenses and certifications to operate drones commercially (https://www.faa.gov/uas).

(2) Comply with all FAA regulations, airspace restrictions, and local laws. Operators of small drones that are less than 55 pounds for work or business must follow all requirements as listed in Title 14, Chapter 1, Subchapter F, Part 107 of the Code of Federal Regulations (14 CFR) and obtain a remote pilot certificate (https://www.faa.gov/uas/commercial_operators).

(3) Comply with Wisconsin State Statute 942.10. Limit operations to the specific approved purpose and employ reasonable precautions to avoid capturing images of the public except those that are incidental to the project.

(4) Provide copies of waivers required for specific project conditions to the engineer prior to any flight.

(5) UAS and UAS components are required to be compliant with federal guidelines outlined in the American Security Drone Act of 2023 (ASDA) and the OMB memorandum M-26-02.

107.27.2 Flight Approval, Safety, and Incident Reporting

(1) Submit information in 107.27.2(2) to obtain written drone flight approval from the engineer at least 3 business days prior to operating a drone within the right-of-way. Do not operate a drone within the right-of-way unless approved by the engineer.

(2) Drone flight application for review and approval must include:

- UAS pilot information and qualifications, images of certification
- UAS drone information and FAA tail numbers
- Max/ Min allowable flight parameters (weather)
- Specifics of flight mission: capture scope

- Estimated flight duration
- Pre-flight checklist
- Site-specific parameters
- Notification protocols - Federal/Local/Agency/Owner/Responsible in Charge
- Confirmation and verification of approved operators and hardware
- Flight plan map diagram (including launch and landing location)
- FAA-Airspace flight map classification and confirmation with graphics
- UAS incident management protocol

(3) If contractor is requesting multiple types of the same flight, a simplified request can be submitted listing weekly flight plan.

(4) Safety measures must include but are not limited to:

- Regular training and updates on drone regulations are required and must be provided upon request.
- Drones must be operated in accordance with safety guidelines, including maintaining a safe distance from people, structures, vehicles, etc.
- Conduct a pre-flight safety assessment, considering weather conditions, airspace restrictions, and potential hazards.
- Emergency procedures (e.g., drone malfunction, loss of control) must be documented and followed.
- All incidents must be reported to the engineer.

(5) If the drone has an incident during flight, report the following to the engineer:

- Incident background and details.
- FAA (14 CFR 107.9) and NTSB (49 CFR 870) notification protocol.
- Contractor internal notification protocol.

107.27.3 Insurance Requirements

(1) Maintain drone liability insurance with the following limits.

1. For drones weighing 10 pounds or less, a liability policy with a minimum limit of $1,000,000.00 is required.
2. For drones weighing more than 10 pounds and less than or equal to 20 pounds, a liability policy with a minimum limit of $2,000,000.00 is required.
3. For drones weighing more than 20 pounds, notify engineer and department will determine appropriate liability policy coverage levels based on size, use, location, and other risk factors.

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305 Dense Graded Base

305.3.3.3 Shoulders Adjacent to Asphaltic Pavement or Surfacing

Replace subsection with the following effective with the November 2025 letting.

(1) If the roadway is closed to through traffic during construction, construct the aggregate shoulders before opening the road.

(2) If the roadway remains open to through traffic during construction, conform as specified in 104.6.1.2.3.

(3) Provide and maintain signing and other traffic protection and control devices, as specified in 643, until completing shoulder construction to the required cross-section and flush with the asphaltic pavement or surfacing.

310 Open-Graded Base

310.2 Materials

Replace paragraph (2) with the following effective with the November 2025 letting.

(2) The contractor may substitute material conforming to the gradation requirements for crushed aggregate specified in table 310-01 if that material conforms to the fracture requirements for open-graded crushed gravel specified in 301.2.4.5.

TABLE 310-01 COARSE AGGREGATE (% passing by weight)

AASHTO No. 67 [1]

SIEVE	COARSE AGGREGATE (% PASSING by WEIGHT) AASHTO No. 67
2-inch	-
1 1/2-inch	-
1-inch	100
3/4-inch	90 - 100
1/2-inch	-
3/8-inch	20 - 55
No. 4	0 - 10
No. 8	0 - 5
No. 16	-
No. 30	-
No. 50	-
No. 100	-
No. 200	-

[1] Size according to AASHTO M43.

415 Concrete Pavement

415.3.16.4.1.2 Magnetic Pulse Induction

Replace subsection with the following effective with the November 2025 letting.

(1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.

(2) The department will establish a project reference plate at the start of each paving stage. The department will notify the contractor of project reference plate locations before testing. The department will measure the project reference plate before each day of testing.

(3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings fall within the 80 to 50 percent pay range.

(4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable. Department will determine limits of unacceptable pavement by performing the following:

- The engineer will test each consecutive plate stationed ahead and behind until the thickness test result is plan thickness or greater.
- The engineer will direct the contractor to core the hardened concrete to determine the extent of the unacceptable area. In each direction, the contractor shall take cores at points approximately 20 feet from the furthest out of specification plate towards the plate that is plan thickness of greater. Once a core is within 80 to 100 percent pay range, the coring is complete and the limits of unacceptable pavement extend from the stationing between the core test results of 80 to 100 percent payment, inclusive of all unacceptable core and plate test results.
- Perform coring according to WTM T24. The department will evaluate the results according to AASHTO T148
- Fill core holes with concrete or mortar.

416 Concrete Pavement - Repair and Replacement

416.2 Materials

416.2.1 General

Replace paragraph (3) with the following effective with the November 2025 letting.

(3) The contractor may use accelerating admixtures for concrete placed under SHES bid items as follows:

1. If using calcium chloride,
   - AASHTO M144, type S as grade N1 or grade N2, class A.
   - AASHTO M144, type L in a concentration of approximately 30 percent for premixed solutions.
2. If using non-chloride accelerators, conform to:
   - AASHTO M194, type C accelerating admixtures.
3. Do not exceed the manufacturer's recommended maximum dosage.
4. If the engineer requests, provide a written copy of the manufacturer's dosage recommendations.

416.2.4 Special High Early Strength Concrete Pavement Repair and Replacement

416.2.4.1 Composition and Proportioning of Concrete

Add paragraph (4) to subsection effective with the November 2025 letting.

(4) The contractor may use pre-packaged horizontal rapid set concrete patch material from the APL for partial and full-depth pavement repairs instead of specified grades of concrete.

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506 Steel Bridges

506.3.12.3 High-Strength Bolts

506.3.12.3.1 Materials

Replace subsection with the following effective with the November 2025 letting.

(1) Install bolts according to AASHTO LRFD Bridge Construction Specifications, article 11.5.5, with the following exceptions:

1. If connections are assembled, install bolts with a hardened washer under the nut or bolt head, whichever is the element turned in tightening.
2. If using oversized holes, 2 hardened washers are required, one under the bolt head and one under the nut.
3. Bring the bolted parts into solid contact bearing before final tightening. Use not less than 25 percent of the total number of bolts in a joint to serve as fitting up bolts.
4. For steel diaphragms on prestressed concrete bridges do the following:
   4.1. For steel-to-steel connections within diaphragms:
      - Tension by the turn-of-nut method.
   4.2. For steel-to-concrete girder connections:
      - No PIV or field rotational capacity (RoCAP) testing is required.
      - Tighten as the plan details specify.

(2) Before fasteners are delivered to the site, provide documentation of rotational capacity testing in accordance with ASTM F3125, Annex A2, Rotational Capacity (RoCap)Test. The fasteners must be received in packages that match the fastener assembly combination as tested. If documentation of RoCap testing is not received; then perform this testing in the field prior to installation.

(3) Install bolt, nut, and washer combinations from the same rotational-capacity lot.

(4) Check galvanized nuts to verify that a visible dyed lubricant is on the threads and at least one bolt face.

(5) Ensure that uncoated bolts are oily to the touch over their entire surface when delivered and installed.

(6) Provide and use a Skidmore-Wilhelm Calibrator or an acceptable equivalent tension measuring device at each job site during erection. Perform pre-installation verification (PIV) testing in the field conforming to the procedures enumerated in department form DT2114 no earlier than 14 calendar days prior to permanent bolting. Submit 2 copies of form DT2114 to the engineer.

(7) Prior to installation, ensure that the fastener condition has not changed due to accumulation of rust or dirt, weathering, mixture of tested assembly lots, or other reasons. If changes have occurred, including cleaning and re-lubricating of weathered bolts, the engineer will require re-qualification using RoCap testing in the field, for a minimum of two fastener assemblies of each combination to be used in permanent bolting, and PIV re-testing.

(8) Additional RoCap or PIV tests are required whenever the condition of the fasteners or understanding of the bolting crew is in question by the Engineer. Do not allow permanent bolting until PIV testing is completed.

(9) Tighten threaded bolts by the turn-of-nut method while holding the bolt head. Where clearance is an issue, the contractor may tighten the bolt head while holding the nut.

(10) The contractor may use alternate tightening methods if the engineer approves before use.

(11) The contractor may use a flat washer if the surface adjacent to and abutting the bolt head or nut does not have a slope of more than 1:20 with respect to a plane normal to the bolt axis. For slopes greater than 1:20, use smooth, beveled washers to produce parallelism.

(12) Snug all bolts during installation according to AASHTO LRFD Bridge Construction Specifications, article 11.5.5.4.1.

(13) Tighten each fastener to provide, if all fasteners in the joint are tight, at least the minimum bolt tension as follows:

TABLE 506-1 BOLT TENSION

BOLT SIZE	REQUIRED MINIMUM BOLT TENSION[1]
1/2-inch	12 kips
5/8-inch	19 kips
3/4-inch	28 kips
7/8-inch	39 kips
1-inch	51 kips
1 1/8-inch	64 kips
1 1/4-inch	81 kips
1 3/8-inch	97 kips
1 1/2-inch	118 kips

[1] Equal to the proof load by the length measurement method as specified in ASTM F3125 for grade A35 bolts.

(14) Do not reuse galvanized F3125 A325 bolts. The contractor may reuse uncoated F3125 A325 bolts, if the engineer approves, but not more than once. The department will not consider re-tightening previously tightened bolts that become loosened by the tightening of adjacent bolts as reuse.

506.3.19 Welding

Replace subsection title and text with the following effective with the November 2025 letting.

506.3.19.4 Welding Inspection

(1) Inspect welding according to the current edition of AWS D1.5. Unless specified otherwise, test butt welds in main members by either the radiographic or the ultrasonic method.

(2) Test fillet welds and groove welds not covered otherwise in main members in a non-destructive manner by the magnetic particle method according to ASTM E709, utilizing the yoke method. This includes, but is not limited to, a minimum of 12 inches in every 10 feet or portion thereof of each weld connecting web to flange, bearing stiffener to web or flange, framing connection bar to web or flange, and longitudinal stiffener to web or vertical bar.

506.3.31 Cleaning of Surfaces

506.3.31.2 Coated Surfaces

Replace subsection with the following effective with the November 2025 letting.

(1) Blast clean structural steel and ferrous metal products to be coated as specified in 517.3.1.3.3.

(2) Blast clean steel that will be encased in concrete to SSPC-SP 6 standards or cleaner.

506.3.32 Painting Metal

Replace subsection with the following effective with the November 2025 letting.

(1) Unless the contract provides otherwise, apply 3 coats of paint to structural steel and ferrous metal products. Furnish and apply paints according to the epoxy system or as specified in the special provisions. The requirements for this system are set forth in 517.

(2) For structural steel, including weathering steel, and miscellaneous metals that will be encased in concrete, paint as specified in 517.3.1.

(3) For galvanized surfaces paint as specified in 517.3.1.

(4) Use the 3-coat epoxy system to paint the end 6 feet of structural weathering steel at the abutments, the 6 feet on each side of piers, joints, downspouts, hinges, and galvanized bearings in contact with weathering

steel. Use a coat of brown urethane matching AMS Standard 595A: AMS-STD 20059. Apply one coat of zinc-rich paint to surfaces of expansion joint assemblies and other surfaces not in contact with the weathering steel but inaccessible after assembly or erection.

(5) Do not paint structural steel to be welded before completing welding. If welding only in the fabricating shop and subsequently erecting by bolting, coat it after completing shop welding. Apply one coat of weldable primer or other engineer-approved protective coating to steel surfaces to be field welded after completing shop welding and shop fabrication. Protect machine-finished surfaces that do not receive a paint or galvanizing from contamination during the cleaning and painting process.

(6) Upon fabrication and acceptance, coat pins and pinholes with a plastic or other engineer-approved coating before removing from the shop.

(7) Mark members weighing 3 tons or more with their weights on areas that will be encased in concrete, or paint with a compatible paint on zinc-rich primer, or mark with soapstone on an epoxy-coated surface. Wait until material is dry, inspected, and approved for shipment before loading for shipment.

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509 Concrete Overlay and Structure Repair

509.2 Materials

Replace subsection with the following effective with the November 2025 letting.

(1) Furnish a neat cement bonding grout. Mix the neat cement in a water-cement ratio approximately equal to 5 gallons of water per 94 pounds of cement. Pre-packaged non-shrink grout from the APL may be used instead of site mixed or ready mixed grout.

(2) Furnish grade E conforming to 501 for overlays.

(3) Furnish grade C or E concrete conforming to 501 for surface repairs. The contractor may increase the slump for grade E concrete to a maximum of 4 inches. For vertical and overhead repairs, use pre-packaged vertical and overhead repair material from the APL unless a different material is approved by the engineer in writing.

(4) Furnish grade C or E concrete conforming to 501 for joint repairs, curb repairs, and full-depth deck repairs; except as follows:

1. The contractor may increase slump of grade E concrete to 3 inches.
2. The contractor may use ready-mixed concrete.

(5) Provide QMP for class II ancillary concrete as specified in 716 if using concrete mixtures conforming to 501.

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513 Railing

513.2.3 Steel Railing

Replace subsection with the following effective with the November 2025 letting.

(1) Furnish steel railing components as follows:

Structural steel	506.2.2
High strength bolts	506.2.5
Steel guardrail	614.2
Round structural steel tubing for steel pipe railing	ASTM A500 grade B
Structural steel tubing used with other steel railings	ASTM A500 grade B or C

(2) Furnish a two-coat paint system from the APL for structure painting systems under paint - galvanized surfaces.

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517 Paint and Painting

517.3.1.3.3 Blast Cleaning

517.3.1.3.3.2 Epoxy Coating System

Replace subsection with the following effective with the November 2025 letting.

(1) Blast clean structural steel receiving this coating to a near-white finish according to SSPC-SP 10.

(2) Solvent clean oil and grease on surfaces receiving this coating according to SSPC-SP 1 and blast clean to a near-white finish according to SSPC-SP 10.

(3) Remove fins, tears, slivers, and burred or sharp edges present on any steel member, or that appears during blasting, by grinding then re-blast the area to a one to 2 mils surface shape.

(4) If using abrasives for blast cleaning, use either clean dry sand, steel shot, mineral grit, or manufactured grit of a gradation that produces a uniform one to 2 mils profile as measured with a department-approved impregnated surface profile tape.

(5) Remove abrasive and paint residue from steel surfaces with a commercial grade vacuum cleaner equipped with a brush-type cleaning tool, or by double blowing. If using the double blowing method, vacuum the top surfaces of structural steel, including top and bottom flanges; longitudinal stiffeners, splice plates, and hangers after completing the double blowing operations. Ensure that the steel is dust free when applying primer. Apply the primer within 8 hours after blast cleaning.

(6) Protect freshly coated surfaces from later blast cleaning operations. Brush any blast damaged primed surfaces with a non-rusting tool, or if visible rust occurs, re-blast to a near white condition. Clean the brushed or blast cleaned surfaces and re-prime within the manufacturer's recommended time.

(7) When coating galvanized surfaces, ensure tie-coat adhesion by brush blasting the cleaned surface according to SSPC-SP7 to create a slight angular surface profile according to manufacturer's recommendations of 1 mil to 1.5 mils. Blasting must not fracture the galvanized finish or remove dry film thickness. For the tie- and top-coat, furnish an epoxy coating system from the APL for paint systems for galvanized surfaces.

517.3.1.3.5 Galvanizing

Add subsection effective with the November 2025 letting.

(1) After fabrication, blast clean assemblies per SSPC-SP6 and galvanize according to ASTM A123.

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526 Temporary Structures

526.3.4 Construction, Backfilling, Inspection and Maintenance

Replace subsection with the following effective with the November 2025 letting.

(1) Construct temporary structures conforming to 500. Backfill conforming to 206.3.13 with structure backfill conforming to 210.2.

(2) Temporary highway bridges open to traffic less than or equal to 24 months: inspect temporary bridges conforming to the National Bridge Inspection Standards (NBIS) and the department's Structure Inspection Manual (SIM) before opening to traffic. Perform additional inspections, as the department's SIM requires, based on structure type, condition, and time in service. Submit inspection reports on department form DT2007 to the engineer and electronic copies to the BOS Maintenance Section. Ensure that a department-certified qualified team leader performs the inspections.

(3) Temporary highway bridges open to traffic greater than 24 months: complete additional inspections and inventory data collection per the NBIS and SIM within 27 months of the bridge being opened to traffic. Contact the Bureau of Structures to have a structure number assigned. Enter the inventory data and element level bridge inspection data in accordance with the SIM into WisDOT's Highway Structures Information System (HSIS) within 90 days of completing the field portion of the inspection. Continue to complete required inspections and data submittal at intervals according to the requirements of the NBIS and SIM.

(4) Maintain temporary structures and approaches in place until no longer needed. Unless the engineer directs otherwise, completely remove and dispose of as specified in 203.3.5; do not place on the finished surface.

526.5 Payment

Replace paragraph (2) with the following effective with the November 2025 letting.

(2) Payment for the Temporary Structure bid items is full compensation for providing a temporary structure including design and construction; for construction staking; for temporary shoring and other secondary structure items; for backfilling with structure backfill; for maintaining; and for removing when no longer needed. The department will pay 70 percent of the contract amount when open to traffic and the balance after structure removal and associated site restoration.

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550 Driven Piles

550.3.9 Pre-Boring

550.3.9.1 General

Add paragraph (2) effective with the February 2026 letting.

(1) Pre-bore holes to the depth the plans or special provisions require. Submit written requests for pre-boring not required under the contract to the engineer for review and approval. Do not impair the capacity of in-place piles or damage adjacent structures by pre-boring operations.

(2) Contractor may elect to not perform pre-boring, subject to written approval from the engineer as specified in 104.2.1(2). If the contractor elects to not perform pre-boring and subsequently pre-boring is necessary at any point throughout the project, no additional time or compensation will be granted.

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621 Landmark Reference Monuments

Remove Standard Specification 621 (Landmark Reference Monuments) effective with the November 2025 letting. Refer to updated information in this ASP-6 for standard specifications 680 and 682.

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643 Traffic Control

643.1 Description

Replace paragraph (1) with the following effective with the November 2025 letting.

(1) This section describes providing, maintaining, repositioning, and removing temporary traffic control devices as follows:

Drums	Warning lights	42-inch cones
Barricades type III	Connected arrow boards	Portable changeable message signs
Flexible tubular markers	Signs	Channelizing curb system
Speed feedback trailers	Connected work zone start and end location markers	

643.2.2 Department's Approved Products List (APL)

Replace paragraph (1) with the following effective with the November 2025 letting.

(1) Furnish materials from the APL as follows:

- Drums
- Barricades type III
- Flexible tubular marker posts including bases
- Warning lights and attachment hardware
- Channelizing curb systems
- Connected work zone start and end location markers
- Connected arrow boards
- Sign sheeting
- 42-inch cone assemblies
- Portable changeable message signs
- Speed feedback trailers

643.3 Construction

643.3.1 General

Add paragraphs (10), (11), (12) and (13) effective with the November 2025 letting.

(10) For connected devices provide a local specialist to respond to emergency situations within 2 hours of being notified. Equip local specialists with sufficient resources to correct deficiencies in the connected work zone devices.

(11) Prior to deployment, test all connected devices with the engineer to ensure the device is showing in the WisDOT approved data feed. Send an email to *DOTBTOworkzone@dot.wi.gov* to notify BTO that the devices have been turned on.

(12) Provide a WisDOT approved data feed from connected devices and the remote management software, updated at least every minute.

(13) If requested by the engineer, provide real-time status change alerts to a list of designated personnel via text or email or both. Send an alert each time a connected device is switched between operating modes which include the current operating mode, the previous operating mode, the date and time of the mode switch, and the location (latitude and longitude) of the device at the time of the mode switch in the alert.

643.3.3 Connected Arrow Boards

Revise subsection title and add paragraphs (3) and (4) effective with the November 2025 letting.

(3) The connected arrow board may be switched between the following pattern displays per the plan:

- Blank
- Right arrow static
- Right arrow flashing
- Right arrow sequential
- Left arrow static
- Left arrow flashing
- Left arrow sequential
- Line flashing

- Bi-directional arrow flashing.

(4) When the connected arrow board is not displaying a pattern, the display shall be blank, and the connected arrow board transmits its status to the data feed. When a connected arrow board is switched to a pattern, the connected arrow board transmits its location and its current operating mode to the data feed.

643.3.7 Temporary Pavement Marking

Add paragraph (9) effective with the November 2025 letting.

(9) Install temporary markings on the final surface in the same location as permanent markings will be placed or as the plans show.

643.3.10 Connected Work Zone Start and End Location Markers

Add subsection effective with the November 2025 letting.

(1) Place work zone start location marker at the beginning of the work zone per plan or as the engineer directs. Clearly label the work zone start location marker so that it is easily distinguishable by field personnel.

(2) Place work zone end location marker at the end of the work zone per plan or as the engineer directs. Clearly label the work zone end location marker so that it is easily distinguishable by field personnel.

(3) Ensure the connected work zone start and end location markers operate continuously when deployed on the project.

(4) Ensure the work zone location markers and connected arrow board are from the same manufacturer.

(5) When the work zone start and end location markers are switched to the ON mode, verify the begin and end location markers transmit their location and identity as begin or end markers to the data feed.

(6) Switch the work zone start and end location markers to OFF mode when temporary traffic control is removed, and the normal traveled way is restored.

643.4 Measurement

643.4.1 Items Measured by the Day

Add paragraphs (3) and (4) effective with the November 2025 letting.

(3) The department will measure Traffic Control Connected Arrow Boards by day for the days the device is reporting correct data.

(4) The department will measure Traffic Control Connected Work Zone Start and End Location Markers by day per roadway segment for the days the devices are reporting correct data.

643.5 Payment

643.5.1 General

Replace paragraph (1) with the following effective with the November 2025 letting.

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

ITEM NUMBER	DESCRIPTION	UNIT
643.0300	Traffic Control Drums	DAY
643.0420	Traffic Control Barricades Type III	DAY
643.0500	Traffic Control Flexible Tubular Marker Posts	EACH
643.0600	Traffic Control Flexible Tubular Marker Bases	EACH
643.0650	Traffic Control Channelizing Curb System	LF
643.0700 - 0799	Traffic Control Warning Lights (type)	DAY
643.0810	Traffic Control Connected Arrow Boards	DAY
643.0900	Traffic Control Signs	DAY
643.0910	Traffic Control Covering Signs Type I	EACH
643.0920	Traffic Control Covering Signs Type II	EACH
643.1000	Traffic Control Signs Fixed Message	SF
643.1050	Traffic Control PCMS	DAY
643.1051	Traffic Control PCMS with TMC Communications	DAY
643.1070 - 1079	Traffic Control Cones (height)	DAY
643.1220	Traffic Control Connected Work Zone Start and End Location Markers	DAY
643.1500	Traffic Control Speed Feedback Trailer	DAY
643.3100 - 3299	Temporary Marking Line (material/type) (width)	LF
643.3300 - 3399	Temporary Marking Crosswalk (material) 6-Inch	LF
643.3500 - 3599	Temporary Marking Arrow (material)	EACH

643.3600 - 3699	Temporary Marking Word (material)	EACH
643.3700 - 3799	Temporary Marking Raised Pavement Marker (type)	EACH
643.3800 - 3899	Temporary Marking Stop Line (material) 18-Inch	LF
643.3900 - 3959	Temporary Marking Diagonal (material) 12-Inch	LF
643.3960 - 3999	Temporary Marking Removable Mask Out Tape (width)	LF
643.4100	Traffic Control Interim Lane Closure	EACH
643.5000	Traffic Control	EACH

646 Pavement Marking

646.3.1.1 General Marking

Replace paragraph (7) with the following effective with the November 2025 letting. Add paragraph (8) effective with the February 2026 letting.

(7) Apply marking to the width and color the bid item indicates. Distribute beads uniformly across the line. Provide a sharp cutoff for both sides and ends of the marking with a uniform cross-section. Achieve straight alignment, not to exceed a 3/8-inch variation in any 40-foot section of travelled way. Do not damage existing marking that will remain in place.

(8) Apply both lines of the centerline marking simultaneously to ensure a consistent gap.

646.3.1.6 Proving Period

646.3.1.6.1 General

Replace paragraph (1) with the following effective with the February 2026 letting.

(1) The engineer may conduct post acceptance inspections periodically during a proving period to evaluate the physical presence of pavement marking and, for permanent markings, the retroreflectivity. The proving period begins on the last day of the week, for all marking placed within that week. The proving period extends through April 15 of the next calendar year or 180 days, whichever is longer. If weather or road surface conditions prevent the engineer from fully evaluating the marking at the end of the proving period, the engineer may extend the proving period.

646.3.1.6.2 Retroreflectivity

Replace paragraph (1), included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

(1) For permanent markings, the engineer will also evaluate the percent failing retroreflectivity at the end of the proving period. Ensure that the 180-day reflectivity, in millicandelas/lux/m^2, meets or exceeds the following:

MATERIAL	COLOR	180 DAY DRY RETROREFLECTIVITY
Epoxy	White	150
	Yellow	100
Wet Reflective Epoxy	White	250
	Yellow	150
Permanent Tape	White	400
	Yellow	335

646.3.2.3.2 Wet Reflective Epoxy

Replace paragraph (1) with the following effective with the February 2026 letting.

(1) Apply wet reflective epoxy binder in a grooved slot and provide a double drop bead system at the application rate specified in the APL.

646.3.2.4 Black Epoxy

Replace paragraph (1) with the following effective with the November 2024 letting.

(1) Apply black epoxy in a grooved slot directly after the white marking. Apply epoxy at a wet mil thickness of 20. Apply black aggregate at or exceeding 25 pounds per gallon of epoxy. Do not apply glass beads to black epoxy.

646.3.3 Special Marking

Replace subsection with the following effective with the February 2026 letting.

(1) Fill in any breaks left from the stencil with the same material to ensure there are no gaps.

(2) Under the Marking Railroad Crossings bid items, apply the RXR symbol and 3 transverse lines as the plans show.

(3) Under the Marking Curb bid items, mark the vertical face and the top of the curb.

(4) Under the Marking Aerial Enforcement Bars bid items, the department will locate the marking. Notify the engineer at least one week before marking so the State Patrol can provide exact locations.

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650 Construction Staking

650.3.12 Supplemental Control Staking

Replace paragraph (2) with the following effective with the November 2025 letting.

(2) Document and provide to the engineer complete descriptions and reference ties of the control points, alignment points, and benchmarks to allow for quick reestablishment of the plan data at any time during construction and upon project completion. Document additional control on department form DT1291 as described in CMM 710, table 710-1.

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680 Public Land Survey Monuments

Add section 680 (Public Land Survey Monuments) effective with the November 2025 letting.

680.1 Description

(1) This section describes perpetuating US Public Land Survey System (USPLSS) monuments.

680.2 Materials

(1) Furnish magnetic survey nails with center point a minimum of 2-1/2 inches long or engineer approved alternative.

(2) Furnish minimum 3/4-inch reinforcement or 1 inch outside diameter (OD) iron pipe at least 24 inches long.

(3) Furnish plastic survey marker cap with lettering that reads “Witness Monument”.

(4) Use alternative materials if requested and furnished by the county surveyor.

680.3 Construction

680.3.1 General

(1) Perform work under the direction and control of a professional land surveyor registered in the state of Wisconsin, following Wisconsin Administrative Code A-E 7 (https://docs.legis.wisconsin.gov/code/admin_code/a_e/7).

(2) Preserve existing USPLSS monuments and witness monuments (ties) within the construction limits in their original position until monuments are verified and sufficiently tied off.

680.3.2 Pre-Construction

(1) Notify the county surveyor at least 30 days prior to start of construction operations about all USPLSS monuments within the construction limits that might be disturbed.

(2) Obtain the existing USPLSS Monument Record from the county surveyor. Verify existing monuments and witness monuments are in place and undisturbed.

(3) Replace witness monuments that are missing or that could be disturbed by construction operations. Locate new witness monuments near the USPLSS monument but outside the construction limits. Submit a monument record as specified in 680.3.5.

(4) Temporarily mark the location of all witness monuments to protect them during construction.

680.3.3 Removals

(1) Remove or abandon existing monument and monument cover that interfere with construction operations. Remove and dispose of surplus excavation and materials as specified in 205.3.12.

680.3.4 Post-Construction

(1) Verify the location of monuments and witness monuments when construction operations are complete.

(2) Set new monuments and witness monuments where necessary. Recess magnetic survey nails 1/4 inch below the pavement surface for monuments located in pavement. Use reinforcement or iron pipe for monuments not in pavement and for witness monuments. Locate new witness monuments near the USPLSS monument and outside the roadbed. Install plastic caps on witness monuments.

(3) Install marker posts next to all witness monuments if required and supplied by the county surveyor.

(4) Omit setting monuments in the pavement if approved by the department’s regional survey coordinator and county surveyor due to traffic or safety concerns.

(5) Submit a monument record as specified in 680.3.5.

680.3.5 Monument Records

(1) Submit a monument record on department form DT1291 to the county surveyor at locations where monuments were set. Provide a copy to the engineer and regional survey coordinator.

680.4 Measurement

(1) The department will measure bid items under this section as each individual monument acceptably completed.

680.5 Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
680.0100	Public Land Survey Monument Verify and Reset	EACH

(2) Payment for the Public Land Survey Monument Verify and Salvage bid item is full compensation for providing all materials; for coordinating with county surveyors; for obtaining existing monument records; for verifying the existing location of monuments and witness monuments; for removing or abandoning existing monuments and monument covers; for resetting monuments; for setting or resetting temporary and permanent witness monuments; and for submitting monument records.

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682 Geodetic Survey Monuments

Add section 682 (Geodetic Survey Monuments) effective with the November 2025 letting.

682.1 Description

(1) This section describes salvaging geodetic survey discs and constructing geodetic survey monuments.

682.2 Materials

(1) Furnish materials conforming to the following:

Concrete 501
Reinforcement 505.2
Foundation backfill 520.2

(2) Furnish grade A concrete as modified in 716. Provide QMP for class III ancillary concrete as specified in 716.

682.3 Construction

(1) Contact the WisDOT Geodetic Surveys Unit at (866) 568-2852 or “geodetic@dot.wi.gov” as required below.

682.3.1 Salvage Geodetic Survey Discs

(1) Remove and salvage geodetic survey discs from existing structures or survey monuments being removed at the locations shown in the plan.

(2) Notify the WisDOT Geodetic Surveys Unit 7 calendar days prior to removal operations.

(3) Ship or deliver salvaged discs to following address:

WisDOT Bureau of Technical Services
Geodetic Surveys Unit
3502 Kinsman Boulevard
Madison, WI 53704

Provide a tracking number to the Geodetic Surveys Unit upon shipment or contact the Geodetic Surveys Unit to schedule in-person delivery.

682.3.2 Geodetic Survey Monuments

682.3.2.1 Monument Location

(1) Stake the approximate location of monuments provided in the plan and contact the WisDOT Geodetic Surveys Unit 30 days prior to excavating holes for field verification and delivery of department furnished geodetic survey discs.

682.3.2.2 Placing Monuments

(1) Excavate holes for monuments by use of a circular auger at the size and depth the plans show or as the engineer directs.

(2) Remove and dispose of surplus excavation and materials as specified in 205.3.12.

(3) Fill holes with concrete and strike off flush with the ground surface. Place circular forms and steel reinforcement in the concrete as the plans show. Place geodetic survey discs on monuments while the concrete is still plastic.

682.3.2.3 Protecting and Curing

(1) Cure exposed portions of cast in place concrete monuments as specified in 415.3.12 except the contractor may use curing compound conforming to 501.2.8.

(2) Protect placed concrete monuments as specified for concrete pavement as specified in 415.3.14

(3) Protect cast in place concrete monuments from freezing for 7 days.

682.4 Measurement

(1) The department will measure bid items under this section as each individual monument acceptably completed.

682.5 Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
682.0100	Salvage Geodetic Survey Disc	EACH
682.0200	Geodetic Survey Monument	EACH

(2) Payment for the Salvage Geodetic Survey Disc bid item is full compensation for removing and salvaging; and shipping or delivering the disc to the Geodetic Surveys Unit. Removing existing survey monuments will be paid separately under the Removing Concrete Bases bid item. Removing existing survey marker posts will be paid separately under the Removing Delineators and Markers bid item.

(3) Payment for the Geodetic Survey Monument bid item is full compensation for staking; providing concrete; providing steel reinforcement; for placing department-furnished geodetic discs; and for excavating and backfilling.

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710 General Concrete QMP

710.3 Certification Requirements

Replace paragraph (1) and add paragraph (2) effective with the November 2025 letting.

(1) Have a person certified from the Highway Technician Certification Program Portland Cement Concrete Technician 1 (HTCP - PCCTEC-1) or Assistant Certified Technician Program - Portland Cement Concrete (ACT-PCC) working under a certified technician, on the project site, prepared and equipped to perform required sampling and testing whenever placing concrete.

(2) The department will have a certified HTCP Portland Cement Concrete Mix Design Certification (PCC MDC) technician to review and approve concrete mixes.

710.4 Concrete Mixes

Replace subsection with the following effective with the November 2025 letting.

(1) The contractor is responsible for mix performance.

(2) At least 7 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:

1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and SAM number.
2. For cementitious materials and admixtures: type, brand, and source.
3. For aggregates: absorption, oven-dried specific gravity, SSD bulk specific gravity, wear, soundness, light weight pieces, freeze thaw test results if required, and air correction factor. Submit component aggregate gradations, aggregate proportions, and target combined blended aggregate gradations using the following:
    - DT2220 for combined aggregate gradations.
    - DT2221 for optimized aggregate gradations.
4. For optimized concrete mixtures:
    - Complete the worksheets within DT2221 according to the directions.
    - Ensure the optimized aggregate gradations and the optimized mix design conform to WisDOT specifications and pass the built-in tests within DT2221.
    - Verify slip-form mixture workability and conformance to specifications through required trial batching.
    - Submit the completed DT2221 to the engineer electronically. Include the trial batch test results with the mix design submittal.

5. For high early strength (HES) concrete mixtures required by contract, complete the HES mix modification section in the DT2220 or DT2221 form.

(3) Document mix adjustments daily during concrete production.

(4) Prepare, notify, and submit mixture design modifications to the engineer. Do not place material until the documentation is submitted and, when required, written approval of the mixture design modifications.

(5) Report concrete mix design modifications as classified in levels as specified in table 710-1.

TABLE 710-1 MIX DESIGN MODIFICATION NOTIFICATION

NOTIFICATION	LEVEL I	LEVEL II	NEW MIX DESIGN DURING PROJECT
Prepare, notify, and submit mix design to Engineer	Prior to use	3 business days prior to use	5 business days prior to use
Approval required before placement	No	Yes	Yes

(6) A mix design modification is when any modification occurs for a specific level as specified in table 710-2.

(7) Dependent on the modification performed, documentation is required to be submitted to the engineer as specified in table 710-3.

(8) For HES concrete, conform as specified in table 710-4.

(9) HES concrete is not eligible for 28-day strength incentives.

(10) Submit concrete mix designs into MRS as specified in 701.1.2.7.

TABLE 710-2 MATERIAL MIX DESIGN MODIFICATIONS

Replace Table 710-2, included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

MODIFICATION TYPE		LEVEL I	LEVEL II	NEW MIX DESIGN DURING PROJECT
Change in:	Water source	X		
	Cement source, type, or brand			X
	Total cementitious		X *[1]*	X
	Aggregate blend	X		
	Aggregate source			X
	SCM replacement rate		X	
	SCM type and supplier			X
	Fly ash source (different class)			X
	Fly ash source (same class for pavements and cast-in-place barriers)		X	
	Fly ash source (same class for structures)			X
	Slag source (same grade)		X	
	Slag source (different grade)		X	
	Chemical admixture manufacturer or product name [2]			X
	Chemical admixture dosage rates	X *[3]*		X
Removal of:	SCM			X
	Chemical admixture other than Type B or D			X *[3,4]*
	Type B or Type D chemical admixture	X *[3]*	X *[4]*	
Addition of:	Non-fading, color pigment	X		
	Chemical admixture other than Type B or D			X *[3,4]*
	Type B or Type D chemical admixture	X *[3]*	X *[4]*	
	New SCM			X

[1] For HES/SHES concrete modification only.

[2] Not including Type B or Type D chemical admixture.

[3] When admixture is from the concrete admixture APL and the dosage rate is within recommended dosage rates as specified in the APL. If the admixture dosage rate is outside of recommended dosage rates as specified in the APL, BTS approval is required before use.

[4] Not furnished from the APL.

TABLE 710-3 MIX DESIGN MODIFICATION DOCUMENTATION

Replace Table 710-3, included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

NEW REQUIRED DOCUMENTATION	LEVEL I	LEVEL II	NEW MIX DESIGN DURING PROJECT
Results from trial batching if required			X
Amendment to the quality control plan	X	X	X
Water source name and report	X *[1]*		
Cement mill certification			X
WisDOT aggregate quality report			X
SCM mill certification		X	X
Chemical additive product data sheet	X	X	X
Updated DT2220 or DT2221 form	X	X	
New DT2220 or DT2221 form			X
New mixture ID: Contractor ID and WisDOT ID		X	X
New maturity curve	X *[2]*	X	X
New lot/sublot layout [3]		X *[3,4,5]*	X

[1] Water for concrete report conforming to 501.2.6 for private wells or surface water sources.

[2] Required only when using a retarder.

[3] Required for HES concrete.

[4] Required when changing the SCM replacement rate.

[5] Not required for SCM source change of same Class/Grade in pavements and cast-in-place barrier projects.

TABLE 710-4 OPTIONS FOR HES CONCRETE

SCENARIO	MIXTURE MODIFICATION	
When the contract requires, or the HES is directed by the department	OPTION 1 *[1]*	Add 94 to 282 lb/cy of cement *[2]*
	OPTION 2	Use Type III cement
When the engineer allows HES when requested by the contractor in writing	Add up to 282 lb/cy of cement *[1.2]*	

[1] Adjust water to maintain workability without raising the w/cm ratio.

[2] Add to a previously accepted mixture.

710.5.6.2 Contractor Control Charts

710.5.6.2.1 General

Replace subsection with the following effective with the November 2025 letting.

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

(2) Sample aggregates from either the conveyor belt or from the working face of the stockpiles.

(3) Complete aggregate testing as specified in table 710-5. Submit one pre-placement test within five days before anticipated placement. Include this gradation on the control charts.

(4) Report gradation test results and provide control charts to the engineer within 1 business day of obtaining the sample. Submit results to the engineer and electronically into MRS as specified in 701.1.2.7.

(5) Conduct aggregate testing at the minimum frequency specified in table 710-5 for each mix design, except as allowed for small quantities in 710.2. The contractor's concrete production tests can be used for the same mix design on multiple contracts.

TABLE 710-5 QC AGGREGATE TESTING FREQUENCY

Replace Table 710-5, included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

CONCRETE CLASSIFICATION	PRE-PLACEMENT TESTING	PLACEMENT TESTING	
Class I: Pavement [1]	One pre-placement test per aggregate source	Hand Placement: ≤ 250 CY > 250 CY Slip Formed Placement ≤ 1500 CY > 1500 CY	One test per cumulative 250 CY One test per day One test per day Two tests per day
Class I: Structures [2], [3], [4]		One test per cumulative 150 CY, maximum one test per day	
Class I: Cast-in Place Barrier [1]		≤ 250 CY > 250 CY	One test per cumulative 250 CY One test per day
Class II: Base	One pre-placement test per aggregate source	One test per calendar week of production	
Class II: Structure Repair - Joints		One test per cumulative 150 CY, maximum one test per day	
Class II: Concrete Overlay			
Class II: Pavement Repair		One test per 400 CY, minimum one test per 10 business days, maximum one test per day	
Class II: Pavement Replacement			
Class II: Base Patching			
Class II: Ancillary			
Class II: Structure Repair – Curb & Surface [5]		Preplacement testing only	

[1] Frequency is based on project daily production rate.

[2] Aggregate gradation testing must be performed on a per contract basis. If multiple structures are on the same contract and use the same aggregate source, then the samples must be collected based on cumulative concrete contract quantities within the same concrete classification.

[3] WTM T255 (Fine and Coarse) required for each aggregate sample.

[4] Calculate trial batch weights for each mix design when production begins and whenever the moisture content of the fine or coarse aggregate changes by more than 0.5 percent, adjust the batch weights to maintain the design w/cm ratio.

[5] Aggregate gradation must meet the gradation previously approved by the engineer.

710.5.6.3 Department Acceptance Testing

Replace subsection with the following effective with the November 2025 letting.

(1) Department testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract as specified table 710-6. Aggregate gradation testing must be performed on a per contract basis.

(2) The department will split each sample, test for acceptance, and retain the remainder for a minimum of 10 calendar days.

(3) The department will obtain the sample and deliver to the regional testing lab in the same day. The department will report gradation test results to the contractor within 1 business day of being delivered to the lab. The department and contractor can agree to an alternative test result reporting timeframe. Document alternative timeframes in the contractor's quality control plan.

(4) Additional samples may be taken at the engineer’s discretion due to a changed condition.

(5) If multiple bid items on the same contract use the same aggregate source, then the samples must be collected based on cumulative concrete contract quantities within the same concrete classification.

(6) Department will test small quantities at the minimum frequency specified in table 710-7.

TABLE 710-6 QV AGGREGATE TESTING FREQUENCY

CONCRETE CLASSIFICATION	PLACEMENT TESTING
Class I: Pavement	One test per placement day for first 5 days of placement. - If all samples are passing, reduced testing frequency is applied. - Reduced frequency: One test per calendar week of placement
Class I: Structures	One test per 250 CY placed. - Minimum of one test per contract for substructure - Minimum of one test per contract for superstructure
Class I: Cast-in-Place Barrier	One test per 500 CY placed
Class II: Concrete Overlay	One test per 250 CY - Maximum one test per day
Class II: Base	No minimum testing
Class II: Structure Repair	
Class II: Pavement Repair	
Class II: Pavement Replacement	
Class II: Base Patching	
Class II: Ancillary	

TABLE 710-7 QV AGGREGATE TESTING FREQUENCY FOR SMALL QUANTITIES

CONCRETE CLASSIFICATION	PLACEMENT TESTING
Class I: Pavement	One test on the first day of placement.
Class I: Structures	
Class I: Cast-in-Place Barrier	

710.5.7 Corrective Action

710.5.7.1 Optimized Aggregate Gradations

Replace subsection with the following effective with the November 2025 letting.

(1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size or limits listed in the additional requirements for optimized aggregate gradation in 501.2.7.4.2 table 501-4, notify the other party immediately and do the following:

Option A:

1. Perform corrective action documented in the QC plan or as the engineer approves.
2. Document and provide corrective action results to the engineer as soon as they are available.
3. Department will conduct two tests within the next business day after corrective action. Department will provide test results to contractor after each test is complete.
4. If blended aggregate gradations are within the tarantula curve limits by the second department test:
   - Continue with concrete production.
   - Include a break in the 4-point running average.
   - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
5. If blended aggregate gradations are not within the tarantula curve limits by the second department test:
   - If the contract does not require optimized aggregate gradation under 501.2.7.4.2.1(2), stop concrete production and submit either a modified optimized aggregate gradation mix design or a new optimized aggregate gradation mix design or a new combined aggregate gradation mix design.
   - If the contract requires optimized aggregate gradations under 501.2.7.4.2.1(2), stop concrete production and submit a modified optimized aggregate gradation mix design or a new optimized aggregate gradation mix design.

Option B:

1. Submit a modified optimized aggregate gradation mix design or a new optimized aggregate gradation mix design.
2. Restart control charts for new mix design.

(2) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a modified mix design or a new mix design.

(3) Both the department and contractor must sample and test aggregate of the modified mix design or a new mix design at the frequency specified in 710.5.6.1.

710.5.7.2 Combined Aggregate Gradations

Replace subsection with the following effective with the November 2025 letting.

(1) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by less than or equal to 1.0 percent on a single sieve size, do the following:

1. Notify the other party immediately.
2. Perform corrective action documented in the QC plan or as the engineer approves.
3. Document and provide corrective action results to the engineer as soon as they are available.
4. The department will conduct two tests within the next business day after corrective action is complete.
5. If blended aggregate gradations are within the combined aggregate gradation limits by the second department test:
    - Continue with concrete production.
    - Include a break in the 4-point running average.
    - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
6. If blended aggregate gradations are not within the combined aggregate gradation limits by the second department test, stop concrete production and submit a modified mix design or a new mix design.

(2) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a modified mix design or a new mix design.

(3) Both the department and contractor must sample and test aggregate of the modified mix design or a new mix design at the frequency specified in 710.5.6.1.

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715 QMP Concrete Pavement, Cast-in-Place Barrier and Structures

715.3.1.2 Lot and Sublot Definition

715.3.1.2.1 General

Replace subsection with the following effective with the November 2025 letting.

(1) Designate the location and size of all lots before placing concrete. Ensure that no lot contains concrete of more than one mix design or placement method defined as follows:

Mix design change	A modification to the mix requiring the engineer's approval under 710.4(5). For paving and barrier mixes, follow 710.4(4) and 710.4(5) for concrete mixture design modifications.
Placement method	Either slip-formed, not slip-formed, or placed under water.

(2) Lots and sublots include ancillary concrete placed integrally with the class I concrete.

715.3.1.2.3 Lots by Cubic Yard

Replace paragraph (3) with the following effective with the November 2025 letting.

(3) An undersized lot is eligible for incentive payment under 715.5 if the lot has 4 or more sublots for that lot.

715.3.2 Strength Evaluation

715.3.2.1 General

Replace subsection with the following effective with the November 2025 letting.

(1) The department will make pay adjustments for strength on a lot-by-lot basis using the compressive strength of contractor QC cylinders or the flexural strength of contractor QC beams.

(2)The department will evaluate the sublot for possible removal and replacement if the 28-day sublot average strength is:

- Pavement (Compressive): < 2500 psi
- Pavement (Flexural): < 500 psi
- Structure: < f'c - 500 psi *[1]*

- Cast-in-Place Barrier: < f'c - 500 psi [1]

[1] f'c is design strength found in plans or specials.

715.5 Payment

715.5.1 General

Replace paragraph (4) and add paragraphs (8) and (9) effective with the November 2025 letting.

(4) The department will adjust pay for each lot using PWL of the 28-day sublot average strengths for that lot. The department will measure PWL relative to strength lower specification limits as follows:

- Compressive strength of 3700 psi for pavements.
- Flexural strength of 650 psi for pavements.
- Compressive strength of 4000 psi for super structures and barrier, or as shown in the plan details.
- Compressive strength of 3500 psi for substructures and culverts, or as shown in the plan details.

(5) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.

(6) Submit test results to the department electronically using MRS software. The department will verify contractor data before determining pay adjustments.

(7) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

(8) If the contractor combines concrete of varying specified strengths in a single lot/sublot, the highest specified strength of the related concrete shall be used to calculate pay incentive/disincentive.

(9) The department will apply one price adjustment to a given quantity of material. If the quantity in question is subject to more than one nonconforming test, apply the adjustment with the greater price reduction. In the absence of exact quantities affected by the sublot test results, pay reductions will be applied to the entire sublot.

715.5.4 Pay Adjustments for Nonconforming Air Content, Temperature, and Delivery Time

Add subsection 715.5.4 (Pay Adjustments for Nonconforming Air Content, Temperature, and Delivery Time) effective with the November 2025 letting.

(1) The department will adjust pay for each sublot with nonconforming QC air content and temperature test results as specified in table 715-2 and table 715-3. If the quantity in question is subject to more than one of the following conditions, apply the adjustment with the greater price reduction.

(2) For high temperatures, the engineer may consider the effectiveness of the contractor's temperature control plan and the contractor's compliance with their temperature control plan before taking a price reduction.

(3) A 25% price reduction to the concrete invoice price will be applied if concrete is placed after the delivery time exceeds the limit specified in 501.3.5.2.

TABLE 715-2 PRICE REDUCTIONS FOR NONCONFORMING AIR CONTENT

LIMITS (%)		PERCENT PRICE REDUCTION OF THE CONTRACT UNIT PRICE
Above Specification	>= 0.5 [1]	10
	0.1 to 0.4 [1]	5
Below Specification	0.1 to 0.5	20
	0.6 to 1.0	30
	> 1.0	50 or remove and replace

[1] Evaluate the strength data. If the strengths are acceptable, do not take a price reduction for high air content. Contractor is responsible to provide additional strength data, if necessary.

TABLE 715-3 PRICE REDUCTIONS FOR NONCONFORMING TEMPERATURE

Replace Table 715-3, included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

CONCRETE TEMPERATURE (F) [1]		PRICE REDUCTION (%)
Upper Temperature Limit [2]	> 80 to <= 85	10
	> 85	25
Lower Temperature Limit	45 to <= 50	10
	< 45	25

[1] Applies only for Concrete Structures and Cast-in-Place Barrier.

[2] If a written temperature control plan outlining the actions by the contractor to control concrete temperature at the point of placement exceeding 80 F is submitted and followed to effectively control the temperature, the upper temperature limit is increased by 10 F for price reductions for nonconforming temperature.

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716 QMP Ancillary Concrete

716.2 Materials

716.2.1 Class II Concrete

Replace paragraph (2) with the following effective with the November 2025 letting.

(2) Perform random QC testing at the following frequencies:

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

The department will allow concrete startup test results for small quantities as specified in 710.2(1). Cast one set of 3 cylinders if using startup testing for acceptance.

716.2.2 Class III Concrete

Replace paragraph (1) with the following effective with the November 2025 letting.

(1) Acceptance of class III concrete is based on DT2220/ DT2221 certification page. Submit the certificate of compliance at least 3 business days before producing concrete along with the initial concrete mix documentation as required under 710.4(2).

Bid Items

500 Bid Items

Remove the following bid items effective with the February 2026 letting.

522.2363	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 63x98-Inch	LF
522.2663	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 63x98-Inch	EACH

600 Bid Items

Remove the following bid item effective with the February 2026 letting.

608.2363	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 63x98-Inch	LF

Add the following bid item effective with the November 2025 letting.

611.0613	Inlet Covers Type DW	EACH

Remove the following bid items effective with the November 2025 letting.

621.0100	Landmark Reference Monuments	EACH
621.1100	Landmark Reference Monuments and Cast-Iron Covers	EACH
621.1200	Landmark Reference Monuments and Aluminum Covers	EACH

Remove the following bid items effective with the November 2025 letting.

643.0405	Traffic Control Barricades Type I	DAY
643.0410	Traffic Control Barricades Type II	DAY
643.0800	Traffic Control Arrow Boards	DAY

Add the following bid items effective with the November 2025 letting.

643.0810	Traffic Control Connected Arrow Boards	DAY
643.1220	Traffic Control Connected Work Zone Start and End Location Markers	DAY

Add the following bid item effective with the February 2026 letting.

657.0348	Poles Type 9 - Special Over Height	EACH
657.0353	Poles Type 10 - Special Over Height	EACH

Add the following bid items effective with the November 2025 letting.

680.0100	Public Land Survey Monument Verify and Reset	EACH
682.0100	Salvage Geodetic Survey Disk	EACH
682.0200	Geodetic Survey Monuments	EACH

ERRATA

204.3.1.3 Salvaging or Disposal of Materials

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

(2) Dispose of concrete, stone, brick, and other material not designated for salvage as specified for disposing of materials under 203.3.5.

204.3.2.3 Removing Buildings

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

(2) Buildings removed and materials resulting from building removal become the contractor's property unless the contract specifies otherwise. Dispose of unclaimed and removed material as specified for disposing of materials in 203.3.5.

335.3.2 Rubblizing

Replace paragraph (6) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

(6) Remove reinforcing steel exposed at the surface by cutting below the surface and disposing of the steel as specified in 203.3.5. Do not remove unexposed reinforcing steel.

335.3.3 Compacting

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

(2) Remove loose asphaltic patching material, joint fillers, expansion material, or other similar materials from the compacted surface. Also remove pavement or patches that have a maximum dimension greater than or equal to 6 inches that are either not well seated or projecting more than one inch. Dispose of removed material as specified in 203.3.5.

460.3.3.2 Pavement Density Determination

Replace change description annotation with the following to revise implementation date. This change is effective with the November 2025 letting.

Add information to 460.3.3.2(1) and (3). Add reference to CMM, WTM, and WTP H-002. WTP H-002 contains the sublot layouts formerly in CMM 815. Definition of a lot is now defined here (460.3.3.2(3)) instead of CMM. This change was implemented via ASP-6 with the February 2024 letting.

602.3.6 Concrete Rumble Strips

Replace paragraph (5) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

(5) At the end of each workday, move equipment and material out of the clear zone and sweep or vacuum the traveled way pavement and shoulder areas. Sweep away or vacuum up milling debris before opening adjacent lanes to traffic. Dispose of waste material as specified in 203.3.5; do not place on the finished shoulder surface.

604.2 Materials

Replace paragraph (1) with the following information to remove line and link for crushed aggregate effective with the November 2024 letting. The crushed aggregate gradation information for slope paving is now found in 604.2(3).

(1) Furnish materials conforming to the following:

Water 501.2
Select crushed material 312.2
Concrete 501
Reinforcement 505
Expansion joint filler 415.2.3
Asphaltic materials 455.2

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. DBE firms must enter all payments to DBE and non-DBE firms regardless of tier.
6. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
7. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4), (5), and (6), and shall be binding on all first tier subcontractor relationships, all contractors and subcontractors utilizing DBE firms on the project, and all payments from DBE firms.

B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to paul.ndon@dot.wi.gov within 5 days of payment receipt to be logged manually.

***Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf

ADDITIONAL SPECIAL PROVISION 9

Electronic Certified Payroll or Labor Data Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) for projects with a LET date on or before December 2024 and AASHTOWare Project Civil Rights and Labor (AWP CRL) for projects with a LET date on or after January 2025 to electronically submit Certified Payroll Reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's Highway Construction Contractor Information (HCCI) site on the Labor, Wages, and EEO Information page at: https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS or AWP CRL. These payrolls or labor data are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS or AWP CRL training as they are about to begin their submittals. The department will provide training either in a classroom setting at one of our regional offices, via the online AWP Knowledge Base, or by telephone. to schedule CRCS specific training. The AWP Knowledge Base is at: https://awpkb.dot.wi.gov/

(4) The department will reject all paper submittals for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) For firms wishing to export payroll/labor data from their computer system, have their payroll coordinator contact:

- For CRCS: Paul Ndon at paul.ndon@dot.wi.gov. Information about exporting payroll/labor data. Not every contractor's payroll system can produce export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at: https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf
- For AWP CRL: Contact AWP Support at awpsupport@dot.wi.gov. Additional information can be found in the AWP Knowledge Base at https://awpkb.dot.wi.gov/Content/crl/Payrolls-PrimesAndSubs/PayrollXMLFileCreationProcess.htm

CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

I. GENERAL

1. Historically, contracting agencies using Federal-aid highway funds were required to ensure Form FHWA-1273 was physically incorporated into all contracts and subcontracts. Effective June 10, 2026, this requirement was eliminated [91 FR 25492]. Future use of Form FHWA-1273 is now optional on the part of the contracting agency using Federal-aid highway funds. FHWA continues to make Form FHWA-1273 available as a convenience to contracting agencies. Contracting agencies must continue to ensure compliance with the provisions cited in Form FHWA-1273 in accordance with the provisions regardless of the use of Form FHWA-1273. Accordingly, the contracting agency retains the authority to determine whether the contractor must use Form FHWA-1273 to physically incorporate required contract provisions in each subcontract and in lower tier contracts. Where permitted by the contracting agency, the contractor may choose other ways to include required contract provisions in each subcontract, besides incorporating Form FHWA-1273. Contract provisions in Form FHWA-1273 are not required to be physically included in subcontracts for design services on Federal-aid design-build contracts, or in purchase orders, rental agreements and other agreements for supplies or services.

The applicable provisions of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor or design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION

The contractor and all subcontractors must comply with the following policies: 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract.

1. Assurances Required:

a. The requirements of 49 CFR Part 26, including any amendments thereto, and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26, including any amendments thereto, in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E, including any amendments thereto, are incorporated by reference. 49 CFR Part 21.

III. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the

classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph 2.a. of this section or Section IV, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number

of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (*e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with 29 CFR part 30, including any amendments thereto.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section III. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (1) through (11) of this section, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the

contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

IV. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $33 as of January 15, 2025 (See 90 FR 1859) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section III paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

V. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1. of this section refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph 1. of this section is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however,

contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VI. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

VIII. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

IX. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

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

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

X. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

XI. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS (40 U.S.C. sections 14501(d) and 14701 and the Appalachian Regional Commission Code as authorized under 40 U.S.C. section 14302)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 40 U.S.C. 14501 allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

NON-DISCRIMINATION PROVISIONS

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

a. Withholding payments to the contractor under the contract until the contractor complies; and/or
b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.
2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

ADDITIONAL FEDERAL-AID PROVISIONS

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

DOMESTIC MATERIALS PREFERENCE PROVISION

Domestic Materials Preference (in accordance with the Buy America Act per 23 CFR 635.410, and the Build America-Buy America Act (BABA) per 2 CFR Part 184, and 2 CFR Part 200) shall be articles, materials, or supplies permanently incorporated in this project as classified in the following four categories, and as described in the Construction and Materials Manual (CMM):

1. Iron and Steel

   To be considered domestic, all steel and iron products used, and all products predominantly manufactured from steel or iron must be produced in the United States in accordance with the steel and iron product standards in 23 CFR 635.410.

   This includes smelting, coating, bending, shaping, and all other manufacturing processes performed on the product. Coating includes all processes which protect or enhance the value of the material to which the coating is applied.

Products that are predominantly iron or steel or a combination of both as defined in 23 CFR 635.410 are considered Steel and Iron products and must comply with this section.

2. Construction Materials

   To be considered domestic, all construction materials used must be produced in the United States in accordance with the construction material standards in 2 CFR 184.6:

   - Non-ferrous metals: All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.
   - Plastic and polymer-based products: All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.
   - Glass. All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.
   - Fiber optic cable (including drop cable): All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.
   - Optical fiber: All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.
   - Lumber: All manufacturing processes, from initial debarking through treatment and planning, occurred in the United States.
   - Drywall: All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.
   - Engineered wood: All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.

3. Manufactured Products

   To be considered domestic, all manufactured products used must be produced in the United States as defined in 23 CFR 635.410(c)(1)(vii):

   - For projects with let dates on or after October 1, 2025, the final step in the manufacturing process must occur in the United States.
   - For projects with let dates on or after October 1, 2026, the final step in the manufacturing process must occur in the United States and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States must be greater than 55 percent of the total cost of all components of the manufactured product.

Manufactured products means articles, materials, or supplies that have been processed into a specific form and shape, or combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies. If an item is classified as an iron or steel product, an excluded material, or construction material, then it is not a manufactured product. An article, material, or supply classified as a manufactured product may include components that are iron or steel

products, excluded materials, or construction materials. Mixtures of excluded materials delivered to a work site without final form for incorporation into a project are not a manufactured product.

Items that consist of two or more construction materials that have been combined together through a manufacturing process, and items that include at least one construction material combined with a material that is not a construction material (including steel/iron) through a manufacturing process are treated as manufactured products, rather than as construction materials.

Products that are classified as predominantly iron or steel do not meet the definition of a manufactured product and must comply with section 1.

With respect to precast concrete products **that are classified as manufactured products**, components of precast concrete products that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements of section 1. The cost of such components shall be included in the applicable calculation for purposes of determining whether the precast concrete product is produced in the United States.

With respect to intelligent transportation systems and other electronic hardware systems that are installed in the highway right of way or other real property **and classified as manufactured products**, the cabinets or other enclosures of such systems that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements of section 1. The cost of cabinets or other enclosures shall be included in the applicable calculation for purposes of determining whether systems referred to in the preceding sentence are produced in the United States.

4. Temporary and Excluded Materials

> Temporary materials, and excluded materials meeting the definition of Section 70917(c) Materials as defined in 2 CFR 184, do not have any domestic materials requirements. Section 70917(c) Materials means cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. Mixtures of excluded materials delivered to a work site without final form for incorporation into a project are not a manufactured product.

The classification of an article, material, or supply as falling into one of the categories listed in this section will be made based on its status at the time it is brought to the work site for incorporation into the project. Except as otherwise provided, an article, material, or supply incorporated into an infrastructure project must meet the Domestic Material Preference for only the single category in which it is classified.

Requirements do not preclude a minimal use of foreign steel and iron provided the cost of such materials do not exceed 0.1 percent (0.1%) of the total contract cost or $2500 whichever is greater. The total contract cost is the contract amount at award.

For each iron or steel product subject to meeting domestic materials requirements, that doesn't fully meet Buy America Act requirements, the following documentation must be provided by the Contractor to verify the foreign steel value. Ensure the threshold is not exceeded and place the documentation in the project files.

- Pay Item,
- Description of associated foreign iron or steel product, or component,
- Invoiced cost of associated foreign iron or steel product, or component, and
- Current cumulative list of all foreign iron or steel products with the total dollar amount of foreign products in relation to the total contract amount.

The minimal use of foreign iron or steel under the minimal usage threshold must be approved by the Engineer prior to incorporation into the project and any associated payment under the contract. The use of foreign iron or steel under the minimal usage threshold does not need to be approved by FHWA. This amount is not considered a waiver to the domestic materials requirements. The Contractor must ensure that the minimal usage amount is not exceeded.

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Domestic Material provision.

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

Upon completion of the project, certify to the engineer, in writing using department form DT4567 that all iron and steel, construction materials, and manufactured products conform to this domestic material provision.

Form DT4567 is available at: https://wisconsindot.gov/Documents/formdocs/dt4567.docx

Attach a list of foreign iron or steel and their associated costs to the certification form using the Domestic Material Exemption Tracking Tool, available at:

https://wisconsindot.gov/hccidocs/contracting-info/buy-america-exemption-tracking-tool.xlsx

CARGO PREFERENCE ACT REQUIREMENT

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* "Use of United States-flag vessels:"

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590."

(b) *Contractor and Subcontractor Clauses.* "Use of United States-flag vessels: The contractor agrees—"

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS FOR PROJECTS WITH FEDERAL AID

I. PREVAILING WAGE RATES

The attached U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) furnishes the minimum prevailing wage rates pursuant to the Davis-Bacon and Related Acts. The wage rates shown are the minimum rates required by the contract to be paid during its life, however this is not a representation that labor can be obtained at these rates. Itis the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

II. COVERAGE OF TRUCK DRIVERS

Truck drivers are covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Drivers of a contractor or subcontractor for time spent working on the site of the work.
- Drivers of a contractor or subcontractor for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimis. https://www.dol.gov/whd/FOH/FOH_Ch15.pdf
- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract where a significant portion of such building or work is constructed and the physical place where the building or work called for in the contract will remain.

Truck drivers are not covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Material delivery truck drivers while off the site of the work.
- Drivers of a contractor or subcontractor traveling between a Davis-Bacon job and a commercial supply facility while they are off the site of the work."
- Truck drivers whose time spent on the site of the work is de minimis, such as only a few minutes at a time merely to pick up or drop off materials or supplies.

Details are available online at:

https://www.dol.gov/whd/recovery/pwrb/Tab9.pdf

https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/trckng.aspx

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

a. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

IV. RESOURCES

Required information regarding compliance with federal provisions is found in the following resources:

- FHWA-1273 included in this contract
- U.S. Department of Labor Prevailing Wage Resource Book
- U.S. Department of Labor Field Operations Handbook
- U.S. Code of Federal Regulations
- Any applicable law, Act, or Executive Order enacted by the federal government at the time of the letting of this contract

"General Decision Number: WI20260010 05/18/2026

State: Wisconsin

Construction Types: Highway

Counties: Wisconsin Counties of
Adams, Ashland, Barron, Bayfield, Brown,
Buffalo, Burnett, Calumet, Chippewa,
Clark, Columbia, Crawford, Dane, Dodge,
Door, Douglas, Dunn, Eau Claire,
Florence, Fond Du Lac, Forest, Grant,
Green, Green Lake, Iowa, Iron, Jackson,
Jefferson, Juneau, Kenosha, Kewaunee, La
Crosse, Lafayette, Langlade, Lincoln,
Manitowoc, Marathon, Marinette,
Marquette, Menominee, Milwaukee, Monroe,
Oconto, Oneida, Outagamie, Ozaukee,
Pepin, Pierce, Polk, Portage, Price,
Racine, Richland, Rock, Rusk, Sauk,
Sawyer, Shawano, Sheboygan, St Croix,
Taylor, Trempealeau, Vernon, Vilas,
Walworth, Washburn, Washington,
Waukesha, Waupaca, Waushara, Winnebago
and Wood

Modification Number	Publication Date
0	01/02/2026
1	05/18/2026

BRWI0001-002 06/01/2025

	Rates	Fringes
BRICKLAYER (CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES)	$ 40.09	28.10

BRWI0002-002 06/01/2025

	Rates	Fringes
BRICKLAYER (ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES)	$ 48.60	29.31

BRWI0002-005 06/01/2025

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER (ADAMS, BARRON, BROWN, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, SAUK, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES)	$ 46.01	29.31

BRWI0003-002 06/01/2024

	Rates	Fringes
BRICKLAYER (BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES)	$ 38.45	27.41

BRWI0004-002 06/01/2025

	Rates	Fringes
BRICKLAYER (KENOSHA, RACINE, AND WALWORTH COUNTIES)	$ 44.71	28.90

BRWI0006-002 06/01/2025

	Rates	Fringes
BRICKLAYER (ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE, ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES)	$ 39.36	28.83

BRWI0007-002 06/01/2025

	Rates	Fringes
BRICKLAYER (GREEN, LAFAYETTE, AND ROCK COUNTIES)	$ 40.34	29.49

BRWI0008-002 06/01/2025

	Rates	Fringes
BRICKLAYER (MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES)	$ 45.72	27.42

BRWI0011-002 06/01/2024

	Rates	Fringes
BRICKLAYER (CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES)	$ 38.45	27.41

BRWI0019-002 06/01/2025

	Rates	Fringes
BRICKLAYER (BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES)	$ 39.50	28.69

BRWI0034-002 06/01/2025

	Rates	Fringes
BRICKLAYER (COLUMBIA AND SAUK COUNTIES)	$ 41.17	28.66

CARP0068-011 05/05/2025

	Rates	Fringes
PILEDRIVERMAN (BURNETT (W. OF HWY 48), PIERCE (W. OF HWY 29), POLK (W. OF HWYS 35, 48 & 65), AND ST. CROIX (W. OF HWY 65) COUNTIES)	$ 47.71	30.98
CARPENTER (BURNETT (W. OF HWY 48), PIERCE (W. OF HWY 29), POLK (W. OF HWYS 35, 48 & 65), AND ST. CROIX (W. OF HWY 65) COUNTIES)	$ 47.57	31.17

CARP0231-002 06/01/2025

	Rates	Fringes
CARPENTER (KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA COUNTIES)	$ 45.46	31.52

CARP0310-002 06/01/2025

	Rates	Fringes
PILEDRIVER (ADAMS, ASHLAND, BAYFIELD (EASTERN 2/3), FOREST, IRON, JUNEAU, LANGLADE, LINCOLN, MARATHON, ONEIDA, PORTAGE, PRICE, SHAWANO (WESTERN PORTION OF THE COUNTY), TAYLOR, VILAS, AND WOOD COUNTIES)	$ 44.43	29.95
CARPENTER (ADAMS, ASHLAND, BAYFIELD (EASTERN 2/3), FOREST, IRON, JUNEAU, LANGLADE, LINCOLN, MARATHON, ONEIDA, PORTAGE, PRICE, SHAWANO (WESTERN PORTION OF THE COUNTY), TAYLOR, VILAS, AND WOOD COUNTIES)	$ 44.43	29.95

CARP0314-001 06/02/2025

	Rates	Fringes
CARPENTER: PILEDRIVERMEN (COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, JEFFERSON, LAFAYETTE, RICHLAND, ROCK, SAUK, AND WALWORTH COUNTIES)	$ 44.45	28.78

CARP0361-004 05/05/2025

	Rates	Fringes
CARPENTER (BAYFIELD (WEST OF HWY 63) AND DOUGLAS COUNTIES)	$ 46.82	31.92

CARP0731-002 06/03/2024

	Rates	Fringes
CARPENTER: PILEDRIVER (CALUMET (EASTERN PORTION OF THE COUNTY), FOND DU LAC (EASTERN PORTION OF THE COUNTY), MANITOWOC, AND SHEBOYGAN COUNTIES)	$ 42.44	28.44
CARPENTER (CALUMET (EASTERN PORTION OF THE COUNTY), FOND DU LAC (EASTERN PORTION OF THE COUNTY), MANITOWOC, AND SHEBOYGAN COUNTIES)	$ 42.44	28.44

CARP0955-002 06/01/2025

	Rates	Fringes
PILEDRIVER (CALUMET (WESTERN PORTION OF THE COUNTY), FOND DU LAC (WESTERN PORTION OF THE COUNTY), GREEN LAKE, MARQUETTE, OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO)	$ 44.43	29.95
CARPENTER (CALUMET (WESTERN PORTION OF THE COUNTY), FOND DU LAC (WESTERN PORTION OF THE COUNTY), GREEN LAKE, MARQUETTE, OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO)	$ 44.43	29.95

CARP0955-002 06/02/2025

	Rates	Fringes
PILEDRIVER (CALUMET (WESTERN PORTION OF THE COUNTY), FOND DU LAC (WESTERN PORTION OF THE COUNTY), GREEN LAKE, MARQUETTE, OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO)	$ 44.43	29.95
CARPENTER (CALUMET (WESTERN PORTION OF THE COUNTY), FOND DU LAC (WESTERN PORTION OF THE COUNTY), GREEN LAKE, MARQUETTE, OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO)	$ 44.43	29.95

CARP1056-002 06/01/2024

	Rates	Fringes
MILLWRIGHT (ADAMS, ASHLAND, BARRON, BAYFIELD , BROWN, BUFFALO, BURNETT ,CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON,		

JUNEAU, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE,
LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE,
MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE,
PEPIN, PIERCE (E. OF HWY. 29 & 65), POLK (E. OF
HWY. 35, 48 & 65), PORTAGE, PRICE, RICHLAND,
ROCK,.....$ 42.00 28.85

CARP1074-002 06/02/2025

	Rates	Fringes
PILEDRIVER (BARRON, BURNETT, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, PEPIN, PIERCE (E. OF HWY. 29 & 65), POLK (E. OF HWY. 35, 48 & 65), RUSK, SAWYER, ST. CROIX (E. OF HWY. 65), AND WASHBURN).....	$ 44.43	29.95
CARPENTER (BARRON, BURNETT, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, PEPIN, PIERCE (E. OF HWY. 29 & 65), POLK (E. OF HWY. 35, 48 & 65), RUSK, SAWYER, ST. CROIX (E. OF HWY. 65), AND WASHBURN).....	$ 44.43	29.95

CARP1143-002 06/02/2025

	Rates	Fringes
PILEDRIVER (BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU AND VERNON COUNTIES).....	$ 44.43	29.95
CARPENTER (BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU AND VERNON COUNTIES).....	$ 44.43	29.95

CARP1146-002 06/02/2025

	Rates	Fringes
PILEDRIVER (BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, MENOMINEE, OCONTO, AND SHAWANO (WESTERN PORTION OF THE COUNTY) COUNTIES).....	$ 44.43	29.95
CARPENTER (BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, MENOMINEE, OCONTO, AND SHAWANO (WESTERN PORTION OF THE COUNTY) COUNTIES).....	$ 44.43	29.95

CARP2337-009 06/02/2025

	Rates	Fringes
PILEDRIVERMAN (KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA).....	$ 44.39	34.79

ELEC0014-002 05/25/2025

	Rates	Fringes
ELECTRICIANS: (ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (EXCEPT MARYVILLE, COLBY, UNITY, SHERMAN, FREMONT, LYNN & SHERWOOD), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPEALEAU, VERNON, AND WASHBURN COUNTIES).....	$ 44.29	25.21

ELEC0014-007 05/25/2025

	Rates	Fringes
TELEDATA SYSTEM INSTALLER: INSTALLER/TECHNICIAN (ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KENOSHA, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MARATHON, MARINETTE, MARQUETTE,		

MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE,
PEPIN, PIERCE, POLK, PORTAGE, PRICE, RACINE,
RICHLAND, ROCK, RUS.....$ 31.17 20.08

ELEC0127-002 06/01/2025

	Rates	Fringes
ELECTRICIANS: (KENOSHA COUNTY).....	$ 50.01	28.40

ELEC0158-002 05/25/2025

	Rates	Fringes
ELECTRICIAN (BROWN, DOOR, KEWAUNEE, MANITOWOC (EXCEPT SCHLESWIG), MARINETTE(WAUSUAKEE AND AREA SOUTH THEREOF), OCONTO, MENOMINEE (EAST OF A INE 6 MILES WEST OF THE WEST BOUNDARY OF OCONTO COUNTY), SHAWANO (EXCEPT AREA NORTH OF TOWNSHIPS OF ANIWA AND HUTCHINS) COUNTIES).....	$ 42.00	23.93

ELEC0159-003 05/26/2024

	Rates	Fringes
ELECTRICIAN (COLUMBIA, DANE, DODGE (AREA WEST OF HWY 26, EXCEPT CHESTER AND EMMET TOWNSHIPS), GREEN, LAKE (EXCEPT TOWNSHIPS OF BERLIN, SENECA, AND ST. MARIE), IOWA, MARQUETTE (EXCEPT TOWNSHIPS OF NESHKOKA, CRYSTAL LAKE, NEWTON, AND SPRINGFIELD), AND SAUK COUNTIES).....	$ 48.55	25.91

ELEC0219-004 06/01/2019

	Rates	Fringes
ELECTRICIANS: ELECTRICAL CONTRACTS UNDER $180,000 (FLORENCE COUNTY (TOWNSHIPS OF AURORA, COMMONWEALTH, FERN, FLORENCE AND HOMESTEAD) AND MARINETTE COUNTY (TOWNSHIP OF NIAGARA)).....	$ 31.75	21.73
ELECTRICIANS: ELECTRICAL CONTRACTS OVER $180,000 (FLORENCE COUNTY (TOWNSHIPS OF AURORA, COMMONWEALTH, FERN, FLORENCE AND HOMESTEAD) AND MARINETTE COUNTY (TOWNSHIP OF NIAGARA)).....	$ 33.94	21.80

ELEC0242-005 06/01/2025

	Rates	Fringes
ELECTRICIANS: (DOUGLAS COUNTY).....	$ 47.46	33.34

ELEC0388-002 06/01/2024

	Rates	Fringes
ELECTRICIANS: (ADAMS, CLARK (COLBY, FREEMONT, LYNN, MAYVILLE, SHERMAN, SHERWOOD, UNITY), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (BEECHER, DUNBAR, GOODMAN & PEMBINE), MENOMINEE (AREA WEST OF A LINE 6 MILES WEST OF THE WEST BOUNDARY OF OCONTO COUNTY), ONEIDA, PORTAGE, SHAWANO (ANIWA AND HUTCHINS), VILAS AND WOOD COUNTIES).....	$ 40.19	22.90

ELEC0430-002 06/01/2024

	Rates	Fringes
ELECTRICIANS: (RACINE COUNTY (EXCEPT BURLINGTON TOWNSHIP)).....	$ 48.50	26.25

ELEC0494-005 06/01/2025

	Rates	Fringes
ELECTRICIANS: (MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES)	$ 50.86	28.26

ELEC0494-006 06/01/2025

	Rates	Fringes
ELECTRICIANS: (CALUMET (TOWNSHIP OF NEW HOLSTEIN), DODGE (EAST OF HWY 26 INCLUDING CHESTER TOWNSHIP), FOND DU LAC, MANITOWOC (SCHLESWIG), AND SHEBOYGAN COUNTIES)	$ 45.20	25.27

ELEC0494-013 06/01/2025

	Rates	Fringes
SOUND & COMMUNICATIONS: TECHNICIAN (DODGE (EAST OF HWY 26 INCLUDING CHESTER TWP, EXCLUDING EMMET TWP), FOND DU LAC (EXCEPT WAUPUIN), MILWAUKEE, OZAUKEE, MANITOWOC (SCHLESWIG), WASHINGTON, AND WAUKESHA COUNTIES)	$ 37.13	21.58
SOUND & COMMUNICATIONS: INSTALLER (DODGE (EAST OF HWY 26 INCLUDING CHESTER TWP, EXCLUDING EMMET TWP), FOND DU LAC (EXCEPT WAUPUIN), MILWAUKEE, OZAUKEE, MANITOWOC (SCHLESWIG), WASHINGTON, AND WAUKESHA COUNTIES)	$ 37.13	21.58

ELEC0577-003 06/01/2025

	Rates	Fringes
ELECTRICIANS: (CALUMET (EXCEPT TOWNSHIP OF NEW HOLSTEIN), GREEN LAKE (N. PART INCLUDING TOWNSHIPS OF BERLIN, ST MARIE, AND SENECA), MARQUETTE (N. PART INCLUDING TOWNSHIPS OF CRYSTAL LAKE, NESHKORO, NEWTON, AND SPRINGFIELD), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES)	$ 41.76	23.65

ELEC0890-003 06/01/2024

	Rates	Fringes
ELECTRICIANS: (DODGE (EMMET TOWNSHIP ONLY), GREEN, JEFFERSON, LAFAYETTE, RACINE (BURLINGTON TOWNSHIP), ROCK AND WALWORTH COUNTIES)	$ 43.65	23.59

ELEC0953-001 06/02/2019

	Rates	Fringes
LINE CONSTRUCTION: (6) GROUNDSMAN	$ 26.14	14.60
LINE CONSTRUCTION: (5) LIGHT GROUNDMAN DRIVER	$ 30.89	16.11
LINE CONSTRUCTION: (4) HEAVY GROUNDMAN DRIVER	$ 33.27	16.88
LINE CONSTRUCTION: (3) EQUIPMENT OPERATOR)	$ 38.02	18.40
LINE CONSTRUCTION: (2) HEAVY EQUIPMENT OPERATOR	$ 42.78	19.80
LINE CONSTRUCTION: (1) LINEMAN	$ 47.53	21.43

ENGI0139-005 06/01/2025

	Rates	Fringes
POWER EQUIPMENT OPERATOR: GROUP 6 OFF-ROAD MATERIAL HAULER WITH OR WITHOUT EJECTOR.		

HAZARDOUS WASTE PREMIUMS: EPA LEVEL ""A"" PROTECTION - $3.00 PER HOUR EPA LEVEL ""B"" PROTECTION - $2.00 PER HOUR EPA LEVEL ""C"" PROTECTION - $1.00 PER HOUR.$ 40.32 30.30
POWER EQUIPMENT OPERATOR: GROUP 5 AIR COMPRESSOR; POWER PACK; VIBRATOR HAMMER AND EXTRACTOR; HEAVY EQUIPMENT, LEADMAN; TANK CAR HEATERS; STUMP CHIPPER; CURB MACHINE OPERATOR; CONCRETE PROPORTIONING PLANTS; GENERATORS; MUDJACK OPERATOR; ROCK BREAKER; CRUSHER OR SCREENING PLANT; SCREED (MILLING MACHINE); AUTOMATIC BELT CONVEYOR AND SURGE BIN; PUG MILL OPERATOR; OILER, PUMP (OVER 3 INCHES); DRILLING MACHINE TENDER, DAY LIGHT MACHINE

HAZARDOUS WASTE PREMIUMS: EPA LEVEL ""A"" PROTECTION - $3.00 PER HOUR EPA LEVEL ""B"" PROTECTION - $2.00 PER HOUR EPA LEVEL ""C"" PROTECTION - $1.00 PER HOUR.$ 46.22 30.30
POWER EQUIPMENT OPERATOR: GROUP 4 GREASER, ROLLER STEEL (5 TONS OR LESS); ROLLER (PNEUMATIC TIRED) - SELF PROPELLED; TRACTOR (MOUNTED OR TOWED COMPACTORS & LIGHT EQUIPMENT); SHOULDERING MACHINE; SELF- PROPELLED CHIP SPREADER; CONCRETE SPREADER; FINISHING MACHINE; MECHANICAL FLOAT; CURING MACHINE; POWER SUBGRADER; JOINT SAWER (MULTIPLE BLADE) BELTING MACHINE; BURLAP MACHINE; TEXTURING MACHINE; TRACTOR ENDLOADER (RUBBER TIRED) - LIGHT; JEEP DIGGER; FORKLIFT; MULCHER; LAUNCH OPERATOR; FIREMAN, ENVIRONMENTAL BURNER

HAZARDOUS WASTE PREMIUMS: EPA LEVEL ""A"" PROTECTION - $3.00 PER HOUR EPA LEVEL ""B"" PROTECTION - $2.00 PER HOUR EPA LEVEL ""C"" PROTECTION - $1.00 PER HOUR.....$ 46.51 30.30
POWER EQUIPMENT OPERATOR: GROUP 3 MECHANIC OR WELDER - HEAVY DUTY EQUIPMENT; CRANES WITH A LIFTING CAPACITY OF 25 TONS OR UNDER; CONCRETE BREAKER (MANUAL OR REMOTE); VIBRATORY/SONIC CONCRETE BREAKER; CONCRETE LASER SCREED; CONCRETE SLIPFORM PAVER; CONCRETE BATCH PLANT OPERATOR; CONCRETE PVT. SPREADER - HEAVY DUTY (RUBBER TIRED); CONCRETE SPREADER & DISTRIBUTOR; AUTOMATIC SUBGRADER (CONCRETE); CONCRETE GRINDER & PLANING MACHINE; CONCRETE SLIPFORM CURB & GUTTER MACHINE; SLIPFORM CONCRETE PLACER; TUBE FINISHER; HYDRO BLASTER (10,000 PSI & OVER); BRIDGE PAVER; CONCRETE CONVEYOR SYSTEM; CONCRETE PUMP; ROTEC TYPE CONVEYOR; STABILIZING MIXER (SELF-PROPELLED); SHOULDER WIDENER; ASPHALT PLANT ENGINEER; BITUMINIOUS PAVER; BUMP CUTTER & GROOVING MACHINE; MILLING MACHINE; SCREED (BITUMINOUS PAVER); ASPHALT HEATER, PLANER & SCARIFIER; BACKHOES (EXCAVATORS) WEIGHING UNDER 130,000 LBS; GRADER OR MOTOR PATROL; TRACTOR (SCRAPER, DOZER, PUSHER, LOADER); SCRAPER - RUBBER TIRED (SINGLE OR TWIN ENGINE); ENDLOADER; HYDRAULIC BACKHOE (TRACTOR TYPE); TRENCHING MACHINE; SKID RIGS; TRACTOR, SIDE BOOM (HEAVY); DRILLING OR BORING MACHINE (MECHANICAL HEAVY); ROLLER OVER 5 TONS; PERCUSSION OR ROTARY DRILLING

MACHINE; AIR TRACK; BLASTER; LOADING MACHINE
(CONVEYOR); TUGGER; BOATMEN; WINCHES & A-FRAMES;
POST DRIVER; MATERIAL HOIST.

HAZARDOUS WASTE PREMIUMS: EPA LEVEL ""A"" PROTECTION
- $3.00 PER HOUR EPA LEVEL ""B"" PROTECTION - $2.00
PER HOUR EPA LEVEL ""C"" PROTECTION - $1.00 PER HOUR.$ 46.77 30.30
POWER EQUIPMENT OPERATOR GROUP 2 CRANES, TOWER
CRANES AND DERRICKS WITH OR WITHOUT ATTACHMENTS
WITH A LIFTING CAPACITY OF 100 TONS OR LESS; OR
CRANES, TOWER CRANES, AND DERRICKS WITH BOOM,
LEADS, AND/OR JIBS LENGTHS MEASURING 175 FEET OR
UNDER AND BACKHOES (EXCAVATORS) WEIGHING 130,000
LBS AND OVER; CAISSON RIGS; PILE DRIVER; DREDGE
OPERATOR; DREDGE ENGINEER; BOAT PILOT.

HAZARDOUS WASTE PREMIUMS: EPA LEVEL
""A"" PROTECTION - $3.00 PER HOUR EPA LEVEL ""B""
PROTECTION - $2.00 PER HOUR EPA LEVEL ""C""
PROTECTION - $1.00 PER HOUR.....$ 47.87 30.30
POWER EQUIPMENT OPERATOR GROUP 1 CRANES, TOWER
CRANES, AND DERRICKS WITH OR WITHOUT ATTACHMENTS
WITH A LIFTING CAPACITY OF OVER 100 TONS; OR
CRANES, TOWER CRANES, AND DERRICKS WITH BOOM, LEADS
AND/OR JIB LENGTHS MEASURING 176 FEET OR LONGER.

HAZARDOUS WASTE PREMIUMS: EPA LEVEL ""A""
PROTECTION - $3.00 PER HOUR EPA LEVEL ""B""
PROTECTION - $2.00 PER HOUR EPA LEVEL ""C""
PROTECTION - $1.00 PER HOUR.....$ 48.37 30.30

IRON0008-002 06/01/2025

	Rates	Fringes
IRONWORKER (BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:).....	$ 44.66	33.67

IRON0008-003 06/01/2025

	Rates	Fringes
IRONWORKER (KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES).....	$ 47.52	33.67

IRON0383-001 06/01/2025

	Rates	Fringes

IRONWORKER (ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (EXCLUDING S.E. TIP), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (NORTHERN AREA, VICINITY OF EDGERTON AND MILTON), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES).$ 44.00 32.66

IRON0498-005 06/01/2025

	Rates	Fringes
IRONWORKER (GREEN (S.E. 1/3), ROCK (SOUTH OF EDGERTON AND MILTON), AND WALWORTH (S.W. 1/3) COUNTIES:)	$ 48.74	49.65

IRON0512-008 05/01/2025

	Rates	Fringes
IRONWORKER (BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON, PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPEALEAU COUNTIES)	$ 46.35	36.86

IRON0512-021 05/01/2025

	Rates	Fringes
IRONWORKER (ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA, PRICE, SAWYER, VILAS AND WASHBURN COUNTIES)	$ 42.89	36.86

LABO0113-002 06/02/2025

	Rates	Fringes
LABORER: GROUP 6 FLAGPERSON; TRAFFIC CONTROL PERSON		
(MILWAUKEE AND WAUKESHA COUNTIES)	$ 35.30	25.53
LABORER: GROUP 5 BLASTER AND POWDERMAN		
(MILWAUKEE AND WAUKESHA COUNTIES)	$ 39.46	25.53
LABORER: GROUP 4 LINE AND GRADE SPECIALIST		
(MILWAUKEE AND WAUKESHA COUNTIES)	$ 39.31	25.53
LABORER: GROUP 3 BITUMINOUS WORKER (RAKER AND LUTEMAN); FORMSETTER (CURB, SIDEWALK, AND PAVEMENT); STRIKE OFF MAN		
(MILWAUKEE AND WAUKESHA COUNTIES)	$ 39.16	25.53
LABORER: GROUP 2 AIR TOOL OPERATOR; JOINT SAWER AND FILLER (PAVEMENT); VIBRATOR OR TAMPER OPERATOR (MECHANICAL HAND OPERATED); CHAIN SAW OPERATOR; DEMOLITION BURNING TORCH LABORER		

(MILWAUKEE AND WAUKESHA COUNTIES).$ 38.96 25.53
LABORER: GROUP 1 GENERAL LABORER; TREE TRIMMER; CONDUIT LAYER; DEMOLITION AND WRECKING LABORER; GUARD RAIL, FENCE, AND BRIDGE BUILDER; LANDSCAPER; MULTIPLATE CULVERT ASSEMBLER; STONE HANDLER; BITUMINOUS WORKER (SHOVELER, LOADER, AND UTILITY MAN); BATCH TRUCK DUMPER OR CEMENT HANDLER; BITUMINOUS WORKER (DUMPER, IRONER, SMOOTHER, AND TAMPER); CONCRETE HANDLER

(MILWAUKEE AND WAUKESHA COUNTIES).....$ 38.81 25.53

LABO0113-003 06/02/2025

	Rates	Fringes
LABORER: GROUP 6 FLAGPERSON AND TRAFFIC CONTROL PERSON		
(OZAUKEE AND WASHINGTON COUNTIES).....	$ 35.15	25.53
LABORER: GROUP 5 BLASTER; POWDERMAN		
(OZAUKEE AND WASHINGTON COUNTIES).....	$ 38.26	25.53
LABORER: GROUP 4 LINE AND GRADE SPECIALIST		
(OZAUKEE AND WASHINGTON COUNTIES).....	$ 38.41	25.53
LABORER: GROUP 3 BITUMINOUS WORKER (RAKER AND LUTEMAN); FORMSETTER (CURB, SIDEWALK, AND PAVEMENT); STRIKE OFF MAN		
(OZAUKEE AND WASHINGTON COUNTIES).	$ 38.21	25.53
LABORER: GROUP 2 AIR TOOL OPERATOR; JOINT SAWER AND FILLER (PAVEMENT); VIBRATOR OR TAMPER OPERATOR (MECHANICAL HAND OPERATED); CHAIN SAW OPERATOR; DEMOLITION BURNING TORCH LABORER		
(OZAUKEE AND WASHINGTON COUNTIES).....	$ 38.16	25.53
LABORER: GROUP 1 GENERAL LABORER; TREE TRIMMER; CONDUIT LAYER; DEMOLITION AND WRECKING LABORER; GUARD RAIL, FENCE, AND BRIDGE BUILDER; LANDSCAPER; MULTIPLATE CULVERT ASSEMBLER; STONE HANDLER; BITUMINOUS WORKER (SHOVELER, LOADER, AND UTILITY MAN); BATCH TRUCK DUMPER OR CEMENT HANDLER; BITUMINOUS WORKER (DUMPER, IRONER, SMOOTHER, AND TAMPER); CONCRETE HANDLER		

(OZAUKEE AND WASHINGTON COUNTIES).....$ 38.06 25.53

LABO0113-011 06/02/2025

	Rates	Fringes
LABORER: GROUP 6 FLAGMAN; TRAFFIC CONTROL PERSON		
(KENOSHA AND RACINE COUNTIES).....$ 35.02		25.53
LABORER: GROUP 5 BLASTER AND POWDERMAN		
(KENOSHA AND RACINE COUNTIES).....$ 38.52		25.53
LABORER: GROUP 4 LINE AND GRADE SPECIALIST		
(KENOSHA AND RACINE COUNTIES).....$ 38.19		25.53
LABORER: GROUP 3 BITUMINOUS WORKER (RAKER AND LUTEMAN); FORMSETTER (CURB, SIDEWALK, AND PAVEMENT); STRIKE OFF MAN		
(KENOSHA AND RACINE COUNTIES)...$ 38.22		25.53
LABORER: GROUP 2 AIR TOOL OPERATOR; JOINT SAWER AND FILLER (PAVEMENT); VIBRATOR OR TAMPER OPERATOR (MECHANICAL HAND OPERATED); CHAIN SAW OPERATOR; DEMOLITION BURNING TORCH LABORER		
(KENOSHA AND RACINE COUNTIES).....$ 38.02		25.53
LABORER: GROUP 1 GENERAL LABORER; TREE TRIMMER; CONDUIT LAYER; DEMOLITION AND WRECKING LABORER; GUARD RAIL, FENCE, AND BRIDGE BUILDER; LANDSCAPER; MULTIPLATE CULVERT ASSEMBLER; STONE HANDLER; BITUMINOUS WORKER (SHOVELER, LOADER, AND UTILITY MAN); BATCH TRUCK DUMPER OR CEMENT HANDLER; BITUMINOUS WORKER (DUMPER, IRONER, SMOOTHER, AND TAMPER); CONCRETE HANDLER		
(KENOSHA AND RACINE COUNTIES).....$ 37.87		25.53

LABO0140-002 06/02/2025

	Rates	Fringes
LABORER GROUP 6 (ADAMS, ASHLAND, BARRON, BAYFIELD,		

BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK,
COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU
CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT,
GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA,
JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE,
LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,
MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA,
OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,
RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO,
SHEBOYGAN, ST. CRO.....$ 40.40 19.97

LABORER GROUP 5 (ADAMS, ASHLAND, BARRON, BAYFIELD,
BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK,
COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU
CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT,
GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA,
JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE,
LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,
MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA,
OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,
RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO,
SHEBOYGAN, ST. CRO.....$ 43.97 19.97

LABORER GROUP 4 (ADAMS, ASHLAND, BARRON, BAYFIELD,
BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK,
COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU
CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT,
GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA,
JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE,
LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,
MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA,
OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,
RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO,
SHEBOYGAN, ST. CRO.....$ 44.12 19.97

LABORER GROUP 3 (ADAMS, ASHLAND, BARRON, BAYFIELD,
BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK,
COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU
CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT,
GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA,
JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE,
LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,
MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA,
OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,
RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO,
SHEBOYGAN, ST. CRO.....$ 43.92 19.97

LABORER GROUP 2 (ADAMS, ASHLAND, BARRON, BAYFIELD,
BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK,
COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU
CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT,
GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA,
JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE,
LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,
MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA,
OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,
RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO,
SHEBOYGAN, ST. CRO.....$ 43.87 19.97

LABORER GROUP 1 (ADAMS, ASHLAND, BARRON, BAYFIELD,
BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK,
COLUMBIA, CRAWFORD, DODGE, DOOR, DOUGLAS, DUNN, EAU
CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT,
GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA,
JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE,
LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE,
MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA,
OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,
RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO,
SHEBOYGAN, ST. CRO.....$ 43.77 19.97

LABO0464-003 06/02/2025

	Rates	Fringes
LABORER: GROUP 6 FLAGPERSON AND TRAFFIC CONTROL PERSON		
(DANE COUNTY).....	$ 40.40	19.97
LABORER: GROUP 5 BLASTER; POWDERMAN		
(DANE COUNTY).....	$ 44.25	19.97
LABORER: GROUP 4 LINE AND GRADE SPECIALIST		
(DANE COUNTY).....	$ 44.40	19.97
LABORER: GROUP 3 BITUMINOUS WORKER (RAKER AND LUTEMAN); FORMSETTER (CURB, SIDEWALK, AND PAVEMENT); STRIKE OFF MAN		
(DANE COUNTY).....	$ 44.20	19.97
LABORER: GROUP 2 AIR TOOL OPERATOR; JOINT SAWER AND FILLER (PAVEMENT); VIBRATOR OR TAMPER OPERATOR (MECHANICAL HAND OPERATED); CHAIN SAW OPERATOR; DEMOLITION BURNING TORCH LABORER		
(DANE COUNTY).....	$ 44.15	19.97
LABORER: GROUP 1 GENERAL LABORER; TREE TRIMMER; CONDUIT LAYER; DEMOLITION AND WRECKING LABORER; GUARD RAIL, FENCE, AND BRIDGE BUILDER; LANDSCAPER; MULTIPLATE CULVERT ASSEMBLER; STONE HANDLER; BITUMINOUS WORKER (SHOVELER, LOADER, AND UTILITY MAN); BATCH TRUCK DUMPER OR CEMENT HANDLER; BITUMINIOUS WORKER (DUMPER, IRONER, SMOOTHER, AND TAMPER); CONCRETE HANDLER		
(DANE COUNTY).....	$ 44.05	19.97

PAIN0106-008 05/05/2025

	Rates	Fringes
PAINTERS: REPAINT: SPRAY, SANDBLAST, STEEL: ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES....	$ 37.27	27.26
PAINTERS: REPAINT: BRUSH, ROLLER: ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES.....	$ 36.67	27.26
PAINTERS: NEW: SPRAY, SANDBLAST, STEEL: ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES.....	$ 38.77	27.26
PAINTERS: NEW: BRUSH, ROLLER: ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES.....	$ 38.17	27.26

PAIN0108-002 06/01/2025

	Rates	Fringes
PAINTERS: SPRAY & SANDBLAST (RACINE COUNTY)	$ 44.64	23.35
PAINTERS: BRUSH, ROLLER (RACINE COUNTY)	$ 43.64	23.35

PAIN0259-002 05/01/2008

	Rates	Fringes
PAINTER (BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK, SAWYER, ST. CROIX, AND WASHBURN COUNTIES)	$ 24.11	12.15

PAIN0259-004 05/01/2015

	Rates	Fringes
PAINTER (BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPEALEAU, AND VERNON COUNTIES)	$ 22.03	12.45

PAIN0781-002 06/01/2025

	Rates	Fringes
PAINTERS: SPRAY & SANDBLAST (JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES)	$ 43.19	24.87
PAINTERS: BRUSH (JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES)	$ 42.44	24.87
PAINTERS: BRIDGE (JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES)	$ 43.19	24.87

PAIN0802-002 06/01/2025

	Rates	Fringes
PAINTER: BRUSH (COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND, ROCK, AND SAUK COUNTIES)	$ 37.65	21.17

PAIN0802-003 06/01/2025

	Rates	Fringes
PAINTER (ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS, WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES)	$ 37.65	21.17

PAIN0934-001 06/01/2025

	Rates	Fringes
PAINTERS: STRUCTURAL STEEL (KENOSHA AND WALWORTH COUNTIES)	$ 40.77	26.37
PAINTERS: SPRAY (KENOSHA AND WALWORTH COUNTIES)	$ 41.62	26.37
PAINTERS: BRUSH (KENOSHA AND WALWORTH COUNTIES)	$ 40.62	26.37

PAIN1011-002 06/01/2025

	Rates	Fringes
PAINTERS: (FLORENCE COUNTY)	$ 31.17	15.92

PLAS0599-002 06/01/2025

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER: AREA D: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES	$ 42.28	26.43
CEMENT MASON/CONCRETE FINISHER, AREA F: KENOSHA AND		

RACINE COUNTIES	$ 37.33	31.38
CEMENT MASON/CONCRETE FINISHER, AREA E: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES	$ 41.16	27.54
CEMENT MASON/CONCRETE FINISHER AREA C: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA CROSSE, MONROE, PEPIN, PIERCE, RICHLAND, TREMPEALEAU, AND VERNON COUNTIES	$ 40.06	28.65
CEMENT MASON/CONCRETE FINISHER AREA A: ASHLAND, BURNETT, BAYFIELD, DOUGLAS, IRON, PRICE, SAWYER, AND WASHBURN COUNTIES	$ 47.22	31.90

TEAM0039-001 06/01/2025

	Rates	Fringes
TRUCK DRIVER 3 OR MORE AXLES; EUCLIDS, DUMPTOR & ARTICULATED, TRUCK MECHANIC	$ 39.72	28.70
TRUCK DRIVER 1 & 2 AXLES	$ 39.57	28.70

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage

determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", "SA", or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

"SU" wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ◆SA◆ identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ◆SA◆ identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION
"

NOTICE TO BIDDERS
WAGE RATE DECISION

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

If a project includes multiple types of construction, different wage rate determinations may be inserted into the contract (WI10/Highway = in all WisDOT highway contracts, WI15/Heavy = bridge over navigable water per USDOL and US Coast Guard designation, WI8/Heavy (Sewer & Water Line & Tunnel) = sanitary sewer and water main if the cost is more than 20% of the contract and/or at least $1,000,000, and Building). If multiple wage rate determinations are inserted into the contract, use the classification in the wage determination for the work being done. Use WI15 wage rates when working on the bridge and/or structure from bank to bank. Use WI8 wage rates when working on any sanitary sewer or water main work. Use Building wage rates for all work done within the footprint of the building. Use WI10 wage rates for all other highway work in the contract and approaches to structures. For example, if a laborer is working within the footprint of a building, use the Laborer rate in the Building wage determination inserted in the contract. If a laborer is working on a bridge/structure within the banks, use the Laborer rate in the WI15/Heavy wage determination if inserted in the contract. If the laborer is working on the highway, use the Laborer rate in the WI10/Highway wage determination.

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	204.0100 Removing Concrete Pavement	2,334.000 SY	_____.____	_____.____
0004	204.0155 Removing Concrete Sidewalk	1,193.000 SY	_____.____	_____.____
0006	204.0195 Removing Concrete Bases	22.000 EACH	_____.____	_____.____
0008	204.0215 Removing Catch Basins	1.000 EACH	_____.____	_____.____
0010	204.0245 Removing Storm Sewer (size) 01. 8-Inch	23.000 LF	_____.____	_____.____
0012	204.0250 Abandoning Manholes	1.000 EACH	_____.____	_____.____
0014	204.0255 Abandoning Catch Basins	7.000 EACH	_____.____	_____.____
0016	204.0291.S Abandoning Sewer	7.000 CY	_____.____	_____.____
0018	204.9060.S Removing (item description) 01. Poles	36.000 EACH	_____.____	_____.____
0020	204.9090.S Removing (item description) 01. Aerial Cable	3,900.000 LF	_____.____	_____.____
0022	205.0100 Excavation Common	640.000 CY	_____.____	_____.____
0024	205.0501.S Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	479.500 TON	_____.____	_____.____
0026	213.0100 Finishing Roadway (project) 01. 2568-00-71	1.000 EACH	_____.____	_____.____
0028	213.0100 Finishing Roadway (project) 02. 2568-00-72	1.000 EACH	_____.____	_____.____
0030	305.0110 Base Aggregate Dense 3/4-Inch	369.000 TON	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

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	305.0120 Base Aggregate Dense 1 1/4-Inch	1,237.000 TON	_____.____	_____.____
0034	320.0145 Concrete Base 8-Inch	1,396.000 SY	_____.____	_____.____
0036	415.0080 Concrete Pavement 8-Inch	138.000 SY	_____.____	_____.____
0038	415.0110 Concrete Pavement 11-Inch	319.000 SY	_____.____	_____.____
0040	416.0610 Drilled Tie Bars	1,015.000 EACH	_____.____	_____.____
0042	416.0620 Drilled Dowel Bars	319.000 EACH	_____.____	_____.____
0044	455.0605 Tack Coat	99.000 GAL	_____.____	_____.____
0046	465.0105 Asphaltic Surface	310.000 TON	_____.____	_____.____
0048	601.0319 Concrete Curb & Gutter 19-Inch	983.000 LF	_____.____	_____.____
0050	601.0331 Concrete Curb & Gutter 31-Inch	35.000 LF	_____.____	_____.____
0052	601.0600 Concrete Curb Pedestrian	6.000 LF	_____.____	_____.____
0054	602.0410 Concrete Sidewalk 5-Inch	13,380.000 SF	_____.____	_____.____
0056	602.0515 Curb Ramp Detectable Warning Field Natural Patina	372.000 SF	_____.____	_____.____
0058	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	217.000 LF	_____.____	_____.____
0060	619.1000 Mobilization	1.000 EACH	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0062	624.0100 Water	25.000 MGAL	_____.____	_____.____
0064	625.0100 Topsoil	110.000 SY	_____.____	_____.____
0066	628.1905 Mobilizations Erosion Control	4.000 EACH	_____.____	_____.____
0068	628.1910 Mobilizations Emergency Erosion Control	4.000 EACH	_____.____	_____.____
0070	628.7015 Inlet Protection Type C	8.000 EACH	_____.____	_____.____
0072	628.7020 Inlet Protection Type D	25.000 EACH	_____.____	_____.____
0074	631.0300 Sod Water	2.600 MGAL	_____.____	_____.____
0076	631.1000 Sod Lawn	110.000 SY	_____.____	_____.____
0078	637.2210 Signs Type II Reflective H	19.000 SF	_____.____	_____.____
0080	637.2220 Signs Type II Reflective SH	193.200 SF	_____.____	_____.____
0082	638.2102 Moving Signs Type II	13.000 EACH	_____.____	_____.____
0084	638.2602 Removing Signs Type II	25.000 EACH	_____.____	_____.____
0086	638.3000 Removing Small Sign Supports	1.000 EACH	_____.____	_____.____
0088	642.5201 Field Office Type C	1.000 EACH	_____.____	_____.____
0090	643.0300 Traffic Control Drums	9,640.000 DAY	_____.____	_____.____
0092	643.0420 Traffic Control Barricades Type III	2,688.000 DAY	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0094	643.0705 Traffic Control Warning Lights Type A	5,366.000 DAY	_____.____	_____.____
0096	643.0900 Traffic Control Signs	7,040.000 DAY	_____.____	_____.____
0098	643.1050 Traffic Control Signs PCMS	120.000 DAY	_____.____	_____.____
0100	643.3150 Temporary Marking Line Removable Tape 4-Inch	4,470.000 LF	_____.____	_____.____
0102	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0104	644.1900.S Temporary Audible Message Devices	2,800.000 DAY	_____.____	_____.____
0106	646.1020 Marking Line Epoxy 4-Inch	2,960.000 LF	_____.____	_____.____
0108	646.2020 Marking Line Epoxy 6-Inch	1,690.000 LF	_____.____	_____.____
0110	646.3020 Marking Line Epoxy 8-Inch	915.000 LF	_____.____	_____.____
0112	646.5020 Marking Arrow Epoxy	30.000 EACH	_____.____	_____.____
0114	646.5220 Marking Symbol Epoxy	12.000 EACH	_____.____	_____.____
0116	646.9000 Marking Removal Line 4-Inch	3,080.000 LF	_____.____	_____.____
0118	646.9002 Marking Removal Line 6-Inch	2,630.000 LF	_____.____	_____.____
0120	646.9100 Marking Removal Line 8-Inch	960.000 LF	_____.____	_____.____
0122	646.9200 Marking Removal Line Wide	420.000 LF	_____.____	_____.____
0124	646.9300 Marking Removal Special Marking	41.000 EACH	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0126	650.4000 Construction Staking Storm Sewer	10.000 EACH	_____.____	_____.____
0128	650.5500 Construction Staking Curb Gutter and Curb & Gutter	1,378.000 LF	_____.____	_____.____
0130	650.8501 Construction Staking Electrical Installations (project) 01. 2568-00-71	1.000 EACH	_____.____	_____.____
0132	650.8501 Construction Staking Electrical Installations (project) 02. 2568-00-72	1.000 EACH	_____.____	_____.____
0134	650.9000 Construction Staking Curb Ramps	32.000 EACH	_____.____	_____.____
0136	650.9500 Construction Staking Sidewalk (project) 01. 2568-00-71	1.000 EACH	_____.____	_____.____
0138	650.9500 Construction Staking Sidewalk (project) 02. 2568-00-72	1.000 EACH	_____.____	_____.____
0140	650.9911 Construction Staking Supplemental Control (project) 01. 2568-00-71	1.000 EACH	_____.____	_____.____
0142	650.9911 Construction Staking Supplemental Control (project) 02. 2568-00-72	1.000 EACH	_____.____	_____.____
0144	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	75.000 LF	_____.____	_____.____
0146	652.0230 Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	150.000 LF	_____.____	_____.____
0148	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,980.000 LF	_____.____	_____.____
0150	652.0615 Conduit Special 3-Inch	1,880.000 LF	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0152	653.0905 Removing Pull Boxes	16.000 EACH	_____.____	_____.____
0154	654.0101 Concrete Bases Type 1	11.000 EACH	_____.____	_____.____
0156	654.0110 Concrete Bases Type 10	2.000 EACH	_____.____	_____.____
0158	654.0120 Concrete Bases Type 10-Special	10.000 EACH	_____.____	_____.____
0160	655.0230 Cable Traffic Signal 5-14 AWG	2,470.000 LF	_____.____	_____.____
0162	655.0240 Cable Traffic Signal 7-14 AWG	615.000 LF	_____.____	_____.____
0164	655.0270 Cable Traffic Signal 15-14 AWG	2,555.000 LF	_____.____	_____.____
0166	655.0280 Cable Traffic Signal 19-14 AWG	1,105.000 LF	_____.____	_____.____
0168	655.0305 Cable Type UF 2-12 AWG Grounded	4,265.000 LF	_____.____	_____.____
0170	655.0320 Cable Type UF 2-10 AWG Grounded	1,150.000 LF	_____.____	_____.____
0172	655.0515 Electrical Wire Traffic Signals 10 AWG	2,040.000 LF	_____.____	_____.____
0174	655.0900 Traffic Signal EVP Detector Cable	1,865.000 LF	_____.____	_____.____
0176	657.0100 Pedestal Bases	11.000 EACH	_____.____	_____.____
0178	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	7.000 EACH	_____.____	_____.____
0180	657.0350 Poles Type 10	2.000 EACH	_____.____	_____.____
0182	657.0352 Poles Type 10-Special	10.000 EACH	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0184	657.0405 Traffic Signal Standards Aluminum 3.5-FT	7.000 EACH	_____.____	_____.____
0186	657.0420 Traffic Signal Standards Aluminum 13-FT	4.000 EACH	_____.____	_____.____
0188	657.0525 Monotube Arms 25-FT	2.000 EACH	_____.____	_____.____
0190	657.0536 Monotube Arms 35-FT-Special	10.000 EACH	_____.____	_____.____
0192	658.0173 Traffic Signal Face 3S 12-Inch	66.000 EACH	_____.____	_____.____
0194	658.0174 Traffic Signal Face 4S 12-Inch	2.000 EACH	_____.____	_____.____
0196	658.0412 Pedestrian Signal Face 12-Inch	32.000 EACH	_____.____	_____.____
0198	658.5070 Signal Mounting Hardware (location) 01. MLK & Wright	1.000 EACH	_____.____	_____.____
0200	658.5070 Signal Mounting Hardware (location) 02. MLK & Clarke	1.000 EACH	_____.____	_____.____
0202	658.5070 Signal Mounting Hardware (location) 03. MLK & Center	1.000 EACH	_____.____	_____.____
0204	658.5070 Signal Mounting Hardware (location) 04. MLK & North	1.000 EACH	_____.____	_____.____
0206	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor	110.000 EACH	_____.____	_____.____
0208	661.0201 Temporary Traffic Signals for Intersections (location) 01. MLK & Wright	1.000 EACH	_____.____	_____.____
0210	661.0201 Temporary Traffic Signals for Intersections (location) 02. MLK & Clarke	1.000 EACH	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0212	661.0201 Temporary Traffic Signals for Intersections (location) 03. MLK & Center	1.000 EACH	_____.____	_____.____
0214	661.0201 Temporary Traffic Signals for Intersections (location) 04. MLK & North	1.000 EACH	_____.____	_____.____
0216	690.0150 Sawing Asphalt	102.000 LF	_____.____	_____.____
0218	690.0250 Sawing Concrete	2,347.000 LF	_____.____	_____.____
0220	715.0720 Incentive Compressive Strength Concrete Pavement	1,000.000 DOL	1.00000	1,000.00
0222	ASP.1T0A On-the-Job Training Apprentice at $5.00/HR	1,400.000 HRS	5.00000	7,000.00
0224	ASP.1T0G On-the-Job Training Graduate at $5.00/HR	3,600.000 HRS	5.00000	18,000.00
0226	SPV.0060 Special 001. Utility Line Opening	15.000 EACH	_____.____	_____.____
0228	SPV.0060 Special 002. Adjusting Water Valve Boxes	40.000 EACH	_____.____	_____.____
0230	SPV.0060 Special 102. Inlet Covers Type MS 57	11.000 EACH	_____.____	_____.____
0232	SPV.0060 Special 103. Manhole Covers Type MS 58-A	6.000 EACH	_____.____	_____.____
0234	SPV.0060 Special 110. Catch Basin Type 44A	10.000 EACH	_____.____	_____.____
0236	SPV.0060 Special 201. Install City Precast Controller Base	4.000 EACH	_____.____	_____.____
0238	SPV.0060 Special 205. ATC Controller and Cabinet Installed	4.000 EACH	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0240	SPV.0060 Special 212. Fiber Optic Patch Panel	4.000 EACH	_____.____	_____.____
0242	SPV.0060 Special 213. Ethernet Switch	4.000 EACH	_____.____	_____.____
0244	SPV.0060 Special 215. Electrical Service Pedestal	2.000 EACH	_____.____	_____.____
0246	SPV.0060 Special 218. EVP 1 Direction Detector	12.000 EACH	_____.____	_____.____
0248	SPV.0060 Special 221. EVP Phase Selector Card 4 Channel	4.000 EACH	_____.____	_____.____
0250	SPV.0060 Special 223. EVP Confirmation Light	12.000 EACH	_____.____	_____.____
0252	SPV.0060 Special 224. Vehicular Video Detection System 1-Camera	1.000 EACH	_____.____	_____.____
0254	SPV.0060 Special 228. Electrical Riser	12.000 EACH	_____.____	_____.____
0256	SPV.0060 Special 243. Removing Traffic Signals (MLK & Wright)	1.000 EACH	_____.____	_____.____
0258	SPV.0060 Special 244. Removing Traffic Signals (MLK & Clarke)	1.000 EACH	_____.____	_____.____
0260	SPV.0060 Special 245. Removing Traffic Signals (MLK & Center)	1.000 EACH	_____.____	_____.____
0262	SPV.0060 Special 246. Removing Traffic Signals (MLK & North)	1.000 EACH	_____.____	_____.____
0264	SPV.0060 Special 267. Pedestrian Countdown Signal Face 12-Inch	32.000 EACH	_____.____	_____.____
0266	SPV.0060 Special 268. Voice Instruction Audible Push Button	32.000 EACH	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0268	SPV.0060 Special 269. Voice Instruction Audible Control Unit	4.000 EACH	_____.____	_____.____
0270	SPV.0060 Special 280. Round Aluminum Sign Post System in Soft Surface 7-FT	1.000 EACH	_____.____	_____.____
0272	SPV.0060 Special 284. Round Aluminum Sign Post System in Concrete Surface 7-FT	13.000 EACH	_____.____	_____.____
0274	SPV.0060 Special 285. Round Aluminum Sign Post System in Concrete Surface 10-FT	1.000 EACH	_____.____	_____.____
0276	SPV.0060 Special 288. Sign Mounting Hardware on Existing Pole	8.000 EACH	_____.____	_____.____
0278	SPV.0060 Special 290. Street Name Sign Mounting Hardware on Existing Pole	4.000 EACH	_____.____	_____.____
0280	SPV.0060 Special 291. Street Name Sign Mounting Hardware on Mast Arm	12.000 EACH	_____.____	_____.____
0282	SPV.0060 Special 292. Sign Mounting Hardware on Round Aluminum Sign Post	15.000 EACH	_____.____	_____.____
0284	SPV.0060 Special 302. Pull Boxes 13-Inch x 24-Inch x 24-Inch	36.000 EACH	_____.____	_____.____
0286	SPV.0060 Special 303. Pull Boxes 17-Inch x 30-Inch x 24-Inch	32.000 EACH	_____.____	_____.____
0288	SPV.0060 Special 320. Poles Type 25-AL-BD Aluminum	4.000 EACH	_____.____	_____.____
0290	SPV.0060 Special 321. Poles Type 25-AL-BD Black	1.000 EACH	_____.____	_____.____
0292	SPV.0060 Special 322. Poles Type 30-AL-BD Aluminum	3.000 EACH	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0294	SPV.0060 Special 323. Poles Type 30-AL-BD Black	4.000 EACH	_____.____	_____.____
0296	SPV.0060 Special 324. Poles Wood 40-FT	20.000 EACH	_____.____	_____.____
0298	SPV.0060 Special 334. Inline 5A Fast Acting Fuse with Holder	60.000 EACH	_____.____	_____.____
0300	SPV.0060 Special 339. Primary or Secondary Riser	13.000 EACH	_____.____	_____.____
0302	SPV.0060 Special 342. Submersible Multitap 3-Port Pre-Insulated Connector	187.000 EACH	_____.____	_____.____
0304	SPV.0060 Special 343. Submersible Multitap 4-Port Pre-Insulated Connector	55.000 EACH	_____.____	_____.____
0306	SPV.0060 Special 345. Luminaire Arms Single Member 6-FT	7.000 EACH	_____.____	_____.____
0308	SPV.0060 Special 346. Luminaire Arms Single Member 6-FT WP Mount	27.000 EACH	_____.____	_____.____
0310	SPV.0060 Special 353. Equipment Grounding Electrode	46.000 EACH	_____.____	_____.____
0312	SPV.0060 Special 355. Install A21-A26 City Furnished Mounting Clamp Single Bracket	3.000 EACH	_____.____	_____.____
0314	SPV.0060 Special 357. Install A31 City Furnished Mounting Clamp Single Bracket	9.000 EACH	_____.____	_____.____
0316	SPV.0060 Special 376. Luminaire Utility 3LED2	28.000 EACH	_____.____	_____.____
0318	SPV.0060 Special 390. Milwaukee Light Base Type 1	5.000 EACH	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0320	SPV.0060 Special 399. Transformer Bases Breakaway 11 1/2-Inch Bolt Circle Black	5.000 EACH	_____.____	_____.____
0322	SPV.0060 Special 425. Installing Conduit into Existing Manhole	2.000 EACH	_____.____	_____.____
0324	SPV.0060 Special 430. Adjusting CUC Manhole Cover Using EPP System	6.000 EACH	_____.____	_____.____
0326	SPV.0060 Special 801. Poles Type H17	9.000 EACH	_____.____	_____.____
0328	SPV.0060 Special 804. Poles Type 15-OCT	5.000 EACH	_____.____	_____.____
0330	SPV.0060 Special 818. Poles Type A26-BD	2.000 EACH	_____.____	_____.____
0332	SPV.0060 Special 819. Poles Type A31-BD	9.000 EACH	_____.____	_____.____
0334	SPV.0060 Special 820. Concrete Base Type 5 Modified	12.000 EACH	_____.____	_____.____
0336	SPV.0060 Special 821. Concrete Base Type 2 Modified	14.000 EACH	_____.____	_____.____
0338	SPV.0060 Special 865. Luminaire Historic Milwaukee Harp LED 1	14.000 EACH	_____.____	_____.____
0340	SPV.0060 Special 867. Luminaire Historic Milwaukee Lantern LED 3	28.000 EACH	_____.____	_____.____
0342	SPV.0090 Special 010. Concrete Curb & Gutter Integral 19-Inch	279.000 LF	_____.____	_____.____
0344	SPV.0090 Special 240. Electrical Cable 3#4/1#8 XLP	135.000 LF	_____.____	_____.____

Proposal ID: 20261013007 **Project(s):** 2568-00-71, 2568-00-72

Federal ID(s): WISC 2027006, WISC 2027005

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0346	SPV.0090 Special 302. Electrical Cable Type 3#6 AL	1,250.000 LF	_____.____	_____.____
0348	SPV.0090 Special 304. Electrical Cable Type 2#2/1#4 AL	575.000 LF	_____.____	_____.____
0350	SPV.0090 Special 319. Liquidtight Flexible Nonmetallic Conduit 1 1/2-Inch	700.000 LF	_____.____	_____.____
0352	SPV.0090 Special 322. Electrical Cable Type 4#6/1#8 XLP	1,900.000 LF	_____.____	_____.____
0354	SPV.0090 Special 324. Electrical Cable Type 4#2/1#8 XLP	1,950.000 LF	_____.____	_____.____
0356	SPV.0090 Special 325. Conduit 3-Inch HDPE Schedule 40	3,600.000 LF	_____.____	_____.____
0358	SPV.0090 Special 401. 1-Duct Conduit, Cement Encased, 4-Inch Rigid Nonmetallic Conduit DB-60	83.000 LF	_____.____	_____.____
0360	SPV.0090 Special 705. Marking Crosswalk Epoxy Block Style 12-Inch	1,700.000 LF	_____.____	_____.____
0362	SPV.0090 Special 706. Marking Stop Line Epoxy 24-Inch	435.000 LF	_____.____	_____.____
	Section: 0001		**Total:**	_____.____

Total Bid: _____.____

PLEASE ATTACH ADDENDA HERE