HIGHWAY WORK PROPOSAL

Proposal Number: 1 6

Wisconsin Department of Transportation
DT1502 10/2010 s.66.29(7) Wis. Stats.

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Calumet	1500-32-71		Appleton - Manitowoc USH 10 and STH 32/57 Intersection	USH 10

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 Due Date: August 13, 2013 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time Fifty (50) Working Days	
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)

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

(Date Commission Expires)

Notary Seal

(Bidder Signature)

(Print or Type Bidder Name)

(Bidder Title)

For Department Use Only

Type of Work Excavation, HMA pavement, base aggregate dense, concrete masonry culverts, concrete curb and gutter, storm sewer, permanent signs, pavement marking, lighting, landscaping and all incidental items.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2007 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

(3) The department will provide bidding information through the department's web site at http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm. 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 P.M. local time on the Thursday before the letting. Check the department's web site after 5:00 P.M. 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 P.M. 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 http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, Room 601, 4802 Sheboygan Avenue, Madison, WI, during regular business hours.

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

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

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

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

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at **http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm**. Use Expedite ™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.

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

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

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

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

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1500-32-71, Appleton – Manitowoc, USH 10 and STH 32/57 Intersection, USH 10, Calumet County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2013 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 (20120615)

2. Scope of Work.

The work under this contract shall consist of excavation, HMA pavement, base aggregate dense, concrete masonry culverts, concrete curb and gutter, storm sewer, permanent signs, pavement marking, lighting, landscaping and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.
104-005 (20090901)

3. Prosecution and Progress.

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

Provide the time frame for construction of the project within the 2014 construction season to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Assure that the time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the beginning of the approved time frame.

To revise the time frame, submit a written request to the engineer at least two weeks before the beginning of the intended time frame. 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.

Work shall not begin prior to June 2, 2014.

4. Traffic.

Close the project to through traffic throughout construction.

Maintain semi-trailer access to all businesses on a minimum of base aggregate at all times. Coordinate with the businesses to determine trucking schedules and access requirements.

Maintain access at all time to abutting property owners located along the project. Provide 48 hour notice prior to closing any driveways.

Residential property drive approaches may be closed a maximum of one day for grading and one day for finish surface, unless otherwise directed by the engineer.

Maintain access to Sunflower Investments, LLC from STH 32/57 at all times during construction of Structure C-08-0076.

The temporary driveway shall be constructed prior to eliminating access to STH 32/57 from USH 10. The temporary driveway shall be maintained until there is access to STH 32/57 from USH 10.

Keep appropriate emergency officials informed of routes to provide emergency services. Emergency vehicles shall be allowed access at all times during construction.

Portable changeable message boards are to be placed as directed by the engineer in the field. The portable changeable message boards shall be placed seven days in advance of starting the project.

Portable Changeable Message Signs – Message Prior Approval

After coordinating with department construction field staff, notify the Northeast Region Traffic Section at (920) 492-5641 (secondary contact number is (920) 492-7719) three business days prior to deploying or changing a message on a PCMS to obtain approval of the proposed message. The Northeast Region Traffic Unit will review the proposed message and either approve the message or make necessary changes.

Wisconsin Lane Closure System Advanced Notification

Provide the following minimum advance notification to the engineer for incorporation into the Wisconsin Lane Closure System.

Lane closures (without width, height or weight restriction)	3 business days
Service Ramp closures	3 business days
Extended closure hours	3 business days
System Ramp closures	7 calendar days
Lane closures (with width, height or weight restriction)	14 calendar days
Project Start	14 calendar days
Full Freeway closures	14 calendar days
Construction stage changes	14 calendar days
Detours	14 calendar days

Notify the engineer if there are any changes in the schedule, early completions, or cancellations for scheduled work.

5. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying USH 10 or STH 32/57 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday periods:

- From noon Thursday, July 3, 2014 to 6:00 AM Monday, July 7, 2014 for Independence Day;
- From noon Friday, August 29, 2014 to 6:00 AM Tuesday, September 2, 2014 for Labor Day.

107-005 (20050502)

6. Utilities.

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

American Transmission Company has facilities in the project area; however, no conflicts are anticipated.

The field contact is Mike Olsen, 801 O'Keefe Road, PO Box 6113, DePere, WI 54115-6113; (920) 338-6582 office; (920) 660-2390 cell; e-mail molsen@atcllc.com.

Forest Junction Utilities has facilities in the project area. They will relocate the existing sanitary manhole at Station 12+84 (RA), 19'RT, located in the northeast corner of the intersection. They will relocate the existing sanitary manhole at Station 118+61 (WB), 13' LT, located in the northwest corner of the intersection. They will also relocate the sanitary manhole at Station 157+39 (NB), 23' LT, located in the southeast corner of the intersection. The existing sanitary sewer will be removed and new sanitary sewer installed as necessary to relocate the manholes outside of the intersection. Sanitary manholes will be reconstructed at the following locations:

STATION	LOCATION
110+56 (EB)	26.0' LT
114+11 (EB)	45.1' RT
114+08 (EB)	34.6' LT
133+53 (EB)	66.8' LT
155+36 (NB)	25.8' RT

They will relocate the existing valve box at Station 12+85 (RA), 30’ RT, located in the northeast corner of the intersection, as well as the existing valve box at Station 118+58 (WB), 23’ RT, located in the northwest corner of the intersection. The existing water main will be removed and new water main installed as necessary to relocate the valve boxes outside of the intersection. Water main valve boxes will be adjusted at Station 114+19 (EB), 42’ LT and at Station 155+20 (NB), 36’ RT The curb stop box located at Station 154+66 (NB), 39’ RT will be adjusted. The hydrant located at Station 114+23 (EB), 49’ RT will be relocated to Station 114+18 (EB), 59’ RT The hydrant located at Station 155+19 (NB), 42’ RT will be relocated to Station 155+19 (NB), 65’ RT The curb stop located at Station 155+95, 48’ RT will be relocated to Station 155+95, 67’ RT The existing water lateral at Station 117+96 (WB) will be removed.

Contact Forest Junction Utilities two weeks prior to the closing of the roadway. Their work is expected to be completed in two weeks and will be concurrent with construction.

The field contact is Todd Weyenberg, N8906 Holmes Road, Forest Junction, WI 54123; (920) 989-2100 office; (920) 609-3008 cell; e-mail tweyenberg@releeinc.com.

TDS Telecom has facilities in the project area. They have four areas where they have relocated their facilities.

USH 10, west of the USH 10/STH 32/STH 57 intersection:

- Placed new copper and fiber optic cable that comes into the USH 10 right-of-way on the south side of USH 10 at Station 115+50.
- The new cables will then go east, following the new right-of-way of USH 10, to Station 116+75.
- They cross USH 10 at Station 116+75 to the north right-of-way, then continue east, and then turn north, following the new STH 32 right-of-way.
- TDS Telecom placed a copper cable on the north side of USH 10 from Station 116+75 to Station 115+50.
- They placed a copper cable that comes into the south right-of-way of USH 10 at Station 112+75. This cable will follow south right-of-way, continuing west to the next intersection.
- TDS Telecom also placed a copper cable crossing USH 10, from right-of-way to right-of-way, at Station 110+25.

USH 10, east of the USH 10/STH 32/STH 57 intersection:

- TDS Telecom placed a new copper cable along the north right-of-way of USH 10. This cable comes into USH 10 right-of-way at Station 131+00 and continues east, outside of the project limits.

STH 32, north of the USH 10/STH 32/STH 57 intersection:

- TDS Telecom continued with the new copper and fiber optic cables, starting at Station 159+00 on the west side of STH 32, continuing north along the right-of-way to the end of the project limits.

STH 32, south of the USH 10/STH 32/STH 57 intersection:

- TDS Telecom placed new copper and fiber optic cables along STH 32 on the west side. The new cables come into STH 32 right-of-way at Station 155+00. The new cables then continue south to Station 150+75.
- They moved the fiber optic pedestal at Station 150+75 to the new right-of-way. They also cross STH 32 at this point with a copper cable only.
- The copper cable crossing STH 32 will then turn and go north, following the east right-of-way, to Station 153+75.
- From Station 150+75, going south to the end of the project limits, TDS Telecom placed a new copper cable and also lowered the existing fiber optic cable. They may need to lower fiber optic cable during construction after the trailer park entrance is milled.

Their relocation work consists of cutting over their newly installed cables. This cutover work is scheduled to be complete by April 1, 2013, dependent on the weather.

The field contact is Jeremiah Luben, 1130 Hillcrest Lane, Seymour, WI 54165;(920) 655-8748 cell; e-mail jeremiah.luben@tdstelecom.com.

Time Warner Cable has facilities in the project area. They will abandon all of their underbuild with Wisconsin Public Service Electric on WPS power poles. Time Warner Cable will abandon all of their existing underground facilities, as well. Their proposed underground relocations start at Station 109+00 EB in the south right-of-way from an existing pedestal, going east along the south right-of-way to an existing cable south of Peach Tree Lane at approximately Station 114+25 EB, then continue east in the right-of-way to approximately Station 117+85 EB, then head south along the right-of-way, to approximately Station 150+90 SB, set a new pedestal, then cross under STH 32/57, 6 feet in depth, to an existing pedestal that will be moved to the new right-of-way, then continue north along the new right-of-way to approximately Station 156+75, then turn east along the right-of-way, heading out of the project limits. Their anticipated start is on May 27, 2013 and it is expected that their relocations will take 40 working days.

The field contact is Vince Albin, 3520 Destination Drive, Appleton, WI 54915; (920) 831-9249 office; (920) 378-0444 cell; e-mail vince.albin@twcable.com.

Wisconsin Public Service – Electric has facilities in conflict in the project area. The following is a summary of their work.

Peach Tree Lane/Juniper Drive –

- Station 4+30, RT – Remove existing pole and install new power pole fifteen feet (15') south, behind slope intercept

USH 10 –

- Station 113+35, LT – Install new power pole at the right-of-way
- Station 114+62, LT – Install new power pole at the right-of-way
- Station 114+79, LT – Remove existing power pole
- Station 116+04, LT – Install new power pole at the right-of-way
- Station 116+85, LT – Remove existing power pole
- Station 117+47, LT – Install new power pole at the right-of-way
- Station 118+00, LT – Remove existing power pole
- Station 130+96, RT – Install new power pole at the right-of-way
- Station 131+11, LT – Install new power pole at the right-of-way
- Station 132+25, LT – Remove existing power pole and install new power pole at right-of-way
- Station 132+40, RT – Remove existing power pole and install new power pole at right-of-way

STH 32/STH 57-

- Station 155+98, RT – Install new power pole at the right-of-way
- Station 156+00, LT – Remove existing power pole and install new power pole at right-of-way
- Station 156+71, RT – Install new power pole
- Station 157+20, RT – Remove existing power pole
- Station 159+15, LT – Install new power pole at the right-of-way
- Station 159+50, LT – Remove existing power pole
- Station 159+60, RT – Install new power pole at the right-of-way
- Station 160+00, LT – Install new power pole at the right-of-way
- Station 161+35, LT – Remove existing power pole
- Station 161+53, LT – Install new power pole at the right-of-way
- Station 162+78, LT – Install new power pole at the right-of-way
- Station 163+90, LT – Remove existing power pole
- Station 164+53, LT – Install new power pole at the right-of-way
- Station 164+98, LT – Remove existing power pole
- Station 165+50, LT – Install new power pole at the right-of-way

Wisconsin Public Service – Electric expects to start their relocation work on September 3, 2013 and they anticipate a date of November 15, 2013 to complete the work.

The field contact is Jeff Pelischek, PO Box 246, Two Rivers, WI 54241; (920) 794-3216 office; (920) 323-4836 cell; e-mail jspelischek@wisconsinpublicservice.com.

Wisconsin Public Service – Gas has facilities in the project area. They retired a two-inch (2") plastic gas main on the south side of USH 10, starting at Station 113+00, proceeding to the east side of STH 57. WPS – Gas also replaced their gas main from Station 147+50 to Station 157+00, moving to the new right-of-way. They also replaced a 2-inch plastic pipe gas main crossing at Station 131+50, continuing north along the new right-of-way to Station 160+00. WPS – Gas also placed the service at Station 161+00 deeper through the new ditch line. The relocation work was completed October 24, 2012.

The field contact is Gary Winkler, 227 Calumet Street, Chilton, WI 53014; (920) 849-7907 office; (920) 680-5352 cell; e-mail GLWinkler@wisconsinpublicservice.com.

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

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Matt Haefs at (920) 492-5702.
107-054 (20080901)

8. Coordination with Businesses.

The contractor shall arrange and conduct a meeting between the contractor, the department, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting 2 weeks prior to the start of work under this contract and hold two meetings per month thereafter. The contractor shall notify all parties in writing a minimum of ten days prior to the first meeting being held.

9. Work by Others.

At the intersection of USH 10 and STH 32/57, the Wisconsin Department of Transportation Northeast Region Electrical Unit will perform the following work:

- Make request to terminate the electric service for the traffic signal.
- Salvage the traffic signal control cabinet.
- Make application for electric service.
- Furnish and install the lighting control cabinet.
- Terminate all electrical wire in the lighting control cabinet.

10. Notice to Contractor.

A Description

The department and others have completed investigations for soil and groundwater contamination for locations adjacent to, and within, the construction limits where excavation is planned. Investigations indicated that petroleum-contaminated soil and groundwater are present at the following location:

> Southwest quadrant of the intersection of STH 32/57 and USH 10, described as the area bounded by reference line 'EB' on the north, reference line 'NB' on the east, Station 118+15 'EB' on the west, and Station 157+00 'SB' on the south.

Investigations also indicated that low-level petroleum-contaminated soil is present at the following locations:

> Station 161+00 'SB' to 161+50 'SB' from the reference line to the construction limits on the left.
>
> Station 159+50 'NB' to 160+00 'NB' from the reference line to the construction limits on the right.

Supply the schedule of operations, including work in the contaminated areas, to the engineer at the preconstruction conference. If contaminated soil or groundwater, underground storage tanks (USTs), or other waste is encountered elsewhere on the project during excavation, terminate the excavation in the area and notify the engineer and the Environmental Consultant.

Be advised that USTs may potentially be encountered within the construction limits during excavations. If a UST is encountered, stop excavations in that area, notify the Environmental Consultant, and coordinate with the Environmental Consultant its removal by others.

If possible evidence of USTs within the construction limits is discovered, assist the Environmental Consultant in determining if USTs are present by performing a backhoe investigation, as directed by the Environmental Consultant. The backhoe investigation should be performed as soon as practical after structures, sidewalks, curb and gutter, and pavement are removed, and prior to significant excavations (if any) beginning in those areas suspected of containing USTs.

B Coordination

Coordinate work under this Contract with the Environmental Consultant retained by the department:

Consultant:	RMT, Inc.
Address:	744 Heartland Trail, P.O. Box 8923, Madison, WI 53708-8923
Contact:	Mr. Daniel Haak, (608) 662-5274 or
	Mr. Mark Walter, (608) 662-5138
Fax:	(608) 831-3334

The role of the Environmental Consultant will be limited to field-screening, classifying, directing, and documenting the conformance of activities associated with the management of contaminated soil and groundwater in accordance to agreements between the Wisconsin Department of Natural Resources (WDNR) and the department. Provide 14 calendar days advance notice of the preconstruction conference date to the Environmental Consultant. At the preconstruction conference, provide a proposed schedule for excavation activities in the area of known contamination. Identify the WDNR-licensed treatment and disposal facility to be used for treatment and disposal of contaminated soil at the preconstruction conference. Notify the Environmental Consultant 10 business days prior to commencement of the initial excavation in an area with known contamination, and again 5 business days prior to commencement of subsequent excavations in an area of known contamination. Coordinate with the Environmental Consultant to ensure that the Environmental Consultant is present prior to, and during, contaminated material management activities.

C Protection of Groundwater Monitoring Wells

Groundwater monitoring wells are not expected to remain within the construction limits. If encountered, protect all groundwater monitoring wells to maintain their integrity. Adjust wells that do not conflict with structures, pavements, sidewalks, curb and gutter, and driveways to be flush with the final grade. For wells that conflict with the previously mentioned items, notify the Environmental Consultant and coordinate with the Environmental Consultant the abandonment or adjustment of the wells by others.

D Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR's concurrence letter is on file at the department. For further information regarding the investigations, including waste characterization within the project limits, contact Kathie Van Price with the department, at (920) 492-7175.

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

Supplement standard spec 107.1 with the following:

Petroleum-contaminated soil and groundwater have been identified within the limits of construction and may be encountered during excavations at the following location:

Southwest quadrant of the intersection of STH 32/57 and USH 10, described as the area bounded by reference line 'EB' on the north, reference line 'NB' on the east, Station 118+15 'EB' on the west, and Station 157+00 'SB' on the south

Additionally, low-level petroleum-contaminated soil has been identified within the limits of construction and may be encountered during excavations at the following locations:

Station 161+00 'SB' to 161+50 'SB' from the reference line to the construction limits on the left

Station 159+50 'NB' to 160+00 'NB' from the reference line to the construction limits on the right

Prepare a site-specific Health and Safety Plan complying with the Occupational Safety and Health Administration (OSHA) standard for Hazardous Waste Operation and Emergency Response (HAZWOPER), 29 CFR 1910.120. Specify in the site-specific Health and Safety Plan the procedure for worker decontamination and for the decontamination of equipment used in contaminated zones and of trucks used to haul contaminated material.

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

Develop, delineate, and enforce the health and safety exclusion zones for each contaminated site location pursuant to 29 CFR 1910.120.

12. Dewatering in Contaminated Areas.

A Description

This work shall conform with all local and state regulations, including, but not limited to, pertinent parts of the Wisconsin Administrative Code, Chapters NR 100-299, and requirements of the Erosion Control Implementation Plan (ECIP). Perform all work necessary to control, handle, and dispose of groundwater and surface water, and all other water that may be encountered within contaminated areas, as required for performance of the work. The cost of performing this work will be incidental to other items of work in the contract.

B (Vacant)

C Construction

Petroleum-contaminated groundwater may be encountered during excavations at the following location:

Southwest quadrant of the intersection of STH 32/57 and USH 10, described as the area bounded by reference line 'EB' on the north, reference line 'NB' on the east, Station 118+15 'EB' on the west, and Station 157+00 'SB' on the south

The Forest Junction Utilities department indicated their facilities are not adequate to receive groundwater from the above location via local sanitary sewer. If dewatering of groundwater is required at the above location, or at any other areas of discovered groundwater contamination, temporarily store on-site, and coordinate hauling and disposal of this groundwater by a licensed waste hauler. Hauling and disposal shall be in accordance to applicable regulations.

Minimize the amount of open trenches, construct diversion berms, and implement other controls to minimize the infiltration of surface water into excavations in areas of known contamination. If surface water infiltrates these excavation areas, and dewatering is required, it should be managed as described above.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment, and drainage and disposal facilities. Notify the engineer of any dewatering activities, and obtain any necessary permits. 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.

D Measurement

The department will not directly measure work under this section.

E Payment

The department will not pay directly for work specified under this section. This work is incidental to the bid items where dewatering may be required. The work includes controlling, handling, and disposing of groundwater and surface water, and all other incidental work required under this section.

13. QMP Base Aggregate.

A Description

A.1 General

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

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

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

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

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

http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm

A.2 Contractor Testing for Small Quantities

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

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:
1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.
2. Divide the aggregate into uniformly sized sublots for testing as follows:

Plan Quantity	Minimum Required Testing
≤ 1500 tons	One test from production, load-out, or placement at the contractor's option[1]
> 1500 tons and ≤ 6000 tons	Two tests of the same type, either from production, load-out, or placement at the contractor's option[1]
> 6000 tons and ≤ 9000 tons	Three placement tests[2] [3]

[1] If using production tests for acceptance, submit test results to the engineer for review prior to incorporating the material into the work. Production test results are valid for a period of 3 years.

[2] For 3-inch material, obtain samples at load-out.

[3] If the actual quantity overruns 9000 tons, create overrun sublots to test at a rate of one additional placement test for each 3000 tons, or fraction of 3000 tons, of overrun.

3. No control charts are required. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
4. Department verification testing is optional for quantities of 6000 tons or less.

(3) Material represented by a sublot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B Materials

B.1 Quality Control Plan

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

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

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
5. Descriptions of stockpiling and hauling methods.
6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

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

Required Certification Level:	Sampling or Testing Roles:
Aggregate Technician IPP Aggregate Sampling Technician Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Sampling[1]
Aggregate Technician IPP Aggregate Assistant Certified Technician (ACT-AGG)	Aggregate Gradation Testing, Aggregate Fractured Particle Testing, Aggregate Liquid Limit and Plasticity Index Testing

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

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

B.3 Laboratory

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

Materials Management Section
3502 Kinsman Blvd.
Madison, WI 53704
Telephone: (608) 246-5388
http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

(1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute tabulated results using a method mutually agreeable to the engineer and contractor.

B.4.3 Control Charts

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

(2) Provide control charts to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:

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

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

B.5 Contractor Testing

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

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

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

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

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

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

B.6 Test Methods

B.6.1 Gradation

(1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:

Gradation..... AASHTO T 27
Material finer than the No. 200 sieve..... AASHTO T 11

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

(3) Maintain a separate control chart for each sieve size specified in standard spec 305 or 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:
   1. Control limits are at the upper and lower specification limits.
   2. There are no upper warning limits for sieves allowing 100 percent passing and no lower control limits for sieves allowing 0 percent passing.
   3. Dense graded warning limits, except for the No. 200 sieve, are 2 percent within the upper and lower control limits. Warning limits for the No. 200 sieve are set 0.5 percent within the upper and lower control limits.
   4. Open graded warning limits for the 1-inch, 3/8-inch, and No. 4 sieves are 2 percent within the upper and lower control limits. Upper warning limits for the No. 10, No. 40, and No. 200 sieves are 1 percent inside the upper control limit.

B.6.2 Fracture

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

(2) Maintain a separate fracture control chart for each base aggregate size, source or classification, and type. Set the lower control limit at the contract specification limit, either specified in another special provision or in table 301-2 of standard spec 301.2.4.5. Set the lower warning limit 2 percent above the lower control limit. There are no upper limits.

B.6.3 Liquid Limit and Plasticity

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

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

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

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

(2) Notify the engineer whenever the running average exceeds a warning limit. When 2 consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
   1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
   2. For fracture, increase the QC testing frequency to at least one test per gradation test.

(3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.

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

(5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:
   1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
   2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
   3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 General

(1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

B.8.2 Verification Testing

B.8.2.1 General

(1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

(2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
   1. One non-random test on the first day of placement.
   2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

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

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

(5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

B.8.3 Independent Assurance

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

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

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

B.9 Dispute Resolution

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

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

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

C (Vacant)

D (Vacant)

E Payment

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

(2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

301-010 (20100709)

14. Coloring Concrete Red, Item 405.0100.

Supplement standard spec 405.2.4.1, Colored Concrete Mix Approval General, with the following:

Test slab color will be evaluated for approval no earlier than 5 days after the test panel was poured and sealed.

15. Reheating HMA Pavement Longitudinal Joints, Item 460.4100.S.

A Description

This special provision describes reheating the abutting edge of the previously compacted layer in the adjacent lane while paving mainline asphalt pavements.

B (Vacant)

C Construction

C.1 Equipment

Provide a self-contained heating unit that heats by convection only. Do not use forced air to enhance the flame. Provide a fireproof barrier between the flame and the heater's fuel source. The heater must produce a uniform distribution of heat within the heat box. Provide automatic controls to regulate the heater output and shutoff the heater when the paver stops or the heater control system loses power.

Mount the heater on the paver inside the paver's automatic leveling device.

C.2 Reheating Joints

Evenly reheat at least an 8 inch (200 mm) wide strip of the previously compacted layer in the adjacent lane as follows:

1. Ambient air temperature at or above 60 degrees F (15 degrees C), reheat to 290 to 340 degrees F (143-171 degrees C).
2. Ambient air temperature below 60 degrees F (15 degrees C), reheat to 240 to 290 degrees F (115-143 degrees C).

The engineer may modify the required joint reheat temperatures to adjust for weather, wind, and other field conditions. Coordinate the heater output and paver speed to achieve the required joint reheat temperature without visible smoke emission.

D Measurement

The department will measure Reheating HMA Pavement Longitudinal Joints by the linear foot, acceptably completed as measured along each joint for each layer of asphalt placed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF

Payment is full compensation for furnishing all the work required under this bid item.
460-015 (20120615)

16. QMP HMA Pavement Nuclear Density.

A Description

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

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

(2) Provide and maintain a quality control program defined as all activities and documentation of the following:
1. Selection of test sites.
2. Testing.
3. Necessary adjustments in the process.
4. Process control inspection.

(3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures. Obtain the CMM from the department's web site at:
http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm

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

B Materials

B.1 Personnel

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

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

B.2 Testing

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

B.3 Equipment

B.3.1 General

(1) Furnish nuclear gauges from the department's approved product list at http://www.dot.wisconsin.gov/business/engrserv/approvedprod.htm.

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

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

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

B.3.2 Correlation of Nuclear Gauges

B.3.2.1 Correlation of QC and QV Nuclear Gauges

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

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

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

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

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

B.3.2.2 Correlation Monitoring

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

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

(3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft^3 of its

reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft^3 of its reference value established in B.3.2.2(2).

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

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

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

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

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

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

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

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

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

Table 1

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

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

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

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

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

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

Table 2

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

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

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

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

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

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

B.4.2.2.2 Width of 5 Feet or Less

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

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

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

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

B.4.2.4 Documentation

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

B.4.3 Corrective Action

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

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

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

(4) Retesting and acceptance of replaced pavement will be according to standard spec 105.3.

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

(6) If 2 consecutive sublot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

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

work zone. The contractor will supply the necessary traffic control for the department's testing activities.

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

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

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

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

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

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

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

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

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

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

B.7 Acceptance

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

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

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

E.2 Disincentive for HMA Pavement Density

(1) The department will administer density disincentives according to standard spec 460.5.2.2.

E.3 Incentive for HMA Pavement Density

(1) Delete standard spec 460.5.2.3.

(2) If the lot density is greater than the minimum specified in standard spec table 460-3 and all individual air voids test results for that mixture are within +1.0 percent or -0.5 percent of the design target in standard spec table 460-2, the department will adjust pay for that lot as follows:

Percent Lot Density Above Minimum	Pay Adjustment Per Ton
From -0.4 to 1.0 inclusive	$0
From 1.1 to 1.8 inclusive	$0.40
More than 1.8	$0.80

(3) The department will adjust pay under the Incentive Density HMA Pavement bid item. Adjustment under this item is not limited, either up or down, to the bid amount shown on the schedule of items.

(4) If a traffic lane meets the requirements for disincentive, the department will not pay incentive on the integrally paved shoulder.

(5) Submit density results to the department electronically using the MRS software. The department will validate all contractor data before determining pay adjustments.

460-020 (20100709)

17. Landscape Planting Surveillance and Care Cycles.

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of $200 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.
632-005 (20070510)

18. Traffic Control.

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

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control detail as shown on the plans. Submit this plan 10 days prior to the preconstruction conference.

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

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

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

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

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

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

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

a. Do not park or store any vehicle, piece of equipment, or construction materials on the right-of-way without approval of the engineer.

b. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic.

c. Equip all vehicles and equipment entering or leaving the live traffic lanes with a hazard identification beam (flashing yellow signal) capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1000 feet. Activate the beam when merging into or exiting a live traffic lane.

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

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

19. General Requirements for Electrical Work.

Replace standard spec 651.2 (2) with the following:

The department specifies approved materials and construction products for electrical work at the following web address.

http://www.dot.wisconsin.gov/business/engrserv/docs/ap0/electrical.pdf

20. Electrical Service

Work under this item shall be in accordance with standard spec 656 with the following addition.

Under this item, the department will perform preliminary coordination with the utility to arrange for installation of the Service Lateral(s). The utility will provide the department with a utility routing number for each lateral.

The contractor is responsible to arrange for the actual installation of the Service Lateral with the utility. The contractor is also responsible for payment of the Service Lateral installation in accordance with standard spec 656. The contractor shall contact the department at (920) 492-5628 to obtain the utility routing number established during preliminary utility coordination.

21. PCMS Cellular Communications, SPV.0045.01.

A Description

This special provision describes cellular communications requirements for use with PCMS. Cellular communication allows the department to control PCMS during incidents or other emergencies through Trans Suite software. The department will notify contractor of message changes.

B Materials
Provide a cellular modem and antenna that enables the department to communicate and control PCMS conforming to standard spec 643.2.7.

B.1 Cellular Modem and Antenna
Furnish an EV-DO Cellular modem registered to a 3G Cellular carrier. The cellular modem must include 1 or more external antennas, 1 or more 10/100 Ethernet ports, and 1 or more db9 Serial RS-232 interfaces. The device must be able to handle -30° C to +75° C and powered by a 12VDC power supply. The cellular modem must have a built-in secure router with NAT, port forwarding and IP pass-through capabilities.

Provide management IP and passwords for the cellular modem to the department.

Access includes IP address, serial port setting, and password(s). Antenna cable shall be continuous without splices. Mount the antenna at the highest practical location on the PCMS.

C Construction
Conform to standard spec 643.3.7. Install cellular modem in a lockable, weatherproof compartment in the PCMS trailer.

A minimum of 14 days prior to deployment, demonstrate to the department that the cellular modem is capable of communications with Trans Suite software.

If remote communications are interrupted or temporarily unavailable, contractor will be notified by the department to change the message.

D Measurement
The department will measure PCMS Cellular Communications by the day, acceptably completed, measured as the number of calendar days each cellular modem for PCMS is available for exclusive use under the contract. The department will deduct one day for each calendar day the sign communications are required but out of service for more than 2 hours.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.01	PCMS Cellular Communications	DAY

Payment is full compensation for providing, operating and maintaining a cellular modem and antenna, and for making message changes if cellular communications are interrupted or temporarily unavailable.

22. Inlet Type 2 Special, Item SPV.0060.01.

A Description
Construct Inlet Type 2 Special as shown on the plans, or as directed by the engineer, and in accordance to standard spec 611 and as hereinafter provided.

B Materials
Materials shall be in accordance to standard spec 611.2. The rubber adjustment riser shall be on the department's approved product list.

C Construction
Construction shall be in accordance to the plans and with standard spec 611.3.

Replace standard spec 611.3.3(1) with the following:

Set inlet cover on rubber adjustment riser ring. Use approved mastic adhesive between the ring and the inlet structure. Use an approved polyurethane adhesive with a flexible set between the ring and the inlet cover. Use two 5/16-inch beads of adhesive placed 1 inch and 2 inches in from the outside edge of the ring. If multiple adjustment rings are necessary, a maximum of two adjustment rings can be used. A maximum of 3 inch adjustment is allowed. Use polyurethane adhesive with a flexible set to join the two rings. If the adjustment rings must be cut, the joints must be staggered and a polyurethane adhesive used to reattach the cut ends. No concrete adjustment rings or mortar is to be placed between the top of the structure and the inlet cover.

D Measurement
The department will measure Inlet Type 2 Special as each individual inlet, 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.0060.01	Inlet Type 2 Special	Each

Payment shall be in accordance to standard spec 611.5.

23. Section Corner Monuments, Item SPV.0060.02.

A Description
This special provision describes restoring section corner monuments for reconstruction or reclaimed pavement projects.

B Materials
Calumet County will supply material for section corner monumentation and tie sheets. The survey contact person from Calumet County is Peter Hatas, Aero-Metric Engineering, Inc., 539 North Madison Street, Chilton, WI, 53014, (920) 457-8195.

C Construction
Perform all section corner monument work under the direction of a land surveyor registered under s.443.06 Wisconsin Statutes and in accordance to the details in the plan.

Tie existing section corner monuments within the project limits and tie to fixed permanent objects prior to beginning construction operations. Control construction operations as to not disturb any section corner monuments that are to remain.

Reestablish section corner monuments, after the finished surface has been placed, from tie information and place 0.05 feet below the finished surface.

Tie the four landmark reference monuments at the section corner monument site upon successful completion of restoring all section corner monuments.

All tie sheets will be prepared and stamped by a land surveyor registered under s. 443.06 Wisconsin Statutes. Include on the tie sheets a legible, non-scaled sketch of the landmark reference monuments and section corner monuments for each legal government corner along the project. Show horizontal English distances and bearings referenced to Calumet County Coordinate System between the section corner monument and the landmark reference monuments. Complete the legal description of the section corner monument and all pertinent information relating to the monument as required by the Calumet County Surveyor.

D Measurement
The department will measure Section Corner Monuments by each individual monument, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Section Corner Monuments	Each

Payment is full compensation for initial referencing; restoring section corner monument to its initial location; and for providing new RLS-stamped section corner monument tie sheet to the engineer and the Calumet County Surveyor.

24. V-LOC Sign Anchors, Item SPV.0060.03.

A Description
This special provision describes furnishing and installing breakaway sign anchoring systems at the locations shown on the plans and as hereinafter provided.

B Materials
Provide a breakaway sign anchoring system meeting the following requirements which accommodates a 2x2-inch square tubular steel sign post:

TAPCO V-LOC System

Model #	Application
200-VS1	Concrete
200-VS2	Normal Soil
200-VS3	Loose Soil

C Construction

Complete installation of the sign anchoring system in accordance to the manufacturer's specifications and as directed by the engineer.

Install the sign anchoring system so that posts, when inserted into the V-LOC sign anchoring system, will be in a true vertical position. Remove and replace any V-LOC sign anchoring systems damaged or installed that do not produce a true vertical position of the sign post at no expense to the department. Install the V-LOC sign anchoring system within concrete areas during placement of the concrete.

D Measurement

The department will measure V-LOC Sign Anchors as each individual location, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	V-LOC Sign Anchors	Each

Payment is full compensation for furnishing and delivering all materials and required hardware; for installing sign anchors and required attachments; and for disposing of surplus material.

The department will make payment for the tubular steel posts under the pertinent items provided in the contract.

25. Pavement Marking Grooved Preformed Thermoplastic Words, Item SPV.0060.04.

A Description

This special provision describes grooving the pavement surface, and furnishing and installing preformed thermoplastic pavement marking as shown on the plans, in accordance to standard spec 647, and as hereinafter provided.

B Materials

Furnish 125 mils preformed thermoplastic pavement marking from the department's approved products list. If required, furnish sealant material recommended by the manufacturer.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of preformed thermoplastic pavement marking.

Plane the grooved lines in accordance to the plan details. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove.

C.2 Groove Depth

Cut the groove to a depth of 120 mils ±10 mils deep from the pavement surface or, if tined, from the high point of the tined surface. Measure depth using a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Linear Markings

Cut the groove 1-inch wider than the width of the thermoplastic.

C.4 Groove Position

Position the groove edge in accordance to the plan details.

C.4.1 Linear Marking

Groove at a minimum of 4-inches, but not greater than, 12-inches from both ends of the line segment. Achieve straight alignment with the grooving equipment.

C.4.2 Special Marking

Groove at a minimum of 4-inches from the perimeter of the special marking. Groove separate areas for Word Items.

C.5 Groove Cleaning

C.5.1 Concrete

Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, after removal of excess water, and prior to pavement marking application. Clean and dry the groove for proper application of the sealant, and placement of the pavement marking. Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 Asphalt
Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

C.6 Preformed Thermoplastic Application
Preheat the surface if necessary based on manufacturer's recommendation.

Apply preformed thermoplastic in the groove as per manufacturer's recommendations. If manufacturer's recommendations require a sealant, apply a sealant lower than 91g/l VOC during the following period of time due to Volatile Organic Compound Limitations:

May 1 to September 30, both dates inclusive – the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee.

Use any sealant in the remainder counties and for the remainder of the year. The sealant must be wet.

D Measurement
The department will measure Pavement Marking Grooved Preformed Thermoplastic by each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Pavement Marking Grooved Preformed Thermoplastic Words	Each

Payment is full compensation for cleaning and preparing the pavement surface, furnishing and installing the material.

26. Removing Sanitary Manholes, Item SPV.0060.05.

A Description
This special provision describes removing sanitary manholes as shown on the plans and as hereinafter provided.

B (Vacant)

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

Modify standard spec 204.3.2.2(11) to the following:

(11) Under the Removing Sanitary Manholes bid item, rebuild, and properly reconnect all live sewers connected with them. Maintain satisfactory bypass service during these operations. Plug unused sewers as specified for abandoning pipes and structures under standard spec 204.3.3.1. Covers and castings that are not salvaged shall be delivered to the Village of Forest Junction.

D Measurement
The department will measure Removing Sanitary Manholes as each individual removed manhole 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.0060.05	Removing Sanitary Manholes	Each

Payment is full compensation for removing sanitary manholes including all attached parts and connections; for breaking down, removing, closing, plugging, or sealing, for hauling and disposing of materials; for providing any required bentonite, soil, brick concrete block, or concrete; for restoring the roadway cross-section; and, unless the contract specifies granular backfill, for backfill.

27. Removing Water Main Valve Boxes, Item SPV.0060.06.

A Description
This special provision describes the removing of water main valve boxes as shown on the plans and as hereinafter provided

B (Vacant)

C Construction
The removal of water main valve boxes shall conform with all WDNR codes.

When it is necessary to interrupt an existing system to complete construction, adhere to the following:

- No valves, controls, or appurtenances shall be operated by the contractor.
- Operation of existing valves, controls, and appurtenances for interruption of existing service shall be done by owner personnel at the owner's convenience and normal working schedule.
- Contact owner a minimum 24 hours prior to an anticipated interruption. The effected owners and their contact info are listed below.

Lori Dugan
W2313 US HWY 10
(920) 286-2147

Railway Junction Fast Stop
N8914 ST HWY 57
(920) 989-3250

United Painting
W2322 US HWY 10
(920) 989-2730

Prestige Auto
N8890 ST HWY 57
(920) 378-1878

Forest Junction Mobile Home Park
W2377 US HWY 10
(920) 989-2010

Tesch Equipment
W2374 US HWY 10
(920) 989-4000

D Measurement
The department will measure Removing Water Main Valve Boxes as each individual removed water main valve box 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.0060.06	Removing Water Main Valve Boxes	Each

Payment is full compensation for furnishing all removing, including all attached parts and connections, for hauling and disposing of materials, labor, material, equipment, and permits necessary to accomplish this work as specified herein.

28. Adjusting Water Main Valve Boxes, Item SPV.0060.07.

A Description
This special provision describes Adjusting Water Main Valve Boxes as shown on the plans and as hereinafter provided.

B Materials
Provide a cast iron screw type extension to proposed elevation as required.

C Construction
The water main valve boxes shall be adjusted to final grade.

D Measurement
The department will measure Adjusting Water Main Valve Boxes as each individual adjusted water main 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.0060.07	Adjusting Water Main Valve Boxes	Each

Payment is full compensation for furnishing all required materials, and for adjusting the valve boxes.

29. Adjusting Water Lateral Curb Stop Boxes, Item SPV.0060.08.

A Description
This special provision describes Adjusting Water Lateral Curb Stop Boxes as shown on the plans and as hereinafter provided.

B (Vacant)

C Construction
The adjustment of water lateral curb stop boxes shall consist of raising or lowering the water lateral box to final grade as specified on the plans.

D Measurement
The department will measure Adjusting Water Lateral Curb Stop Boxes as each individual adjusted water lateral curb stop 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.0060.08	Adjusting Water Lateral Curb Stop Boxes	Each

Payment is full compensation for furnishing all required materials, exclusive of water lateral curb stop; and for adjusting the lateral curb stop boxes.

30. Relocating Hydrants, Item SPV.0060.09; Relocating Curb Stops, Item SPV.0060.10; 8" Water Valve, Item SPV.0060.11.

A Description

This special provision describes Relocating Hydrants, Curb Stops, and Water Valves as shown on the plans and as hereinafter provided.

B Materials

1. Hydrant Materials:
2. Manufacturer: Waterous Pacer WB-67 conforming to AWWA C502 or equal.
3. Hydrants shall have 5¼-inch main valve opening, 6-inch mechanical joint connection, standard 2-piece, pentagon operating nut, two 2½-inch hose connections, and one 4½-inch pumper connection.
4. Hydrants shall be provided with O-ring seals and compression type shut off.
5. All buried bolts on the hydrant body shall be Type 304 stainless steel. All stainless steel threads shall be coated with anti-seize compound prior to assembly.
6. Depth of bury shall be as required to conform to the hydrant flange elevations as shown on plans or a 7-foot, minimum measured from the bottom of inlet to the hydrant ground line. No additional compensation will be allowed for hydrant extensions if required.
7. Color shall be red.
8. Equip hydrants with a break away safety flange and coupling at the ground line.

Resilient Wedge Gate Valve Materials:

1. Manufacturer shall be American Flow Control series 2500 or equal.
2. Resilient encapsulating wedge valve shall be used in water main sizes 4-inch through 12-inch.
3. Valves shall conform with AWWA C515.
4. Stem shall be non rising.
5. Valve body and bonnet shall be epoxy coated inside and out, conforming to AWWA C550. All bonnet bolts shall be Type 304 stainless steel. All stainless steel threads shall be coated with anti-seize compound prior to assembly.
6. Waterway shall be smooth with no cavities or depressions in seat area.
7. Valves shall be right hand open.
8. Valve Boxes shall be as manufactured by Clow, Tyler, Sigma, or equal.
    a. Valve boxes shall be cast iron, three-piece, screw type – Cast Iron.
    b. Shaft shall be 5¼-inch diameter.
    c. Lid shall be diameter drop type, anti rattle and marked "Water."
    d. Base shall be round or oval, sized to fit valve.
9. Provide Valve box hangers as manufactured by Adaptor Inc., or equal.

Fitting Materials:

1. Conform with AWWA C153.
2. All fittings shall be the product of one manufacturer

3. Mechanical Joint 3-inch through 24-inch:
    a. Class 52.
    b. Rated Pressure 350 psi.
4. Coating and Lining:
    a. Exterior Coating: Asphaltic Coating, minimum of 1-mil. thick.
    b. Interior Lining: Standard thickness of cement-mortar conforming with AWWA C104.

Water Service Materials:

1. Copper Tubing
    a. Type "K" conforming with AWWA C800.
2. Polyethylene Tubing
    a. Copper tubing size (CTS), 200psi.
    b. SDR-9, PE-3608 conforming with AWWA C901 and NSF No. 14.
    c. Polyethylene tubing shall be marked in accordance to the above governing standards.
    d. Provide stainless steel pipe stiffeners at all connections.
3. Corporation Stops.
    a. Manufacturer shall be Mueller H-15008, McDonald 4701 Q, Ford F-1000Q, or equal.
    b. Corporation stops shall conform with AWWA C800.
    c. Inlet shall have AWWA standard thread.
    d. Outlet shall be compression.
4. Curb Stops.
    a. Manufacturer shall be Mueller B-25155, McDonald 6104 Q, Ford B44-444MQ, or equal.
    b. Curb stops shall conform with AWWA C800.
    c. Inlet and outlet shall be compression.
5. Curb boxes.
    a. Curb boxes shall be Mueller H-10300, McDonald 5614 or Ford EM2-70-56 for ½ to 1-inch curb stops, H-10302 or McDonald 5614 for 1 ¼-inch, and H-10300, McDonald 5615 or Ford EM2-70-57 for 1 ½-inch and 2-inch curb stops or equal.
    b. Minneapolis pattern with 1 ¼-inch upper section.
    c. Lid shall be plug style with pentagon bolt and marked “WATER.”
6. Fittings.
    a. Fittings for copper water service piping shall be of cast brass having an alloy of 85% copper, 5% zinc, and 5% lead.
    b. Fittings shall have a uniform wall thickness and strength, and shall be free of defects, which may affect their serviceability.
    c. Fittings shall be of the flared and compression type only.
    d. Unions shall be extra heavy 3-part type.

Tracer Wire:

1. Provide the following:
    a. Tracer wire shall be No. 12 AWG, stainless steel, single conductor with Type UF insulation rated for direct burial service for all borings.
    b. Tracer wire shall be No. 10 AWG, copper, or No. 12 AWG stainless steel, single conductor, with Type UF insulation rated for direct burial service for open cut.
2. Tracer wire splices shall be made soldered. The soldered connection shall be coated with 3M Scotchkote electricians coating and then securely taped in a tee configuration.
3. Tracer wire signal connection box shall be three-piece, 5 ¼-inch cast iron valve box with top marked, "Water" as manufactured by Clow, Tyler, or equal.

C Construction

1. Install piping in accordance to the plans and appropriate specification sections for the type of work being performed.
2. The interior and exterior of all pipe shall be clean and free from all foreign material before being installed. The contractor shall provide the necessary means to wipe, brush, swab, or air blast to remove any foreign material from the interior of the pipe as required by the engineer.
3. Every precaution shall be taken to prevent foreign materials from entering the pipe while it is being placed in the line. If the pipe-laying crew cannot put the pipe into the trench and in place without getting earth into it, the engineer may require that before lowering the pipe into the trench, a heavy, tightly woven canvas bag of suitable size shall be placed over each end and left there until the connection is to be made to the adjacent pipe. During the laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe.
4. At all times when pipe laying is not in progress, the open ends of pipe shall be closed by a watertight plug or other means accepted by the engineer. This provision shall apply during the noon hour as well as overnight. If water is in the trench, the seal shall remain in place until the trench is pumped completely dry. No pipe shall be laid in water or when trench conditions are unsuitable.
5. Before excavation of trenches begins, the contactor shall uncover the end of the existing water main to which the new main is to be connected. This will permit adjustments in line and grade to avoid using extra fittings. The exposed end of an existing main must be protected and blocked by the contractor to prevent the blowing out of the plug or cap at the end of the main.
6. The contractor shall have sufficient and adequate equipment on the site of the work for unloading and lowering pipe and fittings into the trench. Extreme care shall be exercised by the contractor in handling all pipe, fittings, and special castings to prevent breakage and coating damage. Any significant damage to coating shall be repaired before installation. Under no circumstances shall pipe or fittings be dropped into the trench or so handled as to receive hard blows or jolts. All mud or concentration of dirt shall be removed prior to installation.

7. Every precaution shall be taken to prevent foreign materials from entering the pipe while it is being placed in the line. If the pipe-laying crew cannot put the pipe into the trench and in place without getting earth into it, the engineer may require that before lowering the pipe into the trench, a heavy, tightly woven canvas bag of suitable size shall be placed over each end and left there until the connection is to be made to the adjacent pipe. During the laying operations, no debris, tools, clothing, or other material shall be placed in the pipe.
8. At all times when pipe laying is not in progress, the open ends of pipe shall be closed by a watertight plug or other means accepted by the engineer. This provision shall apply during the noon hour as well as overnight. If water is in the trench, the seal shall remain in place until the trench is pumped completely dry. No pipe shall be laid in water or when trench conditions are unsuitable.
9. Pipe installation shall conform with WisDOT, Trenching, Backfilling and Compaction and bedding details shown on the drawings and in the specifications.
10. Lay pipe to line and depth shown on plans. Unless otherwise stated, pipe shall be laid with the bell ends facing the direction of laying. When grade exceeds 2 feet per 10 feet, the bells shall face upgrade.
11. When the depth is not shown on the plans, bury the pipe with 6.5 feet of cover as determined from the top of pipe to the finished ground elevation.
12. Keep pipe, fittings, and hydrants free of debris and foreign matter. The interior of all pipes shall be clean before being installed. The contractor shall provide the necessary means to wipe, brush, swab, or air blast to remove foreign matter.
13. Assemble all joints in accordance to manufacturer's recommendations.
14. Utilize full lengths of pipe, except at fittings.
15. Provide thrust blocking or restraints at the following locations:
    a. Bend deflecting 11½ degrees or more.
    b. Hydrants.
    c. Valves and tees.
    d. Plugs and caps.
16. When it is necessary to interrupt an existing system to complete construction, adhere to the following:
    a. No valves, controls, or appurtenances shall be operated by the contractor.
    b. Operation of existing valves, controls, and appurtenances for interruption of existing service shall be done by owner personnel at the owner's convenience and normal working schedule.
    c. Contact owner a minimum 24 hours prior to an anticipated interruption.
17. Immediately before installation of hydrants, the following operation shall be performed:
    a. The hydrant shall be thoroughly inspected and cleaned on the interior.
    b. The hydrant shall be opened and closed as many times as necessary to determine if all parts are in proper working order.
    c. Hydrants shall be located as shown or as required to provide complete accessibility and minimize the possibility of damage from vehicles or injury to pedestrians.

d. All hydrants shall stand plumb within ¼-inch, 3 feet in all directions, and shall have their nozzles parallel with, or at right angles to the curb, with the pumper nozzle facing the curb, except that hydrants having two hose nozzles 90 degrees apart shall be set with each nozzle facing the curb at an angle of 45 degrees. Hydrants shall be set to the established grade, with nozzles at least 18 inches above the ground as shown or as required by the engineer.
e. Drainage shall be provided by placing crushed stone around the hydrant as shown on the detail. The minimum amount of crushed stone shall be 6 inches above the waste opening in the hydrant, and 1 foot around the hydrant.

18. Install valves as shown on the drawings.
    a. Install valve boxes plumb, and centered over valve operating nut:
    b. Install in a manner that will prevent shock loads and stress being transmitted to the valve and water main.
    c. After backfill has been placed and compacted, demonstrate to the engineer that all valves are operable.
19. All below ground metal shall be wrapped in a polyethylene encasement in accordance to AWWA C105, including:
    a. Ductile iron pipe.
    b. Fittings, valves, and valve boxes.
    c. Corporations, curb stops, and curb boxes their entire length.
    d. All portions of hydrants below grade.
    e. Copper water services.
    f. All metal restraining devices.
20. Water services shall conform with all plumbing codes.
21. Terminate services at the property line or easement line as shown on the plans.
22. Unions may not be used unless approved by owner's representative.
23. Water service connections shall be made by tapping the water main for the corporation stop unless use of a service saddle is required. The corporation stop connection shall be a minimum of 1 foot from any pipe or fitting joint and must have a minimum of 1 foot between connections and stagger 30° around the circumference of the water main.
24. All polyethylene water services shall have tracer wire brought up and cable wrapped with zip ties to the outside of the curb box. Tracer wire shall be extended to the termination point of the service.
25. In common trench construction, the water service shall be run parallel and a minimum of 12 inches above the sanitary sewer lateral. The water service shall be laid with a minimum cover of 6 feet or shall be insulated with acceptable material. The curb stop shall be placed between 6 and 7 feet below established or proposed grade.
26. The curb box shall be centered over the curb stop and shall be brought to proper grade. The legs of the service box shall rest firmly upon a 2 inch x 5 inch x 8 inch hardwood board or 4-inch x 8-inch x 16-inch solid concrete block. Clearance shall be provided so that the service box does not rest upon the water service pipe. Where the bench does not afford a firm support for the service box blocking, such

support shall be finished by the use of a 2 inch by 6 inch plank placed across the building sanitary sewer trench and firmly supported in each bank.

a. The curb box shall be plumbed and braced so it will remain vertical throughout the backfilling. Sufficient excavation shall be made for the curb box installation to ensure proper setting and backfilling around the curb box.
b. Before placing backfilling around the curb service box, the contractor shall wrap polyethylene around the base, and bedding material shall be tamped in place froma point above the main to a point 6 inches above the blocking to prevent entrance of backfill materials into the openings at the base.
c. After backfill has been placed and compacted, demonstrate to the engineer that all curb stops are operable.
d. A copper disc shall be inserted in the curb stop coupling on the building side. The open end of copper water services shall be closed by peening the end.

27. Tapping sleeves shall be of the flanged outlet type designed for attachment to the flanged inlet end of the tapping valve. Sleeve shall be rated for 150-psi working pressure.
    a. Tapping sleeves shall be of cast iron or of Type 304 stainless steel construction.
    b. With the exception of valve ends and oversize seat rings to permit entry of the drilling machine cutters, tapping valves shall conform to the requirements of AWWA C509.
    c. Each tapping valve shall be provided with a flanged inlet end for attachment to the outlet flange of the tapping sleeve, and with an outlet end suitable for attachment of a drilling machine and the type of pipe used. Unless otherwise specified, each tapping valve shall be arranged to turn left (counterclockwise) to open and shall be provided with a 2 inch operating nut and valve box.
    d. Each tapping sleeve and valve assembly shall be furnished and installed complete with gaskets as required and with all bolts for the sleeve and for the flanged connection between the sleeve and valve, in strict conformity with the directions and instructions of the manufacturer of the tapping sleeves and valves furnished.
    e. The contractor shall submit details of proposed sleeve and valve for the engineer's review. Sleeve and valve shall be as manufactured by Kennedy Valve Mfg. Co., Clow Corporation, Dresser Industries, Romac Industries, or equal.
28. Where specified or required, pipes of different material or outside diameter shall be joined with mechanical pipe couplings.
    a. Couplings shall be suitable for the intended service and shall be installed in accordance to the manufacturer's instructions.
    b. The contractor shall submit details of proposed coupling for engineer's review.
    c. Mechanical pipe couplings shall be Dresser Style 162 or equal.

29. Measure and record the following:
    a. Service locations: Point of origin and terminus.
    b. Valve and fitting locations.
    c. Water main locations.
30. The following water main shall be disinfected:
    a. New water main.
    b. Existing water main when cut into or repaired.
    c. Disinfect and flush system until samples test safe.
    d. Contractor will perform sampling and have an independent laboratory (certified by the Department of Natural Resources and Environment) perform bacteriological testing to certify that water is free of coliform bacteria. Supply engineer with copy of test results.
    e. Tablet Method: AWWA C651
        i. Place 5-gram calcium hypochlorite tablets each section of pipe as determined by the following table:

Number of Tablets Per Section of Pipe

Pipe Diameter (inches)	Length of Pipe section (feet)		
	13 or less	18	20
4	1	1	1
6	1	1	1
8	1	2	2
10	2	3	3
12	3	4	4
16	4	6	7

        ii. Place one tablet in each hydrant, hydrant lead, and other appurtenance.
        iii. Attach tablets with a food grade adhesive to the top inside surface of the pipe:
            a) Adhesive shall be USDA for contact with edible products.
            b) Adhesive shall be Permatex Form A Gasket No. 2, Permatex Clear RTV Silicone, or equal.
            c) Permatex Form A Gasket No. 1 is not acceptable.
    f. Fill main in a manner such that the water velocity within the main will not exceed 1 fps.
    g. Water shall remain in pipe for a minimum of 24 hours, if water temperature is less than 40o F, it shall remain in pipe a minimum of 48 hours.
31. Perform pipe disinfection testing in conformance with AWWA C651.
    a. After disinfection testing has been completed.
    b. Disinfect all testing equipment and fittings.
32. Perform Standard Pressure and Leakage Test for Pressurized Pipelines in conformance with AWWA C600:
    a. Measure drop in pressure and leakage from liquid filled and pressurized pipelines.

b. Conditions to prevail before commencement of test.
    i. Disinfect all testing equipment and fittings.
    ii. Backfill to at least minimum 4 feet compacted backfill material.
    iii. Length of pipeline tested shall not exceed 2,000 feet.
    iv. Reaction backing to be in place a minimum of;
        a) Thirty six hours if concrete thrust backing has been cast with high early cement.
        b) Seven days if concrete thrust blocking has been cast with standard cement.
c. Fill each valved section with water slowly, expelling air completely from the pipeline, valves, and hydrants.
d. Where permanent air vents are not located at all high points or dead ends, contractor shall install corporation cocks at such points so that air can be expelled as the line is filled with water.
    i. Close all these corporation cocks before applying pressure or leakage tests.
    ii. At the conclusion of the leakage and pressure test, the corporation cocks shall be removed and plugged, or left in at the discretion of the owner.
e. Pressurize to normal working pressure.
    i. After test connections are made and pipeline is filled with water, the pipeline shall be subjected to water pressure normal for that segment of the system being tested.
    ii. Examine system for any visible leakage at this stage.
        a) Repair any visible leaks.
        b) Re pressurize to normal working pressure and continue to repair and re-pressurize until all visible leaks have been stopped.

33. Pressure Test:
a. Test pressure shall be not less than 150 lbs. per sq. inch at the lowest point of elevation of the segment being tested.
    i. The minimum test pressures specified above may require that the installed system be tested in several segments in order to attain the proper pressure.
    ii. If test pressures other than indicated above are called for in the sections for Materials and Methods of Construction, those pressures shall be used.
b. Pressurize the system being tested to pressure required above by adding water with high-pressure test pump.
c. Repair any visible leaks occurring due to test pressure application.
d. Repeat pressurizing of system to test pressure until no visible leaks can be found.
e. Duration of pressure test.
    i. Test period shall be two continuous hours with no visible leaks occurring.
    ii. Pressure during test period shall be sustained.

f. Contractor shall provide pressure gauge with 4-inch face and snubber. Pressure shall read in one-pound increments.
g. If it is found unnecessary to add water during the duration of the pressure test, the leakage test may be waived with the approval of the engineer.

34. Leakage Test:
    a. Leakage test shall be conducted after completion of the pressure test.
    b. At the option of the contractor, pressure and leakage tests may be run concurrently.
        i. This option must have the approval of the engineer.
        ii. If this option is agreed upon, then the test procedures required for pressure tests shall prevail for both pressure and leakage tests.
    c. When leakage test is conducted after satisfactory completion of the pressure test, the test section shall be subjected to 100 pounds per square inch gauge pressure at the lowest elevation of the section of the main being tested.
        i. If leakage test pressures other than indicated above are called for in the sections for Materials and Methods of Construction, those pressures shall be used.
    d. Leakage is defined as the quantity of water to be supplied into the newly laid pipe, or any valved section of it, necessary to maintain the specified leakage test pressure after the main has been filled with water and the air expelled.
        i. Pressure during test period shall be sustained within plus or minus 5 lbs. of the required test pressure by adding water with test pump.
        ii. Meter the amount of water added.
    e. Leakage shall not exceed the number of gallons per hour as determined by the following formula:

$$GPH = ND \quad P/7400$$

When:
GPH = Gallons Per Hour
N = Number of Joints Under Test
D = Nominal Pipe Dia. in Inches
P = Average Test Pressure in lbs/sq. in.

    f. When the section under test contains various diameters of pipe, the available leakage will be the sum of the computed leakage for each size ofpipe.
    g. Should any test section fail to meet the leakage test, the contractor shall immediately make the necessary repairs at his own expense.
    h. Duration of final leakage test shall be one continuous hour with leakage within the allowable limits during the test hour.
    i. Contractor shall provide all equipment required to perform the test.

D Measurement

The department will measure Relocating Hydrants or Relocating Curb Stops as each individual relocated unit, acceptably completed.

The department will measure 8”Water Valve 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.0060.09	Relocating Hydrants	Each
SPV.0060.10	Relocating Curb Stops	Each
SPV.0060.11	8” Water Valve	Each

Payment is full compensation for furnishing all labor, material, equipment, testing, and permits necessary to accomplish this work as specified herein.

31. Abandoning Sanitary Manhole, Item SPV.0060.12.

A Description
This special provision describes abandoning sanitary manholes as shown on the plans and as hereinafter provided

B Materials
Compacted granular fill shall meet the requirements of standard spec 209.

C Construction
Contractor shall thoroughly clean structures to be abandoned.

Contractor shall plug existing pipe connections with brick or concrete block masonry or with any grade of concrete having a 28-day compressive strength in excess of 2000 psi.

Contractor shall remove the walls of the structures to an elevation at least 2 feet below the finished grade line, or to such elevation that may be designated on the drawings or as necessary to clear new construction.

Contractor shall fill all abandoned structures and excavations resulting from removal of structures and utilities with compacted granular fill conforming with section 209 of the standard specifications.

Prior to filling, contractor shall break one opening in the floor or wall near the base of each compartment to allow groundwater to freely migrate through the structure.

D Measurement
The department will measure Abandoning Sanitary Manhole as each individual abandoned 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.0060.12	Abandoning Sanitary Manhole	Each

Payment is full compensation for abandoning sanitary manholes including all attached parts and connections; for breaking down, removing, closing, plugging, or sealing, for hauling and disposing of materials; for providing any required bentonite, soil, brick concrete block, or concrete; for restoring the roadway cross-section; and, unless the contract specifies granular backfill, for backfill.

32. LED Luminaire, LED–A, Item SPV.0060.13.

A Description
This special provision describes furnishing and installing LED luminaires. Work under this item shall be in accordance with standard spec 659 and this special provision.

B Materials
Furnish Luminaires Utility LED from the department qualified product list.

C Construction
Under the bid item LED Luminaire, furnish and install luminaires and all necessary miscellaneous accessories and hardware to complete the installation of the luminaires.

The contractor shall follow manufacturer's instructions regarding luminaire installation.

All exposed threaded equipment mounting hardware shall be stainless steel.

All threaded stainless steel hardware and dissimilar metal threaded hardware shall be coated with an approved zinc-based anti-seize compound.

D Measurement
The department will measure LED Luminaire, LED-A as each individual lighting unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.13	LED Luminaire, LED-A	Each

Payment is full compensation for providing and installing all materials, including luminaire, accessories, hardware and fittings necessary to install the luminaire.

33. Low Maintenance Seed Mix, Item SPV.0085.01.

A Description
Furnish and sow Low Maintenance Seed Mix in accordance to standard spec 630 and as hereinafter described at the locations shown in the plan.

B Materials
Furnish one of the following seed mixes: "No-Mow" seed mix as produced by Prairie Nursery, Westfield, Wisconsin; "Eco-Grass" as produced by Prairie Moon Nursery, Winona, MN; or an approved equal.

C Construction
Prepare the seed bed in accordance to standard spec 630.3.2. Sow the seed mix in accordance to standard spec 630.3.3. Sow seed at a rate that is in accordance to the manufacturer's recommendations.

D Measurement
The department will measure Low Maintenance Seed Mix by the pound in place, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0085.01	Low Maintenance Seed Mix	LB

Payment is full compensation for performing the work as described in standard spec 630.5.

34. Concrete Curb and Gutter 30-Inch 4-Inch Sloped Special, Item SPV.0090.01.

A Description
This special provision describes furnishing all materials and constructing a cast-in-place concrete curb and gutter section as shown on the plans, in accordance to standard spec 601, and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Concrete Curb and Gutter 30-Inch 4-inch Sloped Special by the linear foot, acceptably completed, in accordance 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.0090.01	Concrete Curb and Gutter 30-Inch 4-Inch Sloped Special	LF

Payment shall be in accordance to standard spec 601.5.

35. Pavement Marking Grooved Preformed Thermoplastic 18-Inch, Item SPV.0090.02.

A Description

This special provision describes grooving the pavement surface, and furnishing and installing preformed thermoplastic pavement marking as shown on the plans, in accordance to standard spec 647, and as hereinafter provided.

B Materials

Furnish 125 mils preformed thermoplastic pavement marking from the department's approved products list. If required, furnish sealant material recommended by the manufacturer.

C Construction

C.1 General

For quality assurance, provide the engineer and the region's Marking Section evidence of manufacturer training in the proper placement and installation of preformed thermoplastic pavement marking.

Plane the grooved lines in accordance to the plan details. Use grooving equipment with a free-floating, independent cutting or grinding head. Plane a minimum number of passes to create a smooth groove.

C.2 Groove Depth

Cut the groove to a depth of 120 mils ±10 mils deep from the pavement surface or, if tined, from the high point of the tined surface. Measure depth using a straightedge placed perpendicular to the groove. The department may periodically check groove depths.

C.3 Groove Width – Linear Markings

Cut the groove 1-inch wider than the width of the thermoplastic.

C.4 Groove Position

Position the groove edge in accordance to the plan details.

C.4.1 Linear Marking

Groove at a minimum of 4-inches, but not greater than, 12-inches from both ends of the line segment. Achieve straight alignment with the grooving equipment.

C.4.2 Special Marking
Groove at a minimum of 4-inches from the perimeter of the special marking. Groove separate areas for Word Items.

C.5 Groove Cleaning
C.5.1 Concrete
Cooling the cutting head with water may be necessary for some applications and equipment. If cooling water is necessary, flush the groove immediately with water after cutting to remove any build-up of cement dust and water slurry. If this is not done, the slurry may harden in the groove.

If water is used in the grooving process, allow the groove to dry a minimum of 24 hours after groove cleaning, after removal of excess water, and prior to pavement marking application. Clean and dry the groove for proper application of the sealant, and placement of the pavement marking. Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove; use of the air blower does not decrease the amount of time required for the groove to dry.

C.5.2 Asphalt
Use a high-pressure air blower with at least 185 ft^3/min air flow and 90 psi air pressure to clean the groove.

Check for structural integrity in supporting grooving operations. If the structural integrity of the asphalt pavement is inadequate to support grooving operations, immediately notify the engineer.

C.6 Preformed Thermoplastic Application
Preheat the surface if necessary based on manufacturer's recommendation.

Apply preformed thermoplastic in the groove as per manufacturer's recommendations. If manufacturer's recommendations require a sealant, apply a sealant lower than 91g/l VOC during the following period of time due to Volatile Organic Compound Limitations:

May 1 to September 30, both dates inclusive – the Southeast Region and the ozone non-attainment Northeast Region counties of Sheboygan, Manitowoc, and Kewaunee.

Use any sealant in the remainder counties and for the remainder of the year. The sealant must be wet.

D Measurement
The department will measure Pavement Marking Grooved Preformed Thermoplastic in length by the linear foot of tape placed in accordance to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.02	Pavement Marking Grooved Preformed Thermoplastic 18-Inch	LF

Payment is full compensation for cleaning and preparing the pavement surface, furnishing and installing the material.

36. Abandoning 8" Sanitary Sewer, Item SPV.0090.03; Abandoning 8" Watermain, Item SPV.0090.04.

A Description

This special provision describes Abandoning 8" Sanitary Sewer and Abandoning 8" Watermain as shown on the plans and as hereinafter provided.

B Materials

Cement

1. Portland Cement shall conform to ASTM C150.
2. Portland cement shall be Type I, Type II, or Type III Portland Cement

Aggregate

1. Aggregate shall conform to ASTM C33
2. Aggregate shall consist of clean, hard, durable sand and crushed rock, crushed gravel, or gravel. Coarse aggregate shall not be larger than 3/8".

Mix Design

1. All grout shall have a compressive strength of not less than 2000 psi at 28 days when tested in accordance to ASTM C109 or ASTM C579, as applicable.
2. Minimum bags of cement/cubic yard: 2.25
3. Slump: Sufficient to fill all voids.

C Construction

Placement

1. Notify engineer of grout placement schedule one day in advance of pour to allow for scheduling of inspection.

2. All abandoned pipelines shall be completely filled with grout.

3. Once placing operation commences, it shall be carried out as a continuous operation until a section is completed.

4. Prepare the ends of pipes with pipe caps, vents, and fill pipes.
    a. The low end of the pipe shall be capped and provided with a 4-inch diameter vent to permit the escape of air while filling. The ends shall be adequately restrained to support the head of grout during filling and curing.
    b. The upper end of the pipe shall be capped and provided with a vertical fill pipe and minimum 4-inch diameter vent.

5. Placing shall be carried on in such manner that the grout in the pipeline is still plastic and can be integrated with fresh grout.

6. Grout shall not be placed in water. Water level shall be removed or lowered in a manner approved by engineer.

7. Grout shall be placed before initial set has occurred. Excess water will not be permitted.

8. Where chutes are used to transport grout, they shall be of metal or wood with metal lining. They should have a slope not exceeding 1 vertical to 2 horizontal and not less than 1 vertical to 3 horizontal so that the concrete will travel fast enough to keep the chute clean but slow enough to avoid segregation of materials. The end of each chute shall be provided with a baffle to help prevent segregation, or the concrete should be discharged through a tremie or elephant trunk directly into the fill pipe.

9. Grout shall not fall freely more than 4 feet. Elephant trunks and/or tremies shall be used to prevent free fall of the grout and to allow the grout to be placed.

10. Pumping equipment shall be of suitable type, without Y-sections, and with adequate pumping capacity.

Curing and Protection

1. All freshly placed grout shall be protected from damaging effects of the elements such as freezing, rapid drop in temperature and loss of moisture.

D Measurement

The department will measure Abandoning 8" Sanitary Sewer and Abandoning 8" Watermain by the linear feet, 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.0090.03	Abandoning 8" Sanitary Sewer	LF
SPV.0090.04	Abandoning 8" Watermain	LF

Payment is full compensation for abandoning sanitary manholes is for breaking down, removing, closing, plugging, or sealing, for hauling and disposing of materials; for providing any required bentonite, soil, brick concrete block, or concrete; for restoring the roadway cross-section; and, unless the contract specifies granular backfill, for backfill.

37. 8" Sanitary Sewer, Item SPV.0090.05.

A Description

This special provision describes 8" Sanitary Sewer as shown on the plans and as hereinafter provided.

B Materials

PVC Plastic Pipe Gravity Sewer

1. All pipe shall be the product of one manufacturer.
2. All fittings shall be the product of one manufacturer.
3. Pipe shall be manufactured in accordance to the following standards:
    a. Sizes 8 inch through 15 inch: ASTM D3034.
    b. Sizes 18-inch through 48-inch: ASTM F679 or ASTM F794.
4. Elastomeric Gaskets: Conform with F477
5. Fittings shall be the same class and physical properties as pipe and monolithically molded or extruded.
6. Elastomeric Joints: ASTM D3212
7. Solvent Weld Joints: Not permitted.
8. Sewer Services
    a. Conform with ASTM D1784 and D1785.
    b. Pipe sizes 4 inch and 6 inch: Schedule 40
    c. Solvent Weld Joints: ASTM D2855
    d. Fittings: Socket type, ASTM D2466
9. Piping System Specification (Section 40 05 15)
    a. Conform with ASTM D1784 and D1785.
    b. Solvent Weld Joints: ASTM D2855.
    c. Threaded Joints: ASTM D2464-06.
    d. Fittings: Socket Type, ASTM D2466.

C Construction

1. Install piping in accordance to manufacturer's written instructions.
2. Refer to applicable section for installation procedures.
3. Pipe bedding shall be in accordance to the standard details shown in the drawings.
4. Include the cost of all testing, cleaning and disinfection in the bid.
5. All work shall be inspected, tested, and approved in accordance to federal, state and local rules and regulations.
6. All work shall also be tested as specified in this section.
    a. Unless indicated in writing before testing begins, all tests shall be witnessed by engineer and others as necessary.
    b. Test results shall be recorded and reports or appropriate certificates shall be submitted to engineer in triplicate.
    c. All underground piping shall be backfilled or properly secured to avoid damage during testing.
    d. Should underground piping fail test, contractor shall be responsible for removal and replacement of backfill.
    e. All piping and appurtenances shall be watertight or airtight and free from visible leaks.
7. All piping shall be flushed or blown out after installation prior to testing.
    a. Provide all necessary piping connections, water, air, test pumping equipment, water meter, bulkheads, valves, pressure gauge and other equipment, materials and facilities necessary to complete the specified tests.
    b. Provide all temporary sectionalizing devices and vents for testing.
8. Perform deflection tests on all PVC and HDPE gravity pipelines.
9. Not less than 30 days after the installation and backfilling of sewers, including any service connections, the contractor shall, in the presence of the engineer, test deflection of the pipe with a mandrel (Go-No-Go device).
10. The mandrel shall be hand-pulled. All pipe with deflections in excess of 5% of the base internal diameter, as determined by ASTM D 3034, ASTM F 679, or ASTM F 794, shall be excavated, rerounded, backfilled and retested after an additional period of at least 30 days.
    a. Mandrels shall have nine ribs and be only hand-pulled through the test section.
    b. The contractor shall furnish the mandrels.
    c. The length of the minimum radius portion of the mandrel shall not be less than one-third of the nominal diameter of the pipe tested.
    d. The pipe shall be flushed and cleaned by the contractor prior to testing.
    e. No flow will be permitted in the pipe while testing for deflections.
11. All expense for trenching, backfill, compaction, paving, and related work that is require because of failure to meet deflection test requirements shall be borne by the contractor.
12. Acceptance of plastic pipe sewers shall be made only after these deflection test requirements have been met.

13. Mandrel sizes shall be in accordance to the following:
    a. (5% Deflection)

Nominal Size (Inches)	Base ID	SDR35/PS46 5% Deflection Mandrel Size (Inches)	Base ID	SDR26/PS115 5% Deflection Mandrel Size (Inches)
4	3.895	3.70	3.811	3.62
6	5.742	5.45	5.612	5.33
8	7.665	7.28	7.488	7.11
10	9.563	9.08	9.342	8.87
12	11.361	10.79	11.102	10.55
15	13.898	13.20	13.575	12.90
18	16.976	16.13	16.586	15.76
21	20.004	19.00	19.545	18.57
24	22.48	21.36	21.964	20.87
27	25.327	24.06	24.744	23.51
30	29.132	27.68	28.461	27.04
36	34.869	33.13	34.120	32.41

Sewer line cleaning

1. High Velocity Jet Equipment shall be used on this project.
    a. All high velocity sewer cleaning equipment shall be constructed for ease and safety of operation.
    b. The equipment shall have a selection of two or more high velocity nozzles.
    c. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines designated to be cleaned.
    d. The equipment shall carry its own water tank.
    e. The equipment shall be capable of removing dirt, grease, rocks, sand, and other materials and obstructions from the sewer lines and manholes.
    f. If cleaning of an entire section cannot be successfully performed from one manhole, the equipment shall be set up on the other manhole and cleaning again attempted.
    g. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire manhole section, it will be assumed that a major blockage exists and the cleaning effort shall be abandoned.
2. All sludge, dirt, sand, rock, grease, and other solid or semisolid material resulting from the cleaning operation shall be removed at the downstream manhole of the section being cleaned.
3. Passing material from manhole section to manhole section, which could cause line stoppages, accumulations of sand in wet wells, or damage pumping equipment, shall not be permitted.
4. A vacuum truck shall be used to remove accumulations of material.
5. All solids or semi-solids resulting from the cleaning operations shall be removed from the site and disposed of at a site designated by the owner.

6. All materials shall be removed from the site no less often than at the end of each workday. Under no circumstances will the contractor be allowed to accumulate debris, etc., on the site of work beyond the stated time, except in totally enclosed containers and as approved by the owner.
7. If the contractor requires water for cleaning operations from hydrants, the contractor shall make arrangements with the local water utility and shall use only fire hydrants designated by the responsible water utility.
    a. The owner will pay all costs associated with use of this water.
    b. The contractor shall provide backflow preventers at the hydrants to prevent contamination of the water system.
    c. Acceptance of sewer line cleaning shall be made upon the successful completion of the television inspection and shall be to the satisfaction of the owner. If TV inspection shows the cleaning to be unsatisfactory, the contractor shall be required to re-clean and re-inspect the sewer line until the cleaning is shown to be satisfactory.

Sewer Televising

1. All designated sewer sections shall be visually inspected by means of closed-circuit color television.
    a. The television camera used for the inspection shall be one specifically designed and constructed for such inspection.
    b. The camera shall be capable of radial view for inspection of the top, bottom, and sides of pipe and for looking up lateral connections.
    c. The camera shall be mounted on adjustable skids, or self propelled, to keep it in the center of the pie.
    d. Lighting of the camera shall be supplied by a lamp on the camera, capable of being dimmed or brightened remotely form the control panel.
    e. The lighting system shall be capable of lighting the entire periphery of the pipe.
    f. The camera shall be operative in 100% humidity conditions and shall have a minimum of 650 lines of resolution and tested at 400 psi.
    g. The view seen by the televising camera shall be transmitted to a monitor of not less than 17 inches.
    h. The camera, television monitor, and other components of the DVD system shall be capable of producing a picture quality satisfactory to the engineer; and if unsatisfactory, the equipment shall be removed and no payment will be made for an unsatisfactory inspection.

2. The television camera shall be moved through the line in either direction at a uniform rate, stopping when necessary to ensure proper documentation of the sewer's condition but in no case will the television camera be pulled at a speed greater than 30 feet per minute.
    a. Manual winches, power winches, TV cable, and powered rewinds (or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions) shall be used to move the camera through the sewer line.

b. If, during the inspection operation the television camera will not pass through the entire sewer section, the contractor shall re-setup his equipment in a manner so that the inspection can be performed from the opposite manhole.
c. If, again, the camera fails to pass through the entire sewer section, the inspection shall be considered complete and no additional inspection work will be required.
d. All costs for re-setup due to an obstruction in the sewer that will not allow the camera to pass shall be considered incidental.
e. If the camera becomes submerged due to a sag in the pipe, a high velocity jet will be utilized to pull water away from the camera lens.

3. The location meter, for accurately recording the location of the television camera with respect to the reference manhole, shall be a direct reading, above ground, friction clamp device or other suitable equipment.
    a. Marking on the cable, or the like, which would require interpolation for depth of manhole, will not be allowed.
    b. The meter shall be capable of reducing readings for reverse movement of the camera and shall be capable of being manually re-zeroed for each new setup.
    c. Footage shall be shown on the DVD data view and recorded at all times.
4. The logs shall be typed or computer printed and acceptable to the owner. Printed location records shall be kept by the contractor and will clearly show the location, in relation to adjacent manholes, of each infiltration point discovered by the television camera.
    a. An estimate of the flow rate of observed infiltration points shall be made and recorded.
    b. Other points of significance such as locations of building sewer laterals, joints, unusual conditions, roots, storm sewer connections, collapsed sections, presence of scale and corrosion, and other discernible features will be recorded and two copies of such records shall be supplied to the owner.
5. The purpose of tape recording shall be to supply a visual and audio record of the condition of the lines that may be replayed both daily and at future presentations.
    a. DVD recording playback shall be at the same speed that it was recorded.
    b. Upon completion of the work, all discs recorded during the television inspection shall become the property of the owner.
    c. Cost of DVDs shall be included in the unit price bid.
    d. A complete recording shall be made of each line televised. A voice recording on DVDs shall make brief and informative comments on the sewer conditions.
    e. DVDs shall include the following information:
        i. Visual (on screen in corner):
        ii. Report number.
        iii. Date of television inspection.
        iv. Sewer section and number.
        v. Current distance along reach (tape counter footage).

vi. Printed labels on DVD container and DVD disc with location information, date, format information, and other descriptive information.

f. Audio:
   i. Date and time of television inspection, operator name, name of overlying or adjacent street, and manhole numbers.
   ii. Verbal confirmation of sewer section and television direction in relation to direction of flow.
   iii. Verbal description of pipe size, type, and pipe joint length.
   iv. Verbal description and location of each service connection and pipe defect.
   v. Type of weather during inspection.

6. Television inspection logs shall include, but are not limited to, the following:
   a. Date, time, city, street, basin, sewer section, reference manhole number, name of operator, inspector, and weather conditions.
   b. Pipe diameter, pipe material, section length, depth of pipe, length between joints, and corresponding DVD identification.
   c. Location of each point of leakage.
   d. Location of each service connection.
   e. Location of any damaged sections, nature of damage, and location with respect to pipe axis.
   f. Deflection in alignment of grade of pipe.
7. Acceptance of televising shall be made upon the successful completion of the project and shall be to the satisfaction of the owner. If the recordings show the inspection to be unsatisfactory, the contractor shall be required to re-inspect the sewer line.

D Measurement

The department will measure 8" Sanitary Sewer by the linear feet, 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.0090.05	8" Sanitary Sewer	LF

Payment is full compensation for furnishing all labor, material, equipment, and permits necessary to accomplish this work as specified herein.

38. 8" Watermain, Item SPV.0090.06.

A Description

This special provision describes 8" Watermain as shown on the plans and as hereinafter provided.

B Materials

Reference Standards – PVC Plastic Pipe

1. American Society for Testing and Materials (ASTM):
    a. ASTM D1784 Spec. for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds.
    b. ASTM D2241 Spec. for Poly (Vinyl Chloride) (PVC) Plastic Pipe (SDR PR).
    c. ASTM D2412 Test for External Loading Properties of Plastic Pipe by Parallel Plate Loading.
    d. ASTM D2837 Standard Test Method for Obtaining Hydrostatic Design Basics for Thermoplastic Pipe Materials.
    e. ASTM D3139 Spec. for Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.
    f. ASTM F477 Spec. for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

American Water Works Association (AWWA):

1. AWWA C900 Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4-inch through 12-inch for water.
2. AWWA C905 Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 inch through 36 inch.

Quality Assurance

1. Pipe shall be available to owner's representative for inspection.
2. Pipe shall be considered defective and will be rejected when:
    a. Pitted or cratered.
    b. Flaking.
    c. Straightness varies more than ½-inch in 10 feet.
    d. Any defect that prevents assembly according to manufacturer's recommendations.
3. Material brands and/or pipe classes shall not be mixed.

Pressure Rated Pipe

1. Water main
    a. All pipe shall be the product of one manufacturer.
    b. All fittings shall be the product of one manufacturer.
    c. Pipe shall be manufactured in accordance to the following standards:
        i. Pipe sizes 4 inch through 12 inch: AWWA C900, pressure Class 150, thickness Class DR 18.
        ii. Pipe sizes 14-inch through 36-inch: AWWA C905, pressure Class 235, thickness Class DR18.
    d. Elastomeric gaskets shall be manufactured as defined in ASTM F477.
    e. Joints shall conform to ASTM D3139.
    f. Solvent weld joints may not be used.

Fittings Materials

1. Interior Lining:
    a. Cement Lining:
    b. Standard thickness of cement mortar conforming with AWWA C104.
2. Pipe Class and Rating for Push on, Push on Lock Joint, and Mechanical Joint:3 inch through 24 inch:
    a. Class 52.
    b. Rated pressure 350 psi.
3. Pipe Joints shall conform as follows:
    a. Push on joints shall conform with AWWA C111.
    b. Gaskets shall be plain rubber for sewer and water to temperatures not exceeding 150°F.
4. Push on Lock Joints:
    a. Push on Lock Joints shall conform with AWWA C111.
    b. Joints shall be held in place with a boltless locking ring.
5. Mechanical Joints:
    a. Mechanical Joints shall conform with AWWA C111.
    b. Joints shall include the following:
        i. Ductile or gray iron follower gland.
        ii. T-bolts shall be Type 304 or 316 stainless steel. All stainless steel threads shall be coated with anti-seize compound prior to assembly.
        iii. Plain rubber gasket for sewer and water to temperatures not exceeding 150°F.
6. Joint restraint shall be provided utilizing Megalugs, by EBAA iron, Sigma “One-Lok”, Ford, or equal.
7. Fittings:
    a. All fittings shall be the product of one manufacturer.
    b. For use below grade:
        i. Compact ductile iron mechanical joint conforming to AWWA C153.
    c. For use within manholes, structures, or above grade:
        i. Standard gray iron or ductile iron flanged joint conforming to AWWA C110.
8. Coatings and Linings:
    a. Exterior Coating: Asphaltic coating, minimum of 1 mil thick.
    b. Interior Lining:
        i. Cement Lining:
        ii. Standard thickness of cement mortar conforming with AWWA C104.
9. Gaskets:
    a. Conform with AWWA C111.

10. Polyethylene Encasement:
    a. Conform with AWWA C105.
    b. Type: 1
    c. Class: "C" (black).
    d. Grade: "E 1"
    e. Thickness: 8 mils.

Tracer Wire:

1. Provide the following:
    a. Tracer wire shall be No. 12 AWG, stainless steel, single conductor with Type UF insulation rated for direct burial service for all borings.
    b. Tracer wire shall be No. 10 AWG, copper, or No. 12 AWG stainless steel, single conductor, with Type UF insulation rated for direct burial service for open cut.
2. Tracer wire splices shall be made soldered. The soldered connection shall be coated with 3M Scotchkote electricians coating and then securely taped in a tee configuration.
3. Tracer wire signal connection box shall be three-piece, 5 ¼-inch cast iron valve box with top marked, "Water" as manufactured by Clow, Tyler, or equal.

C Construction

1. Install piping in accordance to the plans and appropriate specification sections for the type of work being performed.
2. The interior and exterior of all pipe shall be clean and free from all foreign material before being installed. The contractor shall provide the necessary means to wipe, brush, swab, or air blast to remove any foreign material from the interior of the pipe as required by the engineer.
3. Every precaution shall be taken to prevent foreign materials from entering the pipe while it is being placed in the line. If the pipe-laying crew cannot put the pipe into the trench and in place without getting earth into it, the engineer may require that before lowering the pipe into the trench, a heavy, tightly woven canvas bag of suitable size shall be placed over each end and left there until the connection is to be made to the adjacent pipe. During the laying operations, no debris, tools, clothing, or other materials shall be placed in the pipe.
4. At all times when pipe laying is not in progress, the open ends of pipe shall be closed by a watertight plug or other means accepted by the engineer. This provision shall apply during the noon hour as well as overnight. If water is in the trench, the seal shall remain in place until the trench is pumped completely dry. No pipe shall be laid in water or when trench conditions are unsuitable.
5. Before excavation of trenches begins, the contactor shall uncover the end of the existing water main to which the new main is to be connected. This will permit adjustments in line and grade to avoid using extra fittings. The exposed end of an existing main must be protected and blocked by the contractor to prevent the blowing out of the plug or cap at the end of the main.

6. The contractor shall have sufficient and adequate equipment on the site of the work for unloading and lowering pipe and fittings into the trench. Extreme care shall be exercised by the contractor in handling all pipe, fittings, and special castings to prevent breakage and coating damage. Any significant damage to coating shall be repaired before installation. Under no circumstances shall pipe or fittings be dropped into the trench or so handled as to receive hard blows or jolts. All mud or concentration of dirt shall be removed prior to installation.
7. Every precaution shall be taken to prevent foreign materials from entering the pipe while it is being placed in the line. If the pipe-laying crew cannot put the pipe into the trench and in place without getting earth into it, the engineer may require that before lowering the pipe into the trench, a heavy, tightly woven canvas bag of suitable size shall be placed over each end and left there until the connection is to be made to the adjacent pipe. During the laying operations, no debris, tools, clothing, or other material shall be placed in the pipe.
8. At all times when pipe laying is not in progress, the open ends of pipe shall be closed by a watertight plug or other means accepted by the engineer. This provision shall apply during the noon hour as well as overnight. If water is in the trench, the seal shall remain in place until the trench is pumped completely dry. No pipe shall be laid in water or when trench conditions are unsuitable.
9. Pipe installation shall conform with WisDOT, Trenching, Backfilling and Compaction and bedding details shown on the drawings and in the specifications.
10. Lay pipe to line and depth shown on plans. Unless otherwise stated, pipe shall be laid with the bell ends facing the direction of laying. When grade exceeds two feet per hundred feet, the bells shall face upgrade.
11. When the depth is not shown on the plans, bury the pipe with 6.5 feet of cover as determined from the top of pipe to the finished ground elevation.
12. Keep pipe, fittings, and hydrants free of debris and foreign matter. The interior of all pipes shall be clean before being installed. The contractor shall provide the necessary means to wipe, brush, swab, or air blast to remove foreign matter.
13. Assemble all joints in accordance to manufacturer's recommendations.
14. Utilize full lengths of pipe, except at fittings.
15. Provide thrust blocking or restraints at the following locations:
    a. Bend deflecting 11½ degrees or more.
    b. Hydrants.
    c. Valves and tees.
    d. Plugs and caps.
16. When it is necessary to interrupt an existing system to complete construction, adhere to the following:
    a. No valves, controls, or appurtenances shall be operated by the contractor.
    b. Operation of existing valves, controls, and appurtenances for interruption of existing service shall be done by owner personnel at the owner's convenience and normal working schedule.
    c. Contact owner a minimum 24 hours prior to an anticipated interruption.

17. Hydrants shall be set on hardwood blocking and in concrete thrust blocks as shown in the detail. Immediately before installation of hydrants, the following operation shall be performed:
    a. The hydrant shall be thoroughly inspected and cleaned on the interior.
    b. The hydrant shall be opened and closed as many times as necessary to determine if all parts are in proper working order.
    c. Hydrants shall be located as shown or as required to provide complete accessibility and minimize the possibility of damage from vehicles or injury to pedestrians.
    d. When placed behind the curb, the hydrant barrel shall be set so that no portion of the pumper or hose nozzle cap will be less than 18 inches nor more than 24 inches from the gutter face of the curb, unless otherwise shown on drawing details.
    e. When set in the lawn space between the sidewalk and the property line, no portion of the hydrant or nozzle cap shall be within 6 inches of the sidewalk.
    f. All hydrants shall stand plumb within ¼-inch, 3 feet in all directions, and shall have their nozzles parallel with, or at right angles to the curb, with the pumper nozzle facing the curb, except that hydrants having two hose nozzles 90 degrees apart shall be set with each nozzle facing the curb at an angle of 45 degrees. Hydrants shall be set to the established grade, with nozzles at least 18 inches above the ground as shown or as required by the engineer.
    g. Drainage shall be provided by placing crushed stone around the hydrant as shown on the detail. The minimum amount of crushed stone shall be 6 inches above the waste opening in the hydrant, and 1 foot around the hydrant.
18. Install valves as shown on the drawings.
    a. Install valve boxes plumb, and centered over valve operating nut:
    b. Install in a manner that will prevent shock loads and stress being transmitted to the valve and water main.
    c. After backfill has been placed and compacted, demonstrate to the engineer that all valves are operable.
19. All below ground metal shall be wrapped in a polyethylene encasement in accordance to AWWA C105, including:
    a. Ductile iron pipe.
    b. Fittings, valves, and valve boxes.
    c. Corporations, curb stops, and curb boxes their entire length.
    d. All portions of hydrants below grade.
    e. Copper water services.
    f. All metal restraining devices.
20. Water services shall conform with all plumbing codes.
21. Terminate services at the property line or easement line as shown on the plans.
22. Unions may not be used unless approved by owner's representative.

23. Water service connections shall be made by tapping the water main for the corporation stop unless use of a service saddle is required. The corporation stop connection shall be a minimum of 1 foot from any pipe or fitting joint and must have a minimum of 1 foot between connections and stagger 30° around the circumference of the water main.
24. All polyethylene water services shall have tracer wire brought up and cable wrapped with zip ties to the outside of the curb box. Tracer wire shall be extended to the termination point of the service.
25. In common trench construction, the water service shall be run parallel and a minimum of 12 inches above the sanitary sewer lateral. The water service shall be laid with a minimum cover of 6 feet or shall be insulated with acceptable material. The curb stop shall be placed between 6 and 7 feet below established or proposed grade.
26. The curb box shall be centered over the curb stop and shall be brought to proper grade. The legs of the service box shall rest firmly upon a 2 inch x 5 inch x 8 inch hardwood board or 4-inch x 8-inch x 16-inch solid concrete block. Clearance shall be provided so that the service box does not rest upon the water service pipe. Where the bench does not afford a firm support for the service box blocking, such support shall be finished by the use of a 2 inch by 6 inch plank placed across the building sanitary sewer trench and firmly supported in each bank.
    a. The curb box shall be plumbed and braced so it will remain vertical throughout the backfilling. Sufficient excavation shall be made for the curb box installation to ensure proper setting and backfilling around the curb box.
    b. Before placing backfilling around the curb service box, the contractor shall wrap polyethylene around the base, and bedding material shall be tamped in place from a point above the main to a point 6 inches above the blocking to prevent entrance of backfill materials into the openings at the base.
    c. After backfill has been placed and compacted, demonstrate to the engineer that all curb stops are operable.
    d. A copper disc shall be inserted in the curb stop coupling on the building side. The open end of copper water services shall be closed by peening the end.
27. Tapping sleeves shall be of the flanged outlet type designed for attachment to the flanged inlet end of the tapping valve. Sleeve shall be rated for 150-psi working pressure.
    a. Tapping sleeves shall be of cast iron or of Type 304 stainless steel construction.
    b. With the exception of valve ends and oversize seat rings to permit entry of the drilling machine cutters, tapping valves shall conform to the requirements of AWWA C509.

c. Each tapping valve shall be provided with a flanged inlet end for attachment to the outlet flange of the tapping sleeve, and with an outlet end suitable for attachment of a drilling machine and the type of pipe used. Unless otherwise specified, each tapping valve shall be arranged to turn left (counterclockwise) to open and shall be provided with a 2 inch operating nut and valve box.
d. Each tapping sleeve and valve assembly shall be furnished and installed complete with gaskets as required and with all bolts for the sleeve and for the flanged connection between the sleeve and valve, in strict conformity with the directions and instructions of the manufacturer of the tapping sleeves and valves furnished.
e. Contractor shall submit details of proposed sleeve and valve for the engineer's review. Sleeve and valve shall be as manufactured by Kennedy Valve Mfg. Co., Clow Corporation, Dresser Industries, Romac Industries, or equal.

28. Where specified or required, pipes of different material or outside diameter shall be joined with mechanical pipe couplings.
    a. Couplings shall be suitable for the intended service and shall be installed in accordance to the manufacturer's instructions.
    b. The contractor shall submit details of proposed coupling for engineer's review.
    c. Mechanical pipe couplings shall be Dresser Style 162 or equal.
29. Measure and record the following:
    a. Service locations: Point of origin and terminus.
    b. Valve and fitting locations.
    c. Water main locations.
30. The following water main shall be disinfected:
    a. New water main.
    b. Existing water main when cut into or repaired.
    c. Disinfect and flush system until samples test safe.
    d. Contractor will perform sampling and have an independent laboratory (certified by the Department of Natural Resources and Environment) perform bacteriological testing to certify that water is free of coliform bacteria. Supply engineer with copy of test results.

e. Tablet Method: AWWA C651
    i. Place 5-gram calcium hypochlorite tablets each section of pipe as determined by the following table:

Number of Tablets Per Section of Pipe

Pipe Diameter (inches)	Length of Pipe section (feet)		
	13 or less	18	20
4	1	1	1
6	1	1	1
8	1	2	2
10	2	3	3
12	3	4	4
16	4	6	7

    ii. Place one tablet in each hydrant, hydrant lead, and other appurtenance.
    iii. Attach tablets with a food grade adhesive to the top inside surface of the pipe:
        a) Adhesive shall be USDA for contact with edible products.
        b) Adhesive shall be Permatex Form A Gasket No. 2, Permatex Clear RTV Silicone, or equal.
        c) Permatex Form A Gasket No. 1 is not acceptable.
f. Fill main in a manner such that the water velocity within the main will not exceed 1 fps.
g. Water shall remain in pipe for a minimum of 24 hours, if water temperature is less than 40o F, it shall remain in pipe a minimum of 48 hours.

31. Perform pipe disinfection testing in conformance with AWWA C651.
    a. After disinfection testing has been completed.
    b. Disinfect all testing equipment and fittings.
32. Perform Standard Pressure and Leakage Test for Pressurized Pipelines in conformance with AWWA C600:
    a. Measure drop in pressure and leakage from liquid filled and pressurized pipelines.
    b. Conditions to prevail before commencement of test.
        i. Disinfect all testing equipment and fittings.
        ii. Backfill to at least minimum 4 feet compacted backfill material.
        iii. Length of pipeline tested shall not exceed 2,000 feet.
        iv. Reaction backing to be in place a minimum of;
        v. Thirty six hours if concrete thrust backing has been cast with high early cement.
        vi. Seven days if concrete thrust blocking has been cast with standard cement.
    c. Fill each valved section with water slowly, expelling air completely from the pipeline, valves, and hydrants.

d. Where permanent air vents are not located at all high points or dead ends, contractor shall install corporation cocks at such points so that air can be expelled as the line is filled with water.
    i. Close all these corporation cocks before applying pressure or leakage tests.
    ii. At the conclusion of the leakage and pressure test, the corporation cocks shall be removed and plugged, or left in at the discretion of the owner.
e. Pressurize to normal working pressure.
    i. After test connections are made and pipeline is filled with water, the pipeline shall be subjected to water pressure normal for that segment of the system being tested.
    ii. Examine system for any visible leakage at this stage.
        a) Repair any visible leaks.
        b) Re pressurize to normal working pressure and continue to repair and re-pressurize until all visible leaks have been stopped.

33. Pressure Test:
    a. Test pressure shall be not less than 150 lbs. per sq. inch at the lowest point of elevation of the segment being tested.
        i. The minimum test pressures specified above may require that the installed system be tested in several segments in order to attain the proper pressure.
        ii. If test pressures other than indicated above are called for in the sections for Materials and Methods of Construction, those pressures shall be used.
    b. Pressurize the system being tested to pressure required above by adding water with high-pressure test pump.
    c. Repair any visible leaks occurring due to test pressure application.
    d. Repeat pressurizing of system to test pressure until no visible leaks can be found.
    e. Duration of pressure test.
        i. Test period shall be two continuous hours with no visible leaks occurring.
        ii. Pressure during test period shall be sustained.
    f. Contractor shall provide pressure gauge with 4-inch face and snubber. Pressure shall read in one-pound increments.
    g. If it is found unnecessary to add water during the duration of the pressure test, the leakage test may be waived with the approval of the engineer.
34. Leakage Test:
    a. Leakage test shall be conducted after completion of the pressure test.
    b. At the option of the contractor, pressure and leakage tests may be run concurrently.
        i. This option must have the approval of the engineer.
        ii. If this option is agreed upon, then the test procedures required for pressure tests shall prevail for both pressure and leakage tests.

c. When leakage test is conducted after satisfactory completion of the pressure test, the test section shall be subjected to 100 pounds per square inch gauge pressure at the lowest elevation of the section of the main being tested.

If leakage test pressures other than indicated above are called for in the sections for Materials and Methods of Construction, those pressures shall be used.

d. Leakage is defined as the quantity of water to be supplied into the newly laid pipe, or any valved section of it, necessary to maintain the specified leakage test pressure after the main has been filled with water and the air expelled.
   i. Pressure during test period shall be sustained within plus or minus 5 lbs. of the required test pressure by adding water with test pump.
   ii. Meter the amount of water added.
e. Leakage shall not exceed the number of gallons per hour as determined by the following formula:

$$GPH = ND \quad P/7400$$

When:
GPH = Gallons Per Hour
N = Number of Joints Under Test
D = Nominal Pipe Dia. in Inches
P = Average Test Pressure in lbs/sq. in.

f. When the section under test contains various diameters of pipe, the available leakage will be the sum of the computed leakage for each size of pipe.
g. Should any test section fail to meet the leakage test, the contractor shall immediately make the necessary repairs at his own expense.
h. Duration of final leakage test shall be one continuous hour with leakage within the allowable limits during the test hour.
i. Contractor shall provide all equipment required to perform the test.

D Measurement

The department will measure 8" Watermain by the linear feet, 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.0090.06	8" Watermain	LF

Payment is full compensation for furnishing all labor, material, equipment, and permits necessary to accomplish this work as specified herein.

39. Removing Water Lateral, Item SPV.0090.07.

A Description

This special provision describes Removing 8" Watermain and water laterals as shown on the plans and as hereinafter provided.

B (Vacant)

C Construction

The removal of water main shall conform with all plumbing and municipal codes.

When it is necessary to interrupt an existing system to complete construction, adhere to the following:

a. No valves, controls, or appurtenances shall be operated by the contractor.
b. Operation of existing valves, controls, and appurtenances for interruption of existing service shall be done by owner personnel at the owner's convenience and normal working schedule.
c. Contact owner a minimum 24 hours prior to an anticipated interruption. The effected owners and their contact info are listed below:

Lori Dugan
W2313 US HWY 10
(920) 286-2147

Railway Junction Fast Stop
N8914 ST HWY 57
(920) 989-3250

United Painting
W2322 US HWY 10
(920) 989-2730

Prestige Auto
N8890 ST HWY 57
(920) 378-1878

Forest Junction Mobile Home Park
W2377 US HWY 10
(920) 989-2010

Tesch Equipment
W2374 US HWY 10
(920) 989-4000

D Measurement
The department will measure Removing Water Lateral by the linear feet, 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.0090.07	Removing Water Lateral	LF

Payment is full compensation for removing, closing, plugging, or sealing, materials, labor, for hauling and disposing of materials; for providing any required bentonite, soil, brick concrete block, or concrete; for restoring the roadway cross-section; and, unless the contract specifies backfill.

40. Remove Traffic Signal, Item SPV.0105.01.

A Description
This work consists of removing the existing traffic signals at USH 10 and STH 32/57, as shown on the plans and delivering them to the Department of Transportation Northeast Region Office in Green Bay, Wisconsin.

B (Vacant)

C Construction
The existing 13-foot standards with pedestal bases and Type 3 Poles with transformer bases shall be removed, at the direction of Northeast Region Electrical Personnel, who can be reached at (920) 492-5654 or (920) 492-5710. The 13-foot standards with pedestal bases shall be removed from the concrete bases and remain intact as a unit. The Type 3 Poles with transformer bases shall be removed from the concrete bases and then the trombone arms shall be detached. Each signal face shall remain attached to its respective standard or trombone arm. After the traffic signals have been removed from their concrete bases, the equipment shall be transported to the Department of Transportation Office at 944 Vanderperren Way, Green Bay, Wisconsin. The salvaged traffic signals shall be delivered in the same condition as they were prior to removing them from their concrete bases. The contractor shall replace or repair any equipment that is damaged during the salvage operation. Prior to delivering the salvaged equipment, the contractor shall make arrangements with the Wisconsin DOT Northeast Region Electrical Personnel to determine the specific location to stockpile these items.

D Measurement
The department will measure Remove Traffic Signal as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Remove Traffic Signal	LS

Payment for Remove Traffic Signal is full compensation for removal, disassembly, transporting, and stockpiling at the DOT yard.

41. Management of Contaminated Soil, Item SPV.0195.01.

A Description

This work shall conform with the requirements of standard spec 205; to pertinent parts of the Wisconsin Administrative Code, Chapters NR 700-754, Environmental Investigation and Remediation of Environmental Contamination; Wisconsin Administration Code, Chapters NR 500-555, Solid Waste ; and as shown on the plans and as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

This work consists of excavating, segregating, temporarily stockpiling, loading, hauling, and treating and disposing petroleum- or solvent-contaminated soil at a WDNR-licensed treatment and disposal facility. The nearest WDNR-licensed treatment and disposal facilities are:

Veolia ES Hickory Meadows Landfill, L.L.C.
W3105 Schneider Rd.
Hilbert, WI 54129
(920) 853-8553

Waste Management of Wisconsin Ridgeview Recycling and Disposal
6207 Hempton Lake Rd.
Whitelaw, WI 53427
(920) 732-4473

B (Vacant)

C Construction

Supplement standard spec 205.3 with the following:

The Environmental Consultant will periodically examine excavated soil during excavations in the areas of known petroleum contamination in the existing soil within the construction limits at the following location:

Southwest quadrant of the intersection of STH 32/57 and USH 10, described as the area bounded by reference line ‘EB’ on the north, reference line ‘NB’ on the east, Station 118+15 ‘EB’ on the west, and Station 157+00 ‘SB’ on the south

Additionally, the Environmental Consultant will periodically examine excavated soil during excavations in the areas of known low-level petroleum contamination in the existing soil within the construction limits at the following locations:

Station 161+00 'SB' to 161+50 'SB' from the reference line to the construction limits on the left

Station 159+50 'NB' to 160+00 'NB' from the reference line to the construction limits on the right

Control construction operations at these locations to ensure that excavations do not extend beyond the minimum required to construct utilities and highway improvement unless expressly directed to do so by the engineer.

When material is encountered outside the above-identified limits of known contamination that appears to have been contaminated with petroleum products; or other obvious potentially contaminated materials are encountered; or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders; or if underground storage tanks are encountered, suspend excavation in that area and notify the engineer.

Assist the Environmental Consultant in collecting soil samples using excavation equipment. The Environmental Consultant will collect soil samples from the excavations. The sampling frequency will be a maximum of one sample for every 20 cubic yards excavated.

It is anticipated that some of the contaminated soil excavated from the areas of known contamination will be designated for reuse as backfill. The Environmental Consultant will field-screen material during excavations in the areas of known contamination and in other potentially contaminated areas encountered during excavations. All soil with significant staining or PID readings greater than 10 ppm will be considered significantly contaminated and managed as contaminated soil for off-site treatment and disposal. On the basis of the results of such field-screening, the material will be designated for disposal as:

- Low-level contaminated soil for reuse as backfill in the excavation from which it came
- Contaminated material for disposal at the WDNR-licensed treatment and disposal facility
- Potentially contaminated material for temporary stockpiling and additional characterization prior to disposal

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 200 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material in accordance to NR 718.05(3), including, but not limited to, placing the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious

material to prevent infiltration of precipitation. The department's Environmental Consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 10 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at a WDNR-licensed treatment and disposal facility or by the department. As an alternative to temporarily stockpiling contaminated soil/fill material that is encountered in areas that require additional characterization, the contractor has the option of suspending excavation in those areas until such time as characterization is completed.

Verify that the vehicles used to transport contaminated material are licensed for such activity in accordance to applicable state and federal regulations.

The Environmental Consultant will be responsible for obtaining the necessary disposal facility approvals and WDNR approvals for treatment and disposal. Do not transport contaminated soil or regulated solid waste off-site without obtaining the approval of the engineer and notifying the disposal facility.

The department will be the generator of all contaminated soil and regulated solid waste from this construction project. The department or assigned designee will execute all manifests required for the transportation and disposal of such material from this project.

D Measurement

The department will measure Management of Contaminated Soil by the ton of soil accepted by the WDNR-licensed treatment and disposal facility and as documented by load tickets, acceptably completed. Load tickets must be delivered to the engineer within 10 business days of the date on which the soil was accepted by the WDNR-licensed treatment and disposal facility.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Management of Contaminated Soil	Ton

Payment for the Management of Contaminated Soil is full compensation for excavating, segregating, loading, transporting, temporarily stockpiling, and treating/disposing contaminated material.

42. Reconstructing Sanitary Manholes, Item SPV.0200.01; 48” Precast Sanitary Sewer Manhole, Item SPV.0200.02.

A Description

This special provision describes Reconstructing Sanitary Manhole as shown on the plans and as hereinafter provided.

B Materials

Precast Manholes

1. Manholes and drop manholes shall conform with ASTM C478 for precast components.
2. Base section shall have a 6-inch minimum thick integral floor slab with 4-inch thickness for walls and riser sections. Base section shall be cast monolithically.
3. Joints shall conform with ASTM C443.
4. Gasket shall be 1¼ -inch thick butyl conforming with AASHTO M198.
5. Manhole top shall be pre-cast eccentric cone.

Cast In Place Manholes

1. Conform with drawing details.
2. Use only where called for on drawings.

Pipe Seals

1. Seals shall be flexible, watertight gasketed for pipe entrance holes.
2. Acceptable manufacturers shall be A-Lok Products or equal.

Manhole Steps

1. Manhole shall be a ½-inch diameter grade 60 steel reinforcement rod encapsulated in copolymer polypropylene.
2. Steps shall be as manufactured by M.A. Industries, Inc., or equal.

Castings

1. Castings shall conform to ASTM A48, Class 35.
2. Shall be AASHTO H 20 rated.
3. Lid shall be a non rocking with concealed pick holes and self seal neoprene "T" gasket.
4. Use Neenah R 1500 or equal.
5. Use Neenah R-1916C or equal when watertight castings where shown on the plans.

Sewer Joint Compound

1. Sewer joint compound shall be as manufactured by Pure Asphalt Company or equal.

Adjusting Ring and Casting Sealant

Multi-purpose manhole and septic joint seal as manufactured by American Infrastructure Technologies, Inc.

C Construction

1. Place manholes on a minimum of 6 inches of Soil Class A-7 compacted to 95% Modified Proctor Density.
2. Establish flow line and rim elevations from grade stake provided.
3. Furnish 4-foot diameter manholes (standard diameter) when dimensions are not shown on the plans.

4. Manholes shall be precast construction, unless shown otherwise.
5. Provide manhole riser sections in a combination of lengths, which will minimize the number of joints.
6. Seal manhole joints with 1¼-inch Butyl Lok preformed tape or equal, conforming the AASHTO M 198.
7. Adjusting rings:
    a. Manhole casting shall be centered, brought to grade and embedded in a 3/4-inch to 1-inch bead of adjusting ring and casting sealant.
    b. A minimum of 4 inches of adjusting rings shall be used between the manhole core and casting, and set in a 3/4-inch to 1-inch bead of adjusting ring and casting sealant.
    c. All adjusting rings less than four inches shall be rubber. Two-inch concrete adjusting rings are not allowed.
    d. For manholes located in roadways, the upper two inches shall be rubber adjusting rings.
    e. For manholes located in traffic lanes, use tapered rubber adjusting rings.
    f. Maximum height of adjusting rings shall be 12 inches.
    g. Coat outside of adjusting rings only with sewer joint compound per manufacturer's instructions.
    h. When watertight castings are shown on the plans, casting shall be anchored to the manhole structure.
8. Pipe shall enter manholes through a flexible, watertight gasket or connector manufactured in accordance to ASTM C443 or C923.
    a. Whenever practical, pipe opening shall be factory made using A Lok or equal.
9. The following shall be filled with mortar and finished smooth:
    a. Lift holes.
    b. Annular space around pipes: Interior bottom half only.
10. Install chimney seals on all sanitary manholes in accordance to manufacturer's instructions.

Inverts

1. Furnish precast manholes with shop manufactured inverts.
2. Shape and slope flow line of invert to match largest connecting pipe.
3. Slope invert bench upward to manhole wall.

Precast Drop Manholes

1. Coat outside of adjusting rings only with sewer joint compound per manufacturer's instructions.
2. Furnish where shown on plans and conform with plan details.

D Measurement

The department will measure Reconstructing Sanitary Manhole and 48" Precast Sanitary Sewer Manhole by the vertical feet, 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.0200.01	Reconstructing Sanitary Manhole	VF
SPV.0200.02	48" Precast Sanitary Sewer Manhole	VF

Payment is full compensation for dewatering and excavation, all pre-cast components, steps and frame and cover, gasketed pipe openings and joint seals, adjusting rings and sewer joint compound, drop manholes shall include the pre-cast drop, chimney seals, when specified, labor, material, equipment, and permits necessary to accomplish this work as specified herein.

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting the reasons for withholding payment.

The prime contractor may also withhold retainage from payments due subcontractors. Reduce the total amount retained from all first-tier subcontractors to no more than the department retains within 10 calendar days of the department releasing retainage.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment and release of retainage rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

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

Make the following revisions to the 2013 edition of the standard specifications:

104.4 Requests for Information

Replace paragraph one with the following effective with the July 2013 letting:

(1) Either the department or the contractor may request information that the other party must provide in order for the requesting party to fulfill its contract obligations. The requesting party shall submit requests for information (RFI) on department form DT2502 either in hard copy or via email. RFI must conform to the following:

- Be of reasonable scope.
- Explain why a response is necessary to fulfill contract obligations.
- Provide a requested response time, which must be reasonable in relation to its scope.

106.1 General

Replace the entire text with the following effective with the July 2013 letting:

106.1.1 Materials

(1) Provide materials conforming to the contract. Use new products and materials for items permanently incorporated into the work unless the contract specifies or allows otherwise. Use materials the contract specifies unless the engineer authorizes substitutes under 108.8. Monitor construction operations to identify potential nonconforming materials and prevent their incorporation into the work.

(2) All materials are subject to the engineer's approval before incorporation into the work. The engineer may inspect or test all materials at any time during their preparation, storage, and use. Notify the engineer of the proposed source of materials before delivering those materials to the project site. If the engineer requests, provide samples of material and access to facilities that the engineer needs to assess the acceptability of all materials. The department will, on request, share with the contractor available information on a source or material. The department will maintain a web-based list of approved aggregate sources. Aggregate producers must provide test results as required in the department policy for aggregate source approval to have their source approved and to keep that approval over time.

(3) For fabricated components, the materials and the fabricator are subject to the department's approval before delivery of those components to the project site. The engineer may require the contractor to obtain components from another department-approved source if the department determines a fabricator's product does not conform to the contract.

(4) Do not incorporate materials into the work until the engineer approves those materials. However, the contractor may request permission to incorporate materials not already approved. The engineer will grant this permission only if the contractor can provide convincing evidence that the engineer will subsequently find those materials conforming. Incorporation of materials before approval is at the contractor's risk and permission to do so does not imply that the department will subsequently approve those materials.

(5) Except as required under the contract, ensure that products incorporated into the work, either temporarily or permanently, do not display advertising or messages not directly related to the manufacturer, properties, or function of those products; or advertising or messages in violation of state statutes

106.1.2 Designated Materials Person

(1) Designate one person, either a member of the contractor's own organization or acting as an agent for the contractor responsible for the following:

- Communicating contract sampling and testing requirements to subcontractors at all tiers.
- Reporting out-of-specification test results to the department as soon as the information is available.

- Providing certified reports of test or analysis and manufacturers' certificates of compliance from subcontractors at all tiers and maintaining certification records as specified in 106.3.3.2.

(2) Ensure that the contractor-designated materials person submits materials information required under the contract to a person the engineer designates. Ensure that the contractor-designated materials person communicates with their department counterpart weekly.

106.3.4.3.1 General

Replace paragraph two with the following effective with the November 2012 letting:

(2) Required sampling and testing methodologies and documentation are specified in CMM chapter 8.

(3) If disputed, approval of materials and components, as well as acceptance of the work incorporating those materials or components, is subject to review under the QMP dispute resolution process.

107.17.3 Railroad Insurance Requirements

Replace the entire text with the following effective with the August 2012 letting:

(1) If required by the special provisions, provide or arrange for a subcontractor to provide railroad protective liability insurance in addition to the types and limits of insurance required in 107.26. Keep railroad protective liability insurance coverage in force until completing all work, under or incidental to the contract, on the railroad right of way or premises of the railroad and until the department has accepted the work as specified in 105.11.2.4.

(2) Provide railroad protective liability insurance coverage written as specified in 23 CFR part 646 subpart A. Provide a separate policy for each railroad owning tracks on the project. Ensure that the railroad protective liability insurance policies provide the following minimum limits of coverage:

1. Coverage A, bodily injury liability and property damage liability; $2 million per occurrence.
2. Coverage B, physical damage to property liability; $2 million per occurrence.
3. An annual aggregate amount of $6 million that shall apply separately to each policy renewal or extension.

(3) Obtain coverage from insurance companies licensed to do business in Wisconsin that have an A.M. Best rating of A- or better. The cost of providing the required insurance coverage and limits is incidental to the contract. The department will make no additional or special payment for providing insurance.

(4) Submit the following to each railroad owning tracks on the project as evidence of that railroad's respective coverage:

1. A certificate of insurance for the types and limits of insurance specified in 107.26.
2. The railroad protective liability insurance policy or other acceptable documentation to the railroad company.

(5) Submit the following to the region as evidence of the required coverage:

1. A copy of the letter to the railroad company transmitting the submittal documents specified in 107.17.3(4).
2. A certificate of insurance for the required railroad protective liability coverages.

(6) Do not begin work on the right of way or premises of the railroad company until the region receives the submittals specified in 107.17.3(5) and notification from the railroad company that the contractor has provided sufficient insurance information to begin work.

(7) Notify the railroad and the region immediately upon cancellation or initiating cancellation, whichever is earlier, or any material change in coverage. Cease operations within 50 feet of the railroad right of way immediately if insurance is cancelled or reduced. Do not resume operations until the required coverage is in force.

460.2.8.3.1.4 Department Verification Testing Requirements

Replace paragraph four with the following effective with the December 2012 letting:

(4) The department will randomly test each design mixture at the following minimum frequency:

FOR TONNAGES TOTALING:	
Less than 501 tons	no tests required
From 501 to 5,000 tons	one test
More than 5,000 tons	add one test for each additional 5,000-ton increment

501.2.1 Portland Cement

Replace paragraph one with the following effective with the March 2013 letting:

(1) Use cement conforming to ASTM specifications as follows:

- Type I portland cement; ASTM C150.
- Type II portland cement; ASTM C150.
- Type III portland cement; ASTM C150, for high early strength.
- Type IP portland-pozzolan cement; ASTM C595, except maximum loss on ignition is 2.0 percent.
- Type IS portland blast-furnace slag cement; ASTM C595.
- Type IL portland-limestone cement; ASTM C595, except maximum nominal limestone content is 10 percent with no individual test result exceeding 12.0 percent.

501.2.5.5 Sampling and Testing

Replace the entire text with the following effective with the January 2013 letting:

(1) Sample and test aggregates for concrete according to the following:

Sampling aggregates	AASHTO T2
Lightweight pieces in aggregate	AASHTO T113
Material finer than No. 200 sieve	AASHTO T11
Unit weight of aggregate	AASHTO T19
Organic impurities in sands	AASHTO T21
Sieve analysis of aggregates	AASHTO T27
Effect of organic impurities in fine aggregate	AASHTO T71
Los Angeles abrasion of coarse aggregate	AASHTO T96
Freeze-thaw soundness of coarse aggregate	AASHTO T103
Sodium sulfate soundness of aggregates	AASHTO T104
Specific gravity and absorption of fine aggregate	AASHTO T84
Specific gravity and absorption of coarse aggregate	AASHTO T85
Flat & elongated pieces based on a 3:1 ratio	ASTM D4791[1]
Sampling fresh concrete	AASHTO R60
Making and curing concrete compressive strength test specimens	AASHTO T23
Compressive strength of molded concrete cylinders	AASHTO T22

[1] As modified in CMM 8-60.

501.2.6 Fly Ash

Replace paragraph three with the following effective with the March 2013 letting:

(3) Test fly ash using a recognized laboratory, as defined in 501.2.2(1), starting at least 30 days before its proposed use, and continuing at ASTM-required frequencies as the work progresses. The manufacturer shall test the chemical and physical properties listed in tables 1 and 2 of ASTM C618 at the frequencies and by the test methods prescribed in ASTM C311.

501.3.1.1.1 Air-Entrained Concrete

Replace paragraph one with the following effective with the March 2013 letting:

(1) Prepare air-entrained concrete with type I, IL, II, IS, or IP cement and sufficient air-entraining admixture to produce concrete with the air content specified in 501.3.2.4.

501.3.1.3.2 Special Restrictions

Replace paragraph one with the following effective with the July 2013 letting:

(1) If using coarse aggregate composed primarily of igneous or metamorphic materials, provide concrete for concrete pavement, approach slabs, barrier, surface drains, driveways, alleys, sidewalks, curb, gutter, and curb & gutter as follows:

Grade A, A-FA, A-S, and A-T :	If using type II portland cement, or if using Type IL blended cement where the base portland cement meets Type II chemical requirements.
Grade A-IS and A-IP :	If using type I/II blended portland cement.
Grade A-S2 :	If placing by a slip-formed process and using type II portland cement.
Grade C, C-FA, C-S, C-IS, and C-IP :	If using types I or III portland cement.

503.2.2 Concrete

Replace paragraph five with the following effective with the March 2013 letting:

(5) Furnish prestressed concrete members cast from air-entrained concrete, except I-type girders may use non-air-entrained concrete. Use type I, IL, IS, , IP, II, or III cement. The contractor may replace up to 30 percent of type I, IL, II, or III cement with an equal weight of fly ash, slag, or a combination of fly ash and slag, except for prestressed box girders and slabs, the contractor shall replace 20-30 percent of the cement with fly ash, slag, or a combination of fly ash and slag. Ensure that fly ash conforms to 501.2.6 and slag conforms to 501.2.7. Use only one source and replacement rate for work under a single bid item. Use a department-approved air-entraining admixture conforming to 501.2.2 for air-entrained concrete. Use only size No. 1 coarse aggregate conforming to 501.2.5.4.

506.3.22 Shop Inspection

Replace paragraph one with the following effective with the July 2010 letting:

(1) The engineer or an independent inspection agency under department contract may inspect all structural steel and miscellaneous metals furnished. The department will provide the contractor with monthly consultant inspection invoices and identify any quality deficiencies at the fabrication facility.

506.5 Payment

Add paragraph nine as follows effective with the June 2010 letting:

(9) The department will limit costs for inspections conducted under 506.3.2 to $0.05 per pound of material and deduct costs in excess of that amount from payment due the contractor. The department will determine costs for in-house inspections based on hourly rates for department staff plus overhead and use invoiced costs for contracted-out inspections. The department will administer deductions for the contractor's share of the total inspection cost under the Excess Costs For Fabrication Shop Inspection administrative item.

507.2.2.1 General

Replace paragraph four with the following effective with the December 2012 letting:

(4) Ensure that there are no unsound knots or knot holes. Also ensure that there are no tight knots of a diameter exceeding one-quarter of the greater dimension at the point where they occur. Measure a knot by taking its diameter at right angles to the length of the timber. Ensure that the sum of sizes of all

knots in any one-foot length does not exceed 2 times the size of the largest allowed single knot. The engineer will treat cluster knots as if they were a single knot. A cluster knot is 2 or more knots grouped together, with the fibers of the wood deflected around the entire unit.

512.3.1 Driving and Cutting Off

Replace the entire text with the following effective with the December 2012 letting:

512.3.1.1 General

(1) Coordinate driving operations to prevent damage or displacement of concrete in substructure units or damage to adjacent facilities due to vibrations.

(2) Drive sheeting with a variation of 1/4 inch or less per foot from the vertical or from the batter the plans show. Ensure that the sheetpiles are within 6 inches of the plan position after driving. Do not damage sheetpiles attempting to correct for misalignment.

(3) Remove and replace, or otherwise correct, sheetpiles the engineer deems unacceptable under 105.3. Submit details of planned corrections to the engineer for review and approval before initiating any corrective actions.

(4) Drive sheetpiles to or beyond the required tip elevation the plans show.

512.3.1.2 Driving System

(1) Furnish a sheetpile driving system capable of driving the sheetpiles to the required minimum tip elevation the plans show.

(2) The engineer may order the contractor to remove a pile driving system component from service if it causes insufficient energy transfer or damages the sheetpiles. Do not return a component to service until the engineer determines that it has been satisfactorily repaired or adjusted.

(3) Drive sheetpiles with diesel, air, steam, gravity, hydraulic, or vibratory hammers.

512.3.1.3 Cut-Offs

(1) Cut off sheetpiles at the elevations the plans show or as the engineer directs. Pile cut-offs become the property of the contractor. Dispose of cut-offs not incorporated into the work.

518.2.1 General

Replace paragraph one with the following effective with the March 2013 letting:

(1) Furnish portland cement and water as specified in 501.2. Unless the engineer allows an alternate, use either type I, IL, IS, or IP cement.

526.3.3 Temporary Structures

Replace paragraphs two through four with the following effective with the January 2013 letting:

(2) Inspect temporary structures conforming to the National Bridge Inspection Standards (NBIS) and the department's structure inspection manual before opening to traffic. Perform additional inspections, as the department's structure inspection manual requires, based on structure type and time in service. Submit inspection reports on department form DT2007 to the engineer and electronic copies to the department's bureau of structures maintenance section. Ensure that a department-certified active team leader, listed online in the department's highway structures information system (HSIS), performs the inspections.

(3) Maintain temporary structures and approaches in place until no longer needed. Unless the engineer directs otherwise, completely remove and dispose of as specified in 203.3.4. Contractor-furnished materials remain the contractor's property upon removal.

614.2.5 Wood Posts and Offset Blocks

Retitle and replace the entire text with the following effective with the July 2012 letting:

614.2.5 Posts and Offset Blocks

614.2.5.1 Wood Posts and Offset Blocks

(1) Furnish sawed posts and offset blocks of one of the following species:

Douglas fir	Southern pine	Ponderosa pine	Jack pine	White pine
Red pine	Western hemlock	Western larch	Hem-fir	Oak

(2) Ensure that posts are the size the plans show and conform to the nominal and minimum dimensions tabulated in 507.2.2.3. The contractor does not have to surface the posts. Provide posts of the net length the plans show after setting and cut off.

(3) Use stress graded posts rated at 1200 psi f_b or higher. Determine the stress grade rating for douglas fir, western larch, and southern pine as specified in 507.2.2.4.

(4) For hem-fir, hemlock, red pine, white pine, jack pine, ponderosa pine, and oak conform to the following:

TABLE 614-1 PROPERTIES FOR WOOD POSTS AND BLOCKS

SPECIES			WESTERN HEMLOCK, HEM-FIR, RED PINE, WHITE PINE, JACK PINE, PONDEROSA PINE		OAK	
MAXIMUM SLOPE OF GRAIN			1 in 15		1 in 12	
NOMINAL WIDTH OF FACE			6"	8"	6"	8"
SHAKES, CHECKS, AND SPLITS		GREEN	1"	1 3/8"	2 3/8"	3 1/8"
		SEASONED	1 1/2"	2"	2 5/8"	3 1/2"
MAXIMUM WANE			1"	1 3/8"	1 1/8"	1 5/8"
MAXIMUM ALLOWABLE KNOTS	NARROW FACE	MIDDLE 1/3 OF LENGTH	1 3/8"	1 5/8"	2 1/8"	2 3/8"
		END[1]	2 3/4"	3 1/4"	4 1/4"	4 3/4"
		SUM IN MIDDLE 1/2 OF LENGTH[2]	11"	13"	17"	19
	WIDE FACE	EDGE KNOT N MIDDLE 1/3 OF LENGTH	1 3/8"	1 5/8"		
		EDGE KNOT AT END[1]	2 3/4" 7	3 1/4"		
		CENTERLINE	1 3/8"	1 7/8"	2 1/4"	2 7/8"
		SUM IN MIDDLE 1/2 OF LENGTH	5 1/2"	7 1/2"	9"	11 1/2"

[1] But do not exceed the maximum allowable knot on the centerline of the wide face of the same piece.

[2] But do not exceed 4 times the maximum allowable knot on the centerline of the wide face of the same piece.

(5) Pressure treat posts and offset blocks as specified in 507.2.2.6. Use one of the oil-soluble preservatives or chromated copper arsenate conforming to 507.2.3. Use the same material for offset blocks and posts and treat material used in each continuous installation with the same type of preservative.

614.2.5.2 Steel Posts

(1) Furnish steel posts conforming to AASHTO M270 Grade 36 and galvanized according to AASTHO M111.

614.2.5.3 Plastic Offset Blocks

(1) Furnish plastic offset blocks from the department's approved products list.

614.3.1 General

Replace the entire text with the following effective with the July 2012 letting:

(1) Paint the ends of cut-off galvanized posts, rail, bolts, cut or drilled surfaces of galvanized components, and areas of damaged zinc coating with 2 coats of zinc dust/zinc oxide paint. Clean the damaged and adjacent areas thoroughly before applying paint.

(2) Apply 2 coats of wood preservative to cut surfaces of wood components. Use the same preservative originally used to treat that component or use a 2-percent solution of copper naphthenate conforming to AWPA Standard P8 or P36.

614.3.2.1 Installing Posts

Replace paragraph four with the following effective with the July 2012 letting:

(4) Cut post tops to the finished elevation the plans show.

628.2.13 Rock Bags

Replace paragraph one with the following effective with the November 2012 letting:

(1) Furnish rock bags made of a porous, ultraviolet resistant, high-density polyethylene or geotextile fabric that will retain 70% of its original strength after 500 hours of exposure according to ASTM D4355 and a minimum in-place filled size of 18-inches long by 12-inches wide by 6-inches high. Ensure that the fabric conforms to the following:

TEST REQUIREMENT	METHOD	VALUE
Minimum Tensile	ASTM D4632	
Machine direction		70 lb minimum
Cross direction		40 lb minimum
Elongation	ASTM D4632	
Machine direction		20% minimum
Cross direction		10 % min
Puncture	ASTM 4833	65 lbs minimum
Minimum Apparent Opening		0.0234 inches (No. 30 sieve)
Maximum Apparent Opening		0.0787 inches (No. 10 sieve)

639.2.1 General

Replace paragraph two with the following effective with the March 2013 letting:

(2) For grout use fine aggregate conforming to 501.2.5.3 and type I, IL, IS, or IP cement.

649.3.1 General

Replace paragraphs three and four with the following effective with the March 2013 letting:

(3) For pavements open to all traffic, apply centerline and no-passing barrier line markings as follows:

- On intermediate pavement layers, including milled surfaces, on the same day the pavement is placed or milled.
- On the upper layer of pavement, on the same day the pavement is placed unless the contractor applies permanent marking on the same day the pavement is placed.

If weather conditions preclude same-day application, apply as soon as weather allows. Do not resume next-day construction operations until these markings are completed unless the engineer allows otherwise.

(4) If required to apply no passing zone temporary pavement marking, reference the beginning and end of all existing no-passing barrier lines. Apply temporary no-passing barrier lines at those existing locations. If the contract contains the Locating No-Passing Zones bid item, relocate permanent no-passing zones as specified in section 648.

701.4.2 Verification Testing

Replace paragraph two with the following effective with the December 2012 letting:

(2) The department will sample randomly at locations independent of the contractor's QC tests and use separate equipment and laboratories. The department will conduct a minimum of one verification test for each 5 contractor QC tests unless specific QMP provisions specify otherwise.

715.2.3.1 Pavements

Replace paragraph two with the following effective with the March 2013 letting:

(2) Provide a minimum cement content of 565 pounds per cubic yard, except if using type I, IL, or III cement in a mix where the geologic composition of the coarse aggregate is primarily igneous or metamorphic materials, provide a minimum cement content of 660 pounds per cubic yard.

715.3.1.3 Department Verification Testing

Replace paragraph one with the following effective with the December 2012 letting:

(1) The department will perform verification testing as specified in 701.4.2 except as follows:

- Air content, slump, and temperature: a minimum of 1 verification test per lot.
- Compressive strength: a minimum of 1 verification test per lot.

Errata

Make the following corrections to the 2013 edition of the standard specifications:

102.12 Public Opening of Proposals

Correct 102.12(1) errata by changing htm to shtm in the web link.

(1) The department will publicly open proposals at the time and place indicated in the notice to contractors. The department will post the total bid for each proposal on the Bid Express web site beginning at 9:30 AM except as specified in 102.8. If a proposal has no total bid shown, the department will not post the bid. After verification for accuracy under 103.1, the department will post bid totals on the department's HCCI web site.

http://roadwaystandards.dot.wi.gov/hcci/bid-letting/index.shtm

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107.22 Contractor's Responsibility for Utility Facilities, Property, and Services

Correct errata by eliminating references to the department. Costs are determined by statute.

(3) If the contractor damages or interrupts service, the contractor shall notify the utility promptly. Coordinate and cooperate with the utility in the repair of the facility. Determine who is responsible for repair costs according to Wisconsin statutes 66.0831 and 182.0175(2).

204.3.2.2 Removing Items

Correct errata by changing the reference from 490.3.2 to 490.3.

(5) Under the Removing Asphaltic Surface Milling bid item, remove and dispose of existing asphaltic pavement or surfacing by milling at the location and to the depth the plans show. Mill the asphaltic pavement or surfacing as specified for milling salvaged asphaltic pavement in 490.3.

501.2.9 Concrete Curing Materials

Correct errata by changing AASHTO M171 to ASTM C171.

(4) Furnish polyethylene-coated burlap conforming to ASTM C171 for white burlap-polyethylene sheets.

506.2.6.5.2 Pad Construction

Correct errata by changing ASTM A570 to ASTM A1011.

(4) For the internal steel plates use rolled mild steel conforming to ASTM A36, or ASTM A1011 grade

512.3.3 Painting

Correct errata by changing 511.3.5 to 550.3.11.3.

(1) Paint permanent steel sheet piling as specified for painting steel piling in 550.3.11.3.

513.2.2.8 Toggle Bolts

Correct errata by changing ASTM A570 to ASTM A1011.

(1) Use toggle bolts made of steel, conforming to the plans. Make the assembly from the material specified below:

Toggle bolt and pin	Cold finished steel heat-treated Brinell 311-363 ASTM A354.
Toggle washer	Hot rolled steel ASTM A1011. Manufacturer's standard washer.
Spacer nut	Grade 1213, ASTM A108. Cold finished steel heat-treated ASTM A325.

614.2.1 General

Correct errata by changing the discontinued AASHTO M298 to ASTM B695.

(4) Furnish steel nuts conforming to ASTM A563, washers conforming to ASTM F436, grade 1, and bolts conforming to ASTM A307. Ensure that the nuts, washers, and bolts are either hot-dip coated according to AASHTO M232 class C or mechanically coated according to ASTM B695 class 50.

643.3.1 General

Correct errata by eliminating the word "continuously".

(6) Review all traffic signs and control devices furnished and erected for location, position, visibility, adequacy, and manner of use under specific job conditions immediately after each setup and at least once every 24 hours and more frequently as necessary, to ensure all the signs and control devices are in compliance with this section. Review the signs and devices from the same direction that approaching traffic views them.

660.2.1 General

Correct errata by changing section 511 to 550.

(1) Furnish materials conforming to the following:

Concrete	section 501
Concrete bridges	section 502
Luminaires	section 659

Steel piling ..... section 550
Steel reinforcement..... section 505

660.3.2.3 Pile Type Foundations

Correct errata by changing section 511 to 550.

(1) Drive piles as specified in for steel piling in section 550.

701.3 Contractor Testing

Correct errata by updating AASHTO T141 to AASHTO R60 and changing AASHTO T309 to ASTM C1064.

(1) Perform contract required QC tests for samples randomly located according to CMM 8-30. Also perform other tests as necessary to control production and construction processes, and additional testing enumerated in the contractor's quality control plan or that the engineer directs. Use test methods as follows:

TABLE 701-2 TESTING STANDARDS

TEST	TEST STANDARD
Washed P 200 analysis	AASHTO T11[1]
Sieve analysis of fine and coarse aggregate	AASHTO T27[1]
Aggregate moisture	AASHTO T255[1]
Sampling freshly mixed concrete	AASHTO R60
Air content of fresh concrete	AASHTO T152[2]
Concrete slump	AASHTO T119[2]
Concrete temperature	ASTM C1064
Concrete compressive strength	AASHTO T22
Making and curing concrete cylinders	AASHTO T23
Standard moist curing for concrete cylinders	AASHTO M201

[1] As modified in CMM 8-60.

[2] As modified in CMM 8-70.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.

B. Costs for conforming to this special provision are incidental to the contract.

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at: http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm

(2) Ensure that all tiers of subcontractors, as well as all trucking firms, submit their weekly certified payrolls electronically through CRCS. These payrolls are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.

(3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin payrolls. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Tess Mulrooney at 608-267-4489 to schedule the training.

(4) The department will reject all paper submittals of forms DT-1816 and DT-1929 for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see pages 17-22 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at: http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/crc-basic-info.pdf

APRIL 2013

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.4 to ensure compliance with this “Buy America” provision.

http://roadwaystandards.dot.wi.gov/standards/cmm/cm-02-28.pdf#cm2-28.4

Upon completion of the project certify to the engineer, in writing using department form WS4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form WS4567 is available at:

http://roadwaystandards.dot.wi.gov/standards/forms/hidden/ws4567.doc

Effective with September 2004 Letting

WISCONSIN DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS AND TRANSPORTATION FACILITIES

SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS

I. WAGE RATES, HOURS OF LABOR AND PAYMENT OF WAGES

The schedule of "Minimum Wage Rates" attached hereto and made a part hereof furnishes the prevailing wage rates that have been determined pursuant to Section 103.50 of the Wisconsin Statutes. These wage rates are the minimum required to be paid to the various laborers, workers, mechanics and truck drivers employed by contractors and subcontractors on the construction work embraced by the contract and subject to prevailing hours and wages under Section 103.50, Stats. If necessary to employ laborers, workers, mechanics or truck drivers whose classification is not listed on the schedule, they shall be paid at rates conformable to those listed for similar classifications. Apprentices shall be paid at rates not less than those prescribed in their state indenture contacts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this in not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price shall be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

Pursuant to Section 103.50 of the Wisconsin Statutes, the prevailing hours of labor have been determined to be up to 10 hours per day and 40 hours per calendar week Monday through Friday. If any laborer, worker, mechanic or truck driver is permitted or required to work more than the prevailing number of hours per day or per calendar week on this contract, they shall be paid for all hours in excess of the prevailing hours at a rate of at least one and one-half (1 1/2) times their hourly rate of pay. All work on Saturday, Sunday and the following holidays is to be paid at time and a half: (1) January 1, (2) the last Monday in May, (3) July 4, (4) the first Monday in September, (5) the fourth Thursday in November, (6) December 25, (7) the day before if January 1, July 4 or December 25 falls on a Saturday and (8) the day following if January 1, July 4 or December 25 falls on a Sunday.

All laborers, workers, mechanics and truck drivers shall be paid unconditionally not less often than once a week. Persons who own and operate their own trucks must receive the prevailing truck driver rate for the applicable type of truck (i.e. 2 axle, 3 or more axle, articulated, eculid or dumptor) he or she operates, plus an agreed upon amount for the use of his or her truck. Every owner-operator MUST be paid separately for their driving and for the use of their truck.

For those projects subject to the requirements of the Davis-Bacon Act, the Secretary of Labor will also have determined "Minimum Wage Rates" for work to be performed under the contract. These rates are, for all or most of the labor, worker, mechanic or truck driver classifications, identical to those established under Section 103.50 of the Wisconsin Statutes. In the event the rates are not identical, the higher of the two rates will govern.

II. PAYROLL REQUIREMENTS

All contractors and subcontractors must submit weekly Certified Payrolls and Compliance Statement verifying that all laborers, workers, mechanics and truck drivers working on the project have been paid the prevailing wage rates for all work performed under the contract required by Section 103.50 of the Wisconsin Statutes.

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 place at the site of work:

a. "NOTICE TO EMPLOYEES," which provides information required to be posted by the provisions of Section 103.50 of the Wisconsin Statutes.

b. A copy of the State of Wisconsin Minimum Wages Rates. (Four pages.)

c. A copy of the contractor's Equal Employment Opportunity Policy.

d. On any project involving federal aid, in addition to the furnished postings, the contractor shall post a copy of the "Davis-Bacon Act, Minimum Wage Rates". (Three pages.)

IV. WAGE RATE REDISTRIBUTION

The amount specified as the hourly basic rate of pay and the amount(s) specified as the fringe benefit contribution(s), for all classes of laborers, workers, mechanics or truck drivers may be redistributed, when necessary, to conform to those specified in any applicable collective bargaining agreement, provided that both parties to such agreement

request and receive the approval for any such redistribution from both the Department of Transportation and the Department of Workforce Development prior to the implementation of such redistribution.

V. ADDITIONAL CLASSIFICATIONS

Any unlisted laborer or mechanic classification that is needed to perform work on this project, and is not included within the scope of any of the classifications listed in the application prevailing wage rate determination, may be added after award only if all of the following criteria have been met:

1. The affected employer(s) must make a written request to WisDOT Central Office to utilize the unlisted classification on this project.

2. The request must indicate the scope of the work to be performed by the unlisted classification and must indicate the proposed wage/fringe benefit package that the unlisted classification is to receive.

3. The work to be performed by the unlisted classification must not be performed by a classification that is included in the applicable prevailing wage rate determination.

4. The unlisted classification must be commonly employed in the area where the project is located.

5. The proposed wage/fringe benefit package must bear a reasonable relationship to those set forth in the applicable prevailing wage rate determination.

6. The request should be made prior to the actual performance of the work by the unlisted classification.

7. DWD must approve the use of the unlisted classification and the proposed wage/fringe benefit package. USDOL also must approve the use of the unlisted classification and the proposed wage/fringe benefit package on federal aid projects.

8. WisDOT and DWD may amend the proposed wage/fringe benefit package, as deemed necessary, and may set forth specific employment ratios and scope of work requirements in the approval document.

The approved wage/fringe benefit package shall be paid to all laborers, workers, mechanics or truck drivers performing work within the scope of that performed by the unlisted classification, from the first day on which such work is performed. In the event that work is performed by the unlisted classification prior to approval, the wage/fringe benefit package to be paid for such work must be in conformance with the wage/fringe

benefit package approved for such work. Under this arrangement a retroactive adjustment in wages and/or fringe benefits may be required to be made to the affected laborers, workers, mechanics or truck drivers by the affected employer(s).

ANNUAL PREVAILING WAGE RATE DETERMINATION
FOR ALL STATE HIGHWAY PROJECTS
CALUMET COUNTY

Compiled by the State of Wisconsin - Department of Workforce Development
for the Department of Transportation
Pursuant to s. 103.50, Stats.
Issued on May 1, 2013

CLASSIFICATION: Contractors are required to call the Department of Workforce Development if there are any questions reqarding the proper trade or classification to be used for any worker on a public works project.

OVERTIME: Time and one-half must be paid for all hours worked over 10 hours per day and 40 hours per calendar week and for all hours worked on Saturday, Sunday and the following six (6) holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25; the day before if January 1, July 4 or December 25 falls on a Saturday; the day following if January 1, July 4 or December 25 falls on a Sunday.

FUTURE INCREASE: If indicated for a specific trade or occupation, the full amount of such increase MUST be added to the "TOTAL" indicated for such trade or occupation on the date(s) such increase(s) becomes effective.

PREMIUM PAY: If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.

SUBJOURNEY: Wage rates may be available for some of the classifications indicated below. Any employer that desires to use any subjourney classification on a project MUST request the applicable wage rate from the Department of Workforce Development PRIOR to the date such classification is used on such project. Form ERD-10880 is available for this purpose and can be obtained by writing to the Department of Workforce Development, Equal Rights Division, P.O. Box 8928, Madison, WI 53708.

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Bricklayer, Blocklayer or Stonemason	35.58	19.20	54.78
Carpenter	30.16	15.31	45.47
Cement Finisher	31.52	16.60	48.12
Future Increase(s): Add $1.87 on 6/1/13; Add $1.87 on 6/1/14; Add $1.87 on 6/1/15;Add $1.75 on 6/1/16. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	37.25	14.60	51.85
Fence Erector	28.00	4.50	32.50
Ironworker	28.03	22.28	50.31
Line Constructor (Electrical)	31.29	15.34	46.63
Painter	28.00	11.15	39.15
Pavement Marking Operator	24.10	16.73	40.83
Piledriver	30.66	15.31	45.97
Roofer or Waterproofer	19.50	6.03	25.53
Teledata Technician or Installer	21.26	11.75	33.01
Tuckpointer, Caulker or Cleaner	30.76	16.42	47.18
Underwater Diver (Except on Great Lakes)	37.45	19.45	56.90
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	33.35	14.21	47.56
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	15.09	50.59
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.90	33.65

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
TRUCK DRIVERS			
Single Axle or Two Axle	33.22	18.90	52.12
Three or More Axle	23.31	17.13	40.44
Future Increase(s): Add $1.85/hr on 6/1/2013. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Articulated, Euclid, Dumptor, Off Road Material Hauler	27.77	19.90	47.67
Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.			
Pavement Marking Vehicle	23.99	14.70	38.69
Shadow or Pilot Vehicle	33.22	18.90	52.12
Truck Mechanic	22.50	16.19	38.69
LABORERS			
General Laborer	28.07	13.90	41.97
Future Increase(s): Add $1.70/hr on 6/1/2013; Add $1.60/hr on 6/1/2014. Premium Pay: Add $.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add $.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add $.20/hr for blaster and powderman; Add $.25/hr for bottomman; Add $.35/hr for line and grade specialist; Add $.45/hr for pipelayer. DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	28.06	0.00	28.06
Landscaper	28.07	13.90	41.97
Future Increase(s): Add $1.70/hr on 6/1/13; Add $1.60/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	24.70	13.90	38.60
Future Increase(s): Add $1.70/hr on 6/1/2013; Add $1.60/hr on 6/1/2014. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.81	12.22	30.03
Railroad Track Laborer	23.41	15.14	38.55

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.	35.22	19.90	55.12
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.	34.72	19.90	54.62
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, VIbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane WIth a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14.	34.22	19.90	54.12

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.			
Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or WIthout Attachments); Telehandler; Tining or Curing Machine.	33.96	19.90	53.86
Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.			
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.	33.67	19.90	53.57
Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.			
Fiber Optic Cable Equipment.	25.74	15.85	41.59

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 CONTRACT ITEMS					
0010	201.0105 CLEARING	5.000 STA		.		.
0020	201.0120 CLEARING	10.000 ID		.		.
0030	201.0205 GRUBBING	5.000 STA		.		.
0040	201.0220 GRUBBING	10.000 ID		.		.
0050	203.0100 REMOVING SMALL PIPE CULVERTS	24.000 EACH		.		.
0060	203.0200 REMOVING OLD STRUCTURE (STATION) 01. STA 115 'WB' +65	LUMP	LUMP			.
0070	203.0200 REMOVING OLD STRUCTURE (STATION) 01. STA 160 'NB' + 35	LUMP	LUMP			.
0080	204.0100 REMOVING PAVEMENT **P**	2,950.000 SY		.		.
0090	204.0150 REMOVING CURB & GUTTER **P**	350.000 LF		.		.
0100	204.0155 REMOVING CONCRETE SIDEWALK **P**	45.000 SY		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0110	204.0170 REMOVING FENCE	75.000 LF		.		.
0120	204.0195 REMOVING CONCRETE BASES	9.000 EACH		.		.
0130	204.0220 REMOVING INLETS	1.000 EACH		.		.
0140	204.0235 REMOVING BUILDINGS (PARCEL) 01. PARCEL 7	LUMP	LUMP			.
0150	204.0240 SITE CLEARANCE (PARCEL) 01. PARCEL 7	LUMP	LUMP			.
0160	205.0100 EXCAVATION COMMON **P**	23,400.000 CY		.		.
0170	206.2000 EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. C-8-76	LUMP	LUMP			.
0180	206.2000 EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 01. C-8-77	LUMP	LUMP			.
0190	210.0100 BACKFILL STRUCTURE	1,260.000 CY		.		.
0200	213.0100 FINISHING ROADWAY (PROJECT) 01. 1500-32-71	1.000 EACH		.		.
0210	305.0110 BASE AGGREGATE DENSE 3/4-INCH	3,000.000 TON		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0220	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	26,000.000 TON		.		.
0230	311.0110 BREAKER RUN	21,600.000 TON		.		.
0240	311.0115 BREAKER RUN	115.000 CY		.		.
0250	405.0100 COLORING CONCRETE RED	330.000 CY		.		.
0260	415.0080 CONCRETE PAVEMENT 8-INCH	110.000 SY		.		.
0270	416.0512 CONCRETE ROUNDABOUT TRUCK APRON 12-INCH **P**	480.000 SY		.		.
0280	455.0115 ASPHALTIC MATERIAL PG64-22	255.000 TON		.		.
0290	455.0120 ASPHALTIC MATERIAL PG64-28	110.000 TON		.		.
0300	455.0605 TACK COAT	900.000 GAL		.		.
0310	460.1100 HMA PAVEMENT TYPE E-0.3	245.000 TON		.		.
0320	460.1110 HMA PAVEMENT TYPE E-10	6,350.000 TON		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0330	460.2000 INCENTIVE DENSITY HMA PAVEMENT	4,221.000 DOL	1.00000		4221.00	
0340	460.4100.S REHEATING HMA LONGITUDINAL JOINTS	26.000 STA	.		.	
0350	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES **P**	241.000 TON	.		.	
0360	465.0315 ASPHALTIC FLUMES	90.000 SY	.		.	
0370	504.0100 CONCRETE MASONRY CULVERTS	323.000 CY	.		.	
0380	504.0900 CONCRETE MASONRY ENDWALLS	9.000 CY	.		.	
0390	505.0410 BAR STEEL REINFORCEMENT HS CULVERTS	18,020.000 LB	.		.	
0400	505.0610 BAR STEEL REINFORCEMENT HS COATED CULVERTS	16,970.000 LB	.		.	
0410	516.0500 RUBBERIZED MEMBRANE WATERPROOFING	55.000 SY	.		.	
0420	520.4012 CULVERT PIPE TEMPORARY 12-INCH	58.000 LF	.		.	
0430	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH	46.000 LF	.		.	

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0440	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH	276.000 LF		.		.
0450	521.0130 CULVERT PIPE CORRUGATED STEEL 30-INCH	228.000 LF		.		.
0460	521.0764 PIPE ARCH CORRUGATED STEEL 64X43-INCH	246.000 LF		.		.
0470	521.1012 APRON ENDWALLS FOR CULVERT PIPE STEEL 12-INCH	2.000 EACH		.		.
0480	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	2.000 EACH		.		.
0490	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	8.000 EACH		.		.
0500	521.1524 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 24-INCH 6 TO 1	4.000 EACH		.		.
0510	521.1530 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 30-INCH 6 TO 1	10.000 EACH		.		.
0520	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	14.000 EACH		.		.
0530	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	4.000 EACH		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0540	523.0424 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 24X38-INCH	228.000 LF		.		.
0550	523.0524 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 24X38-INCH	4.000 EACH		.		.
0560	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A **P**	195.000 LF		.		.
0570	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D	2,240.000 LF		.		.
0580	601.0553 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	2,360.000 LF		.		.
0590	601.0580 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R **P**	310.000 LF		.		.
0600	601.0600 CONCRETE CURB PEDESTRIAN **P**	56.000 LF		.		.
0610	602.0405 CONCRETE SIDEWALK 4-INCH	12,060.000 SF		.		.
0620	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW **P**	144.000 SF		.		.
0630	606.0200 RIPRAP MEDIUM	335.000 CY		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0640	606.0300 RIPRAP HEAVY	42.000 CY		.		.
0650	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	981.000 LF		.		.
0660	608.0436 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 36-INCH	244.000 LF		.		.
0670	611.0624 INLET COVERS TYPE H	18.000 EACH		.		.
0680	611.0639 INLET COVERS TYPE H-S	10.000 EACH		.		.
0690	611.0652 INLET COVERS TYPE T	1.000 EACH		.		.
0700	611.2006 MANHOLES 6-FT DIAMETER	2.000 EACH		.		.
0710	611.3230 INLETS 2X3-FT	26.000 EACH		.		.
0720	616.0205 FENCE CHAIN LINK 5-FT	144.000 LF		.		.
0730	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 1500-32-71	1.000 EACH		.		.
0740	619.1000 MOBILIZATION	1.000 EACH		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0750	620.0300 CONCRETE MEDIAN SLOPED NOSE	405.000 SF		.		.
0760	621.0100 LANDMARK REFERENCE MONUMENTS	4.000 EACH		.		.
0770	624.0100 WATER	505.000 MGAL		.		.
0780	625.0105 TOPSOIL	70.000 CY		.		.
0790	625.0500 SALVAGED TOPSOIL	31,100.000 SY		.		.
0800	627.0200 MULCHING	23,200.000 SY		.		.
0810	628.1504 SILT FENCE	2,460.000 LF		.		.
0820	628.1520 SILT FENCE MAINTENANCE	2,460.000 LF		.		.
0830	628.1905 MOBILIZATIONS EROSION CONTROL	6.000 EACH		.		.
0840	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	2.000 EACH		.		.
0850	628.2004 EROSION MAT CLASS I TYPE B	7,500.000 SY		.		.

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CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0860	628.2006 EROSION MAT URBAN CLASS I TYPE A	830.000 SY		.		.
0870	628.2008 EROSION MAT URBAN CLASS I TYPE B	260.000 SY		.		.
0880	628.6510 SOIL STABILIZER TYPE B	7.000 ACRE		.		.
0890	628.7015 INLET PROTECTION TYPE C	18.000 EACH		.		.
0900	628.7020 INLET PROTECTION TYPE D	11.000 EACH		.		.
0910	628.7504 TEMPORARY DITCH CHECKS	150.000 LF		.		.
0920	628.7555 CULVERT PIPE CHECKS	88.000 EACH		.		.
0930	628.7570 ROCK BAGS	200.000 EACH		.		.
0940	629.0210 FERTILIZER TYPE B	17.000 CWT		.		.
0950	630.0130 SEEDING MIXTURE NO. 30	250.000 LB		.		.
0960	630.0140 SEEDING MIXTURE NO. 40	440.000 LB		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0970	630.0200 SEEDING TEMPORARY	100.000 LB		.		.
0980	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 01. ROSE, RUGOSA, BALLED AND BURLAPED, 2-FT	35.000 EACH		.		.
0990	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 02. JUNIPER MANEY, CONTAINER GROWN, 15" SPD	18.000 EACH		.		.
1000	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 03. SERVICEBERRY APPLE, BALLED AND BURLAPED, 12-14 FT	3.000 EACH		.		.
1010	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	20.000 EACH		.		.
1020	633.5200 MARKERS CULVERT END	22.000 EACH		.		.
1030	634.0614 POSTS WOOD 4X6-INCH X 14-FT	41.000 EACH		.		.
1040	634.0616 POSTS WOOD 4X6-INCH X 16-FT	17.000 EACH		.		.
1050	634.0622 POSTS WOOD 4X6-INCH X 22-FT	6.000 EACH		.		.
1060	634.0814 POSTS TUBULAR STEEL 2X2-INCH X 14-FT	8.000 EACH		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1070	634.0816 POSTS TUBULAR STEEL 2X2-INCH X 16-FT	2.000 EACH		.		.
1080	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS	1,152.000 LB		.		.
1090	636.0100 SIGN SUPPORTS CONCRETE MASONRY	2.400 CY		.		.
1100	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT	136.000 LB		.		.
1110	637.0101 SIGNS TYPE I	182.000 SF		.		.
1120	637.0202 SIGNS REFLECTIVE TYPE II	671.760 SF		.		.
1130	638.2602 REMOVING SIGNS TYPE II	118.000 EACH		.		.
1140	638.3000 REMOVING SMALL SIGN SUPPORTS	76.000 EACH		.		.
1150	642.5001 FIELD OFFICE TYPE B	1.000 EACH		.		.
1160	643.0100 TRAFFIC CONTROL (PROJECT) 01. 1500-32-71	1.000 EACH		.		.
1170	643.0300 TRAFFIC CONTROL DRUMS	1,200.000 DAY		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1180	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	5,090.000 DAY		.		.
1190	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	7,580.000 DAY		.		.
1200	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	400.000 DAY		.		.
1210	643.0900 TRAFFIC CONTROL SIGNS	2,400.000 DAY		.		.
1220	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II	9.000 EACH		.		.
1230	643.1050 TRAFFIC CONTROL SIGNS PCMS	28.000 DAY		.		.
1240	643.2000 TRAFFIC CONTROL DETOUR (PROJECT) 01. 1500-32-71	1.000 EACH		.		.
1250	643.3000 TRAFFIC CONTROL DETOUR SIGNS	41,130.000 DAY		.		.
1260	645.0105 GEOTEXTILE FABRIC TYPE C	580.000 SY		.		.
1270	645.0120 GEOTEXTILE FABRIC TYPE HR	1,115.000 SY		.		.
1280	646.0106 PAVEMENT MARKING EPOXY 4-INCH	20,935.000 LF		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1290	646.0126 PAVEMENT MARKING EPOXY 8-INCH	360.000 LF		.		.
1300	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY	4.000 EACH		.		.
1310	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	640.000 LF		.		.
1320	650.4000 CONSTRUCTION STAKING STORM SEWER	47.000 EACH		.		.
1330	650.4500 CONSTRUCTION STAKING SUBGRADE	7,857.000 LF		.		.
1340	650.5000 CONSTRUCTION STAKING BASE	7,857.000 LF		.		.
1350	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	5,395.000 LF		.		.
1360	650.6000 CONSTRUCTION STAKING PIPE CULVERTS	5.000 EACH		.		.
1370	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 1500-32-71	LUMP	LUMP			.
1380	650.9920 CONSTRUCTION STAKING SLOPE STAKES	7,857.000 LF		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1390	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	1,730.000 LF		.		.
1400	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	590.000 LF		.		.
1410	653.0140 PULL BOXES STEEL 24X42-INCH	12.000 EACH		.		.
1420	653.0905 REMOVING PULL BOXES	18.000 EACH		.		.
1430	654.0105 CONCRETE BASES TYPE 5	15.000 EACH		.		.
1440	654.0220 CONCRETE CONTROL CABINET BASES TYPE 10	1.000 EACH		.		.
1450	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	2,100.000 LF		.		.
1460	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG	11,120.000 LF		.		.
1470	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. USH 10 & STH 32/57	LUMP	LUMP			.
1480	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	15.000 EACH		.		.
1490	657.0322 POLES TYPE 5-ALUMINUM	15.000 EACH		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1500	657.0710 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT	15.000 EACH		.		.
1510	690.0150 SAWING ASPHALT	510.000 LF		.		.
1520	690.0250 SAWING CONCRETE	175.000 LF		.		.
1530	715.0415 INCENTIVE STRENGTH CONCRETE PAVEMENT	500.000 DOL	1.00000		500.00	
1540	715.0502 INCENTIVE STRENGTH CONCRETE STRUCTURES	1,938.000 DOL	1.00000		1938.00	
1550	SPV.0045 SPECIAL 01. PCMS CELLULAR COMMUNICATION	28.000 DAY		.		.
1560	SPV.0060 SPECIAL 01. INLET TYPE 2 SPECIAL	1.000 EACH		.		.
1570	SPV.0060 SPECIAL 02. SECTION CORNER MONUMENTS	1.000 EACH		.		.
1580	SPV.0060 SPECIAL 03. V-LOC SIGN ANCHORS	10.000 EACH		.		.
1590	SPV.0060 SPECIAL 04. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS	4.000 EACH		.		.
1600	SPV.0060 SPECIAL 05. REMOVING SANITARY MANHOLES	1.000 EACH		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1610	SPV.0060 SPECIAL 06. REMOVING MAIN VALVE BOXES	2.000 EACH		.		.
1620	SPV.0060 SPECIAL 07. ADJUSTING MAIN VALVE BOXES	2.000 EACH		.		.
1630	SPV.0060 SPECIAL 08. ADJUSTING WATER LATERAL CURB STOP BOXES	1.000 EACH		.		.
1640	SPV.0060 SPECIAL 09. RELOCATING HYDRANTS	3.000 EACH		.		.
1650	SPV.0060 SPECIAL 10. RELOCATING CURB STOPS	1.000 EACH		.		.
1660	SPV.0060 SPECIAL 11. 8" WATER VALVE	1.000 EACH		.		.
1670	SPV.0060 SPECIAL 12. ABANDONING SANITARY MANHOLE	2.000 EACH		.		.
1680	SPV.0060 SPECIAL 13. LED LUMINAIRE, LED-A	15.000 EACH		.		.
1690	SPV.0085 SPECIAL 01. LOW MAINTENANCE SEED MIX	2.000 LB		.		.
1700	SPV.0090 SPECIAL 01. CONCRETE CURB & GUTTER 30-INCH 4-INCH SLOPED SPECIAL	290.000 LF		.		.

CONTRACT: 20130813016 PROJECT(S): 1500-32-71 FEDERAL ID(S): N/A

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1710	SPV.0090 SPECIAL 02. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC 18-INCH	48.000 LF		.		.
1720	SPV.0090 SPECIAL 03. ABANDONING 8" SANITARY SEWER	434.000 LF		.		.
1730	SPV.0090 SPECIAL 04. ABANDONING 8" WATERMAIN	522.000 LF		.		.
1740	SPV.0090 SPECIAL 05. 8" SANITARY SEWER	461.000 LF		.		.
1750	SPV.0090 SPECIAL 06. 8" WATERMAIN	490.000 LF		.		.
1760	SPV.0090 SPECIAL 07. REMOVING WATER LATERAL	94.000 LF		.		.
1770	SPV.0105 SPECIAL 01. REMOVE TRAFFIC SIGNAL	LUMP	LUMP			.
1780	SPV.0195 SPECIAL 01. MANAGEMENT OF CONTAMINATED SOIL	200.000 TON		.		.
1790	SPV.0200 SPECIAL 01. RECONSTRUCTING SANITARY MANHOLES	9.460 VF		.		.
1800	SPV.0200 SPECIAL 02. 48" PRECAST SANITARY SEWER MANHOLE	35.180 VF		.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE