HIGHWAY WORK PROPOSAL

Proposal Number: 1 3

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

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Milwaukee	2126-00-70		W. McKinley Avenue 8th Street to 3rd Street	Local Street

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, $ 100,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: February 9, 2016 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time June 18, 2016	
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 Removals, grading, dense graded base, concrete pavement, concrete curb and gutter, concrete sidewalk, traffic signal bases, conduits, pull boxes, temporary asphaltic surface, storm sewer, concrete box culvert, storm sewer structures, ductile iron water main, erosion control, permanent signing, restoration, protecting and supporting utilities.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2015 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 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://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, Room 601, 4802 Sheboygan Avenue, Madison, WI, during regular business hours.

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

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

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

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

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

(1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at:

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

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

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

Bidder

Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
3. The diskette or CD ROM is not submitted at the time and place the department designates.

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

March 2010

LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value

DECEMBER 2000

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

Instructions for Certification

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 2126-00-70, West McKinley Avenue, 8th Street to 3rd Street, Local Street, Milwaukee County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2016 Edition, as published by the department, and these special provisions.

Perform the water main work according to the Standard Specifications for Sewer and Water Construction in Wisconsin, latest Edition (SSSW) and addendums. If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

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 (20150630)

2. Scope of Work.

The work under this contract shall consist of removals, grading, dense graded base, concrete pavement, concrete curb and gutter, concrete sidewalk, traffic signal bases, conduits, pull boxes, temporary asphaltic surface, storm sewer, precast concrete box culvert, storm sewer structures, ductile iron water main, erosion control, permanent signing, restoration, protecting and supporting utilities, 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.

It is anticipated that the notice to proceed will be issued so that construction can start by March 14, 2016.

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

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

Stage 1 Construction
Complete all clearing and grubbing operations prior to March 31, 2016.

Stage 1A Construction
Stage 1A Construction
Partially construction hydrant lead at Station 110+50 and N. 4th Street.
Construction storm sewer structures 30, 40, 84, and 85A.
Partially construction storm sewer pipes 31, 41, and 84.
Construct conduit and bases within work area.

Stage 1B Construction
Complete construction hydrant lead at Station 110+50.
Complete construction storm sewer pipes 31 and 41 with temporary connections to existing catch basins.
Construction storm sewer structures 85 and 86.
Complete construction of storm sewer pipes 85 and 86.
Construct conduit and bases within work area.

Stage 1C Construction
Construct water main and hydrant lead at Station 117+75.
Construct water main at N. 4th Street
Partially construct storm sewer pipe 3.
Construct storm sewer pipes 4, 5, 6, 6T, 51, 61, 62, 63, 64, 71, 72, 80, 81, 82, 83 and 87.
Construct storm sewer structures M4, M5, M6, 51, 61, 62, 63, 64, 71, 72, 80, 81, 82, 83 and 87.
Construct conduit and bases within work area.
Construct pavement, curb and gutter and sidewalk east of Station 115+75.

Stage 2 Construction
Construct water main at N. 6th Street.
Complete construction of hydrant lead at N. 6th Street.
Complete construction of storms sewer pipe 3.
Construct storm sewer pipes 1, 2, 23, 32, 35 and 42.
Construct storm sewer structures M1, M2, M3, 31, 32, 35, 41 and 42.
Construct conduit and bases within work area.
Construct pavement, curb and gutter and sidewalk west of Station 115+75.
Reconstruct W McKinley Avenue median east of N. 4th Street.

Stage 3 Construction
Construct storm sewer structures M23 and M7.
Construct storm sewer pipe 78.
Remove/abandon existing storm sewer pipe from MH 23 to M7.

Remove/place pavement markings during off-peak hours.

Complete all work in Stages 1A, 1B and 1C and 2 prior to 12:01 AM June 1, 2016 except for concrete pavement, curb and gutter and sidewalk.

CPM Progress Schedule
Provide CPM Progress Schedule as per 108.4.4.

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

The City of Milwaukee has 30-inch water main crossing at N. 6th Street and N. 4th Street and an 8-inch water main crossing at N. 5th Street. All these crossings will be reconstructed as shown in the plans. Only one of these crossings can be taken out of service at a time. The 30-inch water main alteration at N. 6th Street and N. 4th Street cannot be concurrently under construction at the same time. One 30-inch water main need to be active at all times.

Water Contractor is required to employ a City certified Joint Assembler for installation of water main and appurtenances.

The City of Milwaukee Water Utility staff will inspect the construction of water main under this contract. Notify Dave Goldapp, (414) 286-3801 office / (414) 708-0295 mobile, ten working days prior to inspecting the constructed water mains.

Impacted traffic signal materials on W. McKinley Avenue at North 6th Street and North 4th Street will be remove or relocated and underground cabling will be disconnected or placed into overhead operation by the City of Milwaukee prior to start of construction. In addition, the traffic signal controller cabinet will be relocated at North 6th Street Prior to start of construction. Some traffic signal base and conduit are installed as part of the contract as shown on the plan. The City of Milwaukee traffic signal contact person is Joseph Blakeman, (414) 286-8070 or Al Nichols, (414) 286-3686.

City of Milwaukee will remove street light poles that are impacted by this project and will install temporary overhead facilities and relocate permanent facilities as need prior to start of construction. It is estimated City of Milwaukee will need approximately 15 working days to install permanent underground facilities. Spread footing base for light poles are installed as part of the contract. Remove and dispose of all existing lighting cable/conduit from construction area. Install underground conduit and pull boxes as shown on the plan. Install the vault (junction box) and conduit to the spread footings as shown on the plan. Contractor to coordinate construction activities for City of Milwaukee to install permanent underground facilities. The City of Milwaukee Street Lighting contact person is Eng-Kie Lee (414) 286-2174.

WE Energies Gas and Electric will support their facilities during construction. Contractor to provide traffic control for WE Energies –Gas during the period when they support their facilities. Contact Ana Turner, (414) 254-4064, WE Energies 14 days in advance to coordinate locations and any excavations near their facilities.

Trench and Backfill
Supporting construction trenches are considered part of construction. No separate payment will be made of shoring and sheeting.

Backfill according to standard spec 209 all new pipe trenches, structures, existing storm sewer pipe or existing storm sewer structure shown for removal or abandonment with backfill granular immediately after completing the sewer work. All backfill provided as described above is considered incidental to the appropriate pipe or structure bid item. No separate payment will be made for backfill granular unless otherwise specified.

Bypass Pumping
Bypass pumping may be necessary during construction and tie-ins in to the existing pipes or manholes and cost is considered incidental to construction. Submit a bypass pumping plan to the engineer

Temporary Settling Basin
Temporary settling basin if required during construction is considered incidental to construction. No additional payments will be made.

ATC Thermal Backfill
Provide ATC thermal backfill at all crossings as listed elsewhere in this special provisions.

Portable Changeable Message Signs
Obtain acceptance from the engineer regarding the wording of all messages on portable changeable message signs prior to placing the message.

Closure Restrictions
Do not close local street traffic lanes or intersections and ensure that the local street traffic lanes are entirely clear for traffic during Peak Hours, except as shown in the traffic control plans. Do not close N. 6th Street and N. 4th Street at the same time. One street either N. 6th Street or N. 4th Street should be completely open with all lanes at all time during construction.

Follow plan details for closures. Lane restrictions beyond that shown on the traffic control plans must be approved by the engineer. If plan details are not provided in the traffic control plan, furnish plans for review by the engineer for approval. Once approved, allow at least five business days prior to the closure of local roadway and/or intersection as identified in Contractor Coordination.

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

Northern Long-eared Bat (*Myotis septentrionalis*)
Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees and structures (bridges, culverts, buildings). Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the Federal Endangered Species Act.

In order to avoid adverse impacts upon the NLEBs, no clearing within the identified clearing and grubbing limits will be allowed from April 1 to September 30, both dates inclusive.

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

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

4. Referenced Construction Specifications.

Construct the work enumerated below conforming to the Standard Specification for Sewer and Water Construction in Wisconsin, latest edition (SSSW). If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

- Removing Hydrant, Install Hydrant
- Remove Water Main
- Ductile Iron Hydrant Branch 6-Inch
- Ductile Iron Water Main 30-Inch
- Ductile Iron Water Main 8-Inch

105-002 (20130615)

5. Traffic.

General
Keep West McKinley Avenue open to through traffic at all times for the duration of this project.

Maintain access to properties along West McKinley Avenue eastbound and all other local roads effected by construction for businesses and emergency vehicles.

Schedule of Operations

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

Stage 1A Traffic

West McKinley Avenue both eastbound and westbound must be open to one lane of traffic in each direction.

North 4th Street and North 6th Street must be open to all lanes of traffic.

Stage 1B Traffic

West McKinley Avenue both eastbound and westbound must be open to one lane of traffic in each direction.

North 4th Street closed to traffic south of W. McKinley Avenue

North 6th Street must be open to all lanes of traffic

Stage 1C Traffic

All lanes of west bound West McKinley Avenue must be open to traffic.

Eastbound West McKinley Avenue must be open to one lane of traffic.

North 4th Street closed to traffic south of West McKinley Avenue

All lanes on North 6th Street must be open to traffic.

Stage 2 Traffic

All lanes of west bound West McKinley Avenue must be open to traffic.

Eastbound West McKinley Avenue must be open to one lane of traffic.

North 6th Street closed to traffic south of West McKinley Avenue

All lanes on North 4th Street must be open to traffic.

Stage 3 Traffic

West McKinley Avenue both eastbound and westbound must be open to all lanes of traffic in each direction.

North 4th Street closed to traffic south of W. McKinley Avenue

North 6th Street must be open to all lanes of traffic

6. Holiday and Special Event Work Restrictions.

Holiday Restrictions
Do not perform work on, nor haul materials of any kind along or across any portion of the highway Right of Way of IH 43 and Marquette Interchange, 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 Friday, May 27, 2016 to 6:00 AM Tuesday, May 31, 2016 for Memorial Day;
- From noon Friday, July 1, 2016 to 6:00 AM Tuesday, July 5, 2016 for Independence Day.

Special Work Restrictions

- On days with Bradley Center events, maintain all travel lanes which are open for each traffic stage on W. McKinley Avenue one hour before the start of the game and one hour after the event.

Holiday work restrictions do not apply to roadways already closed long term during construction as shown on the plans.

7. Utilities.

This contract does not come under the provisions of Administrative Rule TRANS 220.

Additional information regarding recently relocated utility facilities may be available on permits issued to the utility companies. These permits can be viewed at the City of Milwaukee during normal working hours. Contact Mike Loughran at (414) 286-3304 for further information.

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

Some utility work, as described below, is dependent on prior work being performed by the contractor at a specific site. Provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Notice shall be given 14 to 16 calendar days in advance of when the site will be available to the utility. Follow up with a confirmation

notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

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

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

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

Known utilities in the projects are as follows:

AT&T Wisconsin

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

A 6" PVC conduit package crosses below the proposed storm sewer pipe reinforced concrete (SSPRC) 72-inch at approximately Station 110+29, 70'RT. Take extreme caution during construction to avoid this live package. This crossing will remain in place without adjustment.

A 10" PVC conduit package encased in concrete crosses above the proposed SSPRC 84-inch at approximately Station 117+86, 41'RT. This crossing will remain in place without adjustment. Contractor to support the crossing during construction.

A 4" MTD conduit package crosses above the proposed concrete box combination at approximately Station 121+74, 37' RT. This crossing will remain in place without adjustment. Contractor to support the crossing during construction.

A proposed SSPRC 12-inch crosses below the AT&T conduit at approximately Station 121+20, 19' LT. This crossing will remain in place without adjustment.

Discontinued 4 inch lateral conduits cross above the proposed SSPRC 84-inch at approximately Station 124+05, 34' RT and 124+13, 34' RT. Contractor to remove these conduits as required for construction.

A duct package crosses below the existing SSPRC 72-inch at approximately Station 110+16, 174' RT. A duct package from approximately Station 116+38, 225' RT to 117+58, 225' RT; and from 118+24, 225' RT to 118+75, 224' RT runs parallel to the

existing SSPRC 84-inch. This duct package will remain in place without adjustment. Contractor to support these crossings during pipe removal.

If tile duct deteriorates or fails during construction, please notify AT&T immediately. AT&T will inspect the cables and perform the repair work if required.

Contact Dean Herro, (414) 678-2644 office / (262) 352-0131 mobile, of AT&T Wisconsin 14 days in advance to coordinate locations and any excavation near their facilities.

Time Warner Cable
Time Warner Cable has underground facilities within the work zone area.

Time Warner Cable has fiber optic cable crossing above the proposed SSPRC 84-inch at approximately the following locations: Station 112+96, 48 RT and 114+73, 40 RT. Also, Time Warner Cable fiber crosses underneath N. 6th Street at Station 353+77, 74' LT. Contractor to support the crossing during construction. These crossings will remain in place without adjustment.

A fiber optic cable crosses above the existing SSPRC 72-inch at approximately Station 114+59, 223' RT. Contractor to support the crossing during existing pipe removal. This crossing will remain in place without adjustment.

Contact Steve Cramer, (414) 277-4045 office / (414) 688-2385 mobile, of Time Warner Cable 14 days in advance to coordinate locations and any excavation near their facilities.

American Transmission Company (ATC)
ATC has underground 138kV electric transmission lines within the project limits in the following locations.

One 9" (High Pressure Fluid Filled, HPFF) pipe crosses above the proposed SSPRC 84-inch at approximately Station 114+51, 41 RT on N. 6th Street turning west onto W. McKinley Avenue and ending at the substation north of 5th and McKinley.

One 7" HPFF pipe crosses above the proposed concrete box combination at approximately Station 121+66, 37' RT and one buried fiber cable (same trench) on 4th St turning east onto W. McKinley Avenue and ending at the substation north of 5th and W. McKinley Avenue.

The above crossings will remain in place without adjustment. Contractor to support these crossings during construction.

ATC has 138kv line on N. 4th Street at approximately Station 402+36, 35' LT to 404+00, 35' LT. This 138kV line is parallel to the proposed SSPRC 18-inch and it varies from 6.6'

to 8.7’ east of the centerline of proposed sewer. Use caution during construction to not disturb the 138kv line. This 138kV will remain in place.

Care must be taken during any excavation around the pipe. If it is necessary to expose the pipe cable, it must be exposed using small hand tools or vacuum excavation.

Do not park large equipment vehicles over the top of ATC facilities as this interferes with heat dissipation necessary for the safe operation of the line.

All ATC underground pipe facilities are surrounded by a thermal backfill to aid the heat dissipation of energized cable critical to operation of the line. This backfill will be disturbed during the excavation and must be replaced as described elsewhere in the special provision.

The ATC field representative will inspect the pipe for any damage to the coating during excavation before replacing any soil/material. ATC can provide a resource for Thermal Backfill.

Contact Ron Latus, (262) 364-9048 mobile / (262) 832-8688 office, of ATC 14 days in advance to coordinate locations and any excavation near their facilities.

Windstream Communications

Windstream Communication has fiber cable in We Energy duct package crossing above the proposed SSPRC 84-inch at approximately Station 121+61, 37’ RT. This line will remain in place without any adjustments. Contractor to support the crossing during construction.

Contact Aaron Grodi, (262) 792-7938 office, of Windstream Communications 14 days in advance to coordinate locations and any excavation near their facilities.

We Energies – Steam Line

An existing 16-inch steam main encased in 42-inch x 40-inch concrete on N. 4th Street running north-south crosses above the proposed concrete box combination at approximately Station 122+07, 37’ RT. This steam line will remain in place without any adjustment. Contractor to support the crossing during construction.

Prepare means and methods of supporting steam line and submit a work plan with enough details to the engineer for We Energies Steam approval 14 business days prior to start of construction.

We Steam has an inactive 8-inch steam line encased in 3’x3’, 8-inch thick crossing above the proposed SSPRC 84-inch at approximately Station 125+30, 90’ RT (between manhole M6 and M7). Contractor to remove portion of inactive steam line as necessary for construction.

We Energies Steam crosses below the proposed SSPRC 12-inch approximately at Station 121+22, 40' LT.

We Energies will remove inactive steam main in conflict with proposed construction in locations where the steam main coating may contain hazardous material. The removal of such inactive steam main will occur during construction. Contact Keith Schaefer, (414) 221-2464 office) of We Energies Steam 14 days prior to any activity that will expose the existing steam main to coordinate removal activities.

Contact Keith Schaefer, (414) 221-2464 office, of We Energies Steam 14 days in advance to coordinate locations and any excavations near their facilities.

We Energies -Gas

A 12-inch We Energies steel gas main crosses above the proposed SSPRC 84-inch at Station 114+14, 43' RT. This gas line will be supported by We Energies Gas during construction and it will remain in place without any adjustment. A watchdog is required during construction activities on or near 12-inch gas main. Contractor to coordinate watchdog through Digger's Hotline. We Energies–Gas will support the crossing during construction. Contractor to provide traffic control for We Energies–Gas during the period when they support their facilities.

We Energies Gas will remove and dispose of any steel pipe that is coated with coal tar wrap that contains asbestos fibers. The removal of such steel pipe coated with coal tar wrap that contains asbestos fiber will occur during construction. Contractor to provide a 24-hour notice to We Energies-Gas for We Energies-Gas to test and remove the hazardous material within 72 hours after getting the notice.

Contact Ana Turner, (414) 254-4064 or Nick Ernster, (414) 944-5574, of WE Gas 14 days in advance to coordinate locations and any excavations near their facilities.

We Energies - Electric

We Energies – Electric has 9 locations where the proposed storm sewer will cross electric duct packages.

We Energies has 4 inactive electric duct packages at approximately Stations 109+86, 102' RT crossing above the SSPRC 72-inch; 118+02, 41' RT crossing above the SSPRC 84-inch; 119+11, 40' RT crossing above the SSPRC 84-inch; and 124+06, 34' RT crossing above the SSPRC 84-inch. Contact We Energies – Electric to verify these duct packages to be empty and/or de-energized prior to removal. Contractor to remove these duct packages as required for construction.

We Energies has 5 electric duct packages at approximately Stations 113+86, 44' RT crossing above the SSPRC 84-inch; 113+87, 44' RT crossing above the SSPRC 84-inch; 114+51, 41' RT crossing above the SSPRC 84-inch; 117+57, 41' RT; and 121+85, 38' RT crossing above the concrete box combination. These crossings will remain in place without any adjustments. Contractor to provide traffic control for We Energies – Electric during the period when they support their facilities.

Proposed SSPRC 12-inch crosses below the We Energies - Electric conduits at approximately Stations 117+57, 44' RT; 119+11, 35' RT; 119+92, 35' RT; 121+21, 23' LT, 121+22, 30' LT and 121+22, 52' LT. These crossings will remain in place without any adjustments. Contractor to provide traffic control for We Energies –Electric during the period when they support their facilities.

At approximately Station 109+81, 164' RT electric duct package crosses above the existing SSPRC 72-inch. At approximately Stations 119+97, 226' RT; 124+44, 151' RT; 124+46, 150' RT 124+49, 149' RT electric duct packages cross above the existing SSPRC 84-inch. From approximately Station 114+59, 223' RT to 117+58, 223' RT electric duct package runs parallel to existing SSPRC 72-inch and 84-inch. Existing SSPRC 72-inch and 84-inch are removed as part of the contract. We Energies – Electric will support their facilities during the pipe removal.

Contact Ana Turner, (414) 254-4064 or Mike Simmons, (262) 886-7007, of WE Energies Electric 14 days in advance to coordinate locations and any excavations near their facilities.

City of Milwaukee Street Lights

City of Milwaukee has street lighting in the terrace area that is in conflict from N. 6th Street to N. 3rd Street (from approximately Station 113+00 to 125+00). City forces will remove existing light poles excluding bases and install temporary overhead lighting facility prior to start of construction. Removing existing light pole bases are part of the contract. Spread footing base for light poles are installed as part of the contract. Remove and dispose of all existing lighting cable/conduit from construction area. Install underground conduit and pull boxes as shown on the plan. Install the vault (junction box) and conduit to the spread footings as shown on the plan.

City forces will install new permanent underground conduits during construction and is estimated to take about 15 working days. Contractor to coordinate their work activities with the City of Milwaukee Lighting, Eng-Kil Lee, (414) 286-2174 office.

Permanent street lights will be installed by City forces after completion of this contract.

Contact Dennis Miller, (414) 286-5942 office / (414) 708-4251 mobile, of City of Milwaukee – Lighting 14 days in advance to coordinate locations and any excavations near their facilities.

City of Milwaukee Water
City of Milwaukee has water facilities along the project. There are two 30" water main alterations required as part of the contract at Station 114+03, 44' RT crossing below the proposed SSPRC 84-inch at N. 6th Street and at Station 122+00, 38' RT crossing above the proposed concrete box combination at N. 4th Street.

An 8" water main is in conflict and alteration is required as part of the contract at Station 117+80, 40' RT crossing below the proposed SSPRC 84-inch.

Two hydrant alterations are required at Station 114+83, 38' RT and 117+54, 38' RT as part of the contract. In addition, a new hydrant at Station 110+36, 52' RT will be installed as part of the contract.

A 12-inch water main crosses under the proposed SSPRC 12-inch at Station 112+50, 4' RT and 113+46, 4' RT. The water main will remain in place without any adjustment.

Contact Dave Goldapp, (414) 286-6301 office / (414) 708-2695 cell, of the City of Milwaukee – Waterworks 14 days in advance to coordinate locations and construction activities.

City of Milwaukee Traffic - Signals
City of Milwaukee Traffic Signals has facilities located within the limits of the project. Specified PVC Conduits, vaults, signal bases, and cylindrical forms are to be installed by contractor as part of this project. In addition, specified bases and pull boxes are to be removed by contractor.

Prior to construction, City of Milwaukee forces shall remove all impacted poles, signal standards, and one control cabinet. In addition, the traffic signal controller cabinet will be relocated at North 6th Street Prior to start of construction. The City of Milwaukee shall also construct and operate temporary traffic signals in conjunction with construction and traffic control staging. Temporary signal equipment will need to be attached/protected by the traffic control concrete barriers during certain construction stages. Please note: active cables including electric service for the traffic signals are located in the City CUC which runs parallel to the proposed sewer. These cables will need to remain in service.

A 10-working day advance notice modify signals will be needed between stages of work. Contact Mr. Al Nichols of the City of Milwaukee's Traffic Signal Field Operations at (414) 286-3687 office, or (414) 708-5148 mobile, to coordinate the installation/removal of traffic signal materials between construction and traffic control stages and any City traffic signal concerns.

City of Milwaukee – Communications
Communications facilities in the project area include fiber optic and copper cables installed in communications ducts that cross above the proposed SSPRC 84-inch at approximately Station 113+73, 45' RT and crosses the proposed concrete box combination at approximately Station 121+74, 38' RT, as well as running parallel to the proposed SSPRC 84-inch immediately to the north from approximately Station 114+37 to Station 124+ 86. These communication lines will remain in place without any adjustment. These facilities service City of Milwaukee protective services and other municipal services. Contractor to support and protect this facility during construction

Contact Brian Pawlak, (414) 286-3686 communications dispatch, of City of Milwaukee DPW Infrastructure – Communications dispatch 14 days in advance to coordinate locations and any excavations near their facilities.

City of Milwaukee – Conduit
There is an existing City of Milwaukee Underground Conduit (CUC) package and manhole system running parallel to the proposed storm sewer system from approximately Station 114+25 to 124+80. This package and manhole system contains vital City communications that must remain in place and undisturbed throughout construction. Contractor to take all necessary precautions not to undermine the conduit and/or manholes.

There are also CUC conduit packages crossing above the proposed SSPRC 84-inch at approximately Stations 113+29, 47' RT; 113+73, 44' RT; and 113+78, 44' RT. City CUC conduit also crosses above the proposed concrete box combination at approximately Station 121+74, 38' RT.

The above conduits will remain in place without any adjustments. Contractor to support the facility during construction.

Contact Karen Rogney, (414) 286-3243 office, City of Milwaukee – Conduit 14 days in advance to coordinate locations and any excavations near their facilities.

City of Milwaukee – Storm Sewer
Storm sewer within the construction area will be reconstructed as part of the contract.

A SSPRC 12-inch from approximately Station 110+65, 170' RT to 113+34, 222' RT is removed as part of the contract.

A SSPRC 30-inch from approximately Station 123+02, 209' RT to 125+52, 128' RT runs parallel to existing SSPRC 84-inch that will be removed as part of the contract.

Contact Timothy Thur, (414) 286-2463 office, of City of Milwaukee – Storm Sewer 14 days in advance to coordinate locations and any excavations near their facilities.

MMSD
MMSD has a 126"x216" sewer pipe (invert elevation -47.4') crossing below the proposed SSPRC 84-inch approximately at Station 125+17, 73' RT. This crossing will remain in place without any adjustment. Contact Debra Jensen, (414) 225-2143 office, of MMSD 14 days in advance to coordinate locations and any excavations near their facilities.

8. Notice to Contractor – Utility Meetings.

The department will implement mandatory weekly utility meetings on this contract.

The Utility Coordination Meetings will define the scope and schedule for utility relocations, supporting utilities during construction and the respective roles and responsibilities of the project team.

1. At a minimum, the following key personnel will attend the Utility Coordination Meeting.
   1.1 Department's Utility Coordinator.
   1.2 Contractor's Utility Coordinator.
   1.3 Key Utility Company Representative(s)

2. At a minimum, the Utility Coordination Meeting will include a review of the following:
   2.1 Summary of all required for utility relocations and supporting utilities during construction on the project.
   2.2 Special provisions addressing utility work.
   2.3 Sharing of contact information.
   2.4 Scheduling of work for utility supporting including critical milestones and staging for the work.

This meeting will facilitate communication between parties and review issues and issues resolution procedures, help resolve disputes timely, satisfactorily, and as near as possible to the originating level of the dispute.

All utility meetings costs are incidental to the contract work

9. Notice to Contractor – Protecting and Supporting Utilities.

Design, protect and support all water, sewer, steam line, 138kV and other pipes and structures; telephones, cable, fiber optic, communications, conduits, electrical services, pavement, utilities, or other properties, public or private, during the execution of this work.

In the event of any damage or injury to any property as a result of the work under this contract, promptly have the same repaired to the satisfaction of the utility facility at no additional cost to the department.

Existing sub-surface structures in the vicinity of the work to be done are shown on the plans according to the best information available to the department. The department does

not, however, guarantee the completeness or accuracy of this information. Any delay or extra cost to the Contractor due to encountering structures differing from those shown on the plans shall not constitute a claim for extra payment.

No additional payment will be made for providing design, plans, documents, specifications, and coordination to support various utilities including but not limited to steam line, 138kV, water, electrical conduits, electrical services, fiber optic, telephone and removing inactive/abandoned facilities, coordinating and providing traffic control for WE Energies and Gas and Electric to support their facilities; protecting and supporting utilities as described above are considered part of appropriate construction bid item and no additional payment will be made.

10. Municipality Acceptance of Water Main Construction.

The City of Milwaukee will inspect the water main installation for this contract. Contractor to provide four working day notice for material inspection and for scheduling installation inspection prior to the start of construction.

Contact Steve Brengosz at 414-708-2808 or Karl Rohrbach, P.E. at (414) 286-8148 for materials inspection.

Contact Milwaukee Water Works, Engineering Construction Section, at (414) 286-6346 for installation inspection.

11. Inspection of City of Milwaukee Drainage Facilities.

Notify the City of Milwaukee construction section at least three working days in advance of performing drainage facilities construction. Contact Mr. Mazen Amer, (414) 286-2497, City of Milwaukee Inspector. Drainage facilities include storm sewers and combined flow sewers.

12. Environmental Protection, Aquatic Exotic Species Control.

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

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

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels prior to being used in other waters of the state. Before using equipment

on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Use the following inspection and removal procedures (guidelines from the Wisconsin Department of Natural Resources http://dnr.wi.gov/topic/fishing/documents/vhs/disinfection_protocols.pdf for disinfection:

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

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.
107-055 (20130615)

13. Erosion Control.

Supplement standard spec 107.20 with the following:

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

Provide the ECIP 14 days prior to the pre-construction conference. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaison, Kristina Betzold, (414) 263-8517, Kristina.betzold@wisconsin.gov. Do not implement the ECIP until department approval, and perform all work according to the approved ECIP.

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

Stockpile excess materials or spoils on upland areas away from wetlands, floodplains, and waterways. Immediately install perimeter silt fence protection around stockpiles. If stockpiled materials will be left for more than 14 days, install temporary seed or other temporary erosion control measures the engineer orders.

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

Do not allow any excavation for; structures, utilities, grading, maintaining drainage that requires dewatering(mechanical pumping) of water containing sediments (sand, silt, and clay particles) to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Prior to each dewatering operation, submit to the department a separate ECIP amendment describing in words and pictorial format an appropriate BMP for sediment removal, according to WisDNR Storm Water Construction Technical Standard, Code 1061, Dewatering. Include reasoning, location, and schedule duration proposed for each operation. Per Code 1061, include all selection criteria: site assessment, dewatering practice selection, calculations, plans, specifications, operations, maintenance, and location of proposed treated water discharge. Provide a stabilized discharge area. If directing discharge towards or into an inlet structure, provide additional inlet protection for back-up protection. Dewatering will be paid for under other bid items in this contract.
SEF Rev. 15_0120

14. Environmental Protection – Waste.

Conduct construction activities in an environmentally sound manner, including the proper disposal of all excavated material that cannot be utilized on the project.

The excavation management plan for this project has been designed to minimize the off-site disposal of impacted material. Follow the requirements for the off-site management of solid waste (landfill) and reuse of solid waste soil (within the project limits) as indicated in these special provisions. If subsurface contamination or other signs of non-exempt (NR 500.08) solid waste including buried containers, industrial fill, stained soils, noxious odors, etc., are unexpectedly encountered elsewhere on the project during excavation, terminate excavation in the area and notify the engineer immediately. Work with the department's environmental consultant to properly manage the waste following the WisDOT-WDNR materials management options as indicated in the table below. Contact Andrew Malsom (WisDOT) at (262) 548-6705 or Andrew.Malsom@dot.wi.gov to arrange for environmental consultant coordination. The environmental consultant will perform waste characterization and coordinate with the WDNR for an appropriate handling and disposal plan on an emergency basis.

Management of Material Excavated During Highway Construction		
Classification	Characterization of Material	Material Management
1. Common Excavation (NR 500.08(2) Unregulated or Exempt Material)	Native soil Fill soils that have no obvious visual or olfactory contamination and may not have been analyzed for contaminants. Clean unpainted or untreated wood, brick, concrete, cured asphalt, and trace amounts of glass.	Contractor-selected sites approved through Erosion Control Implementation Plan (ECIP) review process, or on-site reuse
2. Special Excavation (NR 500.08(4) Solid Waste Low Hazard Exemption)	Soil with low levels of petroleum contamination or contaminant metals within the site fill plan criteria. Trace amounts (<25% volume of the excavation equipment's bucket load) of foundry sand, cinders, and fly ash.	WisDOT selected site or on-site reuse with WDNR concurrence. Sites must meet the location criteria of 504.04 (3) (c) and (4) (a) to (f). Fill plans are also approved through ECIP review process.
3. Contaminated Soil and Fill Material	Lead painted or treated wood Petroleum contaminated soil Significant amounts (>25% volume of the excavation equipment's bucket load) of foundry sand, cinders, or fly ash.	Contaminated material disposed at a WDNR-licensed solid waste disposal facility. Petroleum contaminated material shall be treated at a bioremediation facility (biopile) prior to disposal at the landfill. Direct disposal of contaminated material at landfills without such pre-treatment must be pre-authorized by the WisDOT.
4. Asbestos-containing Waste	Asbestos-containing material	Landfill at a WDNR–licensed solid waste landfill with approval to accept asbestos-containing material.
5. Hazardous Waste	RCRA Subtitle C (NR 600) contaminated media (hazardous waste)	Disposed or treatment under State's hazardous waste disposal contract with Veolia. Significant quantities should be evaluated for potential treatment to render non-hazardous to reduce disposal costs.
6. Potentially contaminated material	Potentially contaminated material with unusual visual, olfactory, or other characteristics	Temporary stockpile with appropriate environmental controls constructed per NR 718.05. Temporary stockpiling at solid waste landfill may be alternative with WDNR and Landfill's approvals.

15. Notice to Contractor – Archaeological Site.

There is an unnamed archaeological site that exists in the area bounded by N. 4th Street to the west and N. 3rd Street to the east and north side of W. McKinley Avenue on the north to W. Juneau Avenue on the south. The department will provide a qualified archaeologist to monitor the construction related ground disturbing activities between N. 4th Street and N. 3rd Street. Provide notice to the Bureau of Technical Services – Environmental Process and Document Section (BTS-EPDS) Jim Becker (608) 261-0137 or Lynn Cloud at (608) 266-0099 at least two weeks before commencement of any ground disturbing activities in this area.

Do not use the area bounded by W. McKinely Avenue to the North and W. Juneau Avenue to the south and N. 4th Street on the west to N. 3rd Street on the east for borrow or waste disposal. Do not use the site are not currently capped by asphalt/concrete for the staging of personnel, equipment and/or supplies.

16. Notice to Contractor – Preserving Trees, Shrubs, and Planting Areas in the City of Milwaukee.

Replace standard spec 205.3.15 with the following:

A Description
This special provision applies to preserving trees, shrubs, and planting areas only located in the City of Milwaukee, which are NOT marked for removal.

B (Vacant)

C Construction
C.1 General
All cutting for the removal of sod and soil in order to establish a finished grade within 4 feet of existing trees must be done manually if necessary.

No construction equipment, cars, trucks, and/or materials shall be parked or stored on any median or tree border on this project or adjacent roadways.

Root foundations must remain adequate to withstand heavy windstorms.

Root systems of street trees may not be cut for the installation of any type of cable by the contractor or city department. Contact the Forestry Division at (414) 286-2428 for directional boring specifications.

The contractor will be responsible for excessive damage to the roots, trunks, and branches of all street trees. This responsibility may include the cost of any special treatment deemed necessary by the engineer to ensure survival of trees, or may include removal of trees at the contractor's cost.

Refrain from placing or storing any construction materials, sand, soil, or any other materials on the surface of the soil within the root zone of existing city street trees. Additionally, assure that no construction chemicals, tank rinsates, or petroleum products are deposited with the root zones of the trees. Root zone is defined as that area within the drip line of trees.

The contractor, prior to removal and/or replacement of sidewalk and/or curb and gutter, and driveways adjacent to all trees, shall review work operations with the engineer and/or Mr. Jim Kringer, forestry supervisor, at (414) 708-2428.

The following __trees are to be removed by the contractor:

101+00, RT	103+00, RT
102+00, RT	104+00, RT

C.2 Sidewalk Construction

The root system on the walk side of the tree shall be cut not deeper than 9 inches below the finished grade of the new walks, and not more than 5 inches from the edge of the new walk. Roots in the walk area shall be removed only to a depth of 9 inches below finished grade of the new walk.

Sidewalks are to be removed, and roots cut, by use of hand implements only.

C.4 Curb, Gutter, and Road Construction

When constructing or replacing driveways or driveway approaches; roots shall not be cut by means of mechanical root cutting machines. If root removal is essential to driveway replacement, roots shall be manually cut with hand implements.

Cover exposed tree roots with mulch and water from a period immediately following curb and gutter removal, until the area is backfilled following construction. The cost of this work is incidental to removal items.

C.5 Damage and Repair

Caution should be used during the construction process to avoid damage to the roots, trunks, and branches of all street trees. Damage caused to any street tree or irrigation system will be repaired by the City of Milwaukee's Forestry Division and the costs of repair, rejuvenation, and/or value lost will be billed to the contractor or credited against the contract at the option of the city. If any of the irrigation system is damaged immediately contact Mr. Andrew Witczak at (414) 708-3795 or (414) 803-7392, andywitczak@yahoo.com for repair. Any and all questions regarding the irrigation system can be directed to Mr. Witczak.

At locations where the contractor has not complied with the forestry special requirements stated in the special provisions above, and the maximum clearance was exceeded or a thin form was not used, a minimum credit to the city of $50.00 per location will be taken. The credit will increase in proportion to the excess distance beyond clearance allowed. The

credit will be $50.00 for each 2-inch increment or part thereof in excess of the initial clearance allowed. Any damage to the tree's structure totaling 15 percent of the trees value will be billed on a prorata basis. If, in the opinion of the City of Milwaukee's Forestry Division, the tree has been damaged to the point that it warrants removal, the credit that will be taken will be equal to $100.00 per inch diameter of the tree. A field measurement will be taken to determine the tree size.

D (Vacant)

E Payment
The cost of this work shall be included under appropriate bid items for roadway and drainage excavation, sewer and water excavation, and removals. No separate payment will be made for preserving trees, shrubs, and planting areas located in the City of Milwaukee.

17. Dust Control Implementation Plan.

A Description
Develop, update, and implement a detailed Dust Control Implementation Plan (DCIP) for all land-disturbing construction activities and associated impacts both within the project site boundaries and outside the project site boundaries. Incorporate contract bid items that this article specifies into the DCIP.

B (Vacant)

C Construction
C.1 General
Take responsibility for dust control on the project as specified in standard spec 107.18. Minimize dust emissions resulting from land disturbing activities. Do not generate excessive air borne particulate matter (PM) or nuisance dust conditions. Take direct responsibility for controlling dust at all times throughout the duration of the contract, 24 hours per day, 7 days per week, including non-working hours, weekends, and holidays.

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

C.2 Dust Control Implementation Plan Contents
Develop a DCIP tailored to the specific needs of the project. Consider potential impacts to businesses and residences adjacent to the job site. Describe in detail all land disturbing, dust generating activities. Identify strategies to prevent, mitigate, and collect excess dust. Establish clear lines of communication with the engineer to ensure that all dust control issues can be dealt with promptly.

The DCIP shall include, but not be limited to, all of the following:

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

C.3 Updating the Dust Control Implementation Plan

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

C.4 Dust Control Deficiencies

Correct engineer identified dust control deficiencies within the time the engineer specifies. The engineer will allow from 30 minutes to 24 hours from the time the engineer notifies the contractor in writing of the deficiency. Deficiencies include, but are not limited to, actions or lack of actions resulting in excessive dust, failing to comply with the contractor's dust control implementation plan or associated special provisions, and failing to properly maintain equipment.

D Measurement

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

Measurement under the DCIP shall include, but is not limited to, the contract bid items listed below:

623.0200	Dust Control Surface Treatment
624.0100	Water
628.7560	Tracking Pads
SPV.0075.0001	Pavement Cleanup Project 2126-00-70

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

E Payment

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

SEF Rev. 14_1211

18. Maintaining Drainage.

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

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

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

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

Dewatering (Mechanical Pumping) for treatment Water (sediment-laden) Operations
If dewatering operations require pumping of water containing sediments (sand, silt, and clay particles), the discharge will not be allowed to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Refer to article Erosion Control in these special provisions for additional requirements.
SEF Rev. 15_0209

19. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

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

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

Department of Neighborhood Services
4001 South 6th Street
(414) 286-2268

20. Available Documents.

The department will make all as-built drawings available to bidding contractors. This documents are available from David Nguyen at 141 NW Barstow Street, Waukesha, WI, 53187, (262) 352-5188.

21. Contractor Notification.

Replace standard spec 104.2.2.2(2) with the following:

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

104.3.2 (Vacant)

104.3.3 Contractor Initial Written Notice
Replace standard spec 104.3.2 and 104.3.3 with the following:

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

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

Provide the additional information specified in standard spec 104.3.5 as early as possible to assist the engineer in the timely resolution of an identified issue. The engineer will not require, in subsequent submissions, duplication of information already provided.
SEF Rev. 14_1211

22. Pavement Breaking Equipment.

Use only hydraulic pavement breaking equipment for breaking pavement within 300 feet of any structure. Do not use guillotine, drop hammer, falling weight, gravity impact breakers or equivalent equipment.

23. Incentive/Disincentive for Interim Completion of Work, Item 108.3100.S.

A General
This item shall consist of either an incentive payment or the assessment of a disincentive as specified below for the full operation of the proposed storm sewer from MH 23 to MH 7 and removing the existing pipe from MH 23 to N. 5th Street (to be extended by others in future) as shown on the plan.

The full operation of the proposed storm sewer is defined as the contractor completing all of the following work prior to 12:01 AM Saturday, June 4, 2016, or within such extended time as may be allowed:

- Completing the proposed storm sewer from MH 23 to MH 7
- Removal of existing sewer from MH 23 to N. 5th Street
- Completing all pavement, curb and gutter and restoration on W. McKinley Avenue including all eastbound lanes open to traffic,
- N. 6th Street and N. 4th Street completely open to traffic

The completion time allowed for this contract is based on an expedited work schedule.

Under this Incentive/Disincentive plan, the department will not grant time extensions for the following:

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

Each day shall be defined as a 24 hour period beginning at 12:01 AM.

The maximum incentive payment, as shown on the Schedule of Items, is for department accounting purposes. The actual incentive payment the contractor may receive shall be in accordance to section B of this provision.

Incentive payments will not be considered as part of the money value of the work completed for computing time extensions.

B Incentive Payment
The contractor shall be entitled to an incentive payment for completion of all of the work necessary for the full operation of the proposed storm sewer from MH 23 to MH 7 and removal of existing pipe from MH 23 to N 5th Street as defined above in Section A prior to 12:01 AM, Saturday, June 4, 2016, or such extended time as may be allowed.

The incentive payment shall be paid at the rate of $10,000 per calendar day for each day or portion thereof, of completion prior to 12:01 AM Saturday, June 4, 2016. The maximum amount of incentive payment shall not exceed $100,000.

C Disincentive Pay Reduction
Should the contractor fail to complete all of the work necessary for the full operation of the proposed storm sewer from MH 23 to MH 7 and removal of existing pipe from MH 23 to N. 5th Street as defined above is section A under this contract prior to 12:01 AM, Saturday, June 4, 2016, or within such extended time as may be allowed, the contractor shall be liable to the department for a pay reduction in the amount of $10,000 per day or portion thereof, for each calendar day after 12:01 AM, Saturday, June 4, 2016, that work remains incomplete.

If contract time expires before completing all work specified in the contract, additional liquidated damages according to standard spec 108.11 will be affixed in addition to the disincentive pay reduction.

D Measurement and Payment
Incentive/Disincentive for interim Completion of Work will be measured by the calendar day and will be paid for at the contract unit price per calendar day.

The unit price per day based on the incentive pay adjustment shall be compensation in full for completing the work as hereinbefore specified.

The unit price per day based on the disincentive pay reduction shall be assessed for failing to complete all the work as hereinbefore specified.
108-056 (20080501)

24. Removing or Abandoning Miscellaneous Structures.

Replace standard spec 204.5.1(3) with the following:

When backfilling with Backfill Granular the item Backfill Granular is considered incidental to the appropriate bid item.

Supplement standard spec 204.3.2.2 with the following:

Backfill existing storm sewer or existing storm sewer structure locations shown for removal or abandonment with backfill granular immediately after completing the sewer work. Backfill according to standard spec 209.

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

25. Abandoning Sewer, Item 204.0291.S.

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

B Materials
Provide cellular concrete meeting the following specifications: 1 part cement, 1 part fly ash, 8 parts sand, or an approved equal, and water. Provide cement meeting the requirements of standard spec 501.2.1 for Type 1 Portland Cement. Provide sand meeting the requirements of standard spec 501.2.5.3. Provide water meeting the requirements of standard spec 501.2.4.

C Construction
Fill the abandoned sewer pipe with cellular concrete as directed by the engineer. In the event that the sewer cannot be completely filled from existing manholes, tap the sewer where necessary and fill from these locations.

D Measurement
The department will measure Abandoning Sewer in volume by the cubic yard according to standard spec 109.1.3.

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.
204-050 (20080902)

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

A Description

A.1 General

This special provision describes excavating, loading, hauling, and bioremediation of petroleum contaminated soil at a DNR licensed facility. The closest DNR licensed landfill facilities that can bioremediate this soil once excavated are:

Advanced Disposal Emerald Park Landfill
W124 S10629 124th St.
Muskego, Wisconsin 53150
(414) 529-1360

Waste Management Orchard Ridge Landfill
N96 W13503 County Line Road
Menomonee Falls, WI 53051
(262) 253-8620

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

A.2 Notice to the Contractor – Contaminated Soil and Groundwater Locations

The department and others completed testing for soil and groundwater contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following locations as shown on the plans:

- Station 109+00 to 110+50, from project limits left to project limits right, from 0 to 15 feet bgs. Soil is contaminated with petroleum and metals. Approximately 1,908 cubic yards (approximately 3,244 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this area (includes all excavation minus pavement structure) for the installation of storm sewer. Groundwater at this location is contaminated with petroleum and metals.
- Station 110+50 to 124+75, from project limits left to project limits right, from 0 to 15 feet bgs. Soil is contaminated with petroleum, trichloroethene, and metals. Approximately 9,483 cubic yards (approximately 16,121 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this area (includes all excavations minus pavement structure) for the installation of storm sewer. Groundwater at this location is contaminated with petroleum and metals.

- Station 124+75 to 125+50, from project limits left to project limits right, from 0 to 15 feet bgs. Soil is contaminated with petroleum, trichloroethene, and metals. Approximately 665 cubic yards (approximately 1,131 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this area (includes all excavations minus pavement structure) for the installation of storm sewer. Groundwater at this location is contaminated with petroleum and metals.
- From MH 23 to MH 7 soil may be contaminated with petroleum and metals. Approximately 7,894 cubic yards (approximately 13,420 tons at an estimated 1.7 tons per cubic yard) of soil will be excavated from this area (includes all excavations minus pavement structure and pipe segment left in place). Groundwater at this location may be contaminated with petroleum and metals.

Directly load soil excavated by the project at the above locations into trucks that will transport the soil to a WDNR-licensed bioremediation facility.

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

No active groundwater monitoring wells were observed within the construction limits. If active groundwater monitoring wells are encountered during construction, notify the engineer and protect them to maintain their integrity. The environmental consultant will determine if monitoring wells need to be maintained. For monitoring wells that do need to be maintained, adjust the wells that do not conflict with structures or curb and gutter to be flush with the final grade. For wells that conflict with the previously mentioned items or if monitoring wells are not required to be maintained, they will be abandoned by others.

If dewatering is required at the above locations, conduct the dewatering according to Section C below.

A.3 Excavation Management Plan

The excavation management plan for this project has been designed to minimize the offsite bioremediation of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities in these areas contact:

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

A.4 Coordination

Coordinate work under this contract with the environment consultant:

Consultant:	TRC Environmental Corporation
Address:	150 N. Patrick Blvd. Ste. 180, Brookfield, WI 53045
Contact:	Bryan Bergmann, P.G. or Tyler Stapel, P.E.
Phone:	(262) 901-2126, (262) 901-2142
Fax:	(262) 879-1220
E-mail:	bbergmann@trcsolutions.com, wstapel@trcsolutions.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;

2. Identifying contaminated soils to be hauled to the bioremediation facility;

3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and

4. Obtaining the necessary approvals for bioremediation of contaminated soil from the bioremediation facility.

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

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

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

A.5 Health and Safety Requirements
Supplement standard spec 107.1 with the following:

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

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

B Vacant)

C Construction
Supplement standard spec 205.3 with the following:

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

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

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

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

1. Meet all applicable requirements of the MMSD including the control of suspended solids. Perform all necessary monitoring to document compliance with MMSD's requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with MMSD's requirements.

2. Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.

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

Costs associated with excavation dewatering in the contaminated area are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

D Measurement

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

E Payment

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

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

Payment is full compensation for excavating, segregating, loading, hauling, and disposal of contaminated soil; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and dewatering of soils prior to transport, if necessary. No additional payment will be made for tipping fees associated with the disposal of contaminated soil.

27. Backfill Granular.

For traffic signal base and street lighting foundation work, backfill granular includes furnishing and filling cylindrical column form with granular backfill type as according to standard spec 209, and as noted in the plan sheets.

The granular backfill is for filling the inside of a cylindrical column form to temporarily maintain the form shape, until street lighting can remove it later to then install a street light pole within the form.

28. QMP Subgrade.

A Description

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

W. McKinley Avenue and all project construction area

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures. The contractor may obtain the CMM from the department's web site at: http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/cmm.aspx

B Materials

B.1 Quality Control Plan

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

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

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

B.2 Personnel

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

B.3 Laboratory

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

Materials Laboratory
3502 Kinsman Boulevard
Madison, Wisconsin 53704-2583
Telephone: (608) 246-7938
http://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/qual-lab-req.aspx

B.4 Equipment

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

Furnish nuclear gauges from the department's approved product list at http://www.atwoodsystems.com/materials. Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge within 12 months before using it on the project. Retain a copy of the calibration certificate with the gauge. Nuclear density gauge calibration verification is required daily when earthwork construction operations require testing under this special provision article. This calibration verification shall be performed using the departments "Validator" apparatus which is located at the Zoo Interchange Construction Field Office: 2424 S. 102nd St., West Allis, Wisconsin 53227. Establish a standard gauge reading for the "Validator" using the ten test average method. The source emitter depth for calibration verification, in the direct transmission mode, will be determined by the engineer. This procedure will establish the "Validator" apparatus, as the contractor's project reference site.

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

B.5 Soil Source Study

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

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

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

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

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

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

B.6 Quality Control Documentation

B.6.1 Control Charts

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

1. Subgrade cut portions of the project.
2. Embankment in pipe removal, pipe culvert, sewer and waterline trenches.

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

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

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

B.6.2 Records

Document all observations, inspection records, adjustments to fill placement procedures, soil changes, and test results daily. Note the results of the observations and inspection records as they occur in a permanent field record. Density test locations shall be identified by a specific test number and include horizontal and vertical control for reference as noted in Section B.7.1.

Provide copies of the field density and field moisture running average calculation sheets, the one-point Proctor tests, records of procedure adjustments, and soil changes to the engineer daily.

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

B.7 Contractor Testing

B.7.1 General

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

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

For each test, provide the cubic yards represented and the test location to within 2 feet horizontally and 0.5 feet vertically. Use project stationing to determine horizontal location and grade stakes to determine vertical location. Elevations must be referenced to NAV88 datum.

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

B.7.2 Field Density and Field Moisture

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

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

B.7.3 One-Point Proctor

Obtain a representative sample of the fill material and test according to AASHTO T 272. Compare the sample to the curves developed in the soils source study to determine the maximum dry density and optimum moisture. Use the appendix for AASHTO T 272 as a guide in this determination.

B.7.4 Testing Frequency

B.7.4.1 Subgrade Embankment portions of the project

Perform the required tests at the following frequencies:

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One per 2,000 cubic yards of fill per lift or one test per grading area per day whichever yields the most tests.
One-Point Proctor (AASHTO T 272)	One per 9,000 cubic yards or when a change in fill material occurs.

B.7.4.2 Subgrade Cut

Perform the required tests at the following frequencies:

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

B.7.4.3 Subgrade Embankment in Pipe Removals, Sewer and Waterline Trenches

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

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 100 CY of backfill placed per lift or one test per day whichever yields the most tests.
One-Point Proctor (AASHTO T 272)	One per 3,000 cubic yards or when a change in fill material occurs.

B.7.5 Compaction Zones

B.7.5.1 Subgrade Embankment portions of the project,

Embankment material placed within 6 feet of the finished subgrade elevation is classified as upper zone material. Material placed more than 6 feet below the finished subgrade elevation is classified as lower zone material.

B.7.5.2 Subgrade Cut

Subgrade material in cut areas is subject to the quality controls for upper zone material.

B.7.5.3 Subgrade Embankment in Pipe Removal and Pipe Trenches

Material placed within pipe removal and culvert pipe trenches are subject to the quality controls for the zone that the material is located in.

B.7.6 Control Limits

B.7.6.1 Field Density

B.7.6.1.1 General Conditions

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

The lower control limit for field density measurements in the lower zone is a minimum of 93.0% of the maximum dry density as determined by AASHTO T 99 or T 272 for the 4-point running average and a minimum of 90.0% of the maximum dry density for any individual test.

B.7.6.2 Field Moisture Content

B.7.6.2.1 General Conditions

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

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

B.7.6.2.2 Winter Conditions

If the critical path of the project schedule requires grading activities between November 15 and May 1, the upper control limit for soil moisture content may be raised to 110 percent of the optimum moisture content. This specification change may be applied to lower zone material and upper zone material greater than 5 feet below finished subgrade if weather conditions do not allow for standard drying procedures (discing, aerating, etc.) and if approved by the engineer. The upper soil moisture control limit for embankments supporting MSE walls may not be raised. The engineer may allow the higher moisture

content specification outside of the aforementioned dates if dictated by schedule and soil and weather conditions.

A written request must be submitted to the department for approval of the higher specification limit for soil moisture content. The request must include the affected grading areas, start and finish dates of grading activities, and total float provided for the activities. Once approved, this change may be applied to the quality control program and should be reflected in the control charts and testing records."

B.7.7 Corrective Action

Notify the engineer if an individual field density test falls below the individual test control limit. The subgrade in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the density of the subgrade material. After corrective action, perform a randomly located retest within the represented quantity to ensure that the material is acceptable. The field density tests, soil moisture content tests and soil stability must meet the requirements of this special provision for the fill to be considered acceptable.

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

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

B.8 Department Testing

B.8.1 General

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

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

B.8.2 Verification Testing

The department will have an HTCP technician, or ACT under the direction of a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified for contractor testing

personnel for each test being verified. The department will notify the contractor before testing so the contractor can observe QV testing.

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

The department will perform verification testing as follows:

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

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

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

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

B.8.3 Independent Assurance Testing

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

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

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

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

B.9 Dispute Resolution

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

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

B.10 Acceptance

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

C (Vacant)

D (Vacant)

E Payment

Costs for furnishing 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.

29. QMP Base Aggregate.

A Description

A.1 General

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

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

(3) Do not apply this special provision to material placed 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://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/rdwy/default.aspx

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

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

(1) Document all placement observations, inspection records, and control adjustments daily in a permanent field record. Also include all test results in the project records. Provide test results to the engineer within 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 standard spec 310 for each base aggregate size, source or classification, and type. Set control and warning limits based on the standard specification gradation limits as follows:

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

B.6.2 Fracture

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

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

B.6.3 Liquid Limit and Plasticity

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

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

B.7 Corrective Action

B.7.1 General

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

B.7.2 Placement Corrective Action

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

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

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

(3) If corrective action improves the property in question such that the running average after 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 two business days after the department obtains the sample.

B.8.2 Verification Testing

B.8.2.1 General

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

(2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:

1. 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 (20151210)

30. Asphaltic Surface Temporary.

Replace standard spec 465.2 (1) with the following:

Under the Asphaltic Surface Temporary bid item; submit a mix design. Furnish asphaltic mixture meeting the requirements specified for E-10 under standard spec 460.2; except the engineer will not require the contractor to conform to the quality management program specified under standard spec 460.2.8.

31. Storm Sewer.

Supplement standard spec 204.3.2.2 with the following:

Material placed within storm sewer trenches is subject to the quality control for the zone that the material is being placed and shall conform to QMP Subgrade article listed elsewhere in this special provision document.

Supplement standard spec 204.5.1 with the following:

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

Backfilling existing pipe removal with backfill conforming to standard spec 209 including voided pipe volume (not occupied by new structure or pipe) is considered incidental to removing storm sewer pipe bid item.

Supplement standard spec 607.3.1.1 with the following:

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

Supplement standard spec 607.3.5 with the following:

Material placed within storm sewer trenches is subject to the quality control for the zone that the material is located in and shall conform to QMP Subgrade article listed elsewhere in this special provision document.

Replace standard spec 607.3.5(1) with the following:

Backfill all trenches and excavations immediately after completing storm sewer construction. Backfill all trenches and excavations of all new and existing storm sewer pipes and storm sewer structures with backfill material conforming to standard spec 209.

Supplement standard spec 608.3 with the following:

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

Replace standard spec 608.5(2) with the following:

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

Supplement standard spec 607.3 with the following:

607.3.8 Incorporating or Disposing of Excavated Material

(1) Incorporate excavated material in the work to the extent practicable. Use materials with suitable engineering properties for backfill.
(2) Dispose of surplus or unsuitable material as specified in standard spec 205.3.12.

32. Catch Basins, Manholes, and Inlets.

Furnish Grade A concrete conforming to standard spec 501 as modified in 716.

Supplement standard spec 611.3.1 with the following:

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

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

Supplement standard spec 611.3.2 with the following:

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

Supplement standard spec 611.3.3 with the following:

Use monolithic concrete shimming as shown on plans for final adjustment of drainage structures located within the concrete pavement and concrete curb and gutter. If the adjustment is less than 4-inches, the engineer may choose to direct the contractor to use grade rings for adjustments for storm sewer structures outside the concrete pavement.

Supplement standard spec 611.3.7 with the following:

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

Replace standard spec 611.5.2 (1) with the following:

Payment for Catch Basins, Manholes, and Inlets bid items is full compensation for providing all submittals; materials, including all masonry, and concrete bricks, for Grade "A" concrete adjustments and monolithic concrete shimming; adjusting rings; conduit and sewer connections, steps, and other fittings; for providing and installing butyl rubber joints; for furnishing backfill, backfilling; all excavating, disposing of surplus material,

and for cleaning out and restoring the work site; except that the department will pay for covers, salvaged covers including frames, grates and lids separately.

33. Fence Safety, Item 616.0700.S.

A Description
This special provision describes furnishing and installing a plastic fence at locations shown on the plans and as hereinafter provided.

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

Furnish fence fabric meeting the following requirements.

Color:	International orange (UV stabilized)
Roll Height:	4 feet
Mesh Opening:	1 inch min to 3 inch max
Resin/Construction:	High density polyethylene mesh
Service Temperature:	-60° F to 200° (ASTM D648)
Tensile Yield:	Avg. 2000 lb per 4 ft. width (ASTM D638)
Ultimate Tensile Strength:	Avg. 3000 lb per 4 ft. width (ASTM D638)
Elongation at Break (%):	Greater than 100% (ASTM D638)
Chemical Resistance:	Inert to most chemicals and acids

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

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

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

D Measurement
The department will measure Fence Safety by the linear foot along the base of the fence, center-to-center of posts, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.
616-030 (20070510)

34. Signs Type I and II.

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

Modify standard spec 637.2.4 with the following:

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

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

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

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

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

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

Append standard spec 637.3.2.1(3) with the following:

Provide the engineer with 3 copies of drawings of the signs proposed to be furnished under this contract for approval.

Append standard spec 637.3.3.2(2) with the following:

Install Type I Signs at the offset stated in the plan, which shall be the clear distance between the edge of mainline pavement right edgeline and the near edge of the sign.

Append standard spec 637.3.3.3(3) with the following:

Furnish and install new aluminum vertical sign support beams on each sign and new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss for Type I or Type II Signs and Type I signs on overhead sign supports incidental to sign. New I-beams are incidental to the sign being installed.
637-SER1 (20120401)

35. Field Facilities.

Replace standard spec 642 with the following:

The department has procured its own field facilities located at 1001 W. St. Paul Avenue, Milwaukee, WI, 53233

36. Traffic Control.

The work under this item shall be according to the pertinent requirements of standard spec 643, as shown on the plans, or as approved by the engineer, except as hereinafter set forth.

Place traffic control devices for work in the proper location before operations proceed. Traffic Control is subject to change at the direction of the engineer in the event of an emergency.

Provide the Milwaukee County Sheriff's Department, City of Milwaukee Police Department, the Statewide Traffic Operations Center and the engineer a current telephone number with which the contractor or his representative can be contacted during non-working hours in the event a traffic control safety hazard develops.

Do not park or store equipment, vehicles, or construction materials within 30 feet of the edge of traffic lanes without barrier separation for any roadway carrying traffic except as approved by the engineer. At such locations, the materials and equipment involved shall not constitute a hazard to the traveling public.

Do not store materials, equipment, or park vehicles within 4 feet of barrier wall that has not been pinned.

Yield to all through traffic at all locations. Equip the top of all contractor and personal vehicles and equipment operating in live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders.

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

37. Traffic Signals, General.

City of Milwaukee Owned Traffic Signal
The traffic signal at the intersections of N. 6th Street and N. 4th Street is owned and operated by the City of Milwaukee.

38. Construction Staking Electrical Installations.

The work under this item shall be performed according to the requirements of standard spec 650, and as shown in the plans.

The street lighting poles and vaults are both stationed to the center with the conduit stationed at the ends. See drawing details for any additional information.

39. Conduit Rigid Nonmetallic Schedule 40 2-Inch; Schedule 40 2 ½-Inch Schedule 40 3-Inch.

This work consists of furnishing and installing PVC conduits according to standard spec 652, and as shown in the plan details.

Locations of the conduits where they are required are identified in the plans. However, installation will require integration with existing field conditions. Appropriate adjustment on conduit locations may be made if the field conditions are such that the pipes cannot be installed at the specified locations. Any relocation of greater than 5 feet must be approved by the engineer.

Plan changes must be approved by the City of Milwaukee Electric Services Supervisor or Traffic Engineer. The primary contacts are Mr. Al Nichols, Traffic Operations Supervisor (414) 286-3687-office, (414) 708-5148-mobile; or Mr. Joseph Blakeman, Traffic Control Engineer III (414) 286-8070.

Provide three sets of As-Built plan sets to City of Milwaukee Electric Services Supervisor or engineer upon completion of conduit installation.

40. Conduit Special 3-Inch.

These works consist of furnishing and installing PVC conduits according to standard spec 652, and as shown in the plan details. All work shall be according to standard spec 651.

Locations of the conduits where they are required are identified in the plans. However, installation will require integration with existing field conditions. Appropriate adjustment on conduit locations may be made if the field conditions are such that the pipes cannot be installed at the specified locations. Any relocation of greater than five feet must be approved by the engineer.

Field design changes must be approved by the City of Milwaukee Electric Services Supervisor. The primary contacts are Mr. Dennis Miller, Street Lighting Supervisor, (414) 286-5942 office, (414) 708-4251 mobile; or Mr. George Berdine, Street Lighting Supervisor (414) 286-5943 office, (414) 708-4245 mobile.

41. Catch Basin Type 44-A, Item SPV.0060.0001; Catch Basin Type 44-B, Item SPV.0060.0002; Manhole Cover MS 58-A, Item SPV.0060.0005; Inlet Cover MS 57, Item SPV.0060.0006.

A Description
This special provision describes the requirements of standard spec 611 and the details as shown on the plans.

B (Vacant)

C (Vacant)

D Measurement
The department will measure Catch Basin Type 44A, Catch Basin Type 44B, Manhole Cover MS 58-A, and Inlet Cover MS 57 by the unit in place, acceptably furnished, and installed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0001	Catch Basin Type 44A	Each
SPV.0060.0002	Catch Basin Type 44 B	Each
SPV.0060.0005	Manhole Cover MS 58-A	Each
SPV.0060.0006	Inlet Cover MS 57	Each

Payment is full compensation for furnishing and installing the inlet, catch basin, and manhole frame, grate and covers. Manhole Cover MS 58-A includes frame MS 21 and Inlet Cover MS 57 includes frame MS 51. No separate payment will be made for frames MS 21 and MS 51.

42. Manhole 9-Foot Special, Item SPV.0060.0003; 10-Foot Special, Item SPV.0060.0004.

A Description
This work shall consist of design and construction of either a cast-in-place or precast storm sewer structure made of concrete with necessary reinforcement, metal frames, grates and lids, including required excavating and backfilling.

B Materials
Conform to standard spec 611.2.

C Construction
Conform to standard spec 611.3.

D Measurement
The department will measure Manhole (Size) Special by each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0003	Manhole 9-Foot Special	Each
SPV.0060.0004	Manhole 10-Foot Special	Each

Payment is full compensation for structure design; providing all materials, including all masonry, for Grade "A" concrete adjustments and monolithic concrete shimming; conduit and sewer connections, steps and other fittings; for furnishing all excavating and backfill; disposing of surplus material; and for cleaning out and restoring the work site. The department will pay for covers, including frames, grates, and lids separately.

The department will apply contract unit prices without adjustments to the quantities of manholes constructed to depths not greater than one foot above or below the elevations shown on the plans. Manholes that the engineer orders constructed to a depth greater than one foot above or below elevations shown on the plans will be specified for extra work and paid for according to standard spec 109.4.

43. Storm Sewer Structure M4, Item SPV.0060.0007; Structure M5, Item SPV.0060.0008.

A Description
This work shall consist of design and construction of either a cast-in-place or precast storm sewer structure made of concrete with necessary reinforcement, metal frames, grates and lids, including required excavating and backfilling.

B Materials
Conform to standard spec 611.2.

C Construction
Conform to standard spec 611.3.

D Measurement
The department will measure Storm Sewer Structure (type) 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.0060.0007	Storm Sewer Structure M4	Each
SPV.0060.0008	Storm Sewer Structure M5	Each

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

The department will apply contract unit prices without adjustments to the quantities of manholes constructed to depths not greater than one foot above or below the elevations shown on the plans. Manholes that the engineer orders constructed to a depth greater than one foot above or below elevations shown on the plans will be specified for extra work and paid for according to 109.4.

44. Pipe Connection to Existing Structure, Item SPV.0060.0009.

A Description
This special provision describes connecting new storm sewer pipe to existing structure.

B Materials
Conform to standard spec 608.2 and standard spec 611.2

C Construction
Conform to standard spec 607.3 and standard spec 611.3

D Measurement
The department will measure Pipe Connection to Existing Structure by each pipe connected, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0009	Pipe Connection to Existing Structure	Each

Payment is full compensation for performing all work; excavation, backfilling, furnishing, masonry and fittings; disposing of surplus material, coring holes in existing structure to connect new pipe; and installing all materials, couplings, concrete collars, and pipe.

45. Exposing Infrastructure Paved Area, Item SPV.0060.0010.

A Description

This work includes locating and exposing existing infrastructure in paved areas as directed by the engineer. The contractor shall be responsible for compliance with s.182.0175 (2), Statute, with respect to precautions to be taken to avoid and prevent damage to utility facilities. The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. Conform to Wisconsin State Statute 182.0175 (2) and Wisconsin Administrative code Trans 220. The work includes exposing existing infrastructure, including utilities, under paved surfaces and providing both lateral and depth measurements for use in determining potential infrastructure conflict solutions, and backfilling.

B Materials

B.1 Backfill granular

Utilize backfill granular as per standard spec 209.

C Construction

C.1 General

The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. This item will only be used as determined by the department for unique locations as directed by the engineer. It does not remove the contractor's obligation to locate utilities as specified by Wisconsin Administrative code Trans 220 and Wisconsin State Statute 182.0175. The engineer will direct all exposing existing infrastructure in writing. Coordinate infrastructure exposures with the engineer and notify the infrastructure owner or their agents of this work two working days in advance so that they may be present when the work commences.

C.2 Excavation

Remove all paved surfaces at locations where the existing infrastructure is being exposed. Saw or remove concrete and asphaltic pavements to the nearest joint. Remove all pavement surfaces in such a way that all existing edges consist of a true line having a perpendicular edge with no unraveling. Maintain drainage at all times in accordance to standard spec 205.3.3. Take precautions, including temporary shoring, in order to prevent any undermining of the existing roadway. Perform work in accordance to all applicable laws, ordinances, rules, regulations, and OSHA standards.

Expose all infrastructure locations within a given location to a minimum depth of 18-inches below the bottom of each infrastructure. Excavate in a manner that protects the integrity of the infrastructure and prevents any damage to wrappings or protective coatings such as by any mechanical method or hand digging. Notify the infrastructure owner promptly if damage or interruption of service occurs. Repair all damage caused to such infrastructure resulting from negligence or carelessness at own expense.

Take all lateral and depth measurements in US feet and tenths thereof. Identify horizontal locations of each exposed infrastructure with a coordinate northing and easting referenced to the Wisconsin County Coordinate System (WCCS), Milwaukee County, NAD 83 (97). Provide vertical elevations for each exposed infrastructure and reference to NAVD 88 (91).

The infrastructure location shall remain exposed and available for visual inspection until the completion of all work in a given location. If the infrastructure shall remain exposed overnight or for prolonged periods of time, protect the location with traffic-rated steel plating, safety barriers, and all necessary traffic control devices that may be required under applicable standards or as directed by the engineer.

C.3 Backfilling

Upon completion of the infrastructure exposure, restore the location in kind to its original condition. When exposed infrastructure locations fall within local streets or city right-of-way, use backfill granular to fill the entire location to the subgrade elevation.

Restore concrete pavement and concrete base course to the depth found in the existing roadway. Replace all locations that fall within live lanes of any roadway or pedestrian traffic with a high early-strength concrete pavement mix design having a depth equivalent to the existing pavement structure unless directed otherwise by the engineer. Locations that are closed to through traffic may use an approved concrete pavement mix conforming to standard spec 501. If directed by the engineer, tie concrete pavement and/or dowel it to the existing pavement according to the standard detail drawing for concrete pavement. All locations requiring asphaltic pavement shall consist of HMA Pavement Type E-3 unless otherwise directed by the engineer. Place the HMA pavement in lifts to a depth as directed by the engineer. Apply tack coat to composite pavement structures and between lifts. Alternate restoration methods may be used upon written approval from the engineer.

Place base aggregate dense between the subgrade surface and the bottom of the pavement.

C.4 Documentation

Provide documentation to the engineer and include the coordinates, elevations, and sketches of the infrastructure locations tied to known features in the plans. Reference each infrastructure to a proposed alignment with a station and offset. Where near a ramp, reference the ramp alignment. Document the size and/or diameter, composition, and a description of each infrastructure and the location of the elevation with respect to each infrastructure noted. Supply digital photographs of the uncovered infrastructure to the engineer in .jpeg format for future reference.

D Measurement

The department will measure Exposing Infrastructure Paved Area as a unit for each location. A location may have multiple infrastructures located within the same exposure area. An exposure area will include all infrastructures within 6 lateral feet of each other and payment will only be made for one unit regardless of the number of infrastructures exposed. If the distance from the existing ground elevation, located above the existing

infrastructure, to a point 18 inches below the exposed infrastructure is between 0 and 6 feet, the department will measure each location as a single unit of work. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is greater than 6 feet and less than 12 feet, the department will pay for the item as two units of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0010	Exposing Infrastructure Paved Area	Each

Payment is full compensation for mobilization; for furnishing all excavation; for disposing of all materials; for locating all infrastructure within each respective location; for providing documentation and photographs of infrastructure locations to the engineer; for furnishing all surveying associated with exposing existing infrastructure; for furnishing all maintenance of the location during construction; for furnishing all traffic control, safety barriers, and steel plating required; for temporary shoring; and for furnishing all finishing items including, but not limited to, base aggregate dense, backfill granular, concrete pavement, HMA pavement, curb and gutter, and sidewalk located above the subgrade elevation.

46. Exposing Infrastructure Unpaved Area, Item SPV.0060.0011.

A Description

This work includes locating and exposing existing infrastructure in unpaved areas as directed by the engineer. The contractor shall be responsible for compliance with s.182.0175 (2), Statute, with respect to precautions to be taken to avoid and prevent damage to utility facilities. The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. Conform to Wisconsin State Statute 182.0175 (2) and Wisconsin Administrative code Trans 220. The work includes exposing existing infrastructure, including utilities, under unpaved surfaces and providing both lateral and depth measurements for use in determining potential infrastructure conflict solutions, and backfilling.

B Materials

B.1 Backfill granular

Utilize backfill granular as per section 209.

C Construction

C.1 General

The location of existing utilities and infrastructure needed to complete the contract work shall be addressed independent of this provision. This item will only be used as determined by the department for unique locations as directed by the engineer. It does not remove the contractors obligation to locate utilities as specified by Wisconsin Administrative code Trans 220 and Wisconsin State Statute 182.0175. The engineer will direct all exposing existing infrastructure in writing. Coordinate infrastructure exposures with the engineer

and notify the infrastructure owner or their agents of this work two working days in advance so that they may be present when the work commences.

C.2 Excavation
Remove all unpaved surfaces at locations where the existing infrastructure is being exposed. Maintain drainage at all times in accordance to standard spec 205.3.3. Take precautions, including temporary shoring, in order to prevent any undermining of the existing roadway. Perform work in accordance to all applicable laws, ordinances, rules, regulations, and OSHA standards.

Expose all infrastructure locations within a given location to a minimum depth of 18-inches below the bottom of each infrastructure. Excavate in a manner that protects the integrity of the infrastructure and prevents any damage to wrappings or protective coatings such as by any mechanical method or hand digging. Notify the infrastructure owner promptly if damage or interruption of service occurs. Repair all damage caused to such infrastructure resulting from negligence or carelessness at own expense.

Take all lateral and depth measurements in US feet and tenths thereof. Identify horizontal locations of each exposed infrastructure with a coordinate northing and easting referenced to the Wisconsin County Coordinate System (WCCS), Milwaukee County, NAD 83 (97). Provide vertical elevations for each exposed infrastructure and reference to NAVD 88 (91).

The infrastructure location shall remain exposed and available for visual inspection until the completion of all work in a given location. If the infrastructure shall remain exposed overnight or for prolonged periods of time, protect the location with traffic-rated steel plating, safety barriers, and all necessary traffic control devices that may be required under applicable standards or as directed by the engineer.

C.3 Backfilling
Upon completion of the infrastructure exposure, restore the location in kind to its original condition. Use backfill granular, conforming to standard spec 209, to backfill the exposed infrastructure locations to the subgrade elevation except for areas located within local streets. In grassy areas, place 6-inches of topsoil, sod or seed and mulch, and fertilizer. Alternate restoration methods may be used upon written approval from the engineer.

C.4 Documentation
Provide documentation to the engineer and include the coordinates, elevations, and sketches of the infrastructure locations tied to known features in the plans. Reference each infrastructure to a proposed alignment with a station and offset. Where near a ramp, reference the ramp alignment. Document the size and/or diameter, composition, and a description of each infrastructure and the location of the elevation with respect to each infrastructure noted. Supply digital photographs of the uncovered infrastructure to the engineer in .jpeg format for future reference.

D Measurement

The department will measure Exposing Infrastructure Unpaved Area as a unit for each location. A location may have multiple infrastructures located within the same exposure area. An exposure area will include all infrastructures within 6 lateral feet of each other, and payment will only be made for one unit regardless of the number of infrastructures exposed. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is between 0 and 6 feet, the department will measure each location as a single unit of work. If the distance from the existing ground elevation, located above the existing infrastructure, to a point 18 inches below the exposed infrastructure is greater than 6 feet and less than 12 feet, the department will pay for the item as two units of work.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0011	Exposing Infrastructure Unpaved Area	Each

Payment is full compensation for mobilization; for furnishing all excavation; for disposing of all materials; for locating all infrastructure within each respective location; for providing documentation and photographs of infrastructure locations to the engineer; for furnishing all surveying associated with exposing existing infrastructure; for furnishing all maintenance of the location during construction; for furnishing all traffic control, safety barriers, and steel plating required; for temporary shoring; for furnishing backfill granular and backfilling the locate.

47. Rectangular Polymer Concrete Vault 17-Inch x 30-Inch x 18-Inch, Item SPV.0060.3000.

A Description

This special provision describes furnishing and installing Polymer Concrete Vaults according to the Traffic or Street Lighting Detail drawings for the Typical Rectangular Polymer Concrete Vault Installation. All work shall be according to standard spec 651.

B Materials

B.1

Polymer Concrete shall be manufactured from one of the general types and grades defined in polymers in concrete structural applications state of the art report, ACI 548.6R-96 for structural uses. Thermoplastics will not be acceptable.

B.2

Enclosure walls shall be made from pattern cut structural fiberglass cloths to assure uniform, pre-measurable fiberglass content on all areas. Chopper gun fiberglass construction is not acceptable.

B.3
Binding polymers used in the manufacture of the polymer concrete and the fiber reinforced polyester shall be of the same formulation or from formulations with demonstrated chemical compatibility to assure complete chemical bonding of all components. Fiber reinforced polyester wall sections must be cast integrally into and chemically bonded within the upper polymer concrete casting.

B.4 Testing
Meet ANSI/SCTE 77 2010 (Tier 15 or greater), ASTM C 857, and WUC 3.6 structural requirements.

Compressive Modulus of Elasticity (fiberglass reinforced polymer): 5.6 x 10^6 PSI tested according to procedures outlined in ASTM D-695

Comprehensive Strength (fiberglass reinforced polymer): 22,500 PSI tested according to ASTM D-695

Flexural Strength (fiberglass reinforced polymer): 18,700 PSI tested according to ASTM D-790

Tensile Strength (fiberglass reinforced polymer): 12,100 PSI tested according to procedures outlined in ASTM D-638

Tensile Modulus of Elasticity (fiberglass reinforced polymer): 8.6 x 10^5 PSI tested according to procedures outlined in ASTM D-638
Splitting Tensile Strength (polymer concrete): Tested according to procedures outlined in ASTM C-496

Accelerated Service: Tested according to procedure E outlined in ASTM D-756

Water Absorption: Tested according to ASTM D-570 outlined in sections 6.1 and 6.5

Impact Resistance (fiberglass reinforced polymer concrete): 72 foot pounds according to ASTM D-2444 administered with a "C" tup

Skid Resistance: 0.60 coefficient of friction according to ASTM C-1028

Flammability Test: Tested according to ASTM D-635

Ultraviolet Exposure: Tested according to ASTM test method G-53

Chemical Resistance
1. Sodium Chloride 5%
2. Sodium Carbonate 0.1 N
3. Hydrochloric Acid 0.2 N
4. Acetic Acid 5%

5. Sulfuric Acid 0.1N
6. Sodium Sulfate 0.1 N
7. Sodium Hydroxide 0.1N
8. Kerosene Oil per ASTM D-543
9. Transformer Oil per ASTM D-543

B.5
The street lighting vaults and covers shall be gray in color and shall be flared wall as indicated on the Drawings. Covers shall be provided with 2 stainless steel bolts. Each cover shall have the words **"STREET LIGHTING"** cast into its surface along the longest dimension. The words shall be permanently recessed into the surface.

B.6
Contractor must submit a certificate of compliance certifying that the rectangular polymer concrete vault as furnished conform to the above structural performance requirements. Send a copy of the certificate of the rectangular polymer concrete vault to:

City of Milwaukee
Infrastructure Services Division
Transportation Section
Chief Traffic & Street Lighting Engineer
841 N. Broadway (Room 920)
Milwaukee, WI. 53202

C Construction
Install rectangular flared wall vaults according with the traffic or street lighting detail drawings for the Typical Rectangular Polymer Concrete Vault Installation to current City of Milwaukee street lighting Typical Detail Installation standards. Provisions for inserting conduit into any side or the bottom of the vault shall be included.

D Measurement
The department will measure Rectangular Polymer Concrete Vault 17-Inch x 30-Inch x 18-Inch as each individual unit, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.3000	Rectangular Polymer Concrete Vault 17-Inch x 30-Inch x 18-Inch	Each

Payment is full compensation for shipping to the site, furnishing labor, equipment, materials, sawing, excavating, and incidentals necessary including pavement restoration to complete the work.

48. Install 18” Diameter x 6 Foot Cylindrical Column Form, Item SPV.0060.3001.

A Description

This special provision describes furnishing and installing cylindrical column forms as noted in the plan sheets.

B Materials

Fiber pulp board tube 18 inches in diameter and 6 foot long, with moisture resistant poly kraft liner.

C Construction

The holes can be bored, hydrovac, or hand dug but all shall be cylindrical. If any part of the hole is within three feet of a buried utility, the holes must be hand dug or hydrovac.

The contractor will be responsible for disposing all debris from excavation. The spoils are not to be used as fill when installing the cylindrical column form.

The cylindrical column form may require conduit to be stubbed up inside the form and then capped. (Refer to drawings for which forms require conduit.)

The contractor will furnish and fill the cylindrical column form with granular backfill type as according to standard spec 209. The granular backfill is for filling the inside of a cylindrical column form to temporarily maintain the forms shape. Street lighting personnel will later remove the fill and set a street light pole inside the cylindrical column form.

Contractor is responsible to protect the cylindrical column form after it has been installed.

D Measurement

The department will measure Install 18” Dia. X 6 Ft High Cylindrical Column Form as each installed individual item of material, acceptably completed

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.3001	Install 18” Dia. x 6 Ft High Cylindrical Column Form	Each

Payment is full compensation for shipping to the site, excavating, and placement of Cylindrical Column Form.

49. Install Traffic Signal Base, Item SPV.0060.3002.

A Description

Install concrete traffic signal bases furnished by the City of Milwaukee, for traffic signals as shown on the plans.

B Materials
Pre-cast concrete traffic signal bases will be furnished by the City of Milwaukee.

C Construction
Pick up pre-cast concrete traffic signal bases from the City of Milwaukee yard located at 1540 W. Canal Street. Contact traffic signal shop dispatch at (414) 286-3687 to coordinate pick up. Install concrete traffic signal bases according to the plans. Plan changes must be approved by the City of Milwaukee Electric Services Supervisor or Traffic Engineer. The primary contacts are Mr. Al Nichols, Traffic Operations Supervisor (414) 286-3687 office, (414) 708-5148 mobile; or Mr. Joseph Blakeman, Traffic Control Engineer (414) 286-8070.

D Measurement
The department will measure Install Traffic Signal Base as each individual item of material, 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.0060.3002	Install Traffic Signal Base	LF

Payment is full compensation for installing all materials; for excavation, backfilling and disposal of surplus material.

50. Spread Footing Base for A-31 Bolt Down Concrete Pole, Item SPV.0060.3003; Downtown Style Harp Pole, Item SPV.0060.3004.

A Description
The work under this item consists of furnishing and installing spread footing base for A-31 Concrete Pole and downtown style harp pole at locations specified in plans, according to plan details, the applicable portions of standard spec 654, and as hereinafter provided..

B Materials
Conform to standard spec 654.2

C Construction
Conform to standard spec 654.3. The detail of construction with the exceptions of height above grade and conduit size shall be as defined in standard detail for Type 8 base.

D Measurement
The department will measure Spread Footing Base for A-31 Bolt Down Concrete Pole and Spread Footing for Downtown Style Harp Pile by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.3003	Spread Footing Base for A-31 Bolt Down Concrete Pole	Each
SPV.0060.3004	Spread Footing Base for Downtown Style Harp Pole	Each

Payment is full compensation according to standard spec 654.5.

51. Removing Hydrant, Item SPV.0060.5000; Install Hydrant, Item SPV.0060.5001; Ductile Iron Hydrant Branch 6-Inch, Item, SPV.0090.5002.

A Description

This special provision describes removing existing hydrants, installing new hydrants and 6" diameter hydrant branch alterations.

A.1 General

Perform work under these items in accordance to the details as shown on the plans and the requirements of the City of Milwaukee Water Main Installation Specifications, dated January 2, 1987 (City Water Main Specifications). Additionally, perform all work in accordance to the City of Milwaukee - Milwaukee Water Works "Special Provisions for Water Main Construction". In case of conflicts between the City Water Main Specifications and the City Special Provisions or these special provisions, the requirements of the City Special Provisions and these special provisions shall govern. Contact Ms. Angela Baldwin at (414) 286-2813 to purchase copies of the required documents.

B Materials

B.1 General

The city will furnish hydrants for installation on this project. Contact Mr. Ricardo Lopez, Inventory Manager, at (414) 286-6123 (or Mr. Kevin Gray, Inventory, at (414) 286-0669) for material supplies. Provide all other water main materials conforming to the latest version of the City of Milwaukee's Material Specifications. Material specifications can be found at the following website:

http://city.milwaukee.gov/water/business/standardspecs.htm.

All materials will require inspection by the City of Milwaukee. Notify Mr. Karl Rohrbach, (414) 286-8148 or Mr. Steve Brengosz, (414) 708-2808, for materials inspection and the Milwaukee Water Works Engineering Construction Section, (414) 286-6346, for construction inspection, four working days prior to starting construction.

The contractor shall return all abandoned hydrants to the DPW Field Headquarters – Infrastructure, Operations, Water Works at 3850 N. 35th Street. Contact Mr. Ben Glatzel at (414)708-2839 for additional information.

Milwaukee Water Works will test all pipe, in accordance to the City of Milwaukee Material Testing Specifications.

B.2 Valve Box Adapters
Install all valve boxes on gate valves with the use of valve box base adapters as detailed in the Standard Plan Notes Regarding Water Main Construction. Install the adapter in addition to the hardwood blocking.

C Construction
Install insulation on top and bottom of hydrant branch from Station 353+98.87 to Station 354+40. The cost of insulation is to be included in the price for furnishing and installing Ductile Iron Hydrant Branch 6-Inch.

Unless shown otherwise, backfill all water main excavations with granular backfill as specified in the City of Milwaukee - Milwaukee Water Works "Special Provisions for Water Main Construction".

Consolidate all backfill by mechanical compaction per specification 2.6.14(B) of the Standard Specifications for Sewer and Water Construction in Wisconsin. Per specification, the initial compacted lift shall be 2 feet, and the specification shall be modified to read, "each subsequent compacted lift of material shall be 1 foot". Costs are to be included in the unit price bid for the water main. Settling the trench by flooding the backfill will not be allowed.

D Measurement
The department will measure Removing Hydrant as each individual hydrant, acceptably removed.

The department will measure Install Hydrant as each individual hydrant, acceptably installed.

The department will measure Ductile Iron Hydrant Branch 6-Inch by the linear foot of water main, and hydrant branch of the type and diameter specified, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.5000	Removing Hydrant	Each
SPV.0060.5001	Install Hydrant	Each
SPV.0090.5002	Ductile Iron Hydrant Branch 6-inch	LF

Payment is full compensation for providing all materials (except hydrants provided by the city) including all valves, fittings, and accessories required; for all excavating, hauling, disposing excess material; for sheeting and shoring; for forming foundation; for laying pipe; for concrete base, buttresses, and anchors; for insulating of hydrant branch; for

bulkheading or sealing pipe ends, and abandoning existing water mains; for sealing joints and making connections to new or existing facilities; for providing granular backfill material, including bedding material; for backfilling; for removing sheeting and shoring; for cleaning out the site of the work and incidentals necessary to complete the work.

52. Pavement Cleanup Project 2126-00-70, Item SPV.0075.0001.

A Description

This special provision describes cleanup of dust and debris from pavements within and adjacent to the job site. Pavement Cleanup includes surveillance and reporting of all active haul routes.

B Materials

B.1 Pavement Cleanup

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

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

Use a vacuum-type sweeper as the primary sweeper, except as specified herein or approved by the engineer.

C Construction

C.1 Surveillance

Provide daily surveillance of active haul routes to identify if material is being tracked from the jobsite. Document the condition of the roads and if they needed to be swept in a daily report. Submit reports to the engineer daily, including hourly metered tickets for that day's sweeping activities. Clean up spillage and material tracked to/from the project within an hour of occurrence or as directed by the engineer. Perform cleanup operations in a safe manner.

C.2 Pavement Cleanup

Keep all pavements, curb lanes and gutters both closed and open to public traffic within the job-site boundaries free of dust and debris generated from any activity under the contract. Keep all pavements, curb lanes and gutters adjacent to the project free of dust and debris that are affected by land disturbing, dust generating activities, as defined in the contractor's dust control implementation plan.

Provide routine sweeping of all pavements, curb lanes and gutters on local street active haul routes a minimum of once a day as defined in the Dust Control Implementation Plan (DCIP) or as directed by the engineer. Include the following roadways for routine sweeping:

- N. 6th Street (W. Juneau Avenue to W. McKinley Avenue)
- N. 4th Street (W. Juneau Avenue to W. McKinley Avenue)
- N. 3rd Street (W. Juneau Avenue to W. McKinley Avenue)

In addition to routine sweeping, conduct sweepings as the engineer directs or approves, to deal with dust problems that might arise during off-work hours or emergencies. Provide the engineer with a contact person available at all times to respond to requests for emergency sweeping. Respond to emergency sweeping requests within 4 hours of notice.

D Measurement
The department will measure Pavement Cleanup (Project) by the hour, acceptably completed.

Tickets shall include date, company, operator name, equipment make/model, routes swept, and total hours. Total hours shall be to the nearest 0.25 hour that work under this item was performed.

Compensation for mobilizing equipment shall be included in the contract price for Pavement Cleanup and no additional compensation therefore will be allowed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.0001	Pavement Cleanup Project 2126-00-70	HR

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

53. Concrete Box Combination Sewer 4’ x 12’, Item SPV.0090.0001.

A Description
This special provision describes providing and installing precast concrete box combination sewer as shown on the plan. Design, protect and support various utilities as shown on the plan during concrete box combination sewer construction.

B Materials
Conform to ASTM C1577 requirements and plans details.

C Construction
Provide a precast concrete box combination sewer as shown in the plans with the same hydraulic opening. Segment lengths must be not less than 4 feet. Provide tongue and groove joints at the end of each segments except at structure manhole interface. At structure manhole interface, segments shall have a square end.

Shop Drawings: The contractor must prepare and submit detailed shop drawings and pertinent descriptions, data and calculations for all items to be incorporated into the finished work. The drawings and calculations must show compliance to specified

requirements and applicable codes and must bear the seal, signature and date of a professional engineer registered in the State of Wisconsin.

Handling, Storage, and Shipping.
Handle, store, and ship precast box Combination Sewers in a manner that prevents chipping, cracks, fractures, and excessive bending stress. Do not ship precast box Combination Sewers before the concrete attains the required 28-day strength.

The manufacturer is permitted to verify the shipping strength test, before 28 days, by testing compressive strength cylinders that are cured under the conditions similar to the product or by testing temperature match cured cylinders. The manufacturer may use the maturity method, ASTM C-1074, pulse velocity method in accordance with ASTM C-597, or any other approved nondestructive test method to estimate the strength of concrete for determining form removal and handling strengths or before verification of shipping strength by test cylinders.

Curing temperature and cycle must be monitored on a minimum of one box Combination Sewer curing cell from each day of production when nondestructive test methods or temperature match cured cylinders are used to determine concrete strengths.

The shipping strength test is the average compressive strength of two test cylinders. Do not ship any products until the QC Manager's stamp is affixed to the product.

Marking
Ensure each section of concrete box combination sewer has permanently and clear marking on an inside face by indentation, waterproof paint, showing the manufacture date, serial number, project number, and manufacturer's name or symbol. The top of the box Combination Sewer must also be clearly indicated with waterproof paint.

Trench, Foundation, Laying, and Backfill.
Meet the requirements of standard spec 520.3.2

Design, Protect and Support Utilities
Design, protect and support water, sewer, steam line, 138kV, fiber optic, telephone, communications conduits, signal and electrical services above the proposed concrete combination sewer, during the execution of this work. Provide traffic control for We Energy facilities to support non steam facilities above the proposed concrete combination sewer.

D Measurement
The department will measure Concrete Box Combination Sewer by the linear foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0001	Concrete Box Combination Sewer	LF

Pavement is for full compensation for providing and installing precast concrete box combination sewer; providing granular bedding material, backfilling with granular backfill; for transporting, hauling and placing all materials; for forms, falsework, shoring, placing, finishing; for connections to manhole structures M5 and M6; for designing, protecting and supporting numerous utilities including but not limited to We Energies steam line; and for providing traffic control for We Energy facilities to support non steam facilities.

54. Ductile Iron Water Main 8-Inch, Item SPV.0090.5003, Ductile Iron Water Main 30-Inch, Item SPV.0090.5004.

A Description

This special provision describes the installation of Ductile Iron water main alterations as shown on the plans.

A.1 General

Perform work under these items in accordance to the details as shown on the plans and the requirements of the City of Milwaukee Water Main Installation Specifications, dated January 2, 1987 (City Water Main Specifications). Additionally, perform all work in accordance to the City of Milwaukee - Milwaukee Water Works "Special Provisions for Water Main Construction". In case of conflicts between the City Water Main Specifications and the City Special Provisions or these special provisions, the requirements of the City Special Provisions and these special provisions shall govern. Contact Ms. Angela Baldwin, at (414) 286-2813 to purchase copies of the required documents.

A.2 Submittals

Address all required submittals to Milwaukee Water Works as follows:

Superintendent
Milwaukee Water Works
Zeidler Municipal Building
841 North Broadway, Room 409
Milwaukee, WI 53202

A.3 Sequence of Construction

Due to the nature of this work, including traffic staging and coordination with other work, the contractor is advised there may be multiple mobilizations to complete the water main work. No additional payment will be made by the department for said mobilizations.

Determine sequence and schedule for water main construction, subject to the requirements herein.

Prepare and submit for review by the Superintendent of Milwaukee Water Works a detailed construction schedule stating the anticipated dates and duration of all interruptions in water service necessary to complete the work under the contract, including the abandonment of existing water mains.

B Materials

B.1 General

Furnish all water main and fittings required for installation on this project. Unless specified otherwise, water main shall be Push-on Rubber Gasket Joint Ductile Iron conforming to the latest version of the City of Milwaukee's Material Specifications. All fittings shall conform to the City of Milwaukee's Material Specifications and AWWA C110.

Material specifications can be found at the following website:
http://city.milwaukee.gov/water/business/standardspecs.htm.

The City of Milwaukee will inspect the water main installation for this contract. Contractor to provide four working day notice for material inspection and for scheduling installation inspection prior to the start of construction.

Contact Steve Brengosz at (414) 708-2808 or Karl Rohrbach, P.E. at (414) 286-8148 for materials inspection. Contact Milwaukee Water Works, Engineering Construction Section, at (414) 286-6346 for installation inspection.

Contractor to provide all necessary information for furnished steel and iron items to comply with Wisconsin Department of Transportation DT2249, "Utility's Certificate of Compliance for Steel and Iron Items".

Milwaukee Water Works will test all pipe, in accordance to the City of Milwaukee Material Testing Specifications. Contractor to provide enough pipe for testing and installation. The department will not pay for additional pipe length used for material testing purposes.

B.2 Valve Box Adapter

Install all valve boxes on gate valves with the use of valve box base adapters as detailed in the Standard Plan Notes Regarding Water Main Construction. Install the adapter in addition to the hardwood blocking.

C Construction

Ductile Iron Water Main 8-Inch, at Stations 1+36.93 includes 8-inch gate valve installations. All costs for completing the work required for the valve installations including valve boxes and extensions is to be included in the price for furnishing and installing 8-inch water main under this item.

Ductile Iron Water Main 30-Inch, at Stations 353+75.63, 354+52.53, and 403+81.96 include 30-inch adapter installations. All costs for furnishing and completing the work required for the adapter installations is to be included in the price for furnishing and installing 30-inch water main under this item.

Install fittings as shown on plans, incidental to respective ductile iron water main item. A list of fittings for each water main installation is provided on plans.

Abandon existing water mains as shown on plans unless scheduled for removal in the utility removal plans. All costs for the abandonment of existing water main are to be included in the price for the Ductile Iron Water Main item(s). All costs for the removal of the existing water main are paid under a separate item.

The Milwaukee Water Works will shut off the water main to be altered and provide temporary hose connections to affected services as required.

D Measurement

The department will measure Ductile Iron Water Main 8-Inch, Ductile Iron Water Main 30-Inch, by the linear foot of water main of the type and diameter specified, 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.0090.5003	Ductile Iron Water Main 8-Inch	LF
SPV.0090.5004	Ductile Iron Water Main 30-Inch	LF

Payment is full compensation for providing all labor, equipment, materials, valves, valve boxes, valve box extensions, fittings, and accessories required; for all surveying; for all excavating, hauling, disposing excess material; for sheeting and shoring; for forming foundation; for laying pipe; for removing valves; for installing all valves, air vents, and fittings; for concrete bases, buttresses, and anchors; for bulkheading or sealing pipe ends, and abandoning existing water mains; for sealing joints and making connections to new or existing facilities; for providing granular backfill material, including bedding material; for backfilling; for removing sheeting and shoring; for cleaning out the site of the work and incidentals necessary to complete the work.

55. Remove Water Main Item SPV.0090.5005.

A Description

This special provision describes the demolition and removal of existing water main piping (concrete and/or ductile iron), fittings, valves and all appurtenances within the existing casing pipe, backfilling, and disposing of all resulting materials as shown in the plans, according to standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction

The contractor is responsible for the safe methods and sequence of controlled removal operations. As directed by the engineer, completely remove the existing water main to the extent required to avoid interfering with new construction work. Upon removal, water main piping becomes the contractor's property. Backfill the excavated area for removing water main with granular backfill conforming to standard spec 209.

D Measurement

The department will measure Remove Water Main by the linear foot, acceptably completed, measured along the centerline of pipe, from one end of existing casing pipe to the other end of existing casing pipe. Quantity to be measured shall include the removal through valves and other fittings.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.5005	Remove Water Main	LF

Payment is full compensation for removing all water main as per the plans, details, schedules, and these special provisions, including but not limited to cutting and removal of pipe, fittings, spacers, annular fill, debris and for backfilling.

56. Ductile Iron Water Main 12-Inch, Item SPV.0090.5006.

A Description

This special provision describes the installation of Ductile Iron water main alterations as shown on the plans.

A.1 General

Perform work under these items in accordance to the details as shown on the plans and the requirements of the City of Milwaukee Water Main Installation Specifications, dated January 2, 1987 (City Water Main Specifications). Additionally, perform all work in accordance to the City of Milwaukee - Milwaukee Water Works "Special Provisions for Water Main Construction". In case of conflicts between the City Water Main Specifications and the City Special Provisions or these special provisions, the requirements of the City Special Provisions and these special provisions shall govern. Contact Ms. Angela Baldwin, at (414) 286-2813 to purchase copies of the required documents.

A.2 Submittals

Address all required submittals to Milwaukee Water Works as follows:

Superintendent
Milwaukee Water Works
Zeidler Municipal Building
841 North Broadway, Room 409
Milwaukee, WI 53202

A.3 Sequence of Construction

Due to the nature of this work, including traffic staging and coordination with other work, the contractor is advised there may be multiple mobilizations to complete the water main work. No additional payment will be made by the department for said mobilizations.

Determine sequence and schedule for water main construction, subject to the requirements herein.

Prepare and submit for review by the Superintendent of Milwaukee Water Works a detailed construction schedule stating the anticipated dates and duration of all interruptions in water service necessary to complete the work under the contract, including the abandonment of existing water mains.

B Materials

B.1 General

Furnish all water main and fittings required for installation on this project. Unless specified otherwise, water main shall be Push-on Rubber Gasket Joint Ductile Iron conforming to the latest version of the City of Milwaukee's Material Specifications. All fittings shall conform to the City of Milwaukee's Material Specifications and AWWA C110.

Material specifications can be found at the following website:
http://city.milwaukee.gov/water/business/standardspecs.htm.

The City of Milwaukee will inspect the water main installation for this contract. Contractor to provide four working day notice for material inspection and for scheduling installation inspection prior to the start of construction.

Contact Steve Brengosz at (414) 708-2808 or Karl Rohrbach, P.E. at (414) 286-8148 for materials inspection. Contact Milwaukee Water Works, Engineering Construction Section, at (414) 286-6346 for installation inspection.

Contractor to provide all necessary information for furnished steel and iron items to comply with Wisconsin Department of Transportation DT2249, "Utility's Certificate of Compliance for Steel and Iron Items".

Milwaukee Water Works will test all pipe, in accordance to the City of Milwaukee Material Testing Specifications. Contractor to provide enough pipe for testing and installation. The department will not pay for additional pipe length used for material testing purposes.

C Construction

Ductile Iron Water Main 12-Inch, at stations 353+98.87 and 110+37.71, and include 12-inch adapter installations. All costs for completing the work required for the adapter installations is to be included in the price for furnishing and installing 12-inch water main under this item.

Install fittings as shown on plans, incidental to respective ductile iron water main item. A list of fittings for each water main installation is provided on plans.

Abandon existing water mains as shown on plans unless scheduled for removal in the utility removal plans. All costs for the abandonment of existing water main are to be included in the price for the Ductile Iron Water Main item(s). All costs for the removal of the existing water main are paid under a separate item.

The Milwaukee Water Works will shut off the water main to be altered and provide temporary hose connections to affected services as required.

D Measurement

The department will measure Ductile Iron Water Main 12-Inch by the linear foot of water main of the type and diameter specified, 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.0090.5006	Ductile Iron Water Main 12-Inch	LF

Payment is full compensation for providing all labor, equipment, materials, valves, valve boxes, valve box extensions, fittings, and accessories required; for all surveying; for all excavating, hauling, disposing excess material; for sheeting and shoring; for forming foundation; for laying pipe; for removing valves; for installing all valves, air vents, and fittings; for concrete bases, buttresses, and anchors; for bulkheading or sealing pipe ends, and abandoning existing water mains; for sealing joints and making connections to new or existing facilities; for providing granular backfill material, including bedding material; for backfilling; for removing sheeting and shoring; for cleaning out the site of the work and incidentals necessary to complete the work.

57. Survey Project 2126-00-70, Item SPV.0105.0001.

A Description

Perform work conforming to standard spec 105.6 and 650. This special provision describes modifying standard spec 105.6 and 650 and as follows to define the requirements for construction staking for this contract.

Replace standard spec 105.6.2 with the following:

The department will not perform any construction staking for this contract. Obtain engineer's approval prior to performing all survey required to lay out and construct the work under this contract.

The survey includes establishing horizontal and vertical position for all aspects of construction including but not limited to storm sewer, subgrade, base, curb, gutter, curb and gutter, drainage structures, pavement, pavement markings (temporary and permanent), supplemental control, slope stakes, water main, landscaping elements, traffic control items, etc.

The department may choose to perform quality assurance surveys during the project. These quality assurance surveys do not relieve the responsibility for performing all survey work required to lay out and construct the work under this contract.

Delete standard spec 650.1.

B (Vacant)

C Construction

Replace standard spec 650.3.1 (5) and 650.3.1 (6) with the following:

Perform survey work using global positioning or conventional methods. Establish additional benchmarks and control points as necessary to support the method of operation, or as the engineer directs. Do not use global positioning methods to establish the following:

1. Drainage structure layout horizontal or vertical locations.
2. Concrete pavement vertical locations.
3. Curb, gutter, and curb and gutter vertical locations.
4. Storm Sewer layout horizontal or vertical locations, including but not limited to structure centers, offsets, access openings, rim and invert elevations.

Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing the lines and grades. This includes, but is not limited to:

1. Raw data files
2. Digital stakeout reports
3. Control check reports

4. Supplemental control files (along with method used to establish coordinates and elevation)
5. Calibration report

Make the survey notes and computations available to the engineer within 24 hours as the work progresses unless a longer period is approved by the engineer.

Replace standard spec 650.3.3.1 with the following:

Under the Survey Project bid item, global positioning system (GPS) machine guidance for conventional subgrade staking on all or part of the work may be substituted. The engineer may require reverting to conventional subgrade staking methods for all or part of the work at any point during construction if, in the engineer's opinion, the GPS machine guidance is producing unacceptable results.

Replace standard spec 650.3.3.3.4.1 with the following:

The department will provide the contractor staking packet as described in the Construction and Materials Manual (CMM) 7.10. At any time after the contract is awarded, the available survey and design information may be requested. The department will provide that information within five business days of receiving the contractor's request. The department incurs no additional liability beyond that specified in standard spec 105.6 or standard spec 650 by having provided this additional information.

Supplement standard spec 650.3.3.3.6.2 with the following:

Record all subgrade elevation checks and submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Supplement standard spec 650.3 with the following:

650.3.14 Water Main
Record all elevation data for the casing, grade breaks, water main pipe, bends, fittings, and all information necessary to accurately record the construction document. Submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe, valves and bends to within 0.10 feet horizontal and establish the elevations to within 0.10 feet vertically.

Set construction stakes at all water main valves, fittings and bends and at maximum interval of 50 feet for water main piping.

Provide the as-built xyz coordinates and elevations, in the project horizontal and vertical datum, of all bends, fittings, valves and tie in locations for the as-built plan. Also provide the locations of the casing ends, the elevation of the top of casing and the size and material of all pipes.

D Measurement
Replace standard spec 650.4 with the following:

The department will measure Survey Project 2126-00-70 as a separate single lump sum unit of work, acceptably completed.

E Payment
Replace standard spec 650.5 with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.0001	Survey Project 2126-00-70	LS

Payment is full compensation for performing all survey work required to lay out and construct all work under this contract. The department will not make final payment for any staking item until the contractor submits all survey notes and computations used to establish the required lines and grades to the engineer within 24 hours of completing this work. The department will deduct from payments due the contractor for the additional costs specified in standard spec 105.6. No additional payments will be made for restaking due to construction disturbance and knock-outs.
SEF Rev. 14_0909

58. Control of Water, Item SPV.0105.0002.

A Description
This section addresses the provision for designing, furnishing all labor and material needed to control, handle, dispose and treat groundwater and surface water that may be encountered in all excavations as required for performance of the work as shown in the plans.

This special provision does not cover temporary drainage. Conform to standard specification standard spec 205 for temporary drainage.

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

B Materials
The contractor is responsible to determine materials required to meet this special provision.

C Construction

C.1 Submittals

C.1.1 General

The discharge permits and water control plan shall be submitted to the engineer at least 30 days prior to start of excavation, unless otherwise noted.

C.1.2 Submittals

Discharge Permit: Submit discharge and well permit applications to Wisconsin Department of Natural Resources (WDNR) if dewatering wells are to be used. Also submit design and calculations for the sedimentation tank or clarifier system to be utilized to reduce sediment levels to minimum levels required by WDNR prior to discharging.

Water Control Plan: The following items shall be included in the water control plan, as a minimum.

a. Descriptions of proposed groundwater and surface water control facilities including, but not limited to, equipment, methods, installation, standby equipment and power supply, pollution control facilities including silt removal facilities, discharge locations to be utilized, removal of water control systems, and provisions for immediate temporary water supply as required by this section.
b. The contractor shall submit shop drawings showing locations, dimensions, and relationships of elements of each water control system.
c. Design calculations demonstrating dewatering zone of influence, and adequacy of proposed water control systems and components. The contractor may be required to demonstrate the systems proposed in the water control plan and to verify that adequate equipment, personnel, and materials are provided to dewater the excavations at all locations and times required. The contractor shall provide manufacturer's literature describing installation, operation, and maintenance procedures for all components of the water control system.
d. Monitoring plans including measurement of: pumping rates at excavated locations and wells, reading of piezometers, and water quality sampling of discharge.
e. Method(s) to measure discharge quantities.
f. If system is modified during installation or operation, revise or amend and resubmit Water Control Plan.

Quality Control: During construction, submit rate of discharge, pumping rate measurements, water level readings taken at piezometers, groundwater quality data, and sediment content test results. Contractor’s readings shall be performed in addition to any readings taken by the engineer. Submit the data and test results within 24 hours of readings.

C.1.3 Acceptance

All Information Submittals should be submitted to the engineer. The engineer can reject the submittals which do not contain adequate detail, as required herein. The contractor shall resubmit the rejected submittals within 7 days upon the receipt of the engineer’s rejection notice.

C.2 General Requirements
The contractor shall continuously control, handle, treat and dispose water at all times during the course of construction, and provide adequate backup systems to accomplish control of water in conformance with this special provision to obtain satisfactory working conditions and to maintain the progress of the work. Water to be controlled includes groundwater, contaminated groundwater; and surface water (precipitation and run-off).

All required drainage, pumping, treatment, and disposal shall be done without damage to adjacent property or structures and without interference with the operations of other contractors, or the rights of public and private owners, or pedestrian and vehicular traffic.

The contractor shall modify the water control system at their own expense if, after installation and while in operation, it causes or threatens to cause damage to adjacent property or to existing buildings, structures, or utilities.

C.3 Regulatory Requirements
Storm water discharge to storm sewers, watercourses, lakes, and wetlands shall conform to the requirements of local, state, and Federal regulations. Water from excavations shall be kept separate from storm water discharge associated with surface construction.

In the event that contaminated waters are encountered, the contractor is required to notify the department prior to discharging contaminated water. Comply with WDNR regulations regarding disposal of contaminated groundwater. Obtain additional permits, if required. Notify the Milwaukee Metropolitan Sewerage District for any discharge of contaminated water into the sewer system, and provide laboratory test results documenting contaminant concentrations.

C.4. Surface Water Control
Intercept and divert surface drainage away from the work sites by the use of dikes, curbwalls, ditches, sumps, or other means. Design surface drainage systems to prevent erosion either on or off the site. Control surface runoff to prevent entry of surface water into excavations and to prevent erosion either on or off the site. Remove drainage systems when no longer needed.

C.5 Water Control in Excavations
Use water control methods that are appropriate, as determined by the contractor, to permit conditions, ground conditions, construction operations, and requirements of these plans and special provisions. The methods shall involve removal of water accumulating within excavations from precipitation and groundwater infiltration, and may involve removal of water outside excavations by means such as the use of dewatering or pressure relief wells.

Water control methods shall minimize adverse effects of elevated or reduced water pressure on the work, the surrounding ground and adjacent facilities and structures. Design and operate the water control measures to prevent removal of in-situ materials (development of lost ground), or loosening or softening of subgrade soils within excavations.

Water control methods shall be capable of lowering and maintaining the free water and piezometric levels to an elevation at least 2 feet below excavation bottoms regardless of the water volume. The methods shall have sufficient capacity to accomplish this desired result allowing for normal variations in precipitation and soil and aquifer properties.

Control groundwater and surface water such that the excavations, trenches and other structures can be performed without adverse effects of water on the facilities being constructed, including prevention of hydrostatic uplift pressures on the new facilities until construction has been adequately completed. If the water level cannot be maintained at the specified levels, contractor shall, at no additional cost to the department, control seepage of groundwater by whatever means are necessary to assure that there is no loss of ground by erosion or piping of fines with seepage through shoring or lagging into excavated areas and no instability of slopes due to seepage. Control water during periods when excavating, installing ground support systems, installing subgrade protection measures, placing concrete (except tremie concrete), placing pipe, and at such other times as is necessary for efficient and safe execution of the work.

If water enters the excavation in volumes that could adversely affect the performance of the work or has the potential to cause loss or damage to adjacent property or structures, take immediate steps to reduce or mitigate the water inflow.

Provide standby pumps and standby power supply where disruption of water control systems could allow water inflows to threaten the work or the safety of personnel.

C.6 Monitoring of Groundwater Levels

Monitor groundwater levels as necessary to evaluate the sufficiency of the water control system. A system of construction piezometers is required to evaluate the effectiveness of the water control system in fulfilling the requirements specified herein. Piezometers shall be of adequate numbers and in suitable arrangements and depths for determining the free water surface elevations and piezometric elevation over the area. A minimum of one piezometer per four dewatering wells or one piezometer per excavation location shall be installed with the dewatering system at locations and depths proposed by the contractor.

Piezometers shall be installed using direct rotary drilling methods with drilling fluid that does not impact the development of the piezometer and conforms to ASTM D5783. During drilling, soil samples shall be obtained at intervals of 2.5 feet or less using standard penetration tests according to ASTM D1586. Piezometers shall be constructed and developed according to ASTM D5092, with development a minimum of 24 hours after completion. The contractor’s engineer shall determine the depth of the sensing zone for each piezometer based on observations of retained soil samples.

Make a minimum of one reading at each piezometer, per 24-hour period, 5 days per week during the period of dewatering activities (including dewatering by pumping seepage from sumps within shafts or other excavation areas) and one reading at each piezometer per week until the end of construction during periods of no dewatering.

C.7 Dewatering Wells

Obtain a site-specific dewatering discharge or construction site storm water discharge permit if the WDNR has specific concerns that are not addressed by other permits that might otherwise apply.

Obtain a WDNR permit for operation of any well or well system that has a combined pumping capacity of 70 gallons per minute or more (a high capacity extraction system). For purposes of permitting, a well is defined as any opening made in the ground where the depth of the opening is greater than its largest surface dimension and extends more than 10 feet below ground surface. The permit will require that wells be constructed, operated, and abandoned according to Chapter NR 812, Wisconsin Administrative Code.

Keep dewatering influence zone to the minimum necessary for execution of the work. Obtain any additional geotechnical information necessary for design of a dewatering well system, including performing pump tests, grain size analyses, groundwater chemical analyses, and subsurface investigations. Design and operate wells so as to prevent removal of fine soils with seepage through backpack material and screens. Provide means by which water discharge from each well can be measured and flow rates adjusted. Construct and operate wells according to WDNR requirements. Monitor the rate of discharge from each well on a daily basis with an accuracy of at least 2 percent of the flow.

Wells shall be designed, installed and operated in a manner that will preclude removal of materials by the pumping operation (hereafter referred to as "piping of fines"). After installation, each well shall be individually pump-tested at maximum design flow to verify acceptability with respect to piping of fines (sediment mostly consisting of silt and sand) as measured using a centrifugal tester. Any well or wellpoint segment found to be causing piping of fines at a rate exceeding 2 parts per million (ppm) by volume during the individual pump-test at the maximum design flow shall be replaced in a manner acceptable to the engineer, and at no additional cost to the department. Each well shall be checked for sediment piping using a centrifugal tester immediately after installation and at least once per month during operation. Measure the sediment content of the total dewatering effluent using a centrifugal tester at least once every 30 days. If the sediment content of the total effluent is greater than 1 ppm, contractor shall identify and abandon wells that are producing excessive sediments and replace them. All sediment content tests shall be performed in the presence of the engineer.

C.8 Ground Loss from Dewatering Operations

Support any structure including, but not limited to, buildings, bridges, freeway surfaces, streets, and utilities, or portions of such structure, including footings, foundations, basements, walls or concrete driveways that become unstable or vulnerable to settlement due to removal or disturbance of groundwater. Cease excavation and other construction operations that result or have the potential to result in further settlement until corrective measures are implemented. Support shall include but not be limited to shoring; sheeting; bracing; underpinning; compaction grouting; driving piles; excavating, backfilling, and

placing new structural concrete beneath or adjacent to the unstable structure; or other means necessary to rectify the particular problem involved.

The contractor shall bear the costs of all loss or damage arising from removal or disturbance of groundwater including, but not limited to claims for subsidence and loss of structure support that may occur in the prosecution of the work. If the contractor fails to correct the damage resulting from his operations, the engineer may deem the work to be unacceptable work as defined in standard spec 105.3.2.2.

C.9 Treatment and Disposal of Water

Discharge all water removed from the construction site through pipes or hoses. Do not convey water in open ditches or trenches. Discharge water in a manner that will not cause soil erosion at the discharge point. Discharge shall not cause sediment accumulation or flooding in any stream, storm sewer, or on adjacent properties.

Treat all water to remove suspended solids, oils, cement, bentonite, and other contaminants by use of settling basins, on-site treatment plant, or other means selected by the contractor. Design the treatment systems for the maximum discharge rates. Treatment systems shall be capable of expansion if greater capacity becomes necessary during the course of the work. The contractor shall provide copies of all records required by the WDNR.

Obtain permission to use storm sewers or drains for water disposal purposes from the authority having jurisdiction. Protection of storm sewers and drains shall be in conformance with the Wisconsin Construction Site Best Management Practices Handbook, latest revision and the requirements by authority having jurisdiction. Any requirements and costs for such use shall be the responsibility of the contractor. Do not cause flooding by overloading or blocking the flow in the drainage facilities, and leave the facilities unrestricted and as clean as originally found. Document the condition of the drainage facilities prior to and subsequent to their use. The engineer may independently verify the condition of such facilities. Repair or restore any damage to facilities as a result of the contractor's operations as directed by the authority having jurisdiction, at the contractor's expense.

Should requirements of any permit be different than requirements herein, the more stringent requirements shall control.

Ventilate enclosures around wells and water discharge points to prevent the accumulation of combustible gas that may escape from solution in groundwater.

On completing the work, clean out and dispose of all sediments and residues in settling basins, treatment facilities, and the like. Dispose of sediments and residues according to applicable regulations.

C.10 Abandonment of Piezometers and Dewatering Wells
Abandon the design phase piezometers and all piezometers and dewatering wells installed during construction according to standard spec 204.3.3.3 and according to NR 812 Wisconsin Administrative Code, whichever is more stringent.

D Measurement
The department will measure Control of Water as a lump sum unit of work, acceptably completed. The contractor is responsible for removing all surface and ground water regardless of the quantity during construction to accomplish the work.

E Payment
The department will pay for Control of Water at the contract unit price under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.0002	Control of Water	LS

Payment for Control of Water is full compensation for, but not limited to complete dewatering system design, installation, monitoring, discharge, and all necessary incidental work as specified in this special provision.

59. Concrete Pavement Joint Layout, Item SPV.0105.0003.

A Description
This special provision describes designing the joint layout and staking the locations of all joints on the project, including mainline and intersections to accommodate the concrete paving operations.

B (Vacant)

C Construction
Design the joint layout and stake the locations of all joints on the project including mainline and intersectiosn, to accommodate the concrete paving operations. Plan and set all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete pavement according to the plans, the American Concrete Pavement Association Intersection Joint Layout Guidelines, and as directed by the engineer. Submit a joint layout design to the engineer before paving each intersection. Mark the location of all concrete joints in the field. Establish the joint layout in a manner to best-fit field conditions, construction staging, the plan, and as directed by the engineer.

D Measurement
The department will measure Concrete Pavement Joint Layout as a single lump sum unit of work for all joint layout designs and marking, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.0003	Concrete Pavement Joint Layout	LS

Payment is full compensation for designing the joint layout on the mainline and all intersections; for completing all surveying work necessary to locate all transverse and longitudinal joints; for making adjustments to match field conditions and construction staging; for providing joint layout details to the engineer; and for furnishing all tools, stakes, flags, and equipment.

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

60. ATC Thermal Backfill, Item SPV.0105.0004.

A Description

This section describes protecting American Transmission Company (ATC) electrical transmission cable pipe during construction. Work includes temporary support of cable pipe during excavation, inspection and testing of protective coating prior to backfilling and backfilling around cable pipe.

A.2 Definition

1. **Cable pipe**: A pipe containing three cables energized at 69,000 - 138,000 volts filled with an insulating dielectric fluid pressurized at 200 psi. The outside of the pipe is coated with a protective coating to protect the pipe from corrosion. The coating can vary in color depending on the type. Nominal cable pipe sizes may be 5", 6" or 8".
2. **Thermal backfill**: A special backfill that more effectively dissipates heat than normal soils. The backfill is the FTB (Fluidized Thermal Backfill) mix as specified in this article. It is placed around the cable pipe as shown on the plans to dissipate heat that builds up in the cables. If the heat is not dissipated effectively, the cables will not meet their original design performance and can fail due to overheating.

A.3 Codes and Standards

Conform to the requirements specified herein and to the latest revisions of the applicable standards listed below for the work performed and materials supplied under this specification.

ASTM D698, Standard Test Method for Laboratory Compaction Characteristics of soil using standard effort

B Materials

Conform thermal backfill to following specification.

Thermal Backfill

FTB (Fluidized Thermal Backfill) Mix Design

Component Material	Weight (lb/cy)
Medium Aggregate (3/8" pea gravel)	1860
Concrete Sand – 4110 (ASTM C-33)	1570
Fly ash Class C	240
Cement (Portland Type 1)	30
Water	320
Compressive Strength (28 days)	200 psi

NOTE: Do not use any air entraining agent.

C Construction

Notify ATC 5 working days prior to any the start of excavation. ATC representative need to be present during excavation around the cable pipe to witness the excavation.

Do not use mechanical equipment within two feet of the cable pipe. Utilize non-pointed hand tools to dig around the cable pipe. Take special care to prevent damage to the pipe and the pipe coating when performing construction activities around the cable pipe.

During construction operations maintain unsupported cable length less than or equal to 8 feet. If the unsupported length need to exceed 8 feet provide a cable pipe support system as shown on the plans. Fourteen days prior to construction, submit calculations and documentation for supporting to the engineer for ATC's review and approval.

After the excavation is complete, ATC will inspect the pipe coating, to determine if any damage to the coating occurred during the excavation process.

Existing cable pipe may have been embedded within thermal sand backfill when the line was originally constructed. Thermal sand is now an obsolete material. Fluidized Thermal Backfill shall be used to backfill all newly exposed cable pipe and is described below.

C.2 Compacted Rock Backfill

Conform to compacted rock backfill with 1-1/4-inch gradation requirements as specified in standard spec 305, paragraph 305.2.2.1.

C.3 Backfilling

C.3.1 Backfill Under the Cable Pipe

Conform to standard spec 305 for backfill material under the cable pipe. Place backfill material in layers not greater than 12 inches. Compact each layer of backfill by mechanical or hand tamping to at least 95 percent of the maximum dry density. Compaction of structure backfill by inundation with water is not be permitted.

Fluidized Thermal backfill may also be used instead of the crushed rock or granular earth material.

C.3.2 Backfill Around the Cable Pipe

Prior to backfilling around the cable pipe, the pipe coating is to be inspected by ATC and contractor to repair if necessary as described in this article.

Keep supporting straps in place during backfilling if the exposed pipe is greater than 8 feet in length.

Place thermal backfill under, next to and over the cable pipe to the minimum dimensions as shown on plans.

Cut off supporting straps and support beam after the fluidized thermal backfill has set.

ATC will inspect the pipe coating after backfilling around the cable pipe and contractor will re-excavate and repair the cable pipe as specified in this article.

C.3.3 Backfill Over The Cable Pipe
Conform to standard spec 209 for backfill over the cable pipe.

Add a strip of 6" wide red warning tape in this section of backfill, 6 inches above the thermal backfill.

C.4 Handling
Use reinforced fabric slings having a minimum bearing width of 10-inches as shown on the plan for handling and supporting of the pipe sections. The cable pipe shall remain in its present horizontal and vertical position. No pipe deflection shall be allowed.

C.5 Testing and Inspection by ATC
ATC will inspect and test the coating of the pipe for holidays with a holiday detector designed for this type of application prior to backfilling around the pipe,

Repair pipe sections found to have coating punctures or surface irregularities, which reduce the coating thickness. ATC will retest such repaired sections prior to backfilling the trench.

After the cable pipe has been backfilled, ATC will perform a coating resistance test. If the test fails, expose the cable pipe to locate the coating damage, repair and backfill. ATC will perform the same coating resistance test again to ensure the coating resistance meets requirements.

C.6 Repair
Remove all loose and un-bonded coating within 1 inch of the fault.

Apply a heat shrinkable wraparound pipe sleeve that is long enough to overlap the pipe coating 6 inches minimum on each side of the defect. Apply the sleeve according to the sleeve manufacturer's installation instructions for pipe repairs on the land portion of the project.

ATC will retest all field repairs with a holiday detector.

D Measurement
The department will measure ATC Thermal Backfill as a lump sum unit of work, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.0005	ATC Thermal Backfill	LS

Payment for ATC Thermal Backfill is full compensation for, temporary support of cable pipe during excavation, backfilling below, around and above the cable pipe; for providing documentation and calculations for supporting the cable pipe; for coordinating testing requirements with ATC representative; for furnishing all materials and repairs as required to meet testing requirements; for backfill conforming to standard spec 209 and 305; and for reinforced fabric sling.

61. Colored and Stamped Concrete Sidewalk 5-Inch, Item SPV.0165.0001.

A Description
This special provision describes the requirements of construction of Colored and Stamped Concrete Sidewalk according to the pertinent provisions of Standard spec 405 and 602 and as shown on the plans.

B Materials
Furnish one sample of the stamped colored concrete one for each color at least 15 working days prior to the start of stamped colored concrete installation. Color of the stamped concrete should be Brick Red as specified in the plan with a clear liquid release agent. The final color and stamp pattern is to be approved by the engineer prior to placement of any colored stamped concrete in the field. For final approval call Mr. Robert Viktora of the City of Milwaukee at (414) 286-3896. The stamp shall become the property of the City of Milwaukee upon completion of this project.

Use grade A2 or grade A-FA concrete as specified in standard spec 501.2. All colored concrete shall originate from the same batch plant and follow the manufacturer's recommended procedures. Use sealant for curing and liquid release agent for stamping that meets colored concrete system manufacturer's recommendation. Submitted samples must include the decorative sealer for approval.

C Construction Methods
Stamped concrete shall be installed by an experienced contractor who has installed a minimum of 30,000 square feet of stamped concrete. Submit written documentation of stamped concrete work to the engineer prior to the start of construction.

Place colored concrete in one 5-inch layer for sidewalk as shown in the detail.

Use 1 to 4 mil. Polyethylene (plastic) for protection of all adjoining areas for Integral Color concrete.

Apply color releases sparingly to colored surface approximately 2 to 3 rows ahead of the planned stamping tool placement. Stamping method must be per manufacturer's specified methods. Check all depths of imprints by tool-to-tool surface leveling. Tooling to be done as stamping tools are removed after imprinting. Eliminate all squeeze joints between stamping tools, if any, with hand tools prior to concrete setting, if possible. Allow 24 hours before removing excel release from the slab with garden hose.

Apply decorative sealer to completely dry slab or as per manufacturer's methods. Apply two coats.

D Measurement
The department will measure Colored and Stamped Concrete Sidewalk 5-Inch by the square foot, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.0001	Colored and Stamped Concrete Sidewalk 5-Inch	SF

Payment is full compensation for furnishing and constructing colored concrete sidewalk.

62. Salvage Cobblestone, Item SPV.0180.0001.

A Description
This special provision describes carefully removing, salvaging and transporting cobblestone paver blocks as shown in the plans.

B (Vacant)

C Construction
Carefully remove all Cobblestone pavers blocks and store them safely on a pallet for delivery

Deliver the salvaged cobblestone store on pallet to the City of Milwaukee DPW Central Field Headquarters at 3850 N. 35th Street. Prior to delivery contact Terry Brumirski at (414) 286-3422 office / (414) 708-0326 cell, of City of Milwaukee DPW.

D Measurement
The department will measure Salvage Cobblestone per square yard, acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.0001	Salvage Cobblestone	SY

Payment is full compensation for all the work required under this bid item.

63. Concrete Joint Sealer, Item SPV.0180.0002.

A Description
Furnish and install joint sealer for concrete pavement as shown on the plans, and as hereinafter provided.

B Materials
Hot-poured elastic type joint sealer shall meet the requirements of the standard specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements Concrete Joint Sealer, Hot-Poured Elastic Type, ASTM Designation: D6690.

C Construction
Place joint sealer as shown on the plans and according to the manufacturer's instructions. All longitudinal, transverse, and construction joints shall be sealed prior to allowing any traffic on the pavement.

D Measurement
The department will measure Concrete Joint Sealer by the square yard of pavement sealed and acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.0002	Concrete Joint Sealer	SY

Payment is full compensation for providing all materials, and placing materials.

ADDITIONAL SPECIAL PROVISION 4

Payment to First-Tier Subcontractors

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

The prime contractor may also withhold routine retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

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

Release of Routine Retainage

After granting substantial completion the department may reduce the routine retainage withheld from the prime contractor to 75 percent of the original total amount retained.

When the Department sends the semi-final estimate the department may reduce the routine retainage withheld from the prime contractor to 10 percent of the original total amount retained.

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work and that no routine retainage is being withheld. The department will pay the prime contractor in full and reduce the routine retainage withheld from the prime contractor to zero when the department approves the final estimate.

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

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

Make the following revisions to the standard specifications:

550.5.2 Piling

Add the following as paragraph three effective with the December 2015 letting:

(3) The department will not entertain a change order request for a differing site condition under 104.2.2.2 or for a quantity change under 104.2.2.4.3 for the Piling bid items. Instead the department will adjust pay under the Piling Quantity Variation administrative item if the total driven length of each size is less than 85 percent of, or more than 115 percent of the contract quantity as follows:

Percent of Contract Length Driven	Pay Adjustment
< 85	(85% contract length - driven length) x 20% unit price
> 115	(driven length - 115% contract length) x 5% unit price

643.2.1 General

Replace paragraph two with the following effective with the December 2015 letting:

(2) Use reflective sheeting from the department's approved products list on barricades, drums, and flexible tubular marker posts.

Errata

Make the following corrections to the standard specifications:

641.2.9 Overhead Sign Supports

Correct errata adding back accidentally deleted paragraphs one through three.

(1) Provide commercially fabricated overhead sign supports conforming to AASHTO design and fabrication standards for structural supports for highway signs, luminaires, and traffic signals. Use a design life of 50 years with a wind importance factor of 1.00. Design to withstand a 3 second gust wind speed of 90 mph. Do not use the methods of appendix C of those AASHTO standards.

(2) Design structures, listed as applicable structure types in the AASHTO standards, to the fatigue category criteria as follows:

1. Structures carrying variable message signs:
   - Category I criteria for structures over all roadway types.
2. Structures carrying type II or III signs:
   - Category I criteria for structures used over highways and free flow ramps.
   - Category II criteria for structures with arms greater than 30 feet used over local roads and city streets.
   - Category III criteria for structures with arms 30 feet or less used over local roads and city streets.

(3) Use the posted speed limit of the roadway beneath the structure for truck-induced gusts.

(4) Submit shop drawings identified by structure number, design computations, and material specifications, to the engineer before erecting sign supports. Provide tightening procedures for mast arm or luminaire arm to pole shaft connections on the shop drawings. Have a professional engineer registered in the state of Wisconsin sign, seal, and date the shop drawings and certify that the design conforms to AASHTO standards and the contract.

(5) Provide steel pole shafts and mast arms zinc coated according to ASTM A123. Provide tapered pole and arm shafts with a minimum taper of 0.14 inch per foot for single-member vertical and single-member horizontal structure components. Provide bolts and other hardware conforming to 641.2.2.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. 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://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx

(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://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf

Effective August 2015 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials from smelting forward in the manufacturing process must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America. The exemption of this requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or $2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this “Buy America” provision.

http://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf

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

http://wisconsindot.gov/rdwy/worksheets/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
MILWAUKEE 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, 2015

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	35.37	17.99	53.36
Carpenter	33.68	19.99	53.67
Cement Finisher	32.75	19.21	51.96
Future Increase(s): 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	33.93	22.77	56.70
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.			
Fence Erector	23.73	19.09	42.82
Ironworker	30.77	23.97	54.74
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.			
Line Constructor (Electrical)	37.43	18.19	55.62
Painter	29.22	16.69	45.91
Pavement Marking Operator	30.27	18.79	49.06
Piledriver	30.11	26.51	56.62
Future Increase(s): Add $1.50/hr on 6/1/2015; Add $1.60/hr on 6/1/2016. Premium Pay: Add $.65/hr for Piledriver Loftsman; Add $.75/hr for Sheet Piling Loftsman. 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.			
Roofer or Waterproofer	29.40	17.05	46.45
Teledata Technician or Installer	24.89	17.15	42.04
Tuckpointer, Caulker or Cleaner	33.76	17.82	51.58

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Underwater Diver (Except on Great Lakes)	35.40	15.90	51.30
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	35.55	15.57	51.12
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	31.60	14.64	46.24
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	27.65	13.44	41.09
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.68	12.83	38.51
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.63	33.38
TRUCK DRIVERS			
Single Axle or Two Axle	25.18	18.31	43.49
Future Increase(s): Add $1.15/hr on 6/1/2015. 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.			
Three or More Axle	25.28	18.31	43.59
Future Increase(s): Add $1.15/hr on 6/1/2015. 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	30.27	21.15	51.42
Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. 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 $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
Pavement Marking Vehicle	23.16	17.13	40.29
Shadow or Pilot Vehicle	24.37	17.77	42.14
Truck Mechanic	24.52	17.77	42.29
LABORERS			
General Laborer	27.06	20.03	47.09
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 Premium Pay: Add $.15/hr for air tool operator, joint sawer and filler (pavement), vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add $.35/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add $.50/hr for line and grade specialist; Add $.65/hr for blaster and powderman; Add $2.01/hr for topman; Add $2.46/hr for bottomman; Add $3.23/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	22.05	18.41	40.46
Landscaper	27.06	20.03	47.09
Future Increase(s): Add $1.05/hr eff. 06/01/2015; Add $1.00/hr eff. 06/01/2016; Add $1.00/hr eff. 06/01/2017 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	22.55	19.37	41.92

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.71	16.01	33.72
Railroad Track Laborer	14.50	4.39	18.89
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 $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. 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 $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.	37.72	21.15	58.87
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 $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. 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 $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.	37.22	21.15	58.37
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);	36.72	21.15	57.87

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. 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 $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.			
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. Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. 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 $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.	36.46	21.15	57.61
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. Future Increase(s): Add $1.25/hr on 6/1/2015; Add $1.30/hr on 6/1/2016; Add $1.25/hr on 6/1/2017. 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 $1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http:/ / www.dot.wi.gov/ business/ civilrights/ laborwages/ pwc. htm.	36.17	21.15	57.32
Fiber Optic Cable Equipment.	28.89	17.95	46.84
Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36
Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	35.72	17.85	53.57
Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks-Great Lakes ONLY.	35.46	20.40	55.86

CONTRACT: 20160209013 PROJECT(S): 2126-00-70 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 Roadway Items					
0010	108.3100.S Incentive/Disincentive for Interim Completion of Work	0.100 CD	10000.00000		1000.00	
0020	108.4400 CPM Progress Schedule	1.000 EACH	.		.	
0030	201.0120 Clearing	23.000 ID	.		.	
0040	201.0220 Grubbing	23.000 ID	.		.	
0050	204.0100 Removing Pavement	5,165.000 SY	.		.	
0060	204.0150 Removing Curb & Gutter	202.000 LF	.		.	
0070	204.0155 Removing Concrete Sidewalk	736.000 SY	.		.	
0080	204.0195 Removing Concrete Bases	23.000 EACH	.		.	
0090	204.0210 Removing Manholes	8.000 EACH	.		.	
0100	204.0215 Removing Catch Basins	24.000 EACH	.		.	

CONTRACT: 20160209013 PROJECT(S): 2126-00-70 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	204.0245 Removing Storm Sewer (size) 0001. 12-Inch	694.000 LF		.		.
0120	204.0245 Removing Storm Sewer (size) 0002. 15-Inch	25.000 LF		.		.
0130	204.0245 Removing Storm Sewer (size) 0003. 18-Inch	348.000 LF		.		.
0140	204.0245 Removing Storm Sewer (size) 0004. 24-Inch	6.000 LF		.		.
0150	204.0245 Removing Storm Sewer (size) 0005. 72-Inch	599.000 LF		.		.
0160	204.0245 Removing Storm Sewer (size) 0006. 84-Inch	676.000 LF		.		.
0170	204.0280 Sealing Pipes	3.000 EACH		.		.
0180	204.0291.S Abandoning Sewer	382.000 CY		.		.
0190	205.0100 Excavation Common	3,637.000 CY		.		.
0200	205.0501.S Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	33,915.000 TON		.		.
0210	209.0100 Backfill Granular	5.000 CY		.		.

CONTRACT: 20160209013 PROJECT(S): 2126-00-70 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	213.0100 Finishing Roadway (project) 0001. 2126-00-70	1.000 EACH		.		.
0230	305.0110 Base Aggregate Dense 3/4-Inch	975.000 TON		.		.
0240	305.0120 Base Aggregate Dense 1 1/4-Inch	2,752.000 TON		.		.
0250	310.0110 Base Aggregate Open Graded	1,517.000 TON		.		.
0260	415.0090 Concrete Pavement 9-Inch	3,533.000 SY		.		.
0270	415.1090 Concrete Pavement HES 9-Inch	1,017.000 SY		.		.
0280	416.0170 Concrete Driveway 7-Inch	181.000 SY		.		.
0290	416.0610 Drilled Tie Bars	658.000 EACH		.		.
0300	416.0620 Drilled Dowel Bars	376.000 EACH		.		.
0310	440.4410 Incentive IRI Ride	1,300.000 DOL	1.00000		1300.00	
0320	465.0120 Asphaltic Surface Driveways and Field Entrances	84.000 TON		.		.

CONTRACT: 20160209013 PROJECT(S): 2126-00-70 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	465.0125 Asphaltic Surface Temporary	290.000 TON		.		.
0340	520.8000 Concrete Collars for Pipe	9.000 EACH		.		.
0350	601.0331 Concrete Curb & Gutter 31-Inch	1,542.000 LF		.		.
0360	601.0600 Concrete Curb Pedestrian	14.000 LF		.		.
0370	602.0410 Concrete Sidewalk 5-Inch	6,387.000 SF		.		.
0380	602.0505 Curb Ramp Detectable Warning Field Yellow	100.000 SF		.		.
0390	603.8000 Concrete Barrier Temporary Precast Delivered	2,738.000 LF		.		.
0400	603.8125 Concrete Barrier Temporary Precast Installed	2,738.000 LF		.		.
0410	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	704.000 LF		.		.
0420	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	220.000 LF		.		.
0430	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	6.000 LF		.		.

CONTRACT: 20160209013 PROJECT(S): 2126-00-70 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	608.0372 Storm Sewer Pipe Reinforced Concrete Class III 72-Inch	370.000 LF		.		.
0450	608.0384 Storm Sewer Pipe Reinforced Concrete Class III 84-Inch	1,196.000 LF		.		.
0460	611.2004 Manholes 4-FT Diameter	2.000 EACH		.		.
0470	611.2005 Manholes 5-FT Diameter	1.000 EACH		.		.
0480	611.2006 Manholes 6-FT Diameter	1.000 EACH		.		.
0490	611.3004 Inlets 4-FT Diameter	5.000 EACH		.		.
0500	611.9705 Salvaged Manhole Covers	1.000 EACH		.		.
0510	611.9710 Salvaged Inlet Covers	20.000 EACH		.		.
0520	612.0106 Pipe Underdrain 6-Inch	435.000 LF		.		.
0530	614.0905 Crash Cushions Temporary	3.000 EACH		.		.
0540	616.0700.S Fence Safety	1,000.000 LF		.		.

CONTRACT: 20160209013 PROJECT(S): 2126-00-70 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
0550	619.1000 Mobilization	1.000 EACH		.		.
0560	620.0300 Concrete Median Sloped Nose	371.000 SF		.		.
0570	623.0200 Dust Control Surface Treatment	8,487.000 SY		.		.
0580	624.0100 Water	204.000 MGAL		.		.
0590	625.0100 Topsoil	1,000.000 SY		.		.
0600	628.1504 Silt Fence	3,805.000 LF		.		.
0610	628.1520 Silt Fence Maintenance	3,805.000 LF		.		.
0620	628.1905 Mobilizations Erosion Control	1.000 EACH		.		.
0630	628.1910 Mobilizations Emergency Erosion Control	2.000 EACH		.		.
0640	628.7005 Inlet Protection Type A	18.000 EACH		.		.
0650	628.7015 Inlet Protection Type C	42.000 EACH		.		.

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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
0660	628.7560 Tracking Pads	4.000 EACH		.		.
0670	629.0205 Fertilizer Type A	1.000 CWT		.		.
0680	631.1000 Sod Lawn	1,000.000 SY		.		.
0690	634.0616 Posts Wood 4x6-Inch X 16-FT	1.000 EACH		.		.
0700	634.0618 Posts Wood 4x6-Inch X 18-FT	1.000 EACH		.		.
0710	637.2210 Signs Type II Reflective H	34.750 SF		.		.
0720	638.2602 Removing Signs Type II	2.000 EACH		.		.
0730	638.3000 Removing Small Sign Supports	1.000 EACH		.		.
0740	643.0200 Traffic Control Surveillance and Maintenance (project) 0001. 2126-00-70	116.000 DAY		.		.
0750	643.0300 Traffic Control Drums	11,305.000 DAY		.		.
0760	643.0420 Traffic Control Barricades Type III	2,048.000 DAY		.		.

CONTRACT: 20160209013 PROJECT(S): 2126-00-70 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
0770	643.0705 Traffic Control Warning Lights Type A	4,096.000 DAY		.		.
0780	643.0715 Traffic Control Warning Lights Type C	3,922.000 DAY		.		.
0790	643.0800 Traffic Control Arrow Boards	472.000 DAY		.		.
0800	643.0900 Traffic Control Signs	4,270.000 DAY		.		.
0810	643.0920 Traffic Control Covering Signs Type II	5.000 EACH		.		.
0820	643.1000 Traffic Control Signs Fixed Message	6.000 SF		.		.
0830	643.1050 Traffic Control Signs PCMS	61.000 DAY		.		.
0840	643.2000 Traffic Control Detour (project) 0001. 2126-00-70	1.000 EACH		.		.
0850	643.3000 Traffic Control Detour Signs	3,710.000 DAY		.		.
0860	645.0111 Geotextile Fabric Type DF Schedule A	302.000 SY		.		.
0870	646.0106 Pavement Marking Epoxy 4-Inch	1,523.000 LF		.		.

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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
0880	646.0126 Pavement Marking Epoxy 8-Inch	696.000 LF		.		.
0890	646.0600 Removing Pavement Markings	2,254.000 LF		.		.
0900	647.0156 Pavement Marking Arrows Epoxy Type 1	3.000 EACH		.		.
0910	647.0166 Pavement Marking Arrows Epoxy Type 2	10.000 EACH		.		.
0920	647.0186 Pavement Marking Arrows Epoxy Type 4	3.000 EACH		.		.
0930	647.0356 Pavement Marking Words Epoxy	6.000 EACH		.		.
0940	647.0576 Pavement Marking Stop Line Epoxy 24-Inch	62.000 LF		.		.
0950	647.0776 Pavement Marking Crosswalk Epoxy 12-Inch	1,180.000 LF		.		.
0960	647.0955 Removing Pavement Markings Arrows	7.000 EACH		.		.
0970	647.0965 Removing Pavement Markings Words	4.000 EACH		.		.
0980	649.0400 Temporary Pavement Marking Removable Tape 4-Inch	5,943.000 LF		.		.

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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
0990	650.8500 Construction Staking Electrical Installations (project) 0001. 2126-00-70	LUMP	LUMP			.
1000	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	70.000 LF		.		.
1010	652.0230 Conduit Rigid Nonmetallic Schedule 40 2 1/2-Inch	225.000 LF		.		.
1020	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1,265.000 LF		.		.
1030	652.0615 Conduit Special 3-Inch	815.000 LF		.		.
1040	653.0905 Removing Pull Boxes	22.000 EACH		.		.
1050	690.0150 Sawing Asphalt	495.000 LF		.		.
1060	690.0250 Sawing Concrete	3,124.000 LF		.		.
1070	715.0415 Incentive Strength Concrete Pavement	1,365.000 DOL	1.00000		1365.00	
1080	SPV.0060 Special 0001. Catch Basin Type 44-A	6.000 EACH		.		.
1090	SPV.0060 Special 0002. Catch Basin Type 44-B	6.000 EACH		.		.

CONTRACT: 20160209013 PROJECT(S): 2126-00-70 FEDERAL ID(S): N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1100	SPV.0060 Special 0003. Manhole 9-Foot Special	1.000 EACH		.		.
1110	SPV.0060 Special 0004. Manhole 10-Foot Special	6.000 EACH		.		.
1120	SPV.0060 Special 0005. Manhole Cover MS 58-A	8.000 EACH		.		.
1130	SPV.0060 Special 0006. Inlet Cover MS 57	1.000 EACH		.		.
1140	SPV.0060 Special 0007. Storm Sewer Structure M4	1.000 EACH		.		.
1150	SPV.0060 Special 0008. Storm Sewer Structure M5	1.000 EACH		.		.
1160	SPV.0060 Special 0009. Pipe Connection to Existing Structure	2.000 EACH		.		.
1170	SPV.0060 Special 0010. Exposing Infrastructure Paved Area	8.000 EACH		.		.
1180	SPV.0060 Special 0011. Exposing Infrastructure Unpaved Area	3.000 EACH		.		.
1190	SPV.0060 Special 3000. Rectangular Polymer Concrete Vault 17"x30"x18"	22.000 EACH		.		.

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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
1200	SPV.0060 Special 3001. Install 18" Dia x 6 Ft Cylindrical Column Form	5.000 EACH		.		.
1210	SPV.0060 Special 3002. Install Traffic Signal Base	4.000 EACH		.		.
1220	SPV.0060 Special 3003. Spread Footing Base for A-31 Bolt Down Concrete Pole	7.000 EACH		.		.
1230	SPV.0060 Special 3004. Spread Footing Base for Downtown Style Harp Pole	6.000 EACH		.		.
1240	SPV.0060 Special 5000. Removing Hydrant	2.000 EACH		.		.
1250	SPV.0060 Special 5001. Install Hydrant	3.000 EACH		.		.
1260	SPV.0075 Special 0001. Pavement Cleanup Project 2126-00-70	16.000 HRS		.		.
1270	SPV.0090 Special 0001. Concrete Box Combination Sewer 4' x 12'	124.000 LF		.		.
1280	SPV.0090 Special 5002. Ductile Iron Hydrant Branch 6-Inch	148.000 LF		.		.
1290	SPV.0090 Special 5003. Ductile Iron Water Main 8-Inch	54.000 LF		.		.

CONTRACT: 20160209013 PROJECT(S): 2126-00-70 FEDERAL ID(S): N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1300	SPV.0090 Special 5004. Ductile Iron Water Main 30-Inch	148.000 LF		.		.
1310	SPV.0090 Special 5005. Remove Water Main	191.000 LF		.		.
1320	SPV.0090 Special 5006. Ductile Iron Water Main 12-Inch	10.000 LF		.		.
1330	SPV.0105 Special 0001. Survey Project 2126-00-70	LUMP	LUMP			.
1340	SPV.0105 Special 0002. Control of Water	LUMP	LUMP			.
1350	SPV.0105 Special 0003. Concrete Pavement Joint Layout	LUMP	LUMP			.
1360	SPV.0105 Special 0004. ATC Thermal Backfill	LUMP	LUMP			.
1370	SPV.0165 Special 0001. Colored and Stamped Concrete Sidewalk 5-Inch	235.000 SF		.		.
1380	SPV.0180 Special 0001. Salvage Cobblestones	530.000 SY		.		.
1390	SPV.0180 Special 0002. Concrete Joint Sealer	4,550.000 SY		.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE