

HIGHWAY WORK PROPOSAL

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

Proposal Number:

Ø 5

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Dane	5994-00-72	WISC 2013 018	Monona Drive, City of Monona Nichols Road-Winnequah Road	CTH BB
Dane	5994-00-77		Monona Drive, City of Monona Nichols Road-Winnequah Road	CTH BB
Dane	5994-00-78		Monona Drive, City of Monona Nichols Road-Winnequah Road	CTH BB

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: January 8, 2013 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code
Contract Completion Time May 21, 2014	SAMPLE NOT FOR BIDDING PURPOSES
Assigned Disadvantaged Business Enterprise Goal 12 %	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 Pavement removal, grading, base aggregate dense, concrete pavement, HMA pavement, concrete sidewalk, asphaltic surface, storm sewer, sanitary sewer, water main, concrete curb and gutter, marking, signing, traffic control, signals and lighting, erosion control and finishing items.	Date Guaranty Returned
Notice of Award Dated	

**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.

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

- (1) Obtain bidding proposals as specified in **section 102** of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:
 1. Electronic bid on the internet.
 2. Electronic bid on a printout with accompanying diskette or CD ROM.
 3. Paper bid under a waiver of the electronic submittal requirements.
- (2) Bids submitted on a printout with accompanying diskette or CD ROM or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.
- (3) The department will provide bidding information through the department's web site at <http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm>. The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 P.M. local time on the Thursday before the letting. Check the department's web site after 5:00 P.M. local time on the Thursday before the letting to ensure all addenda have been accounted for before preparing the bid. When bidding using methods 1 and 2 above, check the Bid Express™ on-line bidding exchange at <http://www.bidx.com/> after 5:00 P.M. local time on the Thursday before the letting to ensure that the latest schedule of items Expedite file (*.ebs or *.00x) is used to submit the final bid.
- (4) Interested parties can subscribe to the Bid Express™ on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

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

- (5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.
- (6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at <http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm> or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, Room 601, 4802 Sheboygan Avenue, Madison, WI, during regular business hours.

B Submitting Electronic Bids

B.1 On the Internet

- (1) Do the following before submitting the bid:
 1. Have a properly executed annual bid bond on file with the department.
 2. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.
- (2) In lieu of preparing, delivering, and submitting the proposal as specified in **102.6** and **102.9** of the standard specifications, submit the proposal on the internet as follows:

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

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

- (1) Download the latest schedule of items from the Wisconsin pages of the Bid Express™ web site reflecting the latest addenda posted on the department's web site at <http://www.dot.wisconsin.gov/business/engrserve/bid-letting-information.htm>. Use Expedite™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.
- (2) Staple an 8 1/2 by 11 inch printout of the Expedite™ generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

- (3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.
- (4) The bidder-submitted printout of the Expedite™ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.
- (5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:
 1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
 2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.

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

C Waiver of Electronic Submittal

- (1) The bidder may request a waiver of the electronic submittal requirements. Submit a written request for a waiver in lieu of bids submitted on the internet or on a printout with accompanying diskette or CD ROM. Use the waiver that was included with the paper bid document sent to the bidder or type up a waiver on the bidder's letterhead. The department will waive the electronic submittal requirements for a bidding entity (individual, partnership, joint venture, corporation, or limited liability company) for up to 4 individual proposals in a calendar year. The department may allow additional waivers for equipment malfunctions.
- (2) Submit a schedule of items on paper conforming to [section 102](#) of the standard specifications. The department charges the bidder a \$75 administrative fee per proposal, payable at the time and place the department designates for receiving bids, to cover the costs of data entry. The department will accept a check or money order payable to: "Wisconsin, Dept. of Transportation."
- (3) In addition to the reasons specified in [section 102](#) of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:
 1. The bidder fails to provide the written request for waiver of the electronic submittal requirements.
 2. The bidder fails to pay the \$75 administrative fee before the time the department designates for the opening of bids unless the bidder requests on the waiver that they be billed for the \$75.
 3. The bidder exceeds 4 waivers of electronic submittal requirements within a calendar year.
- (4) In addition to the reasons specified in [section 102](#) of the standard specifications, the department may refuse to issue bidding proposals for future contracts to a bidding entity that owes the department administrative fees for a waiver of electronic submittal requirements.

PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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)

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

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

(Signature of Attorney-in-Fact)

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

DT1305 8/2003

Wisconsin Department of Transportation

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)

FEBRUARY 1999

LIST OF SUBCONTRACTORS

Section 66.29(7), Wisconsin Statutes, provides that a bidder, as a part of his proposal, shall submit a list of the subcontractors he proposes to contract with and the class of work to be performed by each, provided that to qualify for such listing each subcontractor must first submit his bid in writing to the general contractor at least 48 hours prior to the time of bid closing. It further provides that a proposal of a bidder shall not be invalid if any subcontractor, and the class of work to be performed by such subcontractor, has been omitted from a proposal.

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

Name of Subcontractor	Class of Work	Estimated Value
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

DECEMBER 2000

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

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.
4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.
7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR-1273 - "Required Contract Provisions Federal Aid Construction Contracts," without

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

8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

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

- (1) The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- (2) Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Projects 5994-00-72, 5994-00-77, and 5994-00-78, Monona Drive, City of Monona, Nichols Road–Winnequah Road, CTH BB, Dane County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2013 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.

100-005 (20120615)

2. Scope of Work.

The work under this contract shall consist of pavement removal, grading, base aggregate dense, concrete pavement, HMA pavement, concrete sidewalk, asphaltic surface, storm sewer, sanitary sewer, water main, concrete curb and gutter, marking, signing, traffic control, signals and lighting, erosion control, finishing items, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

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

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

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

The contract time is based on an expedited work schedule and may require extraordinary forces and equipment.

Begin construction of the Monona Grove High School parking lot extension (Parcel 51) near Station 94+50 RT and the temporary parking lot connection to the Klinke Monona Corporate LLC (Parcel 44) parking lot located directly south of the Monona Grove High School within seven calendar days after the Monona Grove High School 2013 graduation. Contact Mark Scullion, Monona Grove School District of Facilities and Safety, at (608) 221-7660 to confirm the Monona Grove High School 2013 graduation date. Maintain the temporary parking lot connection until the parking lot construction for Parcels 41 and 44 is complete.

Replace standard spec 108.10.2.2(1) as follows:

- (1) The engineer will award a time extension for severe weather on calendar day and completion date contracts. Submit a request for severe weather days if the number of adverse weather days, as defined in standard spec 101.3, exceeds the anticipated number of adverse weather days tabulated below.

Total Anticipated Adverse Weather Days for Each Calendar Month ^[2]			
Jan ^[1]	31	Aug	6
Feb ^[1]	28	Sept	7
Mar ^[1]	31	Oct	8
April	5	Nov 1 through 15	5
May	4	Nov 16 through 30 ^[1]	15
June	7	Dec ^[1]	31
July	6		

^[1] Includes an anticipated winter suspension from November 16 through March 31.

^[2] The number of days will be modified in the special provision for year-round and painting contracts.

Supplement standard spec 108.11 as follows:

During Stage 3 construction operations, complete construction of the west leg of Nichols Road (Pflaum Road) within a maximum of 30 consecutive calendar days, including completion of the following work: concrete pavement, concrete curb and gutter, HMA asphaltic pavement, concrete sidewalk, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete construction operations at the west leg of Nichols Road (Pflaum Road) within 30 consecutive calendar days, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 30 consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

During Stage 3 construction operations, close St. Teresa Terrace to traffic for a maximum of 30 calendar days after it is initially closed to through traffic. Do not reopen St. Teresa Terrace until completing the following work: concrete pavement, concrete curb and gutter, HMA asphaltic pavement, concrete sidewalk, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen St. Teresa Terrace to traffic within 30 calendar days after it is initially closed to through traffic, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 30 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

During Stage 3 construction operations, close the west leg of Dean Avenue to traffic for a maximum of 35 calendar days after it is initially closed to through traffic. Do not reopen the west leg of Dean Avenue until completing the following work: concrete pavement, concrete curb and gutter, HMA asphaltic pavement, concrete sidewalk, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen the west leg of Dean Avenue to traffic within 35 calendar days after it is initially closed to through traffic, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 35 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

During Stage 3 construction operations, close Springhaven Avenue to traffic for a maximum of 30 calendar days after it is initially closed to through traffic. Do not reopen Springhaven Avenue until completing the following work: concrete pavement, concrete curb and gutter, HMA asphaltic pavement, concrete sidewalk, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen Springhaven Avenue to traffic within 30 calendar days after it is initially closed to through traffic, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 30 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

During Stage 3 construction operations, close Lofty Avenue to traffic for a maximum of 30 calendar days after it is initially closed to through traffic. Do not reopen Lofty Avenue until completing the following work: concrete pavement, concrete curb and gutter, HMA asphaltic pavement, concrete sidewalk, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen Lofty Avenue to traffic within 30 calendar days after it is initially closed to through traffic, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 30 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

During Stage 3 construction operations, close the west leg of Coldspring Avenue to traffic for a maximum of 30 calendar days after it is initially closed to through traffic. Do not reopen the west leg of Coldspring Avenue until completing the following work: concrete pavement, concrete curb and gutter, HMA asphaltic pavement, concrete sidewalk, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen the west leg of Coldspring Avenue to traffic within 30 calendar days after it is initially closed to through traffic, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 30 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

During Stage 3 construction operations, complete construction of the east leg of Nichols Road (Pflaum Road) prior to 12:01 AM August 24, 2013, including completion of the following work: concrete pavement, concrete curb and gutter, HMA asphaltic pavement, concrete sidewalk, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete construction operations at the east leg of Nichols Road (Pflaum Road) work prior to 12:01 AM August 24, 2013, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM August 24, 2013. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

During Stage 4 construction operations, complete construction of the east leg of Dean Avenue within a maximum of 30 consecutive calendar days, including completion of the following work: concrete pavement, concrete curb and gutter, HMA asphaltic pavement, concrete sidewalk, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete construction operations at the east leg of Dean Avenue within 30 consecutive calendar days, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 30 consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

During Stage 4 construction operations, close the east leg of Coldspring Avenue to traffic for a maximum of 30 consecutive calendar days after it is initially closed to through traffic. Do not reopen the east leg of Coldspring Avenue until completing the following work: concrete pavement, concrete curb and gutter, HMA asphaltic pavement, concrete sidewalk, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen the east leg of Coldspring Avenue to traffic within 30 consecutive calendar days after it is initially closed to through traffic, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 30 consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

Complete construction of the Monona Grove High School parking lot extension and temporary access connection to Parcel 44 (4518 Monona Drive) within a maximum of 30 consecutive calendar days, including completion of the following work: concrete curb and gutter, HMA asphaltic pavement, pavement marking, signing and erosion control.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete construction operations at the Monona Grove High School parking lot extension and temporary access connection to Parcel 44 (4518 Monona Drive) within 30 consecutive calendar days, the department will assess the contractor \$1,000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 30 consecutive calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

Complete Stage 5 construction operations on Monona Drive to the stage necessary to have all winter work suspension traffic control items in place, all permanent traffic signals controlling the intersections, and all roadway lighting installed and operational prior to 12:01 AM November 16, 2013.

Supplement standard spec 108.11 as follows:

If the contractor fails to complete Stage 5 construction operations on Monona Drive to the stage necessary to have all winter work suspension traffic control items in place, all permanent traffic signals controlling the intersections, and all roadway lighting installed and operational prior to 12:01 AM November 16, 2013, the department will assess the contractor \$3,500 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM November 16, 2013. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

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

Notify businesses and residents 48 hours in advance if their direct access will be modified or closed.

Remove existing traffic signals only after the temporary traffic signals have been installed, inspected, and are controlling the intersection.

Repair potholes and other deficiencies in the existing pavement to accommodate temporary traffic operations. The item Asphaltic Surface Patching has been included in the contract for this work.

Contact the United States Postal Service postmaster one week prior to the beginning construction operations.

Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 and the City of Madison Traffic Engineering Division Field Operations at (608) 266-4767 at least five days prior to construction to coordinate the removal of the local street name signs.

Contact the Monona Grove School District two weeks prior to beginning construction operations. The Monona Grove School District Administrative Building is located at 5301 Monona Drive, Monona, Wisconsin, 53716. Monona Grove High School is located at 4400 Monona Drive, Monona Wisconsin, 53716.

Contact Christy Bachmann, City of Madison Engineering, at (608) 266-4095 two weeks prior to beginning construction operations to coordinate the opening of the existing traffic diverter gate located on the west leg of the Coldspring Avenue and Bainbridge Street intersection for the duration of the project.

Contact the Madison Metropolitan School District two week prior to beginning construction operations. La Follette High School is located at 702 Pflaum Road, Madison, Wisconsin, 53716.

Contact the Immaculate Heart of Mary School two weeks prior to beginning construction operations. The Immaculate Heart of Mary School Building is located at 4913 Schofield Street, Monona, Wisconsin, 53716.

Provide 7 days of notice to the United States Postal Service postmaster, the Monona Grove School District, the Madison Metropolitan School District, and local City of Monona and City of Madison first responders prior to closing any side road or beginning each construction stage.

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

Utilize the quantity Dust Control Surface Treatment to minimize dust nuisance to the public resulting from construction or traffic on base aggregate.

Place a minimum of 18 inches of base aggregate dense over shallow pipes during construction to ensure that the pipes are not damaged prior to placing concrete pavement. Replace pipes that are damaged during construction due to inadequate cover at contractor expense.

Conduct construction operations within commercial parking lots in a manner that will cause the least disturbance to existing parking stalls and parking lot circulation. Do not store equipment or stockpile materials within temporary limited easement or permanent limited easement locations within commercial parking lots without the approval of the engineer. Avoid obstructing commercial business signing.

Conduct construction operations within the commercial parking lot of Parcel 61 (Stop-N-Go) located in the southeast quadrant of the Monona Drive and Dean Avenue intersection in a manner that will cause least disturbance to the existing gas pumps. Do not block access to the gas pumps without approval from the parcel owner (or owner's representative) and the engineer.

Conduct construction operations within the Monona Municipal Golf Course in a manner that will cause the least disturbance to the 4(f) site. Protect all trees not designated for removal in the plans within the Monona Municipal Golf Course right-of-way and temporary limited easement area for the duration of the project. The bid item Fence Safety has been included in the contract for this work. Notify the engineer immediately if tree roots are exposed during excavation operations. The bid item Root Pruning Existing Trees has been included in the contract for exposed root protection. Contact James Morgan, City of Madison Superintendent of Parks, at (608) 266-4711 and Dean Kahl, Forestry Operations Supervisor–City of Madison Parks Division, at (608) 444-0088 one week prior to performing any work near the Monona Municipal Golf Course.

Contact Dean Kahl, Forestry Operations Supervisor–City of Madison Parks Division, at (608) 266-4891 one week prior to installing plantings along the east side of Monona Drive. Planting stock to be approved by the City of Madison Forestry Department and the engineer.

Contact David Hults, property owner of Parcel 10 (5300 Monona Drive), at (608) 692-8054 and by email at davehults@live.com two weeks prior to beginning construction operations near the property. David Hults will hire a professional tree trimming company to trim the existing trees located behind the back of sidewalk along Monona Drive within the parcel limits.

Contact Ken Pulliam, property owner of Parcel 53 (4405 Monona Drive), at (608) 444-0088 at the beginning of the project and two weeks prior to beginning construction operations near the property to discuss driveway access needs to accommodate access for a special needs individual. Maintain driveway access to the parcel at all times. If necessary, provide temporary driveway access to the parcel.

Contact Glen Hermanson, property owner of Parcel 17 (4915 Monona Drive), at (608) 444-8048 one month prior to beginning construction operations near the property to coordinate the private electric installation within the parcel limits.

Contact Ken Sorge, property owner of Parcel 1 (5221 Monona Drive), at (608) 221-2253 or (608) 279-1040 two weeks prior to beginning construction operations near the property to discuss property access during construction and the anticipated construction schedule. Do not store equipment, vehicles, or materials within the temporary limited easement or private parking lot of Parcel 1 without specific approval of the engineer.

Contact Dale Bernstein, property owner of Parcel 66 (4309 Monona Drive), by email at dale.bernstein@midwestsstrc.org at the beginning of the project and two weeks prior to beginning construction operations near the property to discuss driveway access needs. Maintain driveway access to the parcel at all times. If necessary, provide temporary driveway access to the parcel.

4. Traffic.

Perform this work in accordance to standard spec 643, the Manual on Uniform Traffic Control Devices (MUTCD), and as shown on the plans or as approved by the engineer, except as hereinafter modified.

Construct this project using staged construction. Keep Monona Drive, on which this project is located, open to one through lane of vehicular traffic in each direction throughout the project length. Provide temporary left-turn lanes and two-way-left-turn-lane as shown on the plans. The intersecting side roads of St. Teresa Terrace, west leg of Dean Avenue, Springhaven Avenue, Lofty Avenue, east and west leg of Coldspring Avenue, and Parkway Street will be closed to through traffic at different times as further defined under this Article. Keep the west and east legs of Winnequah Road open to traffic for the entire duration of the project. Complete construction of side roads while maintaining one lane open to local traffic for driveway access. Maintain a minimum of 12-feet of width and a drivable surface of a minimum of base aggregate dense for open lane(s) to accesses.

Maintain left-turn movements at side roads and driveway entrances as detailed in the plans or as directed by the engineer. Maintain areas for turning vehicles as shown on the plans at all times except for specific construction operations in those areas. Undistributed quantities of Base Aggregate Dense are included in this contract to accommodate the turning movements.

Maintain continuous access to business and residential driveways on existing pavement, temporary pavement, or base aggregate dense in accordance to the plans or as directed by the engineer. Maintain a minimum travel width of 20 feet for temporary access to business entrances and a minimum travel width of 10 feet for temporary access to residential entrances. Additional intermediate construction staging or staging gaps, not shown on the plans, may be necessary to maintain continuous access to all properties. If the contractor coordinates the closure of any access to a business or private property with the owner(s), provide written documentation of coordination with the owner(s), including anticipated closure duration, to the engineer prior to the start of work regarding the access closure. In addition to written documentation of the coordination, notify the owner(s) 48 hours prior to the access closure.

Upon switching Monona Drive traffic to temporary pavement, designate a representative to monitor the condition of the temporary pavement for a period of not less than 8 hours after the switch and prior to beginning any work that may take place upon the existing roadway after completion of the traffic switch. Should the temporary pavement show signs of failure, immediately notify the engineer.

During construction operations within commercial parking lots, maintain pedestrian access for businesses to their store fronts at all times in accordance to the Americans with Disabilities Act (ADA) Accessibility Guidelines (ADAAG). The cost to maintain pedestrian access for businesses to their store fronts is included in other items of work.

When required, close sidewalks in accordance to the standard detail drawing “Traffic Control, Sidewalk Closure.” Provide temporary crosswalk access as described in the special provisions under bid item Temporary Crosswalk Access. Provide temporary crosswalks in accordance to the ADAAG, which are free from mud, sand, and other construction debris.

Maintain pedestrian access to the Monona Grove High School for the duration of the project.

Maintain emergency vehicle access to 4202 – 4204 Monona Drive (Parcel 74) at all times.

Perform construction operations on Monona Drive according to the stages provided in the plans and as described in these special provisions:

Stage 1–Phase I

Restrict Monona Drive northbound traffic to one 11-foot travel lane between Coldspring Avenue and Winnequah Road.

Keep all side roads open to traffic.

Keep the westerly 5-foot sidewalk between Nichols Road (Pflaum Road) and Winnequah Road, the easterly 8-foot asphalt path between Nichols Road (Pflaum Road) and Dean Avenue, and the existing 5-foot sidewalk between Dean Avenue and Coldspring Avenue open for pedestrian use.

Keep the easterly 8-foot asphalt path between Nichols Road (Pflaum Road) and Dean Avenue open for bicycle use.

Stage 1 - Phase II

Restrict Monona Drive traffic to one 11-foot travel lane in each direction with an 11-foot Two-Way Left-Turn Lane (TWLTL) on the existing two northbound lanes of Monona Drive and the easternmost southbound lane of Monona Drive. Prior to the traffic shift, install temporary signals at the intersections of Monona Drive/Nichols Road (Pflaum Road), Monona Drive/Dean Avenue, and Monona Drive/Coldspring Avenue. Maintain the temporary traffic signals until the new traffic signals are activated prior to the winter suspension.

Two-lane or single-lane flagging operations of Monona Drive will only be permitted between the hours of 8:00 PM and 5:00 AM from 8:00 PM Monday through 5:00 AM Friday for the installation of the temporary storm sewer lateral connections near Station 75+00 and Station 77+00. Replace disturbed pavement in accordance to bid item Temporary Surface Same Day of the contract special provisions. Place loose gravel signing in advance of base course dense driving surface locations. If limiting Monona Drive traffic to two-lane operations, provide one 11-foot-wide travel lane in each

direction. If limiting Monona Drive to single lane flagging operations, provide one 12-foot-wide open travel lane. Provide flagging for all single-lane operations on Monona Drive in accordance to the standard detail drawing “Traffic Control for Lane Closure (Suitable for Moving Operations)”. During flagging operations, include supplemental Traffic Control Signs PCMS – condition then action – Frame one > Flagger Ahead, Frame two > Be Prepared To Stop.

Keep all side roads open to traffic.

Repaint all mainline existing crosswalks within the project limits. Paid for under temporary pavement marking bid items.

Keep the easterly 8-foot asphalt path between Nichols Road (Pflaum Road) and Dean Avenue, the existing sidewalk between Dean Avenue and Coldspring Avenue, and the temporary sidewalk between Coldspring Avenue and Winnequah Road open for pedestrian use.

Maintain temporary crosswalk access at the existing Monona Drive crosswalk locations near the Nichols Road (Pflaum Road), Dean Avenue, Springhaven Avenue, Lofty Avenue, Coldspring Avenue, and Winnequah Road intersections.

Keep the easterly 8-foot asphalt path between Nichols Road (Pflaum Road) and Dean Avenue open for bicycle use.

Stage 2

Restrict Monona Drive traffic one 11-foot travel lane in each direction with an 11-foot TWLTL on the existing two southbound lanes of Monona Drive and the westernmost northbound lane of Monona Drive.

Keep all side roads open to traffic.

Keep the newly constructed westerly sidewalk along Monona Drive between Nichols Road (Pflaum Road) and Winnequah Road open for pedestrian use.

Close the easterly 8-foot asphalt path between Nichols Road (Pflaum Road) and Dean Avenue until the end of Stage 4.

Maintain temporary crosswalk access at the existing Monona Drive crosswalk locations near the Nichols Road (Pflaum Road), Dean Avenue, Springhaven Avenue, Lofty Avenue, Coldspring Avenue, and Winnequah Road intersections.

Stage 3

Restrict Monona Drive traffic to one 11-foot travel lane in each direction separated by flexible tubular marker posts on a portion of the westernmost northbound lane of Monona Drive, the easternmost northbound lane of Monona Drive, and the adjacent temporary pavement placed during Stage 2 between Nichols Road (Pflaum Road) and Dean Avenue.

Provide designated northbound left-turn lanes at the plan designated locations between Nichols Road (Pflaum Road) and Dean Avenue for access to local businesses.

Restrict Monona Drive traffic to one 10-foot travel lane in each direction with an 11-foot TWLTL on a portion of the westernmost northbound lane of Monona Drive, the easternmost northbound lane of Monona Drive, and the adjacent temporary pavement placed during Stage 2 between Dean Avenue and Coldspring Avenue.

Restrict Monona Drive traffic to one 11-foot travel lane in each direction separated by flexible tubular marker posts on a portion of the westernmost northbound lane of Monona Drive, the easternmost northbound lane of Monona Drive, and the adjacent temporary pavement placed during Stage 2 between Coldspring Avenue and Winnequah Road.

Maintain a maximum 3:1 slope if there is a dropoff within 4 feet from the edge of travel lane that will remain for more than 3 consecutive days.

Construct the west leg of Nichols Road (Pflaum Road) in halves, restricting traffic to one 10-foot travel lane in each direction as detailed in the plans (Stage 3–Phase I, Stage 3–Phase II) within 30 consecutive calendar days.

Close St. Teresa Terrace, Springhaven Avenue, Lofty Avenue, and Coldspring Avenue during Stage 3 for a maximum of 30 calendar days. Close the west leg of Dean Avenue during Stage 3 for a maximum of 35 calendar days. St Teresa Terrace, Springhaven Avenue, and Coldspring Avenue are not permitted to be closed until both the west leg of Dean Avenue and Lofty Avenue construction operations are complete.

Construct the east leg of Nichols Road (Pflaum Road) in halves, restricting traffic to one 10-foot travel lane in each direction (Stage 3–Phase III, Stage 3–Phase IV) as detailed in the plans.

Close Parkway Street for the duration of Stage 3.

Keep the newly constructed westerly sidewalk along Monona Drive between Nichols Road (Pflaum Road) and Winnequah Road open for pedestrian use.

Maintain temporary crosswalk access at the existing Monona Drive crosswalk locations near the Nichols Road (Pflaum Road), Dean Avenue, Springhaven Avenue, Lofty Avenue, Coldspring Avenue, and Winnequah Road intersections. In addition, temporary crosswalk access will be maintained at the existing side-road crosswalk locations near the west legs of Nichols Road (Pflaum Road), St. Teresa Terrace, Dean Avenue, Springhaven Avenue, Lofty Avenue, Coldspring Avenue, and Parkway Street intersections.

Stage 4

Restrict Monona Drive traffic to one 10-foot travel lane in each direction with an 11-foot TWLTL on the newly constructed southbound concrete lanes and temporary pavement placed during Stage 3 between Nichols Road and Coldspring Avenue.

Restrict Monona Drive traffic to one 11-foot travel lane in each direction separated by flexible tubular marker posts on the newly constructed southbound asphalt lanes between Coldspring Avenue and Winnequah Road.

Maintain a maximum 3:1 slope if there is a dropoff within 4 feet from the edge of travel lane that will remain for more than 3 consecutive days.

Construct the east leg of Dean Avenue in halves, restricting traffic to one eastbound 12-foot travel lane (one-way direction) as detailed in the plans (Stage 4–Phase I, Stage 4-Phase II) within 30 consecutive calendar days.

Close the east leg of Coldspring Avenue during Stage 4 for a maximum of 30 consecutive calendar days. Closure of the Coldspring Avenue east leg is not permitted during construction operations at the east leg of Dean Avenue.

Keep the newly constructed westerly sidewalk along Monona Drive between Nichols Road and Winnequah Road open for pedestrian use.

Maintain temporary crosswalk access at the existing Monona Drive crosswalk locations near the Nichols Road (Pflaum Road), Dean Avenue, Springhaven Avenue, Lofty Avenue, Coldspring Avenue, and Winnequah Road intersections.

Stage 5/Winter Work Suspension

Restrict Monona Drive traffic to two 11-foot travel lanes in each direction on the constructed southbound and northbound lanes between Nichols Road (Pflaum Road) and Coldspring Avenue. Place flexible tubular marker posts adjacent to the innermost northbound and southbound travel lanes to provide delineation from the unfinished median.

Gap the traffic control flexible tubular marker posts at the following median left-turn openings and intersections to allow for left-turn access:

- Station 61+25 to Station 62+35 (Nichols Road/Pflaum Road)
- Station 65+40 to Station 66+00 (median opening)
- Station 67+75 to Station 69+05 (median opening)
- Station 70+55 to Station 71+10 (St. Teresa Terrace)
- Station 74+45 to Station 75+05 (median opening)
- Station 76+35 to Station 76+90 (median opening)
- Station 77+85 to Station 80+05 (median opening)
- Station 81+95 to Station 82+50 (median opening)
- Station 85+15 to Station 85+75 (median opening)
- Station 87+20 to Station 88+10 (Dean Avenue)
- Station 91+90 to Station 92+70 (Springhaven Avenue)
- Station 94+25 to Station 95+10 (median opening)
- Station 96+45 to Station 96+95 (Lofty Avenue)
- Station 100+35 to Station 101+30 (Coldspring Avenue)

At all driveway entrance locations located outside of the median opening areas mentioned above, tighten the median traffic control flexible tubular marker posts to a 5-foot spacing for a minimum length of 40 feet directly across from the driveway entrance to restrict left turn movements across the median.

During construction of the inside northbound travel lane near Station 89+55 and Station 94+00 prior to the winter work suspension, restrict Monona Drive northbound traffic to one 11-foot travel lane. Southbound traffic may be restricted to the outside 11-foot southbound travel lane during the construction of the inside northbound travel lane near Station 89+55 and Station 94+00.

During the winter work suspension, maintain a minimum of two 11-foot travel lanes in each direction. Maintain Stage 5 traffic control during the winter work suspension, including the flexible tubular marker post gaps noted above.

Keep all side roads open to traffic.

Keep both sides of Monona Drive for the entire length of the project open for pedestrian use. Keep the easterly 8-foot asphalt path between Nichols Road (Pflaum Road) and Dean Avenue open for pedestrian and bicycle use.

Keep on-street bike lanes on Monona Drive between Parkway Street and Winnequah Road open for bicycle use.

Stage 6

Restrict Monona Drive traffic to two 11-foot travel lanes in each direction on the constructed southbound and northbound lanes between Nichols Road (Pflaum Road) and Coldspring Avenue. During median construction operations, traffic may be restricted to one 11-foot travel lane in each direction on the outside southbound travel lane and outside northbound travel lane.

Maintain median openings at the following locations in accordance to the construction staging details:

- Station 61+25 to Station 62+35 (Nichols Road/Pflaum Road)
- Station 65+40 to Station 66+00 (median opening)
- Station 67+75 to Station 69+05 (median opening)
- Station 70+55 to Station 71+10 (St. Teresa Terrace)
- Station 74+45 to Station 75+05 (median opening)
- Station 76+35 to Station 76+90 (median opening)
- Station 77+85 to Station 80+05 (median opening)
- Station 81+95 to Station 82+50 (median opening)
- Station 85+15 to Station 85+75 (median opening)
- Station 87+20 to Station 88+10 (Dean Avenue)
- Station 91+90 to Station 92+70 (Springhaven Avenue)

- Station 94+25 to Station 95+10 (median opening)
- Station 96+45 to Station 96+95 (Lofty Avenue)
- Station 100+35 to Station 101+30 (Coldspring Avenue)

At all driveway entrance locations located outside of the median opening areas mentioned above, tighten the median traffic control drums to a 5-foot spacing for a minimum length of 40 feet directly across from the driveway entrance to restrict left turn movements across the median.

Keep all side roads open to traffic.

Keep both sides of Monona Drive for the entire length of the project open for pedestrian use. Keep the easterly 8-foot asphalt path will be available for use between Nichols Road and Dean Avenue.

Keep on-street bike lanes on Monona Drive between Parkway Street and Winnequah Road open for bicycle use.

5. Holiday Work Restrictions.

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

- From noon Friday, March 29, 2013 to 6:00 AM Monday, April 1, 2013 for Easter;
 - From noon Friday, May 24, 2013 to 6:00 AM Tuesday, May 28, 2013 for Memorial Day;
 - From noon Wednesday, July 3, 2013 to 6:00 AM Monday, July 8, 2013 for Independence Day;
 - From noon Friday, August 30, 2013 to 6:00 AM Tuesday, September 3, 2013 for Labor Day;
 - From noon Friday, April 18, 2014 to 6:00 AM Monday, April 21, 2014 for Easter.
- 107-005 (20050502)

6. Special Event Work Restrictions.

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

Monona Grove High School 2013 Graduation (4400 Monona Drive)

No work will be permitted on the Monona Grove High School 2013 graduation day from 6:00 AM the day of graduation to 6:00 AM the day after graduation. Contact Mark

Scullion, Monona Grove School District of Facilities and Safety, at (608) 221-7660 to confirm the Monona Grove High School 2013 graduation date.

7. General Requirements for Incident Management.

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

Repair, replace, or restore the damaged or disturbed traffic control devices within two hours from the time notified.

Incidents within the construction work zone will handled by the City of Monona according to standard operating protocol. Invite the following agencies or individuals to the preconstruction and bi-weekly construction informational meetings:

City of Monona Police Department, Chief Walter Ostrenga	(608) 222-0463
City of Monona Fire/EMS Department, Chief Scott Sullivan	(608) 222-2528
City of Monona Public Works Director, Dan Stephany	(608) 222-2525
City of Madison Engineering, Christy Bachmann	(608) 266-4095
Dane County Department of Public Works, Pamela Dunphy	(608) 266-4036
City of Monona Chamber of Commerce, Terri Groves	(608) 222-8565

8. Utilities.

This contract does not come under the provision of Administrative Rule Trans 220. 107-065 (20080501)

There are known utility facilities located near or within the project limits. There are known utility adjustments required for the construction of this project. Coordinate construction activities by calling Diggers Hotline and/or a direct call to the utilities known to have facilities in the area as required by state statutes. Use caution to ensure the integrity of underground facilities at all times.

Prospective bidders are cautioned that the arrangements set forth in this article represent the utility companies' best estimate of their plans to relocate and/or adjust conflicting facilities. Contact the utility companies listed in the plans, prior to preparing the bid, to obtain current information on existing and new locations and the status of any utility relocation work stated herein.

To facilitate coordination with utility companies' during construction operations, provide a minimum seven day notice prior to beginning construction operations near areas of proposed relocations/adjustments anticipated to be completed during construction, unless otherwise modified hereinafter.

AT&T Wisconsin (Communication)**General AT&T Utility Description:**

Underground facilities are present throughout the project corridor. Anywhere from six to ten runs of 4-inch conduit “stacked” in different formations extend from the southerly project limits to the northerly project limits, approximately 12 to 13 feet right of the reference line. These conduit runs contain either copper and/or fiber-optic cable runs in them or may be empty. In addition, AT&T buried cable crosses Monona Drive at several locations to provide service to customers along the corridor.

AT&T Relocation Plans to Address Identified Conflicts:

AT&T will adjust, relocate and/or replace their underground facility prior to and during construction. AT&T’s anticipated start date for underground conduit and direct buried cable relocations is November 19, 2012. AT&T’s anticipated completion date for cabling is December 28, 2012. AT&T’s anticipated completion date for splicing is February 15, 2013. The existing manhole rebuild near Station 87+54, 12' RT is anticipated to start on December 10, 2012 and the approximate duration of construction is 5 calendar days. All manhole adjustments will be completed during construction. The anticipated construction time for the manhole adjustments during construction is 2 calendar days. Provide AT&T a seven day notice prior to beginning construction operations near areas of proposed relocations/adjustments anticipated to be completed during construction.

AT&T Manhole Adjustment Plans:

Station 67+93, 12' RT	AT&T will adjust frame and cover during construction to match the proposed grade. Manhole chimney will be rebuilt during construction.
Station 67+97, 30' RT	AT&T will adjust frame and cover during construction to match the proposed grade.
Station 74+46, 12' RT	AT&T will adjust frame and cover during construction to match the proposed grade.
Station 80+99, 12' RT	AT&T will adjust frame and cover during construction to match the proposed grade. Manhole chimney will be rebuilt during construction.
Station 87+54, 12' RT	AT&T will rebuild the existing manhole structure to a 10'x10'x7' structure prior to construction. AT&T will adjust frame and cover during construction to match the proposed grade.
Station 92+52, 13' RT	AT&T will adjust frame and cover during construction to match the proposed grade.
Station 97+58, 13' RT	AT&T will adjust frame and cover during construction to match the proposed grade. Manhole chimney will be rebuilt during construction.

AT&T Underground Conduit Relocation Plans:

Station 63+06, West	AT&T will lower conduit prior to construction.
Station 64+31, East	AT&T will lower conduit prior to construction.
Station 71+48, East	AT&T will adjust conduit during construction.
Station 74+46, East	AT&T will lower conduit prior to construction.
Station 80+99, East	AT&T will lower conduit prior to construction.
Station 87+75, Northeast	AT&T will adjust conduit prior to construction.
Station 92+52, East	AT&T will lower conduit utility prior to construction.
Station 9+52 L, North	AT&T will relocate the existing 1-MCD south during construction.
Station 102+88, East	AT&T will lower conduit prior to construction.
Station 107+43, West	AT&T will lower conduit prior to construction.

AT&T Direct Buried Cable Relocation Plans:

Station 61+50	AT&T will remove the existing down guy on the MG&E power pole prior to construction.
Station 62+22 - Station 75+75	AT&T will vacate the aerial cable on MG&E power poles and install new buried cable prior to construction.
Station 92+45 - Station 97+60	AT&T will install new buried cable prior to construction.
Station 102+93 - Station 111+50	AT&T will install new buried cable prior to construction.
Station 107+90 - Station 110+50	AT&T will vacate the aerial cable on MG&E power poles and install new buried cable prior to construction.
Station 6+50 D - Station 8+50 D	AT&T will vacate the aerial cable on MG&E power poles and install new buried cable prior to construction.
Station 8+25 D	AT&T will relocate the existing fiber handhole prior to construction.
Station 8+50 D	Pedestal with buried cables will be relocated to AT&T's easement prior to construction.

Charter Communications (Communication)**General Charter Communications Utility Description:**

Overhead television cable and fiber-optic cable are present throughout the project corridor and utilize MG&E power poles as attachments. MG&E lines cross Monona Drive in multiple locations and run along the west side of Monona Drive in the terrace for the entire length of the project.

Charter Communications Relocation Plans to Address Identified Conflicts:

Charter Communications will relocate their facilities prior to and during construction along with MG&E Gas and MG&E Electric by converting aerial poles on the west side of Monona Drive to underground facilities under the west side sidewalk, with distributions/feeder circuits as needed under Monona Drive to the east.

City of Madison Sewer Utility (Sanitary)**General City of Madison Sanitary Sewer Utility Description:**

Sanitary sewer main parallels Monona Drive along the east side of the roadway between Coldspring Avenue and Winnequah Road within an existing City of Madison sanitary sewer easement. Sanitary sewer mains exist within the east intersection leg of Pflaum Road, Dean Avenue, and Winnequah Road.

City of Madison Sanitary Sewer Relocation Plans to Address Identified Conflicts:

The City of Madison Sanitary Sewer Utility plans to reconstruct the existing sanitary sewer crossing near Station 60+97 beginning at the existing sanitary sewer manhole near Station 60+97, 15' LT to a new sanitary sewer manhole near Station 60+97, 42' RT. This sanitary sewer crossing will be reconstructed as part of this contract.

The City of Madison Sanitary Sewer Utility plans to reconstruct the existing sanitary sewer trunkline along the east leg of Dean Avenue beginning near new sanitary sewer manhole No. 45 (Station 9+75 D, 18.0' RT) and continuing to the new sanitary sewer manhole No. 64 (Station 12+25 D, 3.0' RT). This sanitary sewer trunkline will be reconstructed as part of this contract.

City of Madison sanitary sewer manholes will be adjusted as part of this contract under bid item Adjusting Manhole Covers.

City of Madison Sewer Utility (Storm)**General City of Madison Storm Sewer Utility Description:**

Storm sewer facilities exist throughout the corridor.

City of Madison Storm Sewer Utility Relocation Plans to Address Identified Conflicts:

The existing Monona Drive roadway storm sewer facility will be replaced throughout the project limits. In addition, some parking lot storm sewer facilities will be replaced to accommodate parking lot reconstruction efforts. Storm sewer replacement drawings have been included in the project plan.

City of Madison Water Utility (Water)**General City of Madison Water Utility Description:**

Water main runs along the easterly half of Monona Drive for the entire length of the project between Nichols Road and Winnequah Road. Water main runs along the north side of Dean Avenue (east leg) and ends at the intersection of Monona Drive and Dean Avenue. Additional water service laterals are present within the project area which connect adjacent properties to the water main.

City of Madison Water Utility Relocation Plans to Address Identified Conflicts:

The City of Madison Water Utility has indicated that they will relocate/adjust six fire hydrants (Station 62+51; 38' RT, Station 83+76; 26' RT, Station 87+81; 38' RT, Station 96+55; 33' RT, Station 101+17; 28' RT, Station 106+11; 32' RT) and 17 existing water service lateral curb stops during and/or prior to construction. The City of Madison Water Utility has indicated that they will adjust all City of Madison water valve boxes to the proposed roadway elevation during construction. The approximate duration of water main work is 25 calendar days during construction.

Use caution during the storm sewer installation between storm sewer manhole No. 450 (Station 61+28, 38.1' RT) and storm sewer manhole No. 480 (Station 62+73, 25.9' RT) as to not undermine the existing water main pipe.

Provide the City of Madison Water Utility a seven day notice prior to beginning construction operations near areas of proposed relocations/adjustments anticipated to be completed during construction.

The City of Madison Water Utility has identified five locations where proposed storm sewer crosses existing water main at depths that may cause a conflict. Complete Utility Line Openings (ULO) at the following locations:

Station 88+84	Station 99+38
Station 90+75	Station 107+16
Station 92+82	

The bid item Utility Line Opening (ULO) has been included in the contract for this work. Provide a seven day lead time to the City of Madison Water Utility to allow the relocation of the existing water main if required.

City of Madison Water Utility contact is Dennis Cawley, (608) 266-4651.

Project Traffic Signals Maintained by the City of Madison (Signals)

Traffic signal replacement plans have been included in the project plans for the following intersections:

- Monona Drive and Nichols/Pflaum Road
- Monona Drive and Dean Avenue
- Monona Drive and Coldspring Avenue

Temporary signals will be required at the following intersection during construction staging operations:

- Monona Drive and Nichols/Pflaum Road
- Monona Drive and Dean Avenue
- Monona Drive and Coldspring Avenue

Temporary traffic signal plans have been included in the project plan.

City of Monona (Water, Storm Sewer, and Sanitary)

General City of Monona Utility Description:

Underground sanitary sewer, storm sewer, and water mains are present throughout the project area. These utilities will be reconstructed as part of this contract.

Madison Gas & Electric (Gas)

General MG&E Gas Utility Description:

Gas mains are present throughout the project area. A 12-inch steel gas main enters the project area at the southerly project limits and proceeds to the north along Monona Drive (16 feet east of existing centerline) for the entire length of the project. A 2-inch steel gas main enters the project area at the southerly project limits and proceeds to the north along Monona Drive (30 feet west of existing centerline) to Dean Avenue. A 2-inch steel gas main enters the project area from the east leg of Dean Avenue and proceeds to the north along Monona Drive (26 feet east of existing centerline) to approximate Station 95+00. A 2-inch plastic gas main enters the project area at approximate Station 95+50 and proceeds north along Monona Drive (30 feet west of existing centerline) to Lofty Avenue. A 2-inch steel gas main enters the project area at Lofty Avenue and proceeds north along Monona Drive (30 feet west of centerline) to the northerly project limits.

Existing gas mains are also located along St. Teresa Terrace (20 feet north of existing centerline), near Station 83+30 within the M&I Bank Parking lot (previously abandoned Starry Avenue), west leg of Dean Avenue (25 feet south of existing centerline), east leg of Dean Avenue (20 feet north of existing centerline), Springhaven Avenue (18 feet south of existing centerline), Lofty Avenue (20 feet north of existing centerline), and Parkway Street (18 feet north of existing centerline).

MG&E Gas Utility Relocation Plans to Address Identified Conflicts:

MG&E plans to install new facilities prior to and during construction at the following approximate locations:

- Station 62+00 to Station 65+00 LT
- Station 81+20 to Station 83+30 LT
- Station 92+10 to Station 109+20 LT
- Station 94+00 to Station 94+50 RT
- Station 8+00 N to 9+70 N LT
- Vacated Starry Avenue between Gordon Avenue and Monona Drive (near Station 83+31 LT).

- Station 9+40 S to Station 9+70 S RT
- Station 9+00 P to Station 9+70 P LT
- Monona Drive New Road Crossings: Station 107+95, Station 106+20, Station 94+60
- Monona Drive Mainline Existing Crossing Replacements: Station 104+44, Station 103+90, Station 87+30
- Dean Avenue New Road Crossing: Station 11+25 D

Most relocations are generally proposed to be under the new sidewalk locations. MG&E anticipates that any conflicts will be resolved during construction. MG&E has indicated that they will begin utility relocations in November 12, 2012. MG&E has indicated that the planned utility relocations are anticipated to take approximately 30 calendar days during construction.

MG&E has indicated that there are four locations (near Station 63+55 RT, Station 72+10 RT, Station 87+35 RT, Station 87+75 RT) where they will expose and examine the existing 12-inch steel gas connecting line during construction Stage 4. Each location is expected to take one calendar day.

Provide MG&E a seven day notice prior to beginning construction operations near areas of proposed relocations/adjustments anticipated to be completed during construction, including the four locations MG&E has identified for exposure and examination of the 12-inch steel gas main.

Madison Gas & Electric (Electric)

General MG&E Electric Utility Description: Electric facilities are located throughout the project. Underground electric facilities extend from the southerly project limits and proceed north to Nichols Road, where they exit the corridor to the west. Additional underground electric is present within the project area and connects the adjacent properties to the overhead line. Overhead electric facilities cross Monona Drive in multiple locations and run along the west side of Monona Drive in the terrace for the entire length of the project.

MG&E Electric Utility Relocation Plans to Address Identified Conflicts:

MG&E proposes to underground the electric lines and remove the poles along the Monona Drive project limits prior to and during construction. MG&E plans to utilize Gordon Avenue as much as possible for the north-south circuitry path (many of the Monona Drive businesses between Nichols Road and Dean Avenue are currently served from Gordon Avenue). MG&E proposes to utilize directional drilling for the majority of the installation work along Monona Drive. MG&E will coordinate their planned relocations with AT&T Wisconsin and Charter Communication. Road crossings at Nichols Road, Dean Avenue, and north of Springhaven Avenue will be installed during construction.

MG&E plans on placing underground facilities and remove the overhead lines in the Fall 2012/Spring of 2013. Some relocation efforts will need to be coordinated with the planned project traffic staging in 2013. MG&E conduit work north of Coldspring Avenue

will be joint with the MG&E Gas Department in late 2012. The anticipated start date of the relocations is November 19, 2012 and is estimated to require approximately 150 calendar days (90 calendar days prior to construction, 60 calendar days during construction).

MG&E Electric plans to go joint with MG&E Gas between Coldspring and Winnequah. Again, anticipated start is November 19, 2012, with approximately 150 calendar days (90 calendar days prior to construction, 60 calendar days during construction) of work in this segment.

The majority of the electric underground work on Monona Drive between Nichols Road and Coldspring Avenue will take place as soon as winter conditions taper in February or early March 2013.

Specific MG&E Electric Utility Relocations:

MG&E proposes to construct a concrete conduit and manhole system across Monona Drive at Nichols Road. One precast concrete manhole will be placed in the southern most lane of Nichols at approximately Station 9+25 N, with a duct package extending east to Station 10+70 N, before it veers southeast into the terrace area at Walgreens. This portion of work is proposed to be in conjunction with road project staging at this intersection. Approximate duration of the conduit work is 30 calendar days during construction. The overhead lines will be placed in the conduits following underground work. Approximate duration of the cable work is 120 calendar days during construction.

MG&E will extend local distribution facilities within the limits of the new west sidewalk on Monona Drive beginning in the northwest quadrant of the Nichols Road radius, and extending north to Station 64+50.

MG&E will extend local distribution facilities within the limits of the new west sidewalk on Monona Drive beginning in the northwest quadrant of the St. Teresa Terrace radius, and extending north to Station 74+50.

MG&E will extend local distribution facilities within the limits of the new west sidewalk on Monona Drive between Station 80+00 and Station 82+20.

MG&E will extend feeder circuits across Monona Drive at Dean Avenue. MG&E conduits will generally be located below the north sidewalk of Dean Avenue from Station 9+00 D to Station 11+00 D. This crossing will be coordinated with the project staging. Approximate duration is 20 calendar days during construction.

MG&E will extend local service facilities to the customer at the southwest corner of Monona Drive and Dean Avenue. MG&E work is anticipated to remain outside the contamination limits.

MG&E will extend local distribution needs within the limits of the new west sidewalk on Monona Drive beginning in the northwest quadrant of the Springhaven Avenue radius, and extending north to Station 95+20.

MG&E will install a service crossing of Monona Drive at Station 94+20.

MG&E will extend local distribution needs within the limits of the new west sidewalk on Monona Drive between Station 98+40 and Station 100+60.

MG&E will extend feeder and local distribution needs within the limits of the new west sidewalk on Monona Drive between Station 100+60 and Station 108+80.

MG&E will extend local distribution needs within the limits of the new east sidewalk on Monona Drive between Station 103+00 and Station 105+80.

MG&E will install a local distribution crossing of Monona Drive at Station 104+10.

The work along Gordon Ave. will be done in the fall of 2012. This will involve transferring as many Monona Drive customers to the Gordon Avenue facilities as possible before winter sets in. Approximate duration of work is 90 calendar days (60 calendar days prior to construction, 30 calendar days during construction to complete service connections).

It is anticipated that the remaining cutover line work and pole removals along Monona Drive will begin as soon as winter conditions cease in the spring of 2013. Approximate duration of work is 90 calendar days (60 calendar days prior to construction, 30 calendar days during construction).

Provide MG&E a seven day notice prior to beginning construction operations near areas of proposed relocations/adjustments anticipated to be completed during construction.

Madison Metropolitan Sewerage District (Sewer)

General Madison Metropolitan Sewerage District Utility Description: A 36-inch sanitary sewer force main is located within Parkway Street and enters the project area approximately 60 feet north of the Monona Drive and Parkway Street intersection. The force main continues north along the west side of Monona Drive within the project limits. This 36-inch main is located approximately 16 feet west of the existing Monona Drive centerline. Madison Metropolitan Sewerage District (MMSD) has indicated that no conflicts are anticipated.

MMSD has indicated that the sanitary force main elevations shown on the plans are based on record drawings and may need to be verified by the contractor with Utility Line Openings (ULO). An undistributed quantity of Utility Line Openings (ULO) has been included in the contract for such efforts. If the MMSD 36-inch force main is exposed at any time during construction, please contact MMSD for inspection and placement of locating devices.

Madison Metropolitan Unified Fiber Network (Communication)**General Madison Metropolitan Unified Fiber Network Utility Description:**

Fiber conduit enters the project from the west along the south side of Nichols Road within the roadway terrace, cuts through the southwest intersection quadrant behind the back of sidewalk to a handhole located in the Monona Drive west side terrace, crosses Monona Drive near Station 61+10, cuts through the southeast intersection quadrant behind the back of sidewalk, crosses Pflaum Road near Station 11+60 to a handhole located in the Pflaum Road north side terrace, and exits the project to the east along the north side of Pflaum Road within the roadway terrace. The Madison Metropolitan Unified Fiber Network conduit was installed in the summer of 2012. No conflicts are anticipated with their facilities.

Conduit for the Madison Metropolitan Unified Fiber Network will be installed along the right side of Monona Drive within the roadway terrace adjacent to the traffic signal interconnect conduit as part of this contract.

TDS Telecom (Communication)**General TDS Telecom Utility Description:**

Underground fiber facilities enter the southern project limits adjacent to the eastern back-of-curb and continues easterly through the southeastern quadrant of the Monona Drive and Pflaum Road intersection. TDS Telecom has indicated that no conflicts are anticipated with their facilities.

US Signal (Communication)**General US Signal Utility Description:**

Overhead facilities exist along the south side of Pflaum Road within the project limits. US Signal has indicated that no conflicts are anticipated with their facilities.

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

Both the department and the City of Monona and City of Madison personnel will inspect construction of sanitary sewer and water main under this contract. However, construction staking, testing, and final acceptance of the sanitary sewer and water main construction will be by the City of Monona.

105-001 (20061009)

10. Work By Others - Sign Post Base For Concrete Installation.

The City of Madison will furnish and install sign post bases for posts located within concrete limits. Contact Mark Winter, City of Madison Traffic Engineering, at (608) 266-6543 one week prior to installing signs within concrete limits.

11. Environmental Protection.

Supplement standard spec 107.20 as follows:

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

If dewatering is required for any reason, the water must be pumped into a properly sized and constructed settling basin before the clean/filtered water is allowed to enter any waterway or storm sewer. The "clean/filtered" water must be free of suspended solids and contaminants. A properly designed and constructed settling basin will take into consideration the amount of space for construction, desired pumping speed, number/size of pump(s) likely to be used, and the sedimentation rate of soils to be encountered. Use the Wisconsin Department of Natural Resources Technical Standard on Dewatering (standard number 1061) as found on their website at <http://www.dnr.wi.gov/runoff/stormwater/techstds.htm> for the appropriate best management practice and proper application and sizing of such practice. As part of the Erosion Control Implementation Plan (ECIP) submittal, supply all pertinent information and calculations used to determine the best management practice for dewatering at each location it is required. Prior to construction, obtain approval from the engineer for the proposed method of treatment including supporting calculations.

Dust Abatement: When engaging in roadway operations, use equipment having vacuum or water spray mechanisms to eliminate the dispersion of particulate matter into the atmosphere. If vacuum equipment is employed, it must have a suitable self-contained particulate collector to prevent discharge from the collection bin into the atmosphere. Bid item Dust Control Surface Treatment has been included in the project plans.

If Water Applied Polymers are needed to address sediment loading with project runoff, follow Wisconsin of Natural Resources, *Interim Sediment Control Water Application of Polymers (1051)*, Department of Natural Resources Conservation Standard.

The Yahara River and Lake Monona are considered warm water systems; however, cold water species may be present at specific times during the year. Ensure appropriate erosion control measures are in place as approved by the engineer throughout the project duration, specifically beyond September 15th, due to the project's proximity to the Yahara River and Lake Monona. In order to preempt future sediment releases, a multilevel treatment system of erosion control devices has been included in the plans in coordination with the Wisconsin Department of Transportation. Rock Bags are to be placed at the existing storm sewer outlet locations near Station 65+17 LT, Station 111+23 LT, and Station 7+10 D LT. Inlet Protection Type HC are to be placed at storm sewer inlet locations as detailed in the plans. Monitor rock bags and inlet protections regularly and routinely remove retained sediment and debris as necessary, or as the engineer deems it necessary. Rock Bags and Inlet Protection Type HC erosion control items have been

included in the project plans and is paid for under bid items Rock Bags and Inlet Protection Type HC.

12. Notice to Contractor - Archaeological Sites.

Supplement standard spec 107.25 as follows:

The following archaeologically significant sites exist in the project area between Dean Avenue and Lake Edge Boulevard (RT/LT):

- 47DA23 - Winnequah Road Mound Group
- 47DA561 - Monona Drive Site

Provide two weeks notice to the Environmental Services Section (ESS) before doing any work in the areas of these sites. ESS will provide a qualified archaeologist to be on site at all times when work occurs near these areas.

The contact at ESS is Jim Becker, (608) 261-0137 or Lynn Cloud, (608) 266-0099.

If a potentially significant archaeological feature or material is discovered during construction operations, the qualified archeologist will promptly coordinate with the engineer and with ESS to determine an appropriate course of action.

13. Notice to Contractor - Presence of Sandstone Bedrock Within Project Limits.

The Roadway Geotechnical Exploration Report prepared for this project identified sandstone bedrock at four boring locations within the project limits.

Refer to the table below for a summary of the approximate boring locations and sandstone bedrock surface elevations.

Boring Number	Boring Location	Approx. Elev. to Top of Weather Sandstone Bedrock	Approx. Elev. to Top of Dense Sandstone Bedrock
No. 2	Station 75+95; 18' LT	886.0	878.0
No. 3A	Station 85+77; 20' LT	885.5	882.5
No. 4	Station 97+26; 17' LT	899.0	896.5
No. 5	Station 106+32; 15' LT	867.0	865.0

Excavation of bedrock is not anticipated during excavation operations to reach the design subgrade elevation; however, sandstone bedrock will likely be encountered during utility trench excavation operations.

The use of explosives to blast the sandstone bedrock is not allowed.

The following bid items have been included in the contract for bedrock excavation during utility trench excavation operations:

- Sanitary Sewer Rock Excavation
- Storm Sewer Rock Excavation
- Water Main Rock Excavation

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

Supplement standard spec 107.1(2) with the following:

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

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

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

107-115 (20050502)

15. Hauling Restrictions.

Conduct operations in such a manner that will cause a minimum of inconvenience to the free flow of vehicles on roadways carrying side road traffic. Do not haul on local roads without prior approval from the appropriate jurisdiction.

Provide the necessary flagging and signing to control construction equipment movements when hauling across public roads. Do not impede traffic flow on the public roads during flagging operations.

Equip all vehicles traveling on public roads that are hauling materials that are subject to spillage, by either wind or vibration, with tailgates and adequate sideboards. Use canvas covers and other protective devices to prevent spillage as determined necessary by the engineer. Comply with all local ordinances.

16. Public Convenience and Safety.

Revise standard spec 107.8(6) as follows:

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

Operations of motorized construction equipment between 9:00 PM and 7:00 AM will be allowed for the temporary storm sewer main crossings near Station 75+15 and Station 76+94.

17. Coordination with Private Redevelopment Projects.

McDonalds USA LLC, property owner of (Parcel 18) 4905 Monona Drive has plans to demolish the existing McDonald's building and construct a new McDonald's facility. Construction efforts are tentatively planned for the spring/summer of 2013. Contact Debbie Eckerty, McDonald's Area Supervisor, at (608) 635-3550 or by email at DEckerty@missoulamac.net to discuss proposed construction operations. The local McDonald's General Manager is Omar Sanchez. The McDonald's store number is (608) 222-8444.

Jeff Pauly of Full Moon Properties LLC, property owner of Parcel 9, has indicated that they may have plans to redevelop the vacant site in 2013 or 2014. Contact Jeff Pauly at (608) 516-4165 or by email at jpauly@soundbilling.com to discuss proposed construction operations and potential project impacts.

18. General Requirements for Project Coordination.

Arrange and conduct weekly construction progress meetings between the contractor, the department, the City of Monona, the City of Madison, Dane County, and construction staff. Provide weekly construction progress meeting minutes to Dan Stephany, City of Monona Public Works Director, by email at dstephany@ci.monona.wi.us and Janine Glaeser, Projects Coordinator/GIS Specialist, by email at jglaeser@ci.monona.wi.us.

Arrange and conduct bi-weekly construction informational meetings between the contractor, the department, emergency management personnel, local officials, business people, and local residents to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting two weeks prior to the start of work under this contract. Provide bi-weekly construction progress meeting minutes to Dan Stephany, City of Monona Public Works Director, by email at dstephany@ci.monona.wi.us and Janine Glaser, Projects Coordinator/GIS Specialist, by email at jglaeser@ci.monona.wi.us.

19. Clearing and Grubbing.

Supplement standard spec 201.3 as follows:

Stumps, roots, brush, waste logs and limbs, timber tops and debris resulting from clearing and grubbing or occurring within the clearing and grubbing limits may not be disposed of by burning.

20. General Provision for Traffic Signals.

Contact Mike Christoph at the City of Madison Traffic Engineering Shop (608) 266-9031 a minimum of 7 working days in advance to coordinate removal of existing signals and installation of new signals.

The City of Madison will install, terminate, and wire the contractor-supplied traffic control cabinet and its contents.

Perform all work on the lighting and conduit/pull box system in accordance to the Wisconsin Electrical Code, and applicable provisions of section 651 of the standard specifications, and these special provisions and plans.

Provide all traffic signal housings, brackets, poles, arms, transformer bases and other mounting hardware in the color black in accordance to the factory/manufacturer color options.

Provide stainless steel mounting hardware for all components.

Amend standard spec 651.2 with the following:

The approved products list is located at:

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

21. General Provisions for Traffic Signal Conduit Installation.

Supplement standard spec 652 as follows:

Use Schedule 80 conduit under all traffic areas, including driveways.

When connections are to be made to an existing conduit, first verify that the existing conduit is fully clear and useable for its entire cross-section and length. When the existing conduit is found to be defective, notify the engineer and do not proceed until the engineer so directs. If the contractor connects to an existing defective conduit without the express direction from the engineer, the contractor will make any and all necessary repairs and replacements to all conduits, including conduit that was “existing” prior to the contractor starting work and to the satisfaction of the engineer. All costs of this work shall be at the expense of the contractor.

Where conduit runs parallel to curb and gutter, place the conduit within 12 inches of the back of the curb, except as directed by the engineer. The engineer will determine termination points not within pull boxes or concrete bases.

Where conduit passes under an existing roadway, driveway, sidewalk or other hard surface, directionally bore the conduit, as indicated on the plans. Correct any “bumps” caused by boring operations to the satisfaction of the owner and engineer. Hand trench and/or directional bore around existing trees/plantings as required to minimize harm to the trees/plantings.

Unless the contract provides for installation of cable, cap the ends of each run of conduit with standard conduit caps or otherwise appropriately plug to preclude infiltration of water and soil. Install a pull wire in each conduit run in which cable will not be installed as part of the contract and in other conduits as indicated by the engineer or on the plans. Provide pull wire approximately four feet longer than the conduit run, and doubled back for at least 2 feet at each terminal. Provide #10 AWG copper, stranded, pull wire with THHN insulation and green color coding. Install the pull wire within seven days of completing a conduit installation from structure to structure.

Use a 6-inch minimum sand padding below the conduit and use a 6-inch minimum sand lift above the conduit. Do not backfill any rocks larger than 4 inches in diameter or any foreign debris in the trench.

22. General Provisions for City of Monona and City of Madison Municipal Utilities (Sanitary Sewer and Water Main).

Perform work in accordance to these provisions and the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, City of Monona Standard Specifications for Public Works Construction-Latest Edition, and City of Madison Standard Specifications for Public Works Construction-Latest Edition. In the event of a conflict, the Wisconsin Department of Transportation Standard Specifications will take precedence.

23. General Provisions for Storm Sewer.

Construct all round and elliptical shape storm sewer in accordance to the pertinent provisions of standard spec 608, 610 and 611 as shown on the plans and as follows.

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

Seal the joints for reinforced concrete pipe with either mastic or internal rubber gaskets as described in standard spec 607.2.3 and 607.2.4. The use of mortar as a pipe joint method is prohibited.

Lay all round and elliptical shape storm sewer on a 6-inch minimum thick bed of Base Aggregate Dense 1 ¼-Inch in accordance to standard spec 305.2.1 or when water is encountered, size No. 1 coarse concrete aggregate in accordance to standard spec 501.2.5.4. Bedding for round and elliptical pipe shall be incidental to the installation costs of the round or elliptical pipe. Bedding for all storm sewer structures is specified under the respective storm sewer structure items and shall be paid for under the respective storm sewer box item.

Dewatering is incidental to the unit price for all storm sewer pipe installation.

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

Construct all structures (manholes and inlets) on a 12-inch minimum thick bed of Base Aggregate Dense 1 ¼-Inch in accordance to standard spec 305.2.1 or when water is encountered, size No. 1 coarse concrete aggregate in accordance to standard spec 501.3.6.4.5, and as shown on the plans. Bedding for structures shall be incidental to the installation costs of the structure.

Bid all structures (manholes and inlets) as field poured. All structures (manholes and inlets) shall be constructed as field poured unless the contractor receives approval of the City of Madison design engineer to precast the structures. This approval will not be given until it can be confirmed that the proposed design will fit existing conditions including possible utility conflicts. No precast approval shall be authorized for any structure until such time as all ULO's that could affect the structure/structures in question have been completed and the City of Madison design engineer has had a minimum of three working days to review all the relevant information.

Further, all precast structures shall have shop drawings submitted to the City of Madison design engineer. The city design engineer shall have three working days to approve or reject the shop drawings. Under no circumstance shall a precast structure be brought to or used on the construction site without a written approval of the shop drawing for that structure prior to its use on site.

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

The costs to connect storm sewer to existing structures or pipes and the costs to plug pipes for future use including tapping the hole, placing the pipe and sealing the joint, furnishing and installing a plugging device as specified above, will be included in the unit price bid for the pipe of the type, class and diameter used, unless otherwise specified. The cost for concrete collars for pipe, where shown on the plans or directed by the engineer, will be paid for separately.

Carefully remove and stockpile all existing inlet, manhole, and catch basin covers that are not being adjusted and reused on the project at a location on the right-of-way outside the construction limits for pickup by either City of Madison or City of Monona personnel. Contact Rennie Richardson, City of Madison Department of Public Works at (608) 267-1973 and Dan Stephany, City of Monona Department of Public Works at (608) 222-2525 to schedule pickup.

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

24. General Provisions for Madison Sanitary Sewer.

Utility Standard Specifications: Perform work in accordance to these provisions and City of Madison Standard Specifications for Public Works Construction-Latest Edition.

Work Sequence: Construct sanitary sewer main and laterals in stages to accordance with the traffic control plan.

Provide bypass pumping of sanitary sewage to maintain sanitary sewer service when new Sewer Access Structures are being constructed over the existing mains.

Shop Drawings and Samples: Submit shop drawings and samples required in these Special Provisions and for the following:

- Sanitary Sewer Pipe Material
- Sanitary Sewer Access Structure Casting and Cover
- Sanitary Sewer Access Structure Internal Chimney Seal
- Precast Sanitary Sewer Access Structure

Contractor's responsibilities include:

- Review shop drawings and samples prior to submittal;
- Determine and verify field measurements, field construction criteria, catalog numbers and similar data, and conformance with specifications;
- Coordinate each submittal with requirements of work and of Special Provisions;
- Notify city engineer or city engineer's representative, in writing, at time of submittal of deviations in submittals from requirements of Special Provisions.

NOTE: Do not begin any fabrication or work, which requires submittals, until return of submittals with city engineer's or city engineer representative's approval.

Submittals shall contain:

- A. Date of submittal and dates of previous submittals.
- B. Project title and number.

- C. Contract identification.
- D. Names of contractor, supplier, and manufacturer.
- E. Identification of product, with identification numbers, and drawing and specification section numbers.
- F. Field dimensions clearly identified.
- G. Identification of details required on drawings and in specifications.
- H. Manufacturer and model number (give dimensions and provide clearances).
- I. Relation to adjacent or critical features or work or materials.
- J. Applicable standards, such as ASTM, and identification of deviations from contract documents.
- K. Identification of revisions on resubmittals.
- L. Eight-inch and three-inch blank space for contractor and city engineer stamps.
- M. Contractor's stamp, signed, certifying to review of submittal, verification of products, field measurement, field construction criteria, and coordination of information with submittal with requirements of work and Special Provisions.

Resubmittal requirements shall include:

- A. Corrections or changes in submittals required by Civil Engineer. Resubmittals are required until approved.
- B. Shop Drawings and Product Data: Review initial drawings or data and resubmit as specified for initial submittal. Indicate changes, which have been made other than those requested by city engineer.

Provide complete copies of required submittals as follows:

Shop Drawings:	Six copies
Test Results:	Three copies

Deliver required copies of submittals to Mark Moder, City of Madison, Department of Public Works, City-County Building, Room 115, 210 Martin Luther King Jr. Boulevard, Madison, Wisconsin 53710.

Protection of Sewers: Take adequate measures to prevent impairment of operation of existing sanitary sewer and storm sewer systems. Prevent construction material, concrete, earth, or other debris from entering sewer or sewer structure.

Divert sewage flow interfering with construction to sanitary sewers leading away from construction area. Prior to commencing excavation and construction, submit to city engineer for review, detailed plans, including routing and connections, required to handle and dispose of sanitary wastes. By reviewing the plan, the city engineer neither accepts responsibility for adequacy thereof nor for damages to public or private property resulting there from, such responsibilities remain with contractor.

Sanitary sewer damaged or removed during construction, which is to remain in service, shall be restored or replaced to original material and workmanship used for original construction.

All City of Madison manhole Castings from removed and abandoned structures shall be delivered to City Engineering's Service Building (1602 Emil St.).

In accordance to the City of Madison Standard Specifications for Public Works Construction – Latest Addition, “Pipe to be removed that is in the same trench as a new pipe shall not be compensated as remove pipe and shall be considered to be part of the new pipe installation.”

25. General Provisions for Street Lighting Conduit Installation.

Where conduit runs parallel to curb and gutter, place the conduit within 12 inches of the back of the curb, except as directed by the engineer.

26. Removing Inlet Covers, Item 204.9060.S.01.

A Description

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

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Inlet Covers as each individual removed inlet cover, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Inlet Covers	Each
204-025 (20041005)		

27. Removing Concrete Bumpers, Item 204.9060.S.02.**A Description**

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

B (Vacant)**C (Vacant)****D Measurement**

The department will measure Removing Concrete Bumpers as each individual removed concrete bumper, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.02	Removing Concrete Bumpers	Each
204-025 (20041005)		

28. Removing Wooden Post, Item 204.9060.S.03.**A Description**

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

B (Vacant)**C (Vacant)****D Measurement**

The department will measure Removing Wooden Post in as each individual removed post, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.03	Removing Wooden Post	Each
204-025 (20041005)		

29. Removing Commercial Signs, Item 204.9060.S.04.**A Description**

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

B (Vacant)**C Construction**

Remove commercial signs, including the sign, supports, and bases in accordance to the applicable portions of standard spec 204 and as herein provided.

Deenergize and remove wiring necessary to remove commercial sign and lights. Remove wiring to proposed finish grade and abandon the remaining portion in compliance with State Electric Code.

The removed commercial sign, supports, and mounting hardware remains the property of the original owner. Contact the owner two weeks prior to removal of the commercial sign to coordinate a stockpile location on the property that will not be in conflict with construction operations.

D Measurement

The department will measure Removing Commercial Signs as each individual removed sign, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.04	Removing Commercial Signs	Each

Payment is full compensation in accordance to standard spec 204.5.1 and includes stockpiling the removed sign, supports, and mounting hardware on the owners property.

30. Removing Stone Veneer Wall, Item 204.9060.S.05.

A Description

This special provision describes removing stone veneer wall in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Stone Veneer Wall as each individual removed stone veneer wall, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.05	Removing Stone Veneer Wall	Each
204-025 (20041005)		

31. Removing Decorative Light Pole and Luminaire, Item 204.9060.S.06.

A Description

This special provision describes removing decorative light pole and luminaire in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)

C Construction

Remove, handle, and transport existing decorative light pole and luminaire in a manner that prevents damaging the decorative light pole and luminaire in accordance to the applicable portions of standard spec 204 and as herein provided.

Perform a field review of existing decorative lighting pole and luminaire with the engineer and City of Monona Representative for condition of equipment prior to removal. Notify the engineer and City of Monona of any damaged or non-operating equipment.

Deenergize and disconnect the wiring splices in compliance with the National Electric Code (NEC).

Deliver the decorative light pole and luminaire and mounting hardware at a City of Monona specified location within the City of Monona limits. Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to removing the decorative light pole and luminaire to coordinate a delivery time and drop-off location.

D Measurement

The department will measure Removing Decorative Light Pole and Luminaire as each individual removed pole and luminaire, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.06	Removing Decorative Light Pole and Luminaire	Each

Payment is full compensation in accordance to standard spec 204.5.1 and includes payment for delivering the decorative light pole and luminaire and mounting hardware to a City of Monona specified location within the City of Monona Limits.

32. Removing Yellow Warning Flasher Unit, Item 204.9060.S.07.**A Description**

This special provision describes removing yellow flasher unit in accordance to the pertinent provisions of standard spec 204 and as hereinafter provided.

B (Vacant)**C Construction**

Remove, handle, transport, and reinstall existing yellow warning flasher in a manner that prevents damaging the yellow warning flasher.

Perform a field review of existing yellow warning flasher with the engineer and City of Monona Representative for condition of equipment prior to removal. Notify the engineer and City of Monona of any damaged or non-operating equipment.

Deenergize and disconnect the yellow warning flasher in compliance with the National Electric Code (NEC).

Deliver and the yellow warning flasher and mounting hardware at a City of Monona specified location within the City of Monona limits. Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to removing the yellow warning flasher to coordinate a delivery time and storage location.

D Measurement

The department will measure Removing Yellow Warning Flasher Unit as each individual removed warning flasher unit, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.07	Removing Yellow Warning Flasher Unit	Each

Payment is full compensation in accordance to standard spec 204.5.1 and includes payment for delivering the yellow warning flasher unit, including transformer base, pole, flasher, and mounting hardware to a City of Monona specified location within the City of Monona Limits.

33. Removing Landscaping Timbers, Item 204.9090.S.01.

A Description

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

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Landscaping Timbers in length by the linear foot, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.01	Removing Landscaping Timbers	LF
204-025 (20041005)		

34. Removing Landscaping Blocks, Item 204.9090.S.02.

A Description

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

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Landscaping Blocks in length by the linear foot, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.02	Removing Landscaping Blocks	LF
204-025 (20041005)		

35. Removing Concrete Steps, Item 204.9165.S.01.

A Description

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

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Concrete Steps by the square foot, acceptably completed.

E Payment

Supplement standard spec 204.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
204.9165.S.01	Removing Concrete Steps	SF
204-025 (20041005)		

36. 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 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)

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

A Description

A.1 General

This special provision describes excavating, loading, hauling, and disposing of petroleum contaminated soil at a licensed landfill with a DNR-approved bioremediation facility. Two landfills with DNR-approved bioremediation facilities that will accept the petroleum contaminated soil with the existing soil analytical data have been identified. The landfills are Madison Prairie Landfill at 6002 Nelson Road, Sun Prairie, WI 53590 and Deer Track Park Landfill at N6756 Waldmann Lane, Watertown, WI 53094.

Perform this work in accordance 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 Location(s)

The City of Monona, completed soil and groundwater sample analysis for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following location(s) as shown on the plans:

1. Station 87+02 to 87+35 from 23 feet LT of centerline to 55 feet LT of centerline.

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

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

Name: Daniel Stephany, City of Monona DPW
Address: 5211 Schluter Road, Monona, WI 53716
Phone: (608) 222-2525
Fax: (608) 222-9225
E-mail: dstephany@ci.monona.wi.us

A.3 Coordination

Coordinate work under this contract with Dan Stephany, City of Monona DPW, who will provide the environment consultant contact information for the project prior to the start of construction:

Name: Daniel Stephany, City of Monona DPW
Address: 5211 Schluter Road, Monona, WI 53716
Phone: (608) 222-2525
Fax: (608) 222-9225
E-mail: dstephany@ci.monona.wi.us

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

A.4 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

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

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

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 evaluate soil excavated from the contaminated areas to determine if the soil will require offsite bioremediation. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample every 10 linear feet at excavations near contaminated areas.

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

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 treatment via bioremediation of contaminated soil, including all associated fees; 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.

38. Backfill Coarse Aggregate Size No 1, Item 209.0300.S.01.

A Description

This special provision describes furnishing and placing coarse aggregate backfill as shown on the plans and as hereinafter provided.

B Materials

Provide clean concrete aggregate graded in accordance to the requirements as specified under standard spec 501.2.5.4.4. The soundness and wear requirements are deleted from this material.

C Construction

Construct the coarse aggregates in accordance to standard spec 209.3.

D Measurement

The department will measure Backfill Coarse Aggregate Size No 1 in volume by the cubic yard in the vehicle.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
209.0300.S.01	Backfill Coarse Aggregate Size No. 1	CY

Payment is full compensation for furnishing and installing the aggregate.
209-030 (20030820)

39. 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://roadwaystandards.dot.wi.gov/standards/cmm/index.htm>

A.2 Contractor Testing for Small Quantities

- (1) The department defines a small quantity, for each individual Base Aggregate bid item, as a plan quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.
- (2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:
 1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.
 2. Divide the aggregate into uniformly sized sublots for testing as follows:

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

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

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

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

3. No control charts are required. Submit aggregate load-out and placement test results to the engineer within one business day of obtaining the sample. Assure that all properties are within the limits specified for each test.
 4. Department verification testing is optional for quantities of 6000 tons or less.
- (3) Material represented by a subplot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B Materials

B.1 Quality Control Plan

- (1) Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not place base before the engineer reviews and comments on the plan. Construct the project as that plan provides.
- (2) Do not change the quality control plan without the engineer's review. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in each of the contractor's laboratories as changes are adopted. Ensure that the plan provides the following elements:
 1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
 2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
 3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
 4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
 5. Descriptions of stockpiling and hauling methods.
 6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
 7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

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

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

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

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

B.3 Laboratory

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

Materials Management Section

3502 Kinsman Blvd.

Madison, WI 53704

Telephone: (608) 246-5388

<http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm>

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

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

B.4.3 Control Charts

- (1) Plot gradation and fracture on the appropriate control chart as soon as test results are available. Format control charts according to CMM 8.30. Include the project number on base placement control charts. Maintain separate control charts for each base aggregate size, source or classification, and type.
- (2) Provide control charts to the engineer within 6 hours after obtaining a sample. For 3-inch base, extend this 6-hour limit to 24 hours. Post or distribute charts using a method mutually agreeable to the engineer and contractor. Update control charts daily to include the following:
 1. Contractor individual QC tests.
 2. Department QV tests.
 3. Department IA tests.
 4. Four-point running average of the QC tests.
- (3) Except as specified under B.8.2.1 for nonconforming QV tests, include only QC tests in the running average. The contractor may plot process control or informational tests on control charts, but do not include these tests, conforming QV tests, or IA tests in the running average.

B.5 Contractor Testing

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

- (2) Test gradation once per 3000 tons of material placed. Determine random sample locations and provide those sample locations to the engineer. Obtain samples after the material has been bladed, mixed, and shaped but before compacting; except collect 3-inch samples from the stockpile at load-out. Do not sample from material used to maintain local traffic or from areas of temporary base that will not have an overlying pavement. On days when placing only material used to maintain local traffic or only temporary base that will not have an overlying pavement, no placement testing is required.
- (3) Split each contractor QC sample and identify it according to CMM 8.30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.
- (4) The engineer may require additional sampling and testing to evaluate suspect material or the technician's sampling and testing procedures.
- (5) Test fracture for each gradation test until the fracture running average is above the lower warning limit. Subsequently, the contractor may reduce the frequency to one test per 10 gradation tests if the fracture running average remains above the warning limit.
- (6) Test the liquid limit and plasticity index for the first gradation test. Subsequently, test the liquid limit and plasticity index a minimum of once per 10 gradation tests.

B.6 Test Methods

B.6.1 Gradation

- (1) Test gradation using a washed analysis conforming to the following as modified in CMM 8.60:
 Gradation..... AASHTO T 27
 Material finer than the No. 200 sieve..... AASHTO T 11
- (2) For 3-inch base, if 3 consecutive running average points for the percent passing the No. 200 sieve are 8.5 percent or less, the contractor may use an unwashed analysis. Wash at least one sample out of 10. If a single running average for the percent passing the No. 200 sieve exceeds 8.5 percent, resume washed analyses until 3 consecutive running average points are again 8.5 percent passing or less.
- (3) Maintain a separate control chart for each sieve size specified in standard spec 305 or 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 2 consecutive running averages exceed a warning limit, the engineer and contractor will discuss appropriate corrective action. Perform the engineer's recommended corrective action and increase the testing frequency as follows:
 1. For gradation, increase the QC testing frequency to at least one randomly sampled test per 1000 tons placed.
 2. For fracture, increase the QC testing frequency to at least one test per gradation test.

- (3) If corrective action improves the property in question such that the running average after 4 additional tests is within the warning limits, the contractor may return to the testing frequency specified in B.5.3. If corrective action does not improve the property in question such that the running average after 4 additional individual tests is still in the warning band, repeat the steps outlined above starting with engineer notification.
- (4) If the running average exceeds a control limit, material starting from the first running average exceeding the control limit and ending at the first subsequent running average inside the control limit is nonconforming and subject to pay reduction.
- (5) For individual test results significantly outside the control limits, notify the engineer, stop placing base, and suspend other activities that may affect the area in question. The engineer and contractor will jointly review data, data reduction, and data analysis; evaluate sampling and testing procedures; and perform additional testing as required to determine the extent of potentially unacceptable material. The engineer may direct the contractor to remove and replace that material. Individual test results are significantly outside the control limits if meeting one or more of the following criteria:
 1. A gradation control limit for the No. 200 sieve is exceeded by more than 3.0 percent.
 2. A gradation control limit for any sieve, except the No. 200, is exceeded by more than 5.0 percent.
 3. The fracture control limit is exceeded by more than 10.0 percent.

B.8 Department Testing

B.8.1 General

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

B.8.2 Verification Testing

B.8.2.1 General

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in B.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests of each base aggregate size, source or classification, and type during placement conforming to the following:
 1. One non-random test on the first day of placement.
 2. At least one random test per 30,000 tons, or fraction of 30,000 tons, placed.

- (3) The department will sample randomly, at locations independent of the contractor's QC work, collecting one sample at each QV location. The department will collect QV samples after the material has been bladed, mixed, and shaped but before compacting; except, for 3-inch aggregates, the department will collect samples from the stockpile at load-out. The department will split each sample, test half for QV, and retain half.
- (4) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to the specification, the department will take no further action. If QV test results are nonconforming, add the QV to the QC test results as if it were an additional QC test.

B.8.3 Independent Assurance

- (1) Independence assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
 1. Split sample testing.
 2. Proficiency sample testing.
 3. Witnessing sampling and testing.
 4. Test equipment calibration checks.
 5. Reviewing required worksheets and control charts.
 6. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in B.9.

B.9 Dispute Resolution

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

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

C (Vacant)

D (Vacant)

E Payment

- (1) Costs for all sampling, testing, and documentation required under this special provision are incidental to this work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the non-performance of QMP administrative item.
- (2) For material represented by a running average exceeding a control limit, the department will reduce pay by 10 percent of the contract price for the affected Base Aggregate bid items listed in subsection A. The department will administer pay reduction under the Nonconforming QMP Base Aggregate Gradation or Nonconforming QMP Base Aggregate Fracture Administrative items. The department will determine the quantity of nonconforming material as specified in B.7.2.

301-010 (20100709)

40. Protection of Concrete.

Supplement standard spec 415.3.16 with the following:

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

The cost for providing the finisher(s), the necessary equipment, and materials is construed to be included in the contract unit price for each concrete item.

41. QMP Ride; Incentive IRI Ride, Item 440.4410.S.

A Description

- (1) This special provision describes profiling pavements with a non-contact profiler, locating areas of localized roughness, and determining the International Roughness Index (IRI) for each wheel path segment.
- (2) Profile the final riding surface of all mainline pavements, bridges, approaches, and railroad crossings. Roundabouts, and pavements within 150 feet of the points of curvature of roundabout intersections, are excluded from the testing requirements of this provision.
- (3) Pavements that are excluded from localized roughness according to C.5.2(1), bridges, and roundabout intersections are subject to engineer-directed straightedging according to the standard specifications. All other surfaces being tested under this provision are exempt from straightedging requirements.

B (Vacant)

C Construction

C.1 Quality Control Plan

- (1) Submit a written quality control plan to the engineer at or before the pre-construction conference. 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 all quality control personnel.
 2. The process by which quality control information and corrective action efforts will be disseminated to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.
 3. The methods and timing used for monitoring and/or testing ride quality throughout the paving process.
 4. The evaluation process that will be used to make improvements to the construction operations if poor ride quality is found during the process control testing.
 5. The methods that will be used to ensure a smooth pavement transition when matching into existing surfaces such as bridges, bridge approaches, or railroad crossings.
 6. The segment locations of each profile run used for acceptance testing.
 7. The approximate timing of acceptance testing in relation to the paving operations.

C.2 Personnel

- (1) Have a profiler operator, certified under the department's highway technician certification program (HTCP), operate the equipment, collect the required data, and document the results using the methods taught in the HTCP profiling course.

C.3 Equipment

- (1) Furnish a profile-measuring device capable of measuring IRI from the list of department-approved devices published on the department's web site:

<http://roadwaystandards.dot.wi.gov/standards/qmp/index.htm>

- (2) Unless the engineer and contractor mutually agree otherwise, arrange to have a calibrated profiler available when paving the final riding surface. Calibrate the profiler according to the manufacturer's recommendations. Provide the engineer with a copy of the most recent calibration results, signed by the certified profiler operator.
- (3) Perform daily calibration verification of the profiler using test methods according to the manufacturer's recommendations. Notify the engineer prior to performing the calibration verification. If the engineer requests, arrange to have the engineer observe the calibration verification and operation. Maintain records of the calibration verification activities, and provide the records to the engineer upon request.

C.4 Testing

C.4.1 Run and Reduction Parameters

- (1) Enter the equipment-specific department-approved filter settings and parameters listed on the department's ride web site.

C.4.2 Contractor Testing

- (1) Operate profilers within the manufacturer's recommended speed tolerances. Perform all profile runs in the direction of travel. Measure the longitudinal profile of each wheel track of each lane. The wheel tracks are 6.0 feet apart and centered in the traveled way of the lane.
- (2) Coordinate with the engineer to schedule profile runs for acceptance. The department may require testing to accommodate staged construction or if corrective action may be required.
- (3) Measure the profiles of each standard or partial segment. Define primary segments starting at a project terminus and running contiguously along the mainline to the other project terminus. Field-locate the beginning and ending points for each profile run. When applicable, align segment limits with the subplot limits used for testing under the QMP Concrete Pavement specification. Define segments one wheel path wide and distinguished by length as follows:
 1. Standard segments are 500 feet long.
 2. Partial segments are less than 500 feet long.
- (4) Treat partial segments as independent segments.

- (5) The department will categorize each standard or partial segment as follows:

Segments with a Posted Speed Limit of 55 MPH or Greater	
Category	Description
HMA I	Asphalt pavement with multiple opportunities to achieve a smooth ride. The following operations performed under this contract are considered as opportunities: a layer of HMA, a leveling or wedging layer of HMA, and diamond grinding or milling of the underlying pavement surface.
HMA II	Asphalt pavement with a single opportunity to achieve a smooth ride.
HMA III	Asphalt pavement segments containing any portion of a bridge, bridge approach, railroad crossing, or intersection. An intersection is defined as the area within the points of curvature of the intersection radii.
PCC II	Concrete pavement including all gaps.
PCC III	Concrete pavement segments containing any portion of a bridge, bridge approach, railroad crossing, or intersection. An intersection is defined as the area within the points of curvature of the intersection radii.

Segments with Any Portion Having a Posted Speed Limit Less Than 55 MPH	
Category	Description
HMA IV	Asphalt pavement including intersections, bridges, approaches, and railroad crossings.
PCC IV	Concrete pavement including gaps, intersections, bridges, approaches, and railroad crossings.

C.4.3 Verification Testing

- (1) The department may conduct verification testing (QV) to validate the quality of the product. A certified HTCP profiler technician will perform the QV testing. The department will provide the contractor with a listing of the names and telephone numbers of all verification personnel for the project.
- (2) The department will notify the contractor before testing so the contractor can observe the QV testing. Verification testing will be performed independent of the contractor's QC work using separate equipment from the contractor's QC tests. The department will provide test results to the contractor within 1 business day after the department completes the testing.
- (3) 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 testing procedures and equipment. Both parties will document all investigative work.
- (4) If the contractor does not respond to an engineer request to resolve a testing discrepancy, the engineer may suspend production until action is taken. Resolve disputes as specified in C.6.

C.4.4 Documenting Profile Runs

- (1) Compute the IRI for each segment and analyze areas of localized roughness using the ProVAL software. Within 5 business days after completing a final acceptance profile run, submit a copy of the ProVAL smoothness assurance report showing the IRI for each segment and the areas of localized roughness exceeding an IRI of 175 in/mile. The ProVAL software and department-specified inputs are available on the department's web site:

<http://roadwaystandards.dot.wi.gov/standards/qmp/index.htm>

- (2) As part of the profiler software outputs and ProVAL reports, document the areas of localized roughness and the locations of individual features including construction joints, structure limits, design features, utility fixtures, and other features that might affect the department's evaluation of ride quality. Field-locate the areas of localized roughness prior to the engineer's assessment for corrective actions.
- (3) Within 5 business days after completing profiling of the pavement covered under this special provision, unless the engineer and contractor mutually agree to a different timeline, submit the electronic ProVAL project file containing the .ERD files for each profiler acceptance run. Submit profile data using the department's Materials Reporting System (MRS) software available on the department's web site:

<http://www.atwoodsystems.com/mrs>

C.5 Corrective Actions

C.5.1 General

- (1) Correct the ride as the engineer directs. The department will independently assess whether a repair will help or hurt the long-term pavement performance and/or public perception of the ride before deciding on corrective action.

C.5.2 Corrective Actions for Localized Roughness

- (1) Apply localized roughness requirements to all pavements, including HMA III, PCC III, HMA IV, and PCC IV; except localized roughness requirements will not be applied to pavements within 25 feet of the following surfaces if they are not constructed under this contract: bridges, bridge approaches, or railroad crossings. The department may direct the contractor to make corrections to the pavement within the 25-foot exclusionary zones and will compensate the contractor for the extra work.
- (2) The engineer will review each individual wheel track for areas of localized roughness. The engineer will assess areas of localized roughness that exceed an IRI of 175 in/mile and do one of the following for each location:
 1. Direct the contractor to correct the area to minimize the effect on the ride.
 2. Leave the area of localized roughness in place with no pay reduction.
 3. Except for HMA IV and PCC IV segments, assess a pay reduction as follows for each location in each wheel path:

Localized Roughness IRI (in/mile)	Pay Reduction ^[1] (dollars)
> 175	(Length in Feet) x (IRI – 175)

[1] A maximum \$250 pay reduction may be assessed for locations of localized roughness that are less than or equal to 25 feet long. Locations longer than 25 feet may be assessed a maximum pay reduction of \$10 per foot.

- (3) The engineer will not direct corrective action or assess a pay reduction for an area of localized roughness without independent identification of that area as determined by physically riding the pavement. For corrections, use only techniques the engineer approves.
- (4) Re-profile corrected areas to verify that the IRI is less than 140 in/mile after correction. Submit a revised ProVAL smoothness assurance report for the corrected areas to validate the results.

C.5.3 Corrective Actions for Excessive IRI

- (1) If an individual segment IRI exceeds 140 in/mile for HMA I, HMA II, and PCC II pavements after correction for localized roughness, the engineer may require the contractor to correct that segment. Correct the segment final surface as follows:
 - HMA I: Correct to an IRI of 60 in/mile using whichever of the following methods the engineer directs:
 - Mill and replace the full lane width of the riding surface excluding the paved shoulder.
 - Correct the full lane width using techniques approved by the engineer.
 - HMA II: Correct to an IRI of 85 in/mile using whichever of the following methods the engineer directs:
 - Mill and replace the full lane width of the riding surface excluding the paved shoulder.
 - Correct the full lane width using techniques approved by the engineer.
 - PCC II: Correct to an IRI of 85 in/mile using whichever of the following methods the engineer directs:
 - Continuous diamond grinding of the full lane width of the riding surface including adjustment of the paved shoulders
 - Correct the full lane width using techniques approved by the engineer.
- (2) Re-profile corrected segments to verify that the final IRI meets the above correction limits and there are no areas of localized roughness. Submit a revised ProVAL smoothness assurance report for the corrected areas to validate the results. Segments failing these criteria after correction are subject to the engineer's right to adjust pay for non-conforming work under standard spec 105.3.

C.6 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 testing procedures, and perform additional testing.
- (2) If the project personnel cannot resolve a dispute and the dispute affects payment or could result in incorporating nonconforming pavement, the department will use third party testing to resolve the dispute. The department's Quality Assurance Unit, or a mutually agreed on independent testing company, 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 tester. The department may use third party tests to evaluate the quality of questionable pavement and determine the appropriate payment.

D Measurement

- (1) The department will measure Incentive IRI Ride by the dollar, adjusted as specified in E.2.

E Payment

E.1 Payment for Profiling

- (1) Costs for furnishing and operating the profiler, documenting profile results, and correcting the final pavement surface are incidental to the contract.

E.2 Pay Adjustment

- (1) The department will pay incentive for ride under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
440.4410.S	Incentive IRI Ride	DOL

- (2) Incentive payment is not limited, either up or down, to the amount the schedule of items shows.
- (3) The department will administer disincentives for ride under the Disincentive IRI Ride administrative item.
- (4) The department will not assess disincentive on HMA III or PCC III segments. Incentive pay for HMA III and PCC III segments will be according to the requirements for the category of the adjoining segments.
- (5) The department will adjust pay for each segment based on the initial IRI for that segment before any corrective action is taken. The department will base disincentives on the IRI after correction for pavement meeting the following conditions:

All Pavement: The corrective work is performed in a contiguous, full lane width section 500 feet long, or a length as agreed with the engineer.

HMA Pavements: The corrective work is a mill and inlay or full depth replacement and the inlay or replacement layer thickness conforms to standard spec 460.3.2.

Concrete Pavements: The corrective work is a full depth replacement and conforms to standard spec 415.

- (6) The department will adjust pay for 500-foot long standard segments nominally one wheel path wide using equation “QMP 1.03” as follows:

HMA I	
Initial IRI (inches/mile)	Pay Adjustment^[1] (dollars per standard segment)
< 30	250
≥ 30 to < 35	$1750 - (50 \times \text{IRI})$
≥ 35 to < 60	0
≥ 60 to < 75	$1000 - (50/3 \times \text{IRI})$
≥ 75	-250

HMA II and PCC II	
Initial IRI (inches/mile)	Pay Adjustment^{[1][2]} (dollars per standard segment)
< 50	250
≥ 50 to < 55	$2750 - (50 \times \text{IRI})$
≥ 55 to < 85	0
≥ 85 to < 100	$(4250/3) - (50/3 \times \text{IRI})$
≥ 100	-250

HMA IV and PCC IV	
Initial IRI (inches/mile)	Pay Adjustment^{[1][2]} (dollars per standard segment)
< 50	250
≥ 50 to < 75	$750 - (10 \times \text{IRI})$
≥ 75	0

^[1] If the engineer directs placing upper layer asphaltic mixtures between October 15 and May 1 for department convenience as specified in standard spec 450.3.2.1(5), the department will not adjust pay for ride on pavement the department orders the contractor to place when the temperature, as defined in standard spec 450.3.2.1(2), is less than 36 F.

^[2] If the engineer directs placing concrete pavement for department convenience, the department will not adjust pay for ride on pavement the department orders the contractor to place when the air temperature falls below 35 F.

- (7) The department will prorate the pay adjustment for partial segments based on their length.
440-010 (20100709)

42. Reheating HMA Pavement Longitudinal Joints, Item 460.4110.S.

A Description

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

B (Vacant)

C Construction

C.1 Equipment

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

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

C.2 Reheating Joints

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

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

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

D Measurement

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

E Payment

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

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

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

43. Concrete Curb Precast, Item 601.0199.S.

A Description

This special provision describes furnishing and placing precast concrete curb as shown on the plans and as hereinafter provided.

B Materials

Provide a precast concrete curb that conforms to the details shown on the plans or to a substantially equivalent design meeting the engineer's approval.

C Construction

Construct precast concrete curb of air-entrained concrete that conforms to Grade A, A-FA, A-S, A-IS, or A-IP of standard spec 501, or equal.

D Measurement

The department will measure Concrete Curb Precast, acceptably completed in place, in units.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
601.0199.S	Concrete Curb Precast	Each

Payment is full compensation for furnishing all materials, pins, concrete masonry, and reinforcement; and placing precast concrete curb.
601-005 (20080902)

44. Adjusting Manhole Covers.

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

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

Revise standard spec 611.3.7 by deleting the last paragraph.

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

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

45. Cover Plates Temporary, Item 611.8120.S.

A Description

This special provision describes furnishing, installing and removing a steel plate to cover and support asphaltic pavement and traffic loading at manholes, inlets and similar structures during milling and paving operations.

B Materials

Provide a 0.25-inch minimum thickness steel plate that extends to the outside edge of the existing masonry.

C (Vacant)

D Measurement

The department will measure Cover Plates Temporary, acceptably completed in place, as units.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	Each

Payment is full compensation for furnishing, installing, and removing the cover plates.

The steel plates shall become the property of the contractor when no longer needed in the contract work.

611-006 (20030820)

46. 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.

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)

47. Sod Lawn.

Modify standard spec 631.2.1 to include the following:

Provide Number 1 Quality/Premium Turfgrass Sod including limitations on thatch, weeds, disease, nematodes and insects and complying with the “Specifications for Turfgrass Sod Materials” in Turfgrass Producers International (TPI) “Guideline Specifications to Turfgrass Sodding”. Furnish viable sod of uniform density, color and texture, strongly rooted and capable of vigorous growth and development when planted.

Replace standard spec 631.3.1 with the following:

Before sodding, construct the proposed area to the required cross section and contour, round the tops and bottoms of the slopes to a minimum 4-foot radius curve, and remove all ridges and fill any depressions to achieve a uniform surface. Remove all stones greater than ½” in diameter, roots, trash and all other foreign objects from areas to receive sod. Finish grade areas to receive sod to a smooth, uniform surface with uniformly fine granular textured topsoil loosened to a depth of 2”. Finish grade areas to receive sod to just below finish elevation of adjacent paved surfaces to accommodate thickness of sod.

Modify standard spec 631.3.2 to include the following:

Do not place sod when the air temperature is above 95 degrees Fahrenheit (35C). Do not install sod when soil is saturated.

Lay each sod strip to abut snugly against the previously laid strip but do not overlap sod strips. Install rows of sod with staggered joints and offset joints in adjacent courses.

Work fine, sifted soil into minor cracks between pieces of sod; remove excess to avoid smothering sod.

Lay sod at an angle on any slopes exceeding 1:3.

Modify standard spec 631.4 to include the following:

Satisfactory sodded turf is considered healthy, well-rooted, even-colored, viable turf established free of weeds, open joints, bare areas and surface irregularities. Use specified materials and methods to re-establish sodded areas that do not comply with the requirements.

48. General Requirements for City of Madison Plantings.

Contact City of Madison Forestry at (608) 266-4891 or (608) 266-4816 at least one week prior to installing plantings along the right side of Monona Drive to mark the planting sites and schedule a time to inspect the nursery stock. Planting stock to be approved by the City of Madison Forestry Department and the engineer.

49. Trees and Shrubs.

Modify standard spec 632.2.1 to include the following:

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

Subsection 632.2.2.8 is modified as follows:

Furnish a list of sources for plants in accordance to subsection 632.2.2.8 before planting begins for fall-planted plants and before March 15 for spring-planted plants. All sources will be subject to verification by the engineer.

Modify standard spec 632.2.4.2 as follows:

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

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

For trees: Use a minimum of two units of fertilizer and provide two units of fertilizer per caliper inch of tree trunk diameter. For one-half caliper measurements, round up. For example, a 2 ½” caliper tree should receive six units of fertilizer.

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

Modify standard spec 632.2.7 as follows:

Do not use wrapping on plant material.

Use granular or similar rodent bait for shrub beds as needed and only as approved by engineer.

Modify standard spec 632.2.10 to include the following:

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

Provide tree stabilization for all trees:

- Planted on slopes greater than 4:1;
- Planted in areas prone to high winds;
- Planted in areas prone to flooding or with seasonally saturated soils;
- At the discretion of the landscape contractor to ensure viable, healthy plantings;
- At the discretion of the engineer.

Modify standard spec 632.3.1 as follows:

The normal spring planting season for all plants shall extend to June 15. The normal fall planting season begins September 15 and shall be completed by November 15 or up until the ground is frozen. Complete planting of evergreen trees and shrubs, and perennials in the fall by October 15. If the overall construction schedule dictates that planting will occur between June 15 and September 15, the landscape contractor must first obtain approval from the engineer to begin installation outside of the normal planting seasons. If the engineer grants approval of the request, the contractor will also be held fully responsible for any and all additional maintenance associated with planting outside of the normal planting seasons including, but not limited to, supplemental watering above and beyond the typical, specified landscape maintenance and care cycle schedule.

Revise standard spec 632.3.1 to include the following:

Take care not to damage or disturb adjacent finished landscape and will be responsible for seeding or sodding to repair any and all damage caused to adjacent seeded and/or sodded areas.

Revise standard spec 632.3.3 to include the following:

Stake out locations of all plant holes and obtain approval of staked location from construction representative or engineer before planting.

Revise standard spec 632.3.4 to include the following

Ensure that the bottom of the hole is adequately compacted to guard against settling. Tamp or water in as necessary to create a condition by which plants will not settle in the planting beds. Place the bottom of the rootball in direct contact with the bottom of the hole.

Revise standard spec 632.3.4 as follows:

The minimum horizontal measurement of the plant hole shall be no less than 24 inches greater than the diameter of the ball, container, or root mass for the full depth of the planting hole.

Add the following to standard spec 632.3.7:

Remove the burlap and other wrapping materials including, but not limited to, twine, wire baskets, and plastic ribbon, from the entire root ball of B&B plants unless engineer determines that removal of said material will be detrimental to plant stability and/or establishment.

Revise standard spec 632.3.18.1.1 and standard spec 632.3.18.1.2 as follows:

The plant establishment period is two years and begins and ends on the date of substantial landscape completion as determined by the engineer.

50. Landscape Planting Surveillance and Care Cycles.

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of \$1000 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.

Add the following to standard spec 632.3.19.1:

Remove all staking, bracing wire material, and other plant stabilization material at the end of the required establishment period.

An interval for a care cycle is 10-14 days between April 15 and October 31. There will be 13 required care cycles in a growing season. Perform a complete and thorough spring clean-out of all planting beds that contain trees, shrubs, perennials, ornamental grasses and/or bulbs. Perform spring clean-out during the first care cycle of the year (between April 15 and May 1) or as soon as weather and growing season conditions permit. Do not perform Spring clean-out while the ground is saturated from the spring thaw; walking on saturated soil will result in compaction. Spring clean-out includes removal of past-season herbaceous material that was left standing over winter, cutting back ornamental grasses to within 3-inches of the mulched surface, removing any material damaged over the winter by pruning according to the language outlined in standard spec 632, removal of trash or other debris that has accumulated in planting beds, removal of leaves or other plant debris that has accumulated on the top of the mulched surface, replenishing mulch, weeding, and any and all other clean-out and maintenance operations as directed by the engineer or as required to produce an aesthetically pleasing, healthy environment for plant growth.

Perform a complete and thorough fall clean-out of all planting beds that contain trees, shrubs, perennials, ornamental grasses and/or bulbs. Perform Fall clean-out during the last care cycle of the year (between October 15 and October 31). Do not perform fall clean-out if the soil is saturated from rain events. Wait until the soil moisture levels have gone down before performing the final bed clean-out. Fall clean-out includes coordination with the individual municipality's Forester or Parks Manager to determine which herbaceous perennial and ornamental grass material to leave standing through the

winter and which to cut back to the ground, removing any material damaged during the growing season by pruning according to the language outlined in standard spec 632, removal of trash or other debris that has accumulated in planting beds, removal of leaves or other plant debris that has accumulated on the top of the mulched surface, replenishing mulch, weeding, and any and all other clean-out and maintenance operations as directed by the engineer or as required to produce an aesthetically pleasing, healthy environment for plant growth.

Provide supplemental water during the April 15 to October 31 maintenance period as often as necessary to ensure healthy, thriving, and established plant material. Supplemental water may need to be provided even if irrigation is installed as part of the project. Coordinate directly with the municipality to ensure that the plant material is not being overwatered or under-watered. The contractor will remain solely responsible for plant health and watering maintenance even in the event of irrigation system installation.

Re-mulching and multiple shovel edge cuts are expected to be performed immediately prior to the end of the two-year proving period. Work is incidental to Landscape Planting Surveillance and Care Cycles bid item. Additional payment for re-mulching and multiple edge cuts will not be granted.

51. Signs Reflective (type); Signs Reflective Folding (Type).

Supplement standard spec 637.3.3.3 with the following:

Mount signs, where the plans require mounting of signs on black powder-coated street lighting poles or signal poles, using black powder-coated stainless steel banding. Fasten type II and type III signs to 2-inch pipe installations using single or double Morris ring sign brackets from Vulcan Signs, TAPCO (#318), Decker Supply, or approved equal.

52. Removing Signs (Type); Removing Small Sign Supports.

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

Existing signs removed under bid item Removing Signs (type) and existing sign poles removed under bid item Removing Small Sign Supports, as detailed in the plans, become the property of the municipality (either City of Monona or City of Madison). Existing signs and sign posts located in the City of Monona jurisdictional limits (typically west of the Monona Drive centerline) become the property of the City of Monona. Existing signs and sign posts located in the City of Madison jurisdictional limits (typically east of the Monona Drive centerline) become the property of the City of Madison.

Store the disassembled materials, including signs, sign posts, and hardware (brackets, nuts, washers, bolts and other appurtenances) on the right-of-way, outside the limits of construction at a location approved by the engineer. Store the disassembled materials as follows:

- Signs – Banded and neatly stacked on pallets separated by municipality.
- Posts - Banded and neatly stacked on pallets separated by municipality.
- Hardware – In 5-gallon pails or burlap sacks separated by municipality.

Upon completion of the removal and storage of the signing materials, contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 and the City of Madison Traffic Engineering Division Field Operations at (608) 266-4767 to schedule material pick up.

53. Traffic Control.

Perform this work in accordance to standard spec 643, the Manual on Uniform Traffic Control Devices (MUTCD), and as shown on the plans or as approved by the engineer, except as hereinafter modified.

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

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control detail as shown on the plans. Submit this plan to the engineer 14 working days prior to anticipated use.

Place Traffic Control Signs PCMS two weeks prior to construction operations on Monona Drive at either end of the construction limits to pre-warn motorists of upcoming construction activities as detailed in the plans.

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

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

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

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

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

Use flaggers and appropriate signing whenever the construction operations affect the normal flow of traffic along Monona Drive and adjacent sideroads. Supplying and performing flagging operations will not be paid for separately and are included in other items of work.

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

- a. Yield to through traffic when entering or leaving live traffic lanes with construction vehicles and equipment.
- b. Equip all vehicles and equipment entering or leaving the live traffic lanes with a hazard identification beam (flashing yellow signal) capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1000 feet. Activate the beam when merging into or exiting a live traffic lane. In addition, operate the flashing yellow beam on all contractor vehicles and equipment operating during nighttime hours within the project limits. This requirement will not be measured and paid for separately and is included in other items of work.

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

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

54. Nighttime Work Lighting-Stationary.

A Description

Provide portable lighting as necessary to complete nighttime work. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise.

B (Vacant)

C Construction

C.1 General

This provision shall apply when providing, maintaining, moving, and removing portable light towers and equipment-mounted lighting fixtures for nighttime stationary work operations, for the duration of nighttime work on the contract.

At least 14 days prior to the nighttime work, furnish a lighting plan to the engineer for review and acceptance. Address the following in the plan:

1. Layout, including location of portable lighting – lateral placement, height, and spacing. Clearly show on the layout the location of all lights necessary for every aspect of work to be done at night.
2. Specifications, brochures, and technical data of all lighting equipment to be used.

3. The details on how the luminaires will be attached.
4. Electrical power source information.
5. Details on the louvers, shields, or methods to be employed to reduce glare.
6. Lighting calculations. Provide illumination with average to minimum uniformity ratio of 5:1 or less throughout the work area.
7. Detail information on any other auxiliary equipment.

C.2 Portable Lighting

Provide portable lighting that is sturdy and free standing and does not require any guy wires, braces, or any other attachments. Furnish portable lighting capable of being moved as necessary to keep up with the construction project. Position the portable lighting and trailers to minimize the risk of being impacted by traffic on the roadway or by construction traffic or equipment. Provide lightning protection for the portable lighting. Portable lighting shall withstand up to 60 mph wind velocity.

If portable generators are used as a power source, furnish adequate power to operate all required lighting equipment without any interruption during the nighttime work. Provide wiring that is weatherproof and installed according to local, state, federal (NECA and OSHA) requirements. Equip all power sources with a ground-fault circuit interrupter to prevent electrical shock.

C.3 Light Level and Uniformity

Position (spacing and mounting height) the luminaires to provide illumination with an average to minimum uniformity ratio of 5:1 or less throughout the work area.

Illuminate the area as necessary to incorporate construction vehicles, equipment, and personnel activities.

C.4 Glare Control

Design, install, and operate all lighting supplied under these specifications to minimize or avoid glare that interferes with all traffic on the roadway or that causes annoyance or discomfort for properties adjoining the roadway. Locate, aim, and adjust the luminaires to provide the adequate level of illumination and the specified uniformity in the work area without the creation of objectionable glare.

Provide louvers, shields, or visors, as needed, to reduce any objectionable levels of glare. As a minimum, ensure the following requirements are met to avoid objectionable glare on the roadways open to traffic in either direction or for adjoining properties:

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.
2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

If lighting does not meet above-mentioned criteria, adjust the lighting within 24 hours.

C.5 Continuous Operation

Provide and have available sufficient fuel, spare lamps, generators, and qualified personnel to ensure that the lights will operate continuously during nighttime operation. In the event of any failure of the lighting system, discontinue the operation until the adequate level of illumination is restored. Move and remove lighting as necessary.

D (Vacant)

E Payment

Costs for furnishing a lighting plan, and for providing, maintaining, moving, and removing portable lighting, tower mounted lighting, and equipment-mounted lighting required under this special provision are incidental to the contract.

643-010 (20100709)

55. Geotextile Fabric Type SR.

Furnish and install Geotextile Fabric Type SR conforming to standard spec 645 and conforming to the following physical properties:

Test	Method	Value⁽¹⁾
Minimum Tensile Strength	ASTM D 4595	175 lb/in (30,600 N/m)
Maximum Elongation at Required Strength	ASTM D 4595	15 %
Minimum Puncture Strength	ASTM D 4833	145 lb (650 N)
Maximum Apparent Opening Size	ASTM D 4751	No. 40 (425 µm)
Minimum Permittivity	ASTM D 4491	0.05 s ⁻¹

^{1.} All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

645-035 (20080902)

56. Removing Pavement Markings.

Perform work in accordance to standard spec 646 and 647 except as hereinafter modified:

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

57. Install Conduit Into Existing Item, Item 652.0700.S.

A Description

This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, communication vault, or other structure.

B Materials

Furnish conduit and fittings as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the requirements of pertinent provisions of the standard specifications.

C Construction

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

D Measurement

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

E Payment

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

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

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

58. Removing Pull Boxes.

Supplement standard spec 653.3 as follows:

Salvage pull boxes and carefully remove and stockpile at a location on the right-of-way outside the construction limits for pickup by City of Madison personnel. Contact Dennis Rowe (608) 266-9034 to schedule pickup. Remove from the right-of-way and properly dispose of pull boxes that the City of Madison does not want. Arrange for an inspection of the pull boxes by representatives from the City of Madison, contractor, and the engineer prior to removing, in order to assess their original condition.

59. Concrete Bases Type 5.

Supplement standard spec 654.3 as follows:

Form all exposed concrete to provide a square finish as detailed in the plans. Construct concrete bases with one side parallel to the centerline of the street. Construct forms of sufficient depth to provide a minimum of 12 inches of square formed base below the finished grade on the low side of the base. Provide a ¾-inch bevel on all finished edges and a rubbed finish down to finished grade.

60. Loop Detector Lead-In Cable.

Perform work in accordance to standard spec 655 except as hereinafter modified:

Furnish 0.25 inch diameter, 4-conductor, #18 AWG, waterproof, shielded, polypropylene insulation cable, with HDPE outer jacket. Meeting IMSA specifications. Provide loop detector lead in cable that is smooth on the outside without any ripples or ribbing from cable wires.

Furnish and install one cable for every two loops from each loop handhole to the intersection control cabinet via the most direct route, without intermediate splicing. Most of the loops will be new and are shown on the plan. Install cable for some existing loops. Verify cable needs with the City of Madison Traffic Engineering staff before completing intersection wiring.

61. Traffic Signal Face (no., size, orientation).

This work is in accordance to standard spec 658 except as hereinafter modified:

Furnish all LED lamps according to those listed in the table below:

12 inch Red Ball LED	Duralight JXC-300CAR
12 inch Yellow Ball LED	Duralight JXC-300CAY
12 inch Green Ball LED	Duralight JXC-300CAG
12 inch Red Arrow LED	Duralight JXJ-300VIRA
12 inch Yellow Arrow LED	Duralight JXJ-300VIYA
12 inch Green Arrow LED	Duralight JXJ-300VIGA
12 inch Pedestrian Countdown LED	Duralight JXM-200VIEP
12 inch Pedestrian Signal LED	Duralight JXM200VIHM

Provide tunnel visors for all pedestrian signals.

Provide cutaway visors for all vehicle signals.

All signals mounted on monotube arms or trombone arms shall have a snow-shedding shield on each signal indication. The shield shall be impact resistant polycarbonate, designed and installed specifically to reduce snow accumulation, while not allowing

water to enter or reside in the signal unit. If there are not any far side signals on monotube arms or trombone arms, then install snow-shedding shields on each signal indication of the far right signal.

Pedestrian countdown timers have a control wire so that when 120V AC current is applied, the timer will immediately go dark. Connect this control wire back to the signal control cabinet.

All vehicle and pedestrian signal heads shall be CH-SIG, Siemens LFE/SG, McCain, or Peek/TCT, subject to review and approval by City of Madison Traffic Engineering. Provide drain channels so that rainwater does not pond on top of the units.

Provide black color for all vehicle and pedestrian signal heads.

All vehicle and pedestrian signal heads shall be made with polycarbonate material, UV stabilized, with color impregnated in the material. All features and performance shall meet the requirements outlined in the latest revision of the Institute of Transportation Engineers' publication, "Adjustable Face Vehicular Traffic Control Signal Heads." The front face and all visors (inside and outside) shall be flat or semi-gloss black. All other exterior parts shall be flat or semi-gloss black. All exterior hardware shall be stainless steel.

62. Backplates Signal Face (size).

This work is in accordance to standard spec 658 except as hereinafter modified:

Backplates for 12" signal heads shall provide a 5" wide black band around the signal head. The backplates shall be an approved black rigid material, such as vacuum formed ABS plastic. The backplates shall match the signal heads being furnished under this contract, equipped with all necessary holes and mounting devices. All mounting hardware shall be stainless steel.

63. Temporary Traffic Signals for Intersections (location).

This work is in accordance to section 661 of the standard specifications except as hereinafter modified:

Furnish and install temporary lighting, Video Detection, and pedestrian indicators as shown on the plans and in accordance to standard spec 659.

Supply and install EVP detector equipment and wire for temporary signals. The detector system shall be capable of detecting TOMAR and Opticon brand emitters.

Do not reuse existing traffic signal equipment or traffic signal controller cabinets for temporary traffic signal installation.

Relocate temporary traffic signal poles and equipment as necessary to accommodate construction staging sequencing as detailed in the plans.

64. Planting Mixture, Item SPV.0035.01.

A Description

This special provision describes furnishing and installing Planting Mixture at the locations shown on the plans and in accordance to the requirements of standard spec 632, the plans, and as hereinafter provided.

B Materials

The landscape contractor who is responsible for furnishing and installing plant material is solely responsible for obtaining planting mixture components, blending the mixture to the specified proportions, and for furnishing and installing the planting mixture.

B.1 Planting Mixture

The planting mixture consists of the following blend by volume:

- 2 parts topsoil. Provide topsoil conforming to section 625 of the standard specifications.
- 1 part sand. Obtain the engineer's approval for the sand.
- 1 part compost. Provide compost of either well-rotted shredded leaf mulch, free of disease; or well-rotted, unleached, stable or cattle manure containing no more than 25 percent by volume of straw, sawdust, or other bedding materials and free of toxic substances. Provide compost free of stones, sticks, soil, weed seeds, debris, and other material harmful to plant growth.
- 1 part peat moss. Provide peat moss conforming to section 632 of the standard specifications.

C Construction

C.1 Coordination

Planting mixture blend to be reviewed and approved by the engineer or construction representative before use on project. The engineer reserves the right to reject planting mixture that does not conform to the specifications and/or does not come with the appropriate material certificates. The engineer may require the contractor to take samples (for USDA soil texture classification, pH, % organic matter, nutrient content, cation exchange capacity, soluble salts, and the presence of any materials deleterious to plant growth) and provide testing through a qualified testing laboratory approved by the State of Wisconsin to confirm that topsoil meets the requirements outlined in standard spec 625.

Deliver Planting Mixture to the project site and install no more than 7 days before the start of planting operations for areas receiving Planting Mixture. It is the sole responsibility of the landscape contractor to fully coordinate and schedule the delivery and installation of the Planting Mixture with the delivery and installation of all landscape plant materials.

C.2 Planting Mixture Preparation and Placement

Provide, in writing to the supervising engineer, a list of all materials used in Planting Mixture including manufacturers and quantities. Ensure that all materials meet the standards set forth in standard spec 625 and 632 and produce a planting mixture that provides a stable, healthy soil for plant growth.

Ensure proper excavation of planting area for all areas to receive Planting Mixture. Prepare areas by removing any construction materials, stone, or other debris larger than 2" in length or diameter for all areas.

Provide Planting Mixture for all shrub/perennial planting beds as indicated in the plans.

Provide Planting Mixture over entire planting bed area and fine grade to match grades as indicated on plans or to adjacent back of curb or other hardscape surface as indicated on plans and account for settling. Place Planting Mixture in 6-inch to 8-inch lifts, watering in or tamping to reduce settling potential. Provide a minimum 24-inch depth in all shrub/perennial planting beds as indicated in the plans.

Obtain approval of Planting Mixture depths, locations, and elevations by supervising engineer prior to planting.

D Measurement

The department will measure Planting Mixture by the cubic yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.01	Planting Mixture	CY

Payment is full compensation for furnishing and installing all materials and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

65. Topsoil Special, Item SPV.0035.02.

A Description

This special provision describes excavating and disposing of material taken from within tree planting locations in accordance to standard spec 205 and furnishing and installing topsoil at the tree planting locations in accordance to the requirements of standard spec 625, the plans, and as hereinafter provided.

B Materials

Excavate materials in accordance to standard spec 205. Furnish topsoil materials in accordance to standard spec 625.

C Construction

Excavate materials as the plans show or the engineer allows from the tree planting areas in accordance to standard spec 205. Use excavated materials in the work to the extent that it is practical for approved areas. Dispose of surplus or unsuitable material as specified in standard spec 205.3.12. Place Topsoil Special in accordance to standard spec 625 of the standard specifications for each tree to be planted to a minimum depth of 24 inches. Provide a minimum area of 8 feet by 8 feet for each tree. In narrow conditions of less than 8 feet, extend Topsoil Special the full width of the median/street terrace and 12 feet in the opposite direction. No Topsoil Special is required for trees planted in planting beds to receive Planting Mixture, SPV.0035.501.

D Measurement

The department will measure Topsoil Special by the cubic yard of excavated material acceptably removed in accordance to standard spec 205.4.1 and acceptably replaced with topsoil in accordance to standard spec 625.4.1(3).

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.02	Topsoil Special	CY

Payment is full compensation for excavating and disposing of planting bed and tree planting area materials, and for furnishing and placing all topsoil materials in planting bed and tree planting areas, including excavating, loading, and hauling.

66. Coloring Concrete Monona Drive Red, Item SPV.0035.03.

A Description

This special provision describes coloring concrete used to construct work under other contract bid items as well as any special materials and special construction techniques associated with using colored concrete.

B Materials

Provide materials in accordance to standard spec 405.2.

Supplement standard spec 405.2.1(1) with the following:

For Monona Drive Red: use non-fading synthetic iron oxides at a loading of 6 percent or more by weight of total cementitious material in the mix. Match the red tinted color used in Monona Drive Phase 1 (Broadway - Nichols Road), I.D. 5994-00-70/73/74 and Monona Drive Phase 2 (Winnequah Road - Cottage Grove Road), I.D. 5994-00-71/75/76. The department will accept the color based on contractor supplied comparison sample panels.

C Construction

Construct in accordance to standard spec 405.3.

D Measurement

The department will measure Coloring Concrete Monona Drive Red by the cubic yard, acceptably completed and incorporated into work done under other contract bid items including material incorporated into one sample panel or one test slab that achieves a color the engineer accepts as required under standard spec 405.3.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.03	Coloring Concrete Monona Drive Red	CY

Payment is full compensation for developing mix designs and providing sample panels or test slabs; for furnishing pigments; for special construction procedures, required under standard spec 405.3; and for removing test slabs, restoring the site, and disposing of waste material.

67. Inlet Covers Type DW, Item SPV.0060.01.**A Description**

Perform work in accordance to the applicable provisions of standard spec 611 and as detailed in the plans.

B (Vacant)**C (Vacant)****D Measurement**

The department will measure Inlet Covers Type DW 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.0060.01	Inlet Covers Type DW	Each

Payment is full compensation for providing new covers, including frames, grates or lids, all other required materials, for installing and adjusting each cover, and incidentals necessary to complete the contract work.

68. Inlet Covers Type T3, Item SPV.0060.02.**A Description**

Perform work in accordance to the applicable provisions of standard spec 611 and as detailed in the plans.

B Materials

Furnish Neenah Foundry Component Number 38080005 Castings (grate only), or equal, made of ductile iron to the dimensions shown on the plans.

C (Vacant)**D Measurement**

The department will measure Inlet Covers Type T3 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.0060.02	Inlet Covers Type T3	Each

Payment is full compensation for providing new covers (grates only), all other required materials, for installing and adjusting each cover, and incidentals necessary to complete the contract work.

69. Terrace Inlet Type 3, Item SPV.0060.03.**A Description**

Perform work in accordance to the applicable provisions of standard spec 611 and as detailed in the plans.

B (Vacant)**C (Vacant)****D Measurement**

The department will measure Terrace Inlet Type 3 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.0060.03	Terrace Inlet Type 3	Each

Payment is full compensation for providing all materials, including all masonry, conduit and sewer connections; 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.

70. Inlet Protection Type HC, Item SPV.0060.04.

A Description

Perform work in accordance to the applicable provisions of standard spec 611, as detailed in the plans, and as hereinafter provided.

B (Vacant)

C Construction

When installed in an inlet with a curb box, provide a minimum 2-inch curb opening for overflow purposes.

Maintenance and Repair

Inspect inlet filters regularly, as required by approved erosion control plans or permit conditions. When removed from the inlet for maintenance, visually inspect filters for any holes or tears in the fabric that may compromise the integrity of the filter.

The following conditions require the following actions:

- Accumulated sediment in filter:
Remove filter if sediment has accumulated to within six inches of the bottom of the overflow holes. Pull filter, remove sediment, dispose of in accordance to applicable laws, and reinstall inlet protection.
- Standing water in filter:
Remove accumulated sediment and restore filtering capacity of the fabric if standing water is within six inches of the bottom of the overflow holes twenty-four hours after a runoff event. Mechanical agitation (shaking out) when dry and hydraulic back flushing (pressure washing), when saturated, are effective methods of restoration.
- Holes or tears located in the Type FF (upper) fabric:
Stitch small holes or narrow tears less than 2 inches using plastic zip ties. Replace the filter if the tears or holes are larger than 2 inches.
- Holes or tears located in the Type HR (lower) fabric:
Replace the filter.
- Holes or tears located in the flap pockets:
Replace the filter if the flap pockets sustain damage that compromises the integrity of the filter or the ability to perform maintenance.

D Measurement

The department will measure Inlet Protection Type HC by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Inlet Protection Type HC	Each

Payment is full compensation for furnishing, transporting, and installing all materials; and for maintaining and removing the inlet protection devices.

71. Manholes 9-FT Diameter, Item SPV.0060.05.**A Description**

Perform work in accordance to the applicable provisions of standard spec 611 and as detailed in the plans.

B (Vacant)**C (Vacant)****D Measurement**

The department will measure Manholes 9-FT Diameter 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.0060.05	Manholes 9-FT Diameter	Each

Payment is full compensation for providing all materials, including all masonry, conduit and sewer connections, steps and other fittings; for furnishing all excavating, backfilling, disposing of surplus material, and for cleaning out and restoring to work site, and all incidentals necessary to complete the contract work except that the department will pay for covers, including frames, grates and lids separately.

72. Lighting Control Cabinet Black, Item SPV.0060.06.**A Description**

This special provision describes furnishing, assembling, and installing lighting control cabinets and accessories at the locations shown on the plans and as specified herein. See other electrical special provisions for related items.

B Materials**B.1 Contactors**

Furnish 8-pole, 30-amp, 600-V electrically held contactors with 120-V control coil in NEMA 1 enclosure as required for the proposed circuits. Engrave "ALL NIGHT" or "MIDNIGHT" identification on cover of respective enclosures.

B.2 Photocell

Furnish a button type photocell and install as shown on the detail. Apply silicone caulk to maintain the watertight integrity of the enclosure. The photocell shall be rated for 120V, 1500W with 30-60 second delay between “on-off” operations.

B.3 Panel

Furnish a 120/240-volt, 100A main circuit breaker, single-phase, 20-circuit panel board in a NEMA 1 enclosure. Provide copper ground and split neutral bus bars in addition to copper bus bars. Provide bolt-on, thermal-magnetic circuit breakers that clearly indicate ON, OFF, or TRIPPED position in the panel. Provide double pole breakers as required for all multiwire branch circuits.

B.4 Time Clock

Furnish a time clock with an 8-year lithium battery time backup, -40° F to 120° F operating range, 40-year program schedule retention, LCD type, daylight saving time, and leap year correction. Program as required by the City of Madison.

B.5 Selector Switches

Furnish “Hand-Off-Auto” switches to control each all-night circuit and midnight circuit separately. Provide a “Hand-Off-Auto” legend plate for each switch. Engrave “ALL NIGHT” and “MIDNIGHT” above each appropriate operator. Mount the switches in a horizontal manner in a NEMA 1 enclosure.

B.6 Enclosure

Provide a NEMA 4X enclosure made from .125" Type 5052-H32 aluminum. The doorframe shall be double flanged. All exterior hardware shall be stainless steel. The door hinges shall be all stainless steel. Door handle shall be 3/4-inch diameter stainless steel with three point latching system and hasp.

Provide an aluminum-mounting panel at back (interior) of enclosure. Provide a weatherproof pad lock with 2 3/8-inch wide body, repinnable/ replaceable cylinder, and five keys. There shall be no louvers or Corbin main door lock. Exterior of Cabinet is to be painted black. The minimum paint system shall be the manufacturer’s best paint system, using prime and finish paint, subject to City of Madison review and approval. The paint system chosen shall result in a durable weather-resistant paint well adhered to the cabinet and suitable for streets with heavy salting and the resulting salt spray from passing vehicles traveling at speeds averaging 40 mph. The manufacturer’s warranty on paint finish shall be identified. No warranty less than five years will be accepted. The black finish paint color shall be a RAL 9004 with 80% gloss.

B.7 Surge Arrester

Furnish a surge suppressor to protect the panel board. The surge suppressor shall provide six modes of surge protection, meet UL1449 Second Edition with 32 kA per phase and 48 kA system peak surge current, contain LED line indicators, 5-year manufacturer's warranty, and dimensions of 4.54-inches high x 2.58-inches wide x 2.22-inches deep. Connect the surge suppressor to the branch circuit breaker as indicated on the plans.

B.8 Field Wiring Termination Blocks

All connections from the field wiring to equipment in the lighting control cabinet shall be made through termination blocks. Provide quantity of channel mount, NEMA type single terminal blocks as indicated on plans that are capable of holding #12 to #1/0 wire with solderless box lugs, for power, neutral and grounding connections.

Mount the terminal blocks on a mounting channel of appropriate length with end anchors and an end barrier. Each terminal block shall have a label indicating the appropriate circuit number, neutral ('N') or ground ('G') wire connected to block; handwritten numbers and letters are not acceptable means of identification.

Make connections from the underground field wiring to the equipment in the lighting control cabinet through distribution blocks.

B.9 Incidental Materials

Secure all wiring using screw attachment type straps; adhesive type shall not be allowed.

C Construction

Assemble the control cabinet as shown on the plans. Pretest the cabinet prior to shipment to the site.

Mount all equipment to panel in enclosure. Train the cables to be in straight horizontal and vertical directions and to be parallel next to, and adjacent to, other cables whenever possible.

Mount the cabinet to the concrete base per the manufacturer's requirements.

D Measurement

The department will measure Lighting Control Cabinet Black 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.0060.06	Lighting Control Cabinet Black	Each

Payment is full compensation for for furnishing and installing photo control, contactors, panel, distribution blocks, surge arrestor, enclosure, grounding, wiring and electrical components; and for mounting to the concrete base.

73. Private Storm Sewer Lateral Reconnect, Item SPV.0060.07.

A Description

This special provision describes connecting an existing private storm sewer to the new sewer main as shown on the plans and as hereinafter provided.

B Material

Materials under this item include (at a minimum) the following: up to 3 prefabricated PVC bends of various degrees, up to 12 feet of 4 inch or 6 inch schedule 30 PVC, compression coupling, or concrete collar to connect to the existing private system.

C Construction

Complete the following as part of this item:

- Find the end of the existing system.
- Remove the pipe to a point where it is covered by at least 6 inches of topsoil.
- Connect to the pipe with a bend directing the pipe underground to a depth where a second or third bend can be installed directing the lateral toward the new storm sewer structure/pipe.
- Connect lateral to the new storm sewer structure/pipe.

D Measurement

The department will measure Private Storm Sewer Lateral Reconnect 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.0060.07	Private Storm Sewer Lateral Reconnect	Each

Payment is full compensation for providing all materials, labor, and incidentals necessary to complete the contract work.

74. Sign Post 12-FT, Item SPV.0060.08; 14-FT, Item SPV.0060.09; 16-FT, Item SPV.0060.10.

A Description

This special provision describes furnishing and installing new sign posts for signs. All sign posts shall be round tubular steel and installed as shown in the plans.

B Materials

Provide sign posts conforming to the standard specification for hot rolled carbon sheet steel, commercial quality, ASTM A-570-GR-33 for zinc coating tubing to resist corrosion. Provide 2-inch, schedule 40 sign posts with threading, as detailed in the plans, on the bottom end and a water tight cap on the top end at the lengths shown on the plans.

C Construction

Install sign posts at the locations shown on the plans and approved by the engineer. If the finished grade cannot be determined, ask the engineer to identify the final grade. Install all signs in a true vertical position conforming to the latest edition of the Manual on Uniform Traffic Control Devices. Also, locate all underground utilities prior to placing sign posts. Cut off excess sign post length in the field to provided the desired sign clearance.

D Measurement

The department will measure Sign Post (size) as each individual sign post (size), acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.08	Sign Post 12-FT	Each
SPV.0060.09	Sign Post 14-FT	Each
SPV.0060.10	Sign Post 16-FT	Each

Payment is full compensation for furnishing and installing all necessary posts, end caps, hardware and anchors. Replace all materials damaged during construction with new items at no cost to the department.

75. Root Pruning Existing Trees, Item SPV.0060.11.**A Description**

This work consists of pruning roots of existing terrace trees using a root pruner to allow for excavation; storm sewer, sanitary sewer or water main installation; and curb and gutter operations.

B (Vacant)**C Construction**

Preserve existing trees not shown as being removed on the plans. Cut roots of existing trees using a root pruner to allow for adjacent construction operations. Prune roots along the roadway side of the tree from drip edge to drip edge of the tree. Prune roots in the terrace from the back of curb and gutter to the face of sidewalk in areas of proposed sanitary and water utility lateral installations a minimum of 6 feet from the centerline the proposed utility trench. Prune roots no closer than 15 inches to any existing tree.

Clean cut roots with a sharp clean carbide tipped rotary saw blade. Disinfect blade between cuts to avoid spreading disease. Make all root cuts smooth and clean to facilitate callusing or root regeneration. Tearing or ripping of roots will not be acceptable.

Backfill cut roots immediately after cutting. After back filling trenches, water the soil sufficiently to facilitate settling and to provide moisture to previously exposed roots.

If backfilling cannot be achieved immediately, take protective measures to keep roots from drying out. Maintain a moist environment around and at the ends of all exposed roots until proper backfilling can take place.

Avoid Root Pruning during environmentally stressful times such as extreme drought or heat conditions. Avoid Root pruning during bud break or shoot growth.

D Measurement

The department will measure Root Pruning Existing Trees as each individual root pruned tree, 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.0060.11	Root Pruning Existing Trees	Each

Payment is full compensation for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

76. Salvage and Replace Digital Speed Limit Sign and Radar Unit, Item SPV.0060.12.

A Description

This special provision describes salvaging and replacing a digital speed limit sign and radar unit, pole, transformer base, and attached components as shown on the plans and as hereinafter provided.

B (Vacant)

C Construction

Perform all work in accordance to the applicable portions of standard spec 204, 651, and 655.

Remove, handle, transport, and reinstall existing digital speed limit sign and radar unit in a manner that prevents damaging the digital speed limit sign and radar unit.

Perform a field review of existing digital speed limit sign and radar unit with the engineer and City of Monona Representative for condition of equipment prior to removal. Notify the engineer and City of Monona of any damaged or non-operating equipment.

Deenergize and disconnect the wiring splices in the transformer base in compliance with the State Electric Code.

Removal of the concrete base will be paid for separately.

Deliver and store the salvaged digital speed limit sign and radar unit, pole, transformer base, attached components, and mounting hardware at a City of Monona specified location within the City of Monona limits. Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to removing the digital speed limit sign and radar unit to coordinate a delivery time and storage location.

Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to reinstalling the digital speed limit sign and radar unit to coordinate a pick up time at the City of Monona specified location.

Reinstall digital speed limit sign and radar unit as shown on the plan per manufacturer's recommendation. Reinstall digital speed limit sign and radar unit on new concrete base. New concrete bases paid for separately.

Reconnect the wire splices in the transformer bases. Complete a post-reinstallation inspection with the engineer.

Do not intermix original digital speed limit sign and radar unit locations.

D Measurement

The department will measure Digital Speed Limit Sign and Radar Unit 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.0060.12	Digital Speed Limit Sign and Radar Unit	Each

Payment is full compensation for removing, handling, transporting and reinstalling digital speed limit sign and radar unit, pole, transformer base, attached components, and mounting hardware; furnishing and installing materials including hardware and connectors; and for performing all mounting, leveling, proper disposal of surplus materials and restoration.

77. Salvage and Replace Decorative Light Pole and Luminaire, Item SPV.0060.13.

A Description

This special provision describes salvaging and replacing decorative light pole and luminaire, and attached components as shown on the plans and as hereinafter provided.

B (Vacant)

C Construction

Perform all work in accordance to the applicable portions of standard spec 204, 651, and 659.

Remove, handle, transport, and reinstall existing decorative light pole and luminaire in a manner that prevents damaging the decorative light pole and luminaire.

Perform a field review of existing decorative lighting pole and luminaire with the engineer and City of Monona Representative for condition of equipment prior to removal. Notify the engineer and City of Monona of any damaged or non-operating equipment.

Deenergize and disconnect the wiring splices in the base in compliance with the National Electric Code (NEC).

Removal of the concrete base will be paid for separately.

Deliver and store the salvaged decorative light pole, luminaire, and mounting hardware at a City of Monona specified location within the City of Monona limits. Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to removing the decorative light pole and luminarie to coordinate a delivery time and storage location.

Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to reinstalling the decorative light pole and luminaire to coordinate a pick up time at the City of Monona specified location.

Reinstall decorative pole and luminaire as shown on the plan per manufacturer's recommendation and as shown on the detail. Reinstall decorative pole and luminaire on new concrete bases. New concrete bases paid for separately.

Reconnect the wire splices in the bases. Complete a post-reinstallation inspection with the engineer.

Do not intermix original decorative light pole and luminaire order or locations.

D Measurement

The department will measure Salvage and Replace Decorative Light Pole and Luminaire 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.0060.13	Salvage and Replace Decorative Light Pole and Luminaire	Each

Payment is full compensation for removing, handling, transporting and reinstalling decorative light poles and luminaires, furnishing and installing materials including hardware and connectors; and for performing all mounting, leveling, and proper disposal of surplus materials and restoration.

78. Salvage and Replace City of Madison Light Pole and Luminaire, Item SPV.0060.14.**A Description**

This special provision describes salvaging and replacing City of Madison light pole and luminaire, and attached components as shown on the plans and as hereinafter provided.

B (Vacant)**C Construction**

Perform all work in accordance to the applicable portions of standard spec 204, 651, and 659.

Remove, handle, transport, and reinstall existing City of Madison light pole and luminaire in a manner that prevents damaging the City of Madison light pole and luminaire.

Perform a field review of existing City of Madison lighting pole and luminaire with the engineer and City of Madison Representative for condition of equipment prior to removal. Notify the engineer and City of Madison of any damaged or non-operating equipment.

Deenergize and disconnect the wiring splices in the base in compliance with the National Electric Code (NEC).

Deliver and store the salvaged City of Madison light pole, luminaire, and mounting hardware at a City of Madison specified location within the City of Madison limits. Contact Brian Smith, City of Madison Traffic Engineer, at (608) 261-9625 one week prior to removing the City of Madison light pole and luminarie to coordinate a delivery time and storage location.

Contact Dan Brian Smith, City of Madison Traffic Engineer, at (608) 261-9625 one week prior to reinstalling the City of Madison light pole and luminaire to coordinate a pick up time at the City of Madison specified location.

Reinstall City of Madison pole and luminaire as shown on the plan per manufacturer's recommendation and as shown on the detail. Reinstall City of Madison pole and luminaire on new concrete bases. New concrete bases paid for separately.

Reconnect the wire splices in the bases. Complete a post-reinstallation inspection with the engineer.

Do not intermix original City of Madison light pole and luminaire order or locations.

D Measurement

The department will measure Salvage and Replace City of Madison Light Pole and Luminaire 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.0060.14	Salvage and Replace City of Madison Light Pole and Luminaire	Each

Payment is full compensation for removing, handling, transporting and reinstalling City of Madison light pole and luminaire, furnishing and installing materials including hardware and connectors; and for performing all mounting, leveling, proper disposal of surplus materials and restoration.

79. Adjusting Monitoring Well Caps, Item SPV.0060.15.

A Description

This special provision describes adjusting, protecting, and maintaining accessibility, for the duration of the project, to monitoring well caps located within the project limits as shown on the plans and as hereinafter provided.

B (Vacant)

C Construction

Adjust monitoring well caps to proposed elevations at locations shown on the plans. Throughout the duration of the project, the contractor must ensure that the monitoring well caps are adequately located and identified by paint and lathe, and at all times, all well appurtenances remain accessible for operation. Exercise caution when working adjacent to the monitoring well caps to avoid damage and ensure accessibility.

D Measurement

The department will measure Adjusting Monitoring Well Caps 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.0060.15	Adjusting Monitoring Well Caps	Each

Payment is full compensation for adjusting monitoring well caps; all excavation, backfilling, disposal of surplus materials; for furnishing all hardware, fasteners, connectors, and extension materials; for material cutting, and all incidentals necessary to complete the contract work.

80. Salvage and Replace Bench, Item SPV.0060.16.**A Description**

This special provision describes salvaging and replacing benches as shown on the plans and as hereinafter provided.

B Material

Furnish mounting hardware compatible with Victor Stanley Steelsites Series Steel Contoured Benches, RB-28. All metal components to be finished with T.G.I.C. polyester powder coating.

C Construction

Remove, handle, transport, and reinstall existing benches in a manner that prevents damaging the benches.

Deliver and store the salvaged benches and mounting hardware at a City of Monona specified location within the City of Monona limits. Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to removing the benches to coordinate a delivery time and storage location.

Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to reinstalling the benches to coordinate a pick up time at the City of Monona specified location.

Reinstall benches on concrete pads as shown on the plan per manufacturer's recommendation and as shown on the detail. Complete a post-reinstallation inspection with the engineer.

If the contractor damages benches through its own operations, the contractor shall replace them at no expense to the department.

D Measurement

The department will measure Salvage and Replace Bench 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.0060.16	Salvage and Replace Bench	Each

Payment is full compensation for removing, handling, transporting and reinstalling benches; for furnishing and installing hardware, and connectors; and for performing all mounting, leveling, proper disposal of surplus material and restoration.

81. Salvage and Replace Trash Receptacle, Item SPV.0060.17.**A Description**

This special provision describes salvaging and replacing trash receptacles as shown on the plans and as hereinafter provided.

B Materials

Furnish surface mounting hardware compatible with the Victor Stanley Production Series Trash Receptacle, PRS-36. All metal components to be finished with T.G.I.C. polyester powder coating.

C Construction

Remove, handle, transport, and reinstall existing trash receptacles in a manner that prevents damaging the trash receptacles.

Deliver and store the salvaged trash receptacles and mounting hardware at a City of Monona specified location within the City of Monona limits. Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to removing the trash receptacles to coordinate a delivery time and storage location.

Contact Dan Stephany, City of Monona Public Works Director, at (608) 222-2525 one week prior to reinstalling the trash receptacles to coordinate a pick up time at the City of Monona specified location.

Reinstall trash receptacles using the surface mounting method on concrete pads as shown on the plan per manufacturer's recommendation and as shown on the detail. Complete a post-reinstallation inspection with the engineer.

If the contractor damages trash receptacles through its own operations, the contractor shall replace them at no expense to the department.

D Measurement

The department will measure Salvage and Replace Trash Receptacle 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.0060.17	Salvage and Replace Trash Receptacle	Each

Payment is full compensation for removing, handling, transporting and reinstalling trash receptacles; for furnishing and installing hardware, and connectors; and for performing all mounting, leveling, proper disposal of surplus material and restoration.

82. Storm Sewer Tap, Item SPV.0060.18.**A Description**

This special provision describes tapping various sized storm sewer pipes into existing structures, including manholes or inlets, or other pipes at locations shown on the plans.

Perform the work in accordance to the applicable provisions of standard spec 607 and 611.

B (Vacant)**C Construction**

Tap the pipe to be flush with the interior wall of the existing pipe or structure.

D Measurement

The department will measure Storm Sewer Tap 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.0060.18	Storm Sewer Tap	Each

Payment is full compensation for providing all materials, including saw cuts, for excavating, providing and removing sheeting and shoring, making connections to new or existing facilities, and cleaning out.

83. Construction Staking Curb Ramp Layout, Item SPV.0060.19.**A Description**

Perform this work in accordance to the applicable provisions of standard spec 650.

B (Vacant)

C Construction

Plan and layout all points necessary to establish horizontal and vertical position of the curb ramp in accordance to Americans with Disabilities Act (ADA) Accessibility Guidelines (ADAAG) and as detailed in the plans.

D Measurement

The department will measure Construction Staking Curb Ramp as each individual curb ramp, 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.0060.19	Construction Staking Curb Ramp Layout	Each

Payment for Construction Staking Curb Ramp bid item is full compensation for planning and layout of curb ramps including setting lathe, stakes, pins, string line or other materials used to establish the horizontal and vertical position of the curb ramp; and for resetting damaged or missing construction staking materials.

84. Traffic Signal Control Cabinet, Black, Item SPV.0060.20.

A Description

This special provision describes providing a door-in-door style, base mounted cabinet, with exterior dimensions of 55" height, 38" width, and 26" depth. The cabinet shall be of weatherproof construction, fabricated from sheet aluminum at least 0.125-Inches thick and adequately reinforced. A heavy duty stainless steel handle (5/8 inch minimum diameter) and latch shall be provided. The door hinges shall be all stainless steel and continuous for the full height of the door. The cabinet interior shall have a zinc chromate prime coat and be finished with one coat of rust-resistant high gloss white enamel. The cabinet exterior shall be natural mill finish. The minimum paint system shall be the manufacturer's best paint system, using prime and finish paint, subject to City of Madison review and approval. The paint system chosen shall result in a durable weather-resistant paint well adhered to the cabinet and suitable for streets with heavy salting and the resulting salt spray from passing vehicles traveling at speeds averaging 40 mph. The manufacturer's warranty on paint finish shall be identified. No warranty less than five years will be accepted. The black finish paint color shall be RAL 9004 with 80% gloss.

Two adjustable-height shelves of 12-13 inches depth are required.

B Materials

B.1 Locks

Provide a main cabinet door with a tumbler lock keyed for a Corbin No. 2 key. Equip the auxiliary (Police Panel) door with a lock for a standard police key. Furnish a key for each

lock. When the door is closed and latched, with the key removed, the door shall lock. The locking bar shall be a solid non-rusting metal with a square cross-section, equipped with a double roller on each end.

B.2 Door Stop

Equip the cabinet with a door stop assembly to hold the door open at approximately 90° and 150°.

B.3 Weather Protection and Incandescent Light

Equip the cabinet with an electric fan assembly with a minimum capacity of 100 cubic feet per minute. Mount the fan in the top of the cabinet in a manner to prevent rain from entering the cabinet. The fan shall be thermostatically controlled and shall be manually adjustable to turn on between 80° F and 150° F. The cabinet fan circuit shall have fuse protection at 125% of the capacity of the fan motor.

Air intake near the bottom of the cabinet via louvered vents shall have a removable filter, including a gasketed aluminum filter replacement for use in the winter to prevent entrance of snow.

Mount an incandescent light socket in the upper front part of the cabinet.

B.4 Grounding

Provide a copper equipment grounding bus in each cabinet to accept up to #4 stranded wire. Ground the ground bus to the cabinet, and provide at least 14 terminals of the tubular clamp type. Connect all ground bus together with a minimum #8 green copper wire.

B.5 Controller

Furnish the following:

- Econolite ASC/3-2100 with HTR, data key, and Ethernet
- FSK TLM 25 pin for this controller
- Econolite TIO board with harness
- D connector interface harness and board.

B.6 Solid State Flasher

Furnish the cabinet with two 6 pin, 20 amp, double circuit solid state flashers, fully connected and operating.

B.7 Flash Transfer Relays

Provide electromechanical relays for opening and closing traffic signal field circuits. Furnish the cabinet supplied under this specification with four 2-pole transfer relays wired to transfer the vehicle phases. Cover relays used for this purpose, insulate, or locate so that electrically alive parts are not readily exposed. All relays shall be next to each other and mounted on the back panel.

All contact points which make, break, and carry current to the signal lamps shall be of silver-cadmium, coin silver or equivalent material. Contact shall be capable of making, breaking, and carrying a current of 10 amperes, 120 volts, without undue pitting. Relay coils shall have a power consumption of 10 volt amperes or less and shall be designed for continuous duty. Contact points which make, break, and carry current to the solid state switchpacks shall be capable of carrying 40 amperes of 120 volts without undue pitting. The transfer relay shall withstand a potential of 1500 volts at 60 Hertz between insulated parts, and between current carrying parts and grounded and non-current carrying parts. Each transfer relay shall have a one cycle surge rating of 175 amperes RMS (247.5 amperes peak). Each transfer relay shall be unaffected by electrical noise, having a rise time of up to 200 volts per microsecond. Each relay shall be unaffected by the 500 volt power noise transient test.

The flash transfer relay shall energize the flasher and transfer field signal light circuit from the controller to flasher, and shall permit flashing lights as programmed on the main street or highway and on the cross street or streets. Operation of the flash transfer relay circuit shall not prohibit the operation of the controller, but shall prohibit operation of the field signal light circuits by the controller.

The flash transfer relay shall be provided with a connector (Cinch-Jones Type P-408-SB, or equivalent) and intermate with Cinch-Jones Type #S-408-SB, or equivalent.

The socket pin assignments shall be as follows:

Pin Function

1. 1 Relay Coil
2. 2 Relay coil
3. 3 NC Ckt. #1
4. 4 NC Ckt. #2
5. 5 Relay Common Ckt. #1
6. 6 Relay Common Ckt. #2
7. 7 No. Ckt. #1
8. 8 No. Ckt. #2

Wire the flash circuit in a fail-safe manner so that the intersection will revert to and remain in the flashing mode whenever and for as long as either the controller or the monitor is disconnected. Support the relays with a rack at least 8½ inches out from each socket.

B.8 Flash Sequence Programming

A programming means shall be provided to determine if flashing yellow or red appears on the output field terminals to the signal heads. Accomplish programming with simple tools such as a screwdriver. Conform the sequence timing for flash by automatic call-up with the MUTCD.

B.9 Load Switches

Furnish eight 3-circuit load switches, discrete type, with each cabinet. The load switch panel shall have a bracket support for its full length and extending out 8½ inches from the panel socket. The bracket support is intended to reduce switch loosening from vibrations and to prevent switches from falling down if disengaged from the socket.

B.10 Harness Wiring

The wiring and cabinet panel arrangement shall provide for full dual ring eight phase actuated operation. A 12-channel conflict monitor harness shall be supplied and wired in each cabinet. All cabinet wiring harnesses shall be neat, firm and routed to minimize crosstalk and electrical interference. Loop harnesses shall be routed to the right (hinge) side of the cabinet and attached up to shelf level to avoid harnesses dangling in front of the door.

Wiring containing AC shall be routed and bundled separately from all low voltage control circuits. Fuses and surge protection shall be furnished for all interconnect circuits. All conductors and live terminals or parts, which could be hazardous to maintenance personnel, shall be covered with suitable insulating material.

B.11 Terminal Blocks

Terminal block connections shall be a minimum of 8 inches from the bottom of the cabinet. The terminal blocks provided shall be two-position barrier type. Terminal blocks shall be so arranged that they shall not upset the entrance, training and connection of incoming field conductors. All terminals shall be clearly identified and shall be permanently associated with the terminal block.

Terminal blocks used for field wiring connections (field terminals) shall be capable of securing conductors with 10-32 or larger nickel or cadmium plated brass binder head screws.

Terminal blocks used for the applied AC power shall be capable of securing conductors with a 10-32 nickel or cadmium plated brass binder head screws.

There shall be field terminal blocks provided for the connection of all loop detectors. Where a card rack is required, terminal blocks to accommodate 16 detector channels shall be provided.

B.12 Detectors Card Rack

The detector card rack shall provide four slots for four-channel detectors (a total of 16 detector channels) and a power supply slot. The card rack shall have flanges turned out. The card rack shall be fully wired and connected to cabinet terminals 1 through 16. Terminals 1 through 8 shall be associated with vehicle phases 1 through 8, respectively. A four-channel power supply shall be supplied with per-channel fusing and output indicators for each channel. The card rack shall be mounted on the top shelf, left side as one looks into the cabinet.

B.13 Detectors

The cabinet shall contain four 4 channel digital loop detector amplifiers approved for use by City of Madison Traffic Engineering and shall have at the minimum the following characteristics: Rack mount design, 2-inch maximum width for front panel. User selection for the following must be available on the front panel without requiring auxiliary devices:

- Pulse or presence
- Sensitivity, minimum of 6 levels
- Sequentially scan channels or other suitable means to reduce crosstalk
- Display detection and faults for each channel
- Self tuning

B.14 Power Panel

The cabinet shall have a power distribution panel containing the following elements:

- Surge protection provided by use of a varistor or other suitable equipment.
- Two 30 amp Radio Interference Suppressors.
- 50 amp single pole Main Breaker followed by dual 30 amp Main Circuit Breakers with single common trip.
- 15 amp Auxiliary Equipment Circuit Breaker.
- Two 30 amp Power Relays (Mercury Contactors).
- Neutral Bus Bar Isolated from Cabinet Ground.
- Ground Bus Bar.
- EDCO SHP 300-10 Power Line Surge Protector.

The mercury contactor shall be normally open and capable of switching 30 amperes at 120 volts AC.

A neutral bus terminal shall be provided with at least 14 terminals of the tubular clamp type able to accept up to #4 stranded wire.

B.15 Police Panel

The main door of the cabinet shall have a police panel door. Behind this door shall be a panel with a minimum of a toggle switch labeled "SIGNALS ON-OFF" and a toggle switch labeled "SIGNALS FLASH-AUTO." The signals on-off switch shall cause all intersection displays to be turned off and the controller AC power to be removed when placed in the off position.

In the flash position, the signals flash switch shall cause the intersection to be placed in flashing position and the controller shall stop time.

B.16 Maintenance Panel

Provide a maintenance panel on the inside of the main door containing the following:

- GFCI duplex convenience outlet.
- Stop time switch.
- Controller on/off switch.
- Vehicle and pedestrian detector actuation test push buttons.
- Incandescent light switch.

The stop time switch shall be a three-position toggle switch labeled ON, OFF, and AUTO. In the ON position, stop timing power shall be applied to the controller. In the OFF position, stop timing shall be removed from the controller if it has been applied by the conflict monitor or other auxiliary device. The AUTO position shall be the normal operating position and allow auxiliary devices to apply stop timing inputs to the controller. The conflict monitor shall be wired through the stop time switch such that when in the AUTO setting and a conflict is detected, stop timing shall be applied to the controller.

The controller switch shall be a two-position toggle switch labeled ON and OFF. In the OFF position, the intersection shall be placed in flashing operation and the controller turned off.

There shall be a detector test push button or toggle switch for each vehicle and pedestrian phase. These shall be located to preclude accidental activation when the door is closed.

B.17 Pedestrian Button Wiring

Pedestrian push button logic shall be opto-isolated such that there will be no logic common carried out to each individual push button. The AC- from the field pedestrian push button shall activate the opto-isolated pedestrian push button relays when the field button is activated.

B.18 Testing, Labeling and Wiring Diagram

The contractor shall thoroughly test the cabinet wiring and auxiliary devices with a controller and monitor (if the harness is to be furnished by the manufacturer) in place. All equipment furnished in the cabinet shall be clearly and permanently labeled. A good reproducible 24 inch by 26 inch mylar wiring diagram shall be supplied to the City of Madison.

B.19 Warranty

Warrant the fully-wired cabinet to meet the requirements of this specification, and warrant all wiring parts, components, and appurtenances against defects in design, material and workmanship for a period of one year from the date of installation. In the event defects and failures become apparent during this time, the contractor shall repair and/or replace all defective parts or appurtenances at no additional expense to the City of Madison. This specification is to construe that any part, or parts, that fail to function properly shall be replaced at no charge to the City of Madison.

B.20 Cabinet Design for City Review Before Manufacturing.

The contractor shall supply the City of Madison with a complete set of plans for the cabinet for review before manufacturing the cabinet. After City of Madison approval of the design as received or as modified by joint agreement between the City of Madison and the contractor, the cabinets shall be wired according to the approved design and specifications. The City of Madison will complete its review within five working days from receipt of the cabinet design.

C (Vacant)

D Measurement

The department will measure Traffic Signal Control Cabinet as each individual traffic signal control cabinet, acceptably completed and delivered to the City of Madison.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.20	Traffic Signal Control Cabinet	Each

Payment is full compensation for furnishing and delivering all materials to the City of Madison, 1120 Sayle Street.

85. Pull Box Type I, Item SPV.0060.21; Type III, Item SPV.0060.22; Type V, Item SPV.0060.23.

A Description

Perform work in accordance to the applicable provisions of standard spec 653 and as detailed in the plans.

B Materials

Provide Pull Box Type I that are gray colored polymer concrete construction. Provide box dimensions for Type I of 19 inches wide, 32 inches long, and 24 inches deep, and with a cover rated to withstand 15,000 pounds over a 10-inch square with a minimum test load of 22,568 pounds.

Provide Pull Box Type III that are high-density polyethylene box and concrete polymer lid or concrete polymer construction for box and lid. Provide box dimensions for Type III of 12 inches wide, 12 inches long and 12 inches deep. The Type III box and polymer cover must be rated to withstand 20,000 pounds.

Provide Pull Box Type V that are gray colored polymer concrete construction. Provide box dimensions of 24 inches wide, 36 inches long, and 24 inches deep. The box and cover must be rated at 15,000 pounds over a 10-inch square.

Provide each cover with the logo “TRAFFIC SIGNAL” imprinted on it from the manufacturer.

C (Vacant)

D Measurement

The department will measure Pull Box (Type) as each individual pull box, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.21	Pull Box Type I	Each
SPV.0060.22	Pull Box Type III	Each
SPV.0060.23	Pull Box Type V	Each

Payment is full compensation for providing and installing all materials including coarse aggregate; and for excavating, backfilling, and properly disposing of surplus materials.

86. Decorative Light Pole and Luminaire, Item SPV.0060.24.

A Description

This special provision describes furnishing and installing decorative street lighting in accordance to the applicable provisions of standard spec 659 and as detailed in the plans.

B Materials

Provide a Sheppard’s Crook – type tapered aluminum pole with banner arms, festoon outlet and a two piece cast aluminum base cover.

All mounting height dimension listed below are referenced from the bottom of the pole.

Provide light poles meeting the following requirements.

1. Provide poles constructed of Aluminum Alloy 6063-T6, with a nominal material thickness of 0.188 inches.
2. Provide a pole base having an outside diameter of 8 inches and incorporate a 0.14 IN/FT taper. Provide a 11.25 inch base flange constructed of 356-T6 Aluminum Alloy with bolt covers and stainless steel Hex. Hd. Screws.
3. Form the pole with 16 flutes.
4. Provide a slotted bolt opening capable of accepting 11 inch – 12 inch bolt circle.
5. Provide a pole height of 26 FT, with a fixture mounting height of 24.5 FT. Provide a 1.25 inch conduit coupling for fixture mounting.
6. Equip the pole with two 1 inch aluminum schedule 40 pipe banner arms that are 2 feet in length. Position the banner arm 180 degrees from the fixture mounting hook. Mount the banner arms at 12 feet and 16 feet. Provide stainless steel mounting hardware for all banner arms.

7. Provide a festoon outlet mounted at 15 feet. Recess the festoon outlet in the pole. Weld the junction box to the exterior of the pole. Provide a festoon outlet rated for 20 amps at 120 volts. Provide a receptacle being industrial grade model 5362-A as manufactured by Pass and Seymour, or equivalent model by Leviton or Cooper, or equal. Provide a NEMA 4X cover model. Locate the festoon outlet 90 degrees from the fixture mounted hook such that it is not visible from the on coming traffic.
8. Mount the light pole hand-hole at 18 inches. Fit the hand hole cover with a recessed junction box. Weld the junction box to the cover. Provide a GFI circuit interrupter within the junction box for GFI protection of the festoon outlet mounted above. Provide a GFI circuit interrupter model 2085W as manufactured by Pass and Seymour, or equivalent by Leviton or Cooper, or equal.

Cover the base of the light pole with a decorative two piece cast aluminum base cover. Flute the base cover to match light pole construction. Provide a base cover that is 2.97 feet in height and that has a base diameter of 20 inches. Provide a base cover with a 6 inch by 5 inch access door to access the light pole hand hole without removing the base cover. Provide stainless steel for all base cover mounting hardware.

Provide each light pole with the following mounting hardware.

1. Four 1 inch – 8NC Galvanized steel anchor bolts, AASHTO M314-90 Grade 55, 10 inch of threaded End Galv. Per ASTM A153.
2. Eight 1 inch - 8NC Galv. Steel Hex. Nuts
3. Four 1 inch – Galv. Steel Lockwashers
4. Eight 1 inch – Galv. Steel Flatwashers

Provide a pole luminaire that is a 160 watt LED, dropped lens, and Type III light distribution.

Provide a pole luminaire meeting the following requirements.

1. Fixture shall be equipped with LED lamping and provide IENSA Type III, medium, photometric distribution pattern.
2. LED lamping shall have a color temperature of 4500K.
3. Initial delivered lumens shall be minimum 9560 lumens.
4. All mounting hardware shall be stainless steel.
5. Provide labels indicating wattage, voltage, and a wiring diagram inside each luminaire housing.
6. Furnished a closed type optic assembly with permanently resilient gaskets, constructed to maintain an effective seal against moisture and other contaminants. Provide suitable screens at the slipfitter opening to deter insect nesting.
7. Each fixture shall have a leveling device that is visible from the roadway. Use a leveling device that indicates both longitudinally and transversely if the optical assembly is level.

8. Fixture weight shall not exceed 80 pounds. Effective Projected Area (EPA) shall not exceed 1.65 square feet.
9. Fixture shall utilize long-life LED sources with a minimum of 75 CRI.
10. LED Drivers
 - a. Drivers shall be Class 1 and operate on a universal 120-277 volt, 50/60 Hz input. Input wattage shall not exceed 160 watts.
 - b. Drivers shall have a power factor greater than 90% and a Total Harmonic Distortion (THD) less than 20%.
 - c. Drivers shall have an integral surge suppressor rated up to a minimum of 10 kV. Surge protection shall be tested in accordance to IEEE/ANSI C62.41.2.
 - d. Drivers operating temperature range shall be -40°F to 122°F.
11. Fixture shall carry a seven year warranty including labor allowance.

Provide light pole model SKTB031708C as manufactured by Hapco. Provide light pole luminaire model 1914LED/A/RLM431/8A1R45T3/HS-V(MOD)/BLACK as manufactured by Sternberg.

C Construction

Construct poles in accordance to the applicable provisions of standard spec 659.3.

D Measurement

The department will measure Decorative Light Pole and Luminaire as each individual decorative light pole and luminaire, 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.0060.24	Decorative Light Pole and Luminaire	Each

Payment is full compensation for furnishing, assembling, and installing light poles and luminaires; and for assembly and installation of components.

87. Pole 20-Foot, Black, 7 Gauge, Item SPV.0060.25; Pole 30-Foot, Black, 11 Gauge, Item SPV.0060.26.

A Description

This special provision describes furnishing and installing poles and arms in accordance to standard spec 657, the details shown on the plans, and these special provisions.

B Materials

All poles shall be round, with a base plate welded to the bottom end of the pole. All poles are to be a single section, with an eight-inch diameter shaft at the base and 0.14 inches per foot taper.

Base plates shall have a slotted opening for anchor bolts.

All 30-foot poles shall be designated to withstand a 90 mile per hour sustained wind velocity and 117 mile per hour gust velocity with the bracket arm and luminaire in place.

All 20-foot 7 gauge poles will be used for supporting aluminum trombone arms holding signs and/or signal heads.

A 4" x 6-1/2" galvanized handhole shall be provided with contoured or flat cover plate joined to the reinforced handhole frame with two bolts. The handhole shall be located 90° clockwise from the bracket arm side of poles as viewed when looking down from the top of the pole. The center of the handhole shall be 14 inches from the bottom of the pole. A solid metal bracket, with a drilled and tapped hole, shall be provided for securing cover plate bolts. Clips for holding these bolts is not acceptable. The machine bolts shall be a slotted hex-head style.

The pole shaft shall be fabricated from the herein specified manufacturer's best grade, hot rolled basic open hearth, or basic oxygen process steel. The shaft shall have only one longitudinal, electrically welded joint, with the strength rated at not less than 100 percent of the yield strength of the steel and shall have no intermediate horizontal joints or welds. Only one length of steel sheet shall be used, and it shall be formed into a continuously tapered shaft, having a taper of approximately 0.14 inches per foot. The weld shall be smooth, allowing the specified taper to be constant. The pole shall be within 1/4" in 10 feet of being straight and centered on its longitudinal axis.

A grounding nut or nut holder for accommodating a 1/2 inch x 13 UNC threaded bolt or stud shall be provided on the inside of the shaft immediately opposite the center of the handhole. The nut shall be completely free of any metal residue that would prevent a bolt from easily screwing entirely into the nut.

All poles holding LED fixtures shall have mounting and wire raceway holes placed before being hot-dipped galvanized. Coordinate mounting needs with the LED luminaires selected for the project prior to ordering poles.

A pole-top cover and four nut covers shall be furnished and installed for each pole. Each steel pole shall have a permanent imprinted metal label attached with rivets midway between the base plate and the handhole. The label shall state the overall pole height, shaft gauge, and year of manufacture. The label shall conform to the curvature of the pole and not have any sharp edges or corners. All rivets shall be smooth inside and outside of the pole.

After all welding has been completed, the exterior surface of the pole, arm, and hardware shall be thoroughly cleaned and shall be free of all loose rust, mill scale, dirt, oil, grease, and other foreign substances. The poles and arms shall be hot-dipped galvanized in accordance to the requirements of ASTM Designation A123. The hardware shall be hotdipped galvanized in accordance to ASTM Designation A153. The galvanized finish shall be bright, shiny, and uniform. Matted or dull pole sections will not be accepted. The

minimum paint system shall be the manufacturer's best paint system, using prime and finish paint, subject to City of Madison review and approval. The paint system chosen shall result in a durable weather-resistant paint well adhered to the pole and suitable for streets with heavy salting and the resulting salt spray from passing vehicles traveling at speeds averaging 40 mph. The manufacturer's warranty on paint finish shall be identified. No warranty less than five years will be accepted. The black finish paint color shall be RAL 9004 with 80% gloss.

Furnish non-shrink commercial grout from approved products list.

C Construction

Conductors to the luminaire shall be two No. 12 solid annealed copper, UF, 600 volt, as manufactured by General Cable, Anaconda, Rome, Kaiser, or approved equal. On all systems, the phase wire at the pole handhole shall have a secondary in-line fuse assembly, Series 64, as manufactured by Elastic Stop Nut Corporation of America, Buss Tron HEB-AA fuseholder, or approved equal, with a Bussmanteype FNM or FNQ fuse, 5.0 amp for Lighting Fixture Type-A luminaires.

Do not splice the phase wire between the fuse assembly and luminaire. A sufficient length of No. 12 conductor shall be installed in the pole to permit removal of this fuseholder through the handhole before disconnecting. A 24" length of #12 THHN Stranded Conductor tail shall be installed to supply wires permitting easy removal of fixture wires and fuse holder through the handhole.

A tail of #4 wire from the neutral conductor splice shall be grounded to each ground rod and metal street light pole.

Electrical splices and connections shall be electrically secure and made with pressure or compression fittings as manufactured by Thomas & Betts, Burndy, 3-M (scotch lock brand) or approved equal and used as recommended by the engineer. Taps and splices shall be protected in the following manner: all wire connections shall be coated with No-Lox Compound; taps and splices made with irregularly shaped connectors shall first be built up with insulating material, "Air Seal" #18415 manufactured by Kearney or approved equal; all sharp corners and voids shall be filled; over this, install 3 half lapped layers of rubber electrical tape, dielectric strength, 300 volts per mil - self vulcanizing tape, installed as per manufacturer's instructions; over this, apply 3 half lapped layers Scotch Brand 33 Plus or approved equal, vinyl plastic electrical tape; then dip the entire splice 1" beyond the insulating material in Scotch-Kote or approved equal. The constructed splice shall be allowed to air dry completely before insertion into the street light pole. All wires leaving the splice shall be in one direction. Split bolts, when used, shall be hammered and retightened three times and a spacer shall be provided between any copper and aluminum conductors.

The lighting units shall be connected with the underground cable and shall provide a complete, operational system when finished.

Metal poles shall be set and plumbed with the use of leveling nuts furnished with the anchor bolts. Luminaries shall be leveled after erecting and leveling the metal standards instruction manual. Nuts on anchor and transformer bolts shall be torqued to 175-200 foot pounds or as directed by the engineer. Rust, corrosion, and anti-seize protection shall be provided at all threaded assemblies by coating and mating surfaces with Markal (hightemp – E-Z Break), Never-Seez (Marine Grade), LPS 100, Lubriplate, or approved equal.

The stranded copper ground wire that is installed as a part of base construction shall be attached with an approved connector (Fargo GC 202 or approved equal) to a ground nut locate inside the pole opposite the handhole.

When transformer bases are not installed, grout shall be troweled between the pole and concrete base and finished at an angle from the edge of the pole base to the outer edge of the foundation. A ½ inch slot for drainage shall be left through the grouting on the street side at the top of the concrete base.

D Measurement

The department will measure Pole (description) 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.0060.25	Pole 20-Foot, Black, 7 Gauge	Each
SPV.0060.26	Pole 30-Foot, Black, 11 Gauge	Each

Payment is full compensation for furnishing and installing all materials, including poles, pole wire, all hardware and fittings necessary to completely install the pole; for corrosion prevention when required; and for installing identification plaques when required.

88. Monotube Pole, Type 12, Black, Item SPV.0060.27; Monotube Arm, 35-Foot, Black, Item SPV.0060.28.

A Description

This section describes furnishing and installing poles and monotube arms for traffic signals.

B Materials

Design support structures, consisting of poles and arms, conforming to the completed maximum loading configurations and to AASHTO design and fabrication standards for structural supports for highway signs, luminaires, and traffic signals. Use a design life of 50 years. Design to withstand a 3 second gust wind speed of 90 mph.

Along with the materials list, submit a certificate of compliance certifying that poles as furnished, conform to the above structural performance requirements. Ensure that the certificate of compliance is on the manufacturer's letterhead, signed by an authorized company officer, and notarized. Send a copy of the certificate and a copy of the pole shop drawings to the engineer. Furnish poles from an approved manufacturer.

Furnish shop drawings as specified in standard spec 506.3.2, except submit 5 copies with the materials list. Ensure the drawings contain sufficient detail to allow satisfactory review and show the outside diameters of the pole at the butt, top, and splice locations the plans show.

Show the width, depth, length, and thickness of all material, and list all pertinent ASTM specification designations and metal alloy designations together with the tensile strength of all metallic members.

After completing the manufacturing process, ensure that all shafts a nominal 40 feet or less in length for lighting poles only, are round, of one-piece construction, and of the specified length.

Construct poles of materials having sufficient rigidity that, with all material installed and in place as the plans show, the centerline of the shaft is vertical. Include dampers for poles as needed. If the engineer determines that vibration is a problem after a pole has been installed, install dampeners as the engineer directs.

After all welding has been completed, the exterior surface of the pole, arm, and hardware shall be thoroughly cleaned and shall be free of all loose rust, mill scale, dirt, oil, grease, and other foreign substances. The poles and arms shall be hot-dipped galvanized in accordance to the requirements of ASTM Designation A123. The hardware shall be hotdipped galvanized in accordance to ASTM Designation A153. The galvanized finish shall be bright, shiny, and uniform. Matted or dull pole sections will not be accepted. The minimum paint system shall be the manufacturer's best paint system, using prime and finish paint, subject to City of Madison review and approval. The paint system chosen shall result in a durable weather-resistant paint well adhered to the pole and suitable for streets with heavy salting and the resulting salt spray from passing vehicles traveling at speeds averaging 40 mph. The manufacturer's warranty on paint finish shall be identified. No warranty less than five years will be accepted. The black finish paint color shall be RAL 9004 with 80% gloss.

Provide a reinforced hand hole measuring 5 inches by 8 inches. Locate the hand hole approximately 18 inches from the bottom of the pole base plate to the center of the door. For the hand hole, include an access cover mounted to the pole by two 1/4" -20 x 3/4" hex-head stainless steel bolts.

Provide a grounding lug complete with mounting hardware as required, inside the pole, 180-degrees from the handhole side of the pole

Provide access to the grounding L-clip from the hand hole. Before galvanizing the pole, weld the grounding L-clip directly opposite the hand hole on the inside wall of the pole. Equip the top of the pole shaft with a removable, ventilated cap held securely in place by at least one 1/4" -20 x 3/4" hex-head stainless steel set screw.

Ensure that all castings are clean, smooth, and with all details well defined and true to pattern.

Attach base plates firmly to the pole shaft by welding or other approved method. Each steel pole shall have a permanent imprinted metal label attached with rivets midway between the base plate and the handhole. The label shall state the shaft length, manufacturer's name, and year of manufacture. The label shall conform to the curvature of the pole and not have any sharp edges or corners. All rivets shall be smooth inside and outside of the pole.

Monotube arms shall have:

- A mounting device welded to the pole end of the monotube arm that allows the attachment of the arm to a pole
- Stiffeners or gussets if required between the arm tube and the arm mounting device to provide adequate strength to resist side loads
- A wiring raceway

C Construction

Under each bid item, furnish and install poles, ventilated pole caps, arms, and all necessary miscellaneous hardware needed to complete the installation of the poles and arms.

Install dampeners as the plans show and for poles and arms used in configurations susceptible to vibration. If the engineer determines that vibration is a problem after a pole and arm has been installed, install dampeners as the engineer directs.

After completing erection using normal pole shaft raking techniques, ensure that the centerline of the shaft is vertical.

D Measurement

The department will measure Monotube Pole, Black Type 12, and Monotube Arm, Black (Length) 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.0060.27	Monotube Pole, Type 12, Black	Each
SPV.0060.28	Monotube Arm, 35-Foot, Black	Each

Payment is full compensation for furnishing and installing all materials.

89. Traffic Signal Trombone Arm, Black, Aluminum 18-Foot, Item SPV.0060.29.

A Description

This special provision describes furnishing and installing trombone mast arms and all necessary miscellaneous hardware needed to complete the installation of the trombone mast arm as shown on the plans, in the standard specifications, and as hereinafter provided.

B Material

The traffic signal trombone arm shall be designed to withstand loadings resulting from a 12" 3-section aluminum signal with backplate and an 18" x 90" aluminum street name sign mounted on the arm as shown on the drawing. Design factors in accordance to the AASHTO Specifications for the Design and Construction of Structural Supports for Traffic Signals, Signs, and Highway Lighting, together with a wind pressure resulting from a wind velocity of 80 miles per hour plus gust factor, shall be applied to these arms, with the above signals attached.

Certification of compliance with these stated AASHTO performance requirements shall be furnished with submission of the material list.

Shop drawings shall be submitted and shall include dimensions of width, depth, length and thickness of all members and ASTM designation and alloy designation of aluminum members.

The trombone arm shall be aluminum and shall consist of round or oval upper and lower members joined by one or more tubular vertical struts welded to them. The pole end of the mast arm shall have a mounting clamp welded to it which will permit the attachment of the mast arm to a round pole of varying diameter. The lower clamp shall be 5-7/8" I.D. and the upper clamp shall be 5-1/2" I.D. The design of the clamps shall accommodate some variation in pole diameter while still attaining full contact between the clamp and the pole. The surface area of the clamp contacting the pole shall be sufficiently large and designed to prevent horizontal rotation in windy conditions. The bolts connecting the arm bracket to the back bracket shall be galvanized steel; stainless steel bolts are not acceptable. The vertical strut, which has provision for mounting the signal head, shall also provide for horizontal adjustability along the main mast arm members so that signal heads of various lengths with backplates, up to and including 5-section 12" heads, can be accommodated within the confines of the mast arm. The cross tees for signal heads shall each have two slots on the threaded hubs that face each other.

The wiring raceway entrance shall be through the lower mounting bracket.

The mast arm shall have a uniform natural aluminum finish and shall be clean. The minimum paint system shall be the manufacturer's best paint system, using prime and finish paint, subject to City of Madison review and approval. The paint system chosen shall result in a durable weather-resistant paint well adhered to the arms and suitable for

streets with heavy salting and the resulting salt spray from passing vehicles traveling at speeds averaging 40 mph. The manufacturer's warranty on paint finish shall be identified. No warranty less than five years will be accepted. The black finish paint color shall be RAL 9004 with 80% gloss.

The portion of the main members of the arm to which the arm attachment bands are welded shall be one piece seamless tapered aluminum tubes.

The main arm member shall be attached to the pole using extruded aluminum clamps fastened with continuously threaded stainless steel bolts with nuts and washers meeting the requirements of ASTM Designation A-320. Strength and/or grade specification ratings shall be listed on the shop drawings. Stiffeners or gussets shall be provided at the joints between the main arm tubes and arm clamps to provide adequate strength to resist side loads.

Shims shall be made of an aluminum alloy.

A permanent imprint of the "Type" and "Year of Manufacture" shall be made on the underside of the lower member of each arm.

C (Vacant)

D Measurement

The department will measure Traffic Signal Trombone Arm, Black, Aluminum (Length) 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.0060.29	Traffic Signal Trombone Arm, Black, Aluminum 18-Foot	Each

Payment is full compensation furnishing and installing all materials including all hardware, fittings, mounting clamps, shims and attachments necessary to completely install the mast arm.

- 90. Concrete Base Type G, Item SPV.0060.30; Type LB-3, Item SPV.0060.31; Type LB-8, Item SPV.0060.32; Type M, Item SPV.0060.33; Type P, Item SPV.0060.34.**

A Description

Perform work in accordance to the applicable provisions of standard spec 654 and as detailed in the plans.

B Materials

Concrete masonry shall be Grade A, A-WR, A-FA, or A-IP conforming to the requirements of standard spec 501.

Conduit cast within the bases shall be Schedule 40 polyvinyl chloride (PVC) electrical conduit and shall conform to the requirements of standard spec 652.

Anchor bolts for Type G bases shall be made from high-strength steel 50 KSI minimum yield strength, ASTM A36, and each shall be fitted with a hard washer and heavy hex nut. Each bolt shall have approximately 3 inches or more of thread at the top end. The bolts, washers, and nuts shall be galvanized. Bolts shall be $\frac{3}{4}$ " x 24".

Anchor bolts for Type LB-3 and Type LB-8 bases shall be made from high strength steel (50 KSI minimum yield strength), ASTM A36, and each shall be fitted with two hard washers and two heavy hex nuts. Each bolt shall have approximately 6 inches or more of thread at the top end. The bolts, washers, and nuts shall be galvanized. Bolts for the LB-8 base shall be 1.25 inch by 48 inch, including 4 inch L-bend at the bottom. Bolts for the LB-3 base shall be 1.00 inch by 40 inch including 4 inch L-bend at the bottom.

The Type P and M bases shall include a concrete maintenance platform. The Type P and Type M bases shall generally be constructed in accordance to the Concrete Control Cabinet Base Standard Detail. The location of the conduits in the base shall be confirmed with the City of Madison. Anchor bolts, nuts, and washers for Concrete Controller Base, Type P, will be provided and installed by the City of Madison when installing signal control cabinets. Bar steel reinforcement shall conform to the requirements of standard spec 505.

C Construction

The bases shall be placed with one side parallel to the centerline of the street.

Forms shall be of sufficient depth to provide a minimum of 12 inches of formed base below the finished grade on the low side of the base. The top surface of the base shall be level with a $\frac{3}{4}$ inch bevel on the edges and shall be given a rubbed finish.

Anchor bolts shall be cast into the base as shown on the plans. Bolt circle diameters shall be verified before constructing the bases.

Manufactured elbows shall be furnished and installed in all bases by the contractor, except as noted on the details. Elbows shall be installed to permit conduit to be installed in as nearly straight-line runs as possible, without unnecessary bends. Bases not installed to this standard will not be accepted. Existing conduit shall be extended into the bases.

Elbows shall conform to the requirements of the type of conduit entering the base. Each base at the end of a run shall have an extra elbow installed as directed by the engineer.

Extra elbows shall also be installed in any base as directed by the engineer.

Poles shall not be erected on the concrete bases until the bases have cured for at least seven days.

All concrete bases shall require a rubbed finish down to finished grade.

D Measurement

The department will measure Concrete Base (Type) as each individual concrete base, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.30	Concrete Base Type G	Each
SPV.0060.31	Concrete Base Type LB-3	Each
SPV.0060.32	Concrete Base Type LB-8	Each
SPV.0060.33	Concrete Base Type M	Each
SPV.0060.34	Concrete Base Type P	Each

Payment is full compensation for furnishing and installing all materials including conduit, bushings, caps and/or plugs, ground rod, anchor bolts, cadwelding, copper grounding wire; bar steel reinforcement, and concrete masonry; for providing openings through existing pavement where required; and for excavation, including hand-digging as required, backfill, and proper disposal of surplus materials.

91. Traffic Signal Master Controller, Item SPV.0060.35.

A Description

This special provision describes furnishing a traffic signal master controller with auxiliary equipment to the City of Madison.

B Materials

Furnish the following:

- Econolite ASC/2M-1000 with HTR, data key, and ethernet
- Two FSK TLM 25 pin modules for this controller
- Two Econolite TIO boards with harnesses
- FSK Telemetry Harness, 25 pin

C (Vacant)

D Measurement

The department will measure Traffic Signal Master Controller by each individual unit, acceptably completed and delivered to the City of Madison.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.35	Traffic Signal Master Controller	Each

Payment is full compensation for furnishing and delivering the signal master controller, and all auxiliary equipment, to the City of Madison, 1120 Sayle Street.

92. NEMA-Plus Conflict Monitor, Item SPV.0060.36.**A Description**

This special provision describes furnishing a NEMA-Plus 12-Channel Conflict Monitor to the City of Madison.

B Materials

Furnish a NEMA-Plus 12-Channel Signal Conflict Monitor, with LCD display, and a Ejector Tab card release on side of card.

C (Vacant)**D Measurement**

The department will measure NEMA-Plus Conflict Monitor by each individual unit, acceptably completed, and delivered to the City of Madison

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.36	NEMA-Plus Conflict Monitor	Each

Payment is full compensation for furnishing and delivering the conflict monitor to the City of Madison, 1120 Sayle Street.

93. Sanitary Manhole, Item SPV.0060.37.**A Description**

This work includes the construction of sanitary manholes consisting of precast reinforced concrete, adjusting rings, watertight joints, precast concrete base, precast reinforced concrete eccentric cone tops, steps, and all required excavation and granular backfill in accordance to the applicable provisions of standard spec 611, construction details on the plans.

B Materials

Provide minimum 4-foot inside diameter precast concrete manhole sections. Provide an eccentric type cone section with a minimum clear opening of 24 inch. Provide concrete with a compressive strength of 4000 psi and conforming to ASTM C478. Wall

thicknesses of manholes shall conform to ASTM C76 for Class B concrete tongue and groove joint pipe.

Install steps in all sewer manholes as shown on the construction details, Neenah Type R-1980-E, or equal. Space manhole steps at 16-inch O.C. with an allowable tolerance of 1 inch plus or minus. Embed steps into the riser or conical top section wall a minimum of 3 inches and provide a 6-inch projection from the wall.

Use rubber ring gasket material for manhole joints. Provide plastic gaskets that are preformed, made of high adhesion material, and packaged ready for use between protective paper strips conforming to Federal Specification SS-S-00210, Type I, Rope Form; Ram-Nek, Mas-Stik, or equal.

Make manhole connections for sanitary sewer mains using flexible, watertight connections, Kor-N-Seal, or equal, for sewers up through 18-inch diameter. Provide all other sanitary sewer manhole connections made with A-Lok, Kor-N-Seal, or equal.

Provide concrete with steel reinforcement adjustment rings in conformance with ASTM C-478 that are 4 inches in thickness. A maximum of 10 inch for adjustment is allowed. Multiple grade rings are not allowed where one will suffice.

C Construction

Construct concrete benches in the interior bottom of sanitary sewer manholes which are precast or poured-in-place in the field. Extend benches to the top of each pipe to a maximum height of 42 inch. Smooth flow lines and provide uniform curves to promote flow through the manhole.

Remove any horizontal surfaces on the inside side of the manhole floor. Shape the floor to drain into the floor channel.

Build up manholes so that the cover and lid when placed will be at the established required grade.

Use precast reinforced bases in lieu of cast-in-place bases. Place bases on a bed of material at least 6 inches in depth, which meets the requirements for granular backfill. Compact bedding material and provide uniform support for the entire area of the base.

Provide precast shop drawings to engineer prior to fabrication or installation.

D Measurement

The department will measure Sanitary Manhole 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.0060.37	Sanitary Manhole	Each

Payment is full compensation for furnishing all work herein specified; for furnishing all materials including masonry, sanitary sewer connections, steps and other fittings; and for furnishing all excavation, backfilling, disposal of surplus materials, cleaning out and restoring the work site. Sanitary manhole covers will be paid for at a separate unit price.

94. Sanitary Manhole Cover, Item SPV.0060.38.

A Description

The work consists of furnishing and installing the cover, adjusting rings, and external chimney seal as shown in the construction details on the plans.

B Materials

Provide ductile iron manhole covers meeting the Standard Specifications for Gray Iron Castings of the ASTM A48. Provide Neenah R1710 covers with machined frame, Type B solid lid, concealed pick holes, self-sealing gaskets, and nonrocking. Cast the word "SANITARY" into the lid for sanitary manholes.

Provide concrete adjustment rings with steel reinforcement in conformance with ASTM C-478 and a minimum of 4-inch in thickness. A maximum of 10-inch for adjustment will be allowed. Multiple grade rings will not be allowed where one will suffice.

Provide internal chimney seal made of a rubber-type product, with a minimum thickness of 3/16 inches, a minimum unstretched width of 8 inches and extruded or molded from a high grade rubber compound conforming to the applicable requirements of ASTM C923. Fabricate the bands used for compressing the sleeve against the manhole from stainless steel conforming to ASTM A240, Type 304, for sheet and ASTM A479, Type 304, for rods. Any screws, bolts, or nuts used on these bands are to be stainless steel conforming to ASTM F593 and F594, Type 304. The internal seal or its appurtenances are not to extend far enough into the manhole opening to restrict entry into or exit from the manhole.

Design manhole frame-chimney seals to prevent the leakage of water into the manhole at the area of the joint between the manhole frame and chimney continuously throughout a 20-year design life. The seal is to remain flexible, allowing repeated vertical movements of the frame because of frost lift, ground movement, or other causes of up to 2 inches and/or repeated horizontal movements of the frame because of thermal movement of the pavement or other causes of up to 1/2 inch, both rates of movement occurring at rates not less than 0.10 inch per minute. If the seal is an internal seal, it and its appurtenances are not to extend far enough into the manhole opening to restrict entry or exit from the manhole.

Provide seals made of only materials that have been successfully used in sanitary sewer construction for at least ten years and have proven to be resistant to sanitary sewerage; corrosion or rotting under wet or dry conditions; the gaseous environment in sanitary sewers and at road surfaces including common levels of ozone, carbon monoxide and other trace gases at the sites of installations; the biological environment in soils and sanitary sewers; chemical attacks by road salts, road oil and common street spillages or solvents used in street construction or maintenance; the temperature ranges, variations and gradients in and between manhole frames and chimneys in the climate of the location of construction; variations in moisture conditions and humidity; fatigue failure caused by a minimum of 30 freeze-thaw cycles per year; or vibrations because of traffic loadings; fatigue failure because of repeated variations of tensile, compressive and shear stresses and repeated elongation and compression; and any combination of the foregoing. The materials used are to be compatible with each other and the manhole materials.

C Construction

Install Sanitary Manhole Covers in accordance with the applicable provisions of standard spec 611.3.3 and 611.3.6 and as detailed in the plans.

D Measurement

The department will measure Sanitary Manhole Cover 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.0060.38	Sanitary Manhole Cover	Each

Payment is full compensation for furnishing new covers, including frames, grates or lids, adjusting rings, chimney seal, and all other required materials; and for furnishing all labor, tools, equipment and incidentals necessary for adjusting and installing each cover complete in accordance to the contract.

95. Gate Valve and Valve Box, 6-Inch, Item SPV.0060.39; 8-Inch, Item SPV.0060.40; 10-Inch, Item SPV.0060.41; 12-Inch, Item SPV.0060.42.

A Description

This work consists of furnishing and installing gate valves and valve boxes in accordance to Standard City of Monona Specifications, and as hereinafter provided.

B Materials

Provide valves manufactured in accordance to AWWA specifications C509. Design valves 12 inch and smaller for 200 psi working pressure. Provide valves having mechanical joint ends and clear water wall equal to the full nominal diameter of the valve. Valves are to be resilient wedged seated gate valves with nonrising stems, opening

by turning left and provided with 2-inch square operating nut with arrow cast in metal to indicate direction of opening.

Water valves are to be Clow, Mueller, or Waterous, open left. All valves are to have valve boxes, Tyler 6860 Series, or equal, cover marked "Water." Valve box length as required for depth shown on drawings.

Each valve must have manufacturer's name, pressure rating, and year of manufacture cast on body. Prior to shipping from factory, hydrostatically pressure test to equal twice specified working pressure.

C Construction

Construct all gate valves and valve boxes at locations shown on the drawings.

Support valve boxes with a gate valve adapter to eliminate any settling or shifting of the box. Install adapter in lieu of hardwood bricking. Installing gate valve adapter is included in the payment for the valve and box installation.

D Measurement

The department will measure Gate Valve and Valve Box (Size) 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.0060.39	Gate Valve and Valve Box, 6-Inch	Each
SPV.0060.40	Gate Valve and Valve Box, 8-Inch	Each
SPV.0060.41	Gate Valve and Valve Box, 10-Inch	Each
SPV.0060.42	Gate Valve and Valve Box, 12-Inch	Each

Payment is full compensation for furnishing all materials, including gate valve, valve box, valve support, water main connections, and other fittings; and for furnishing all excavation, backfilling, disposal of surplus material, cleanup, and restoring site of work.

96. Hydrants, Item SPV.0060.43.

A Description

This work consists of furnishing and installing hydrants in accordance to City of Monona Standard Water Main Specifications and as hereinafter provided.

B Materials

Provide Waterous "Pacer," Model WB-67, open left hydrants with Pentagon operating nut, red in color, AWWA C-502 breakaway type with two 2 1/2-inch outlets and one 4 1/2-inch outlet with 16-inch break off section standpipe, meeting requirements of Standard City of Monona Specifications.

C Construction

Construct all hydrants at locations shown on the drawings.

Setting Hydrants. Locate hydrants as shown or as directed by the engineer and in such a manner that the possibility of damage from vehicles or injury to pedestrians will be minimized. Stand all hydrants plumb and have the pumper nozzle aligned as per the owner's direction. Set hydrants to the established grade, or as directed. Connect each hydrant to the main with a 6-inch lead controlled by an independent gate valve. Set the hydrant and 6-inch gate valve on hardwood blocking.

Where a hydrant is set in soil that is pervious, provide drainage at the base of the hydrant by placing coarse gravel or crushed stone mixed with coarse sand from the bottom of the trench to at least 6 inches above the waste opening in the hydrant and to a distance of 1 foot around the elbow.

Brace the bowl of each hydrant against unexcavated earth at the end of the trench with concrete backing. Block or approved mechanical joint lugged retainer glands may be used.

Set the elevation of breakaway flange at a minimum of 2 inches and a maximum of 4 inch above proposed grade.

Provide drain pocket at base of hydrant of 1 cubic yard of crushed stone or rock conforming to requirements of ASTM C33, Gradation Number 2.

Backfill and compact as specified for adjacent water main.

D Measurement

The department will measure Hydrants as each individual unit, acceptably completed.

E Basis of Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.43	Hydrants	Each

Payment is full compensation for furnishing and installing all materials; and for excavating, backfilling, making connections.

97. Lighting Fixtures Type-A, Item SPV.0060.44.

A Description

This special provision describes furnishing and installing Cooper fixture luminaires.

B Materials

B.1 General

Provide an integral ballast type, high pressure sodium vapor lighting unit. All parts not specifically mentioned, which are necessary and are regularly furnished in order to provide a complete unit, shall be furnished by the successful bidder at the bid price and shall conform in quality of material and workmanship to that usually provided by the engineering practice indicated in this specification.

Furnish luminaires of the “cutoff” type conforming to all general aspects for luminaires as specified under standard spec 659 except as modified herein.

All equipment to be furnished shall be new, unused, and the latest model being produced. The Type-A luminaires shall be a Cooper Lighting black LED Talon luminaire (part number “TLM-B06-LED-E1-SL3-BK”).

Mark information to identify the model, voltage, wattage, P.E.C. receptacle, and I.E.S. distribution of the luminaires on the outside of the shipping boxes. Catalog numbers are acceptable if all of the above information is coded therein.

B.2 Warranty

The manufacturer shall warrant that goods provided for this project will conform to applicable specifications, drawings, designs, samples, descriptions and will be free from defects in material and workmanship and will be fit for the particular purpose intended by the city.

This warranty shall remain in effect for one year. The warranty period commences on the date the luminaires are installed.

Under this warranty, the manufacturer agrees to replace within a reasonable time, any part, feature or product found to be defective during the warranty period at no cost to the City of Monona and/or City of Madison.

The manufacturer shall also pay the labor costs of such repair or replacement if three or more units develop or exhibit similar defects within the above described warranty period.

New lighting units will not be accepted before luminaires and lamps have operated without failure for a period of at least ten consecutive nights.

C Construction

Install Lighting Fixtures, Type A in accordance with the manufacturer recommendations.

D Measurement

The department will measure Lighting Fixtures Special (Type) as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.44	Lighting Fixtures, Type-A	Each

Payment is full compensation for furnishing and installing all materials, including luminaires and mounting hardware.

98. Relocating Hydrant, Item SPV.0060.45.**A Description.**

This work consists of extending the hydrant lead and relocating the hydrant as shown on the plans and hereinafter provided.

B Materials

Provide new hydrant lead pipe in accordance to the applicable provisions of the item Water Main Ductile Iron (DI), 6-Inch.

C Construction

Relocate hydrants in accordance to the applicable provisions of the items Water Main Ductile Iron (DI), 6-Inch, and Hydrants.

D Measurement

The department will measure Relocating Hydrant 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.0060.45	Relocating Hydrant	Each

Payment is full compensation for furnishing all materials; and for excavations, removal and relocating, appurtenances, connections, backfilling and compaction, disposal of materials, and cleanup.

99. Sanitary Sewer Access Structure (4-FT Diameter) - Madison Type, Item SPV.0060.46.**A Description**

Work under this item shall include installing 4-foot diameter Sewer Access Structures at the depths and locations shown on the plan set.

B Materials

All precast concrete sanitary Sewer Access Structures shall meet the requirements of Standard Detail Drawing 5.7.2, 5.7.15, and Article 507.3 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

Furnish and install Sewer Access Structure Frame and Cover in accordance to Standard Detail Drawing 5.7.16 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

C Construction

Install Sanitary Sewer Access Structures in accordance to Article 507.3 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

Maintain the normal flow of wastewater at all times during installation of the new sanitary Sewer Access Structure and when connecting pipes to the new structure. All bypass pumping, temporary piping, and/or temporary connections, which are required to maintain the normal flow of wastewater throughout construction, is considered incidental to this bid item.

D Measurement

The department will measure Sanitary Sewer Access Structure (4-FT Diameter) - Madison Type as each individual sanitary sewer access structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.46	Sanitary Sewer Access Structure (4-FT Diameter) - Madison Type	Each

Payment is full compensation for each Sanitary Sewer Access Structure satisfactorily installed in accordance to Article 507 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

100. Stone Veneer Wall, Item SPV.0060.47.**A Description**

This special provision describes furnishing and installing reinforced concrete walls with stone veneer and appurtenances.

B Materials

Furnish concrete per standard spec 501.

Furnish reinforcing steel per standard spec 505.

METAL LATH: Metal lath shall be self furring 2.5 lb/yd² and shall be galvanized. Metal lath shall conform to ASTM C 847 requirements.

METAL LATH FASTENERS: Metal lath fasteners shall be stainless steel powder actuated concrete nails with stainless steel washers. Provide sufficient length to penetrate 2-inches into concrete.

MORTAR: Furnish Mortar with a color of tan / buff. Mortar shall be Type S Portland cement-lime mortar with proportion restrictions as stated in the Wisconsin Commercial Building Code. Mortar and masonry cements will not be permitted. Provide integral waterproofing compound in mortar. Portland cement shall conform to ASTM C150, Type I or III. Hydrated lime shall conform to ASTM C207, Type S. Integral waterproofing compound shall be Dry-Block by W.R. Grace Company, or equal. Mortar aggregate shall consist of clean, sharp sand, conforming to ASTM C144. The sand shall be graded within the following limits:

Sieve Number	Percent by Weight Passing
4	100
8	95 to 100
16	70 to 100
30	40 to 75
50	10 to 35
100	2 to 15
200	---

Sand from any one source shall not vary over the extreme limits shown above. For unusually thin joints, such as occur with a unit having cut or ground edges, the aggregate used shall conform to these specifications except that 95% shall pass a No. 16 sieve. Water used in mixing water shall be clean and free of injurious materials. Mortar shall be thoroughly mixed until of uniform color and consistency. Only sufficient mortar to meet the immediate requirements of the work shall be mixed at one time. No mortar shall be retempered after it has begun to set, and no partially set mortar shall be used. No antifreeze materials shall be used in the mortar to lower the freezing point.

Furnish stone veneer and caps as supplied by:

- Fond Du Lac Stone, N 4224 Hwy. 175, Fond Du Lac, WI 54937;
- Valders Stone and Marble, 443 Quarry Road, Valders, WI 54245 or;
- Vetter Stone, 23894 Third Avenue, Mankato, MN 56001, or equal.

Provide stone with a minimum compression strength of 4000 psi. Veneer stone to be random ashlar pattern, rock face, color to be buff. All end pieces shall be "L" cut. Stone caps to be rock face, color buff.

Furnish fieldstone used for exterior masonry veneer, resistant to freezing and thawing and the local microclimate and suitable for this specific application. Provide fieldstone matching the desired shape, size and thickness indicated in the drawings and match the stonework on the Monona Drive Phase 1 (Broadway – Nichols Road) walls, Project

5994-00-70/73/74. Example stone veneer wall can be viewed at the intersection of Monona Drive and Acacia Lane.

Furnish corrugated wall ties.

Furnish weep vents. Color to match mortar.

Provide precast concrete panels for street designation text having a minimum compression strength of 4000 psi. Furnish color exactly matching Monona Drive Phase 1 (Broadway – Nichols Road) walls, Project 5994-00-70/73/74.

Furnish rubber templates for street designation text. Provide text font and size exactly matching the font and size on the Monona Drive Phase 1 (Broadway – Nichols Road) walls, Project 5994-00-70/73/74.

Furnish epoxy for street name lettering, color to be dark brown exactly matching the color on the Monona Drive Phase 1 (Broadway – Nichols Road) walls, Project 5994-00-70/73/74.

Furnish stainless steel pins.

C Construction

Install reinforced concrete walls and veneer stone as shown on the plans and as hereinafter provided.

Install lath horizontally with the cups up. Overlap horizontal and vertical seams a minimum of 1-inch. Install nominal 1/2-inch thick mortar scratch coat over lath. When mortar is thumb-print hard, scratch the surface horizontally to create the mortar scratch coat. Prior to the application of mortar to the scratch coat or limestone veneer, the surfaces should be moistened so that surfaces appear damp but without standing water. Install limestone veneer with the cut face roughened to +/- 1/4-Inch amplitude to the unexposed side. The back of each stone should be entirely buttered with mortar to a nominal thickness of 1/2-inch. Mortar joints shall be full 3/8-inch-thick and shall be completely filled. All joints shall be raked and tooled to a uniform depth. Do not install mortar if temperatures are below 40-degrees F. Limestone veneer pattern shall be random ashlar. Sand blast street designation letters over rubber templates.

Provide samples for veneer stone exhibiting extremes of the full range of color, size and other visual characteristics expected in the completed work; stone is subject to the engineer's approval. Samples will establish the standard by which stone provided will be judged.

Provide samples and/or product data for all other materials specified in this section; materials and colors are subject to the engineer's approval. Provide shop drawings along with samples for approval to engineer prior to fabrication of stone pieces or construction of any mockups.

Build a mockup of a typical wall area approximately 48 inches long by 53 inches high by full thickness of wall section, including face and backup accessories. Include mortared joints and veneer anchors in wall mockup. Approval of the mockup is for color, texture, and appearance of stone and precast concrete panels; relationship of mortar and/or sealant colors; tooling of joints; and aesthetic qualities of workmanship. The mockup is subject to the engineer's approval and will become the standard to which all work will be judged. If approved mockup is installed in place as shown on the drawings and undamaged at the end of construction it can become part of the completed work subject to the engineer's approval.

Install reinforced concrete walls and veneer stone as described herein and shown on the drawings. Sand blast street designation letters over rubber templates.

D Measurement

The department will measure Stone Veneer Wall as 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.0060.47	Stone Veneer Wall	Each

Payment is full compensation for providing and installing all materials necessary to provide each finished Stone Veneer Wall; for preparation of concrete surfaces; for furnishing and installing hardware; and for disposal of excess materials.

101. Bench, Item SPV.0060.48.

A Description

This special provision describes furnishing and installing benches and appurtenances.

B Materials

Furnish Victor Stanley Steelsites Series Steel Contoured Benches, RB-28. All metal components to be finished with T.G.I.C. polyester powder coating. Supply benches in 6-ft lengths with a color of black.

C Construction

Install benches per manufacturer's recommendations. Anchor the bench's rear and front legs into the concrete pad per manufacturer's recommendation and as detailed in the landscaping plan details. Shim the bench to maintain level. Provide shims that are powder coated steel, black in color.

Match construction materials and methods of Monona Drive Phase 1 (Broadway – Nichols Road), Project 5994-00-70/73/74.

D Measurement

The department will measure Bench as 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.0060.48	Bench	Each

Payment is full compensation for providing and installing all materials necessary to completely install each Bench; furnishing and installing hardware, and connectors; and for performing all mounting, leveling, proper disposing of surplus material and restoration.

102. Trash Receptacle, Item SPV.0060.49.**A Description**

This special provision describes furnishing and installing manufactured trash receptacles.

B Materials

Furnish Victor Stanley Production Series Trash Receptacle, PRS-36 with high density plastic liner. All metal components to be finished with T.G.I.C. polyester powder coatings, or equal. Supply trash receptacles in 28" diameter size with a color of black.

C Construction

Install receptacles using surface mounting method on concrete pads per manufacturer's recommendation and as shown on the landscaping plan details.

Match construction materials and methods of Monona Drive Phase 1 (Broadway – Nichols Road), Project 5994-00-70/73/74.

D Measurement

The department will measure Trash Receptacle as 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.0060.49	Trash Receptacle	Each

Payment is full compensation for providing and installing all materials necessary to completely install each Trash Receptacle; furnishing and installing hardware, and connectors; and for performing all mounting, leveling, proper disposing of surplus material and restoration.

103. Bulbs, Item SPV.0060.50.

A Description

This special provision describes furnishing and installing Bulbs at the locations and quantities indicated in the Plant Quantities Tables and in accordance to the requirements this section.

B Materials

Provide bulb naturalizing mix including a variety of at least 20 different naturalizing daffodils that provide a succession of blooming time from early to late spring, lasting 5-6 weeks. Acceptable mixes include:

- ‘Spring Loaded’ Daffodil Naturalizing Mix by Colorblends
- ‘Narcissus Grand Mixture’ Naturalizing Daffodil Mixture by Van Engelan, Inc.,
- ‘Sharpers Gold Medal Narcissus Mixture by John Sharpers, Inc.,
- Or alternate approved equal.

Provide bulb sizes of a minimum of 16-cm and conforming to the current edition of the American Standards for Nursery Stock for type, shape, size, and quality.

Provide top grade bulbs as determined by American Standard for Nursery Stock, current edition consisting of the following characteristics: firm and plump, and free of cuts, bruises and damage. Soft and/or shriveled bulbs may not be used. Store bulbs in a dry place at 60 to 65 degree F until planting.

C Construction

C.1 Planting Timing

If plant installation will be completed after September 15, the contractor can install bulbs as part of the plant installation.

If plant installation will occur before September 15, the contractor will be required to furnish and install bulbs the following growing season according to the schedule outlined in this Section.

Bulb Planting: Bulbs must be planted between September 15 to November 15. Bulb planting may or may not correspond to landscape plant installation timing. Bulbs may not be planted in spring, summer or at any other time period other than the specified period for Bulb Planting.

If the contractor fails to perform the bulb plantings as specified in this section and/or performs the plantings outside of the acceptable planting periods, the department will assess damages in the amount of \$10,000 to cover the cost of performing the work with other forces. The department will assess these damages if the contractor fails to install the bulbs during the first available fall planting season, except when the engineer extends the required time period.

C.2 Preparation

Ensure that Planting Mixture has been placed according to specifications.

Install bulbs as shown on the plans and details. Plant bulbs in massings of 12-18, no closer than 6" to the center of perennials.

Stake out location general of bulb clusters for approval by supervising engineer.

C.3 Planting

Take care not to disturb other plantings and/or irrigation during bulb planting operations and will be fully responsible for repairing and/or replacing plants or irrigation damaged during bulb planting.

Bulb Planting: Dig a single hole for each grouping of bulbs as indicated in the planting plan to a depth that is twice the length of the bulb itself; typically about 3 to 5 inches deep. Loosen the soil at the edges and bottom of the hole. Place bulbs securely in the hole with bud nodes (tips) pointing upward. Mix planting soil blend and fertilizer based on manufacturer's written instructions and fill hole with soil+fertilizer blend and finish to match adjacent soil grades. Lightly tamp the backfilled soil and apply mulch over the top of the planted area. Water bulb plantings only if the planting soil blend is extremely dry; do not soak bulbs. Never water directly into the hole after the bulbs are placed and before the planting soil is replaced.

The contractor will not be held responsible for re-planting bulbs after completion of the first installation.

D Measurement

The department will measure Bulbs as 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.0060.50	Bulbs	Each

Payment for Bulbs bid item are full compensation for providing, transporting, handling, storing, placing, and replacing plant materials; for excavating all plant holes, salvaging topsoil, mixing, and backfilling; for providing and applying all required fertilizer, mulch, water, rodent protection, herbicides and anti-desiccant spray; and for disposing of all excess and waste materials. Payment for Topsoil bid item used in planting will be as specified in standard spec 625 and SPV.0035.01, Planting Mixture.

- 104. Perennials, Carnation (Arctic Fire), CG, 1 Gal, Item SPV.0060.51; Chive, Ornamental (Pink Giant), CG, 1 Gal, Item SPV.0060.52; Chive, Ornamental (Summer Beauty), CG, 1 Gal, Item SPV.0060.53; Coneflower, Dwarf Orange (Little Suzy), CG, 1 Gal, Item SPV.0060.54; Switchgrass (Heavy Metal), CG, 1 Gal, Item SPV.0060.55; Coral Bells (Palace Purple), CG, 1 Gal, Item SPV.0060.56; Daylily (Little Business), CG, 1 Gal; Item SPV.0060.57; Daylily (Stella de Oro), CG, 1 Gal, Item SPV.0060.58; Feather Reed Grass (Karl Foerster), CG, 1 Gal, SPV.0060.59; Gayfeather, Spiked (Kobold), CG, 1 Gal, Item SPV.0060.60; Geranium (Biokovo Karmina), CG, 1 Gal, Item SPV.0060.61; Little Bluestem (The Blues), CG, 1 Gal, Item SPV.0060.62; Moor Grass (Autumn), CG, 1 Gal, Item SPV.0060.63; Switchgrass (Shenandoah), CG, 1 Gal, Item SPV.0060.64; Russian Sage (Little Spire), CG, 1 Gal, Item SPV.0060.65; Salvia (May Night), CG, 1 Gal, Item SPV.0060.66; Sedum (Autumn Fire), CG, 1 Gal, Item SPV.0060.67; Sedge (Blue Zinger), CG, 1 Gal, Item SPV.0060.68.**

A Description

This special provision describes furnishing and installing Perennial Plants at the locations shown on the plans and in accordance to the requirements of standard spec 632, the plans, and as hereinafter provided.

B Materials

Provide Perennial Plants, as shown on plan, and complying with American Standard for Nursery Stock (ANSI Z60.1-2004) for type, shape, and height.

Provide type B fertilizer.

C Construction

Ensure that Planting Mixture has been placed according to specifications.

Install Perennial Plants and mulching as shown on the plan and as per the Standard Specifications.

D Measurement

The department will measure Perennials 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.0060.51	Perennials, Carnation (Arctic Fire), CG, 1 Gal	Each
SPV.0060.52	Perennials, Chive, Ornamental (Pink Giant), CG, 1 Gal	Each
SPV.0060.53	Perennials, Chive, Ornamental (Summer Beauty), CG, 1 Gal	Each
SPV.0060.54	Perennials, Coneflower, Dwarf Orange (Little Suzy), CG, 1 Gal	Each
SPV.0060.55	Perennials, Switchgrass (Heavy Metal), CG, 1 Gal	Each
SPV.0060.56	Perennials, Coral Bells (Palace Purple), CG, 1 Gal	Each
SPV.0060.57	Perennials, Daylily (Little Business), CG, 1 Gal	Each
SPV.0060.58	Perennials, Daylily (Stella de Oro), CG, 1 Gal	Each
SPV.0060.59	Perennials, Feather Reed Grass (Karl Foerster), CG, 1 Gal	Each
SPV.0060.60	Perennials, Gayfeather, Spiked (Kobold), CG, 1 Gal	Each
SPV.0060.61	Perennials, Geranium (Biokovo Karmina), CG, 1 Gal	Each
SPV.0060.62	Perennials, Little Bluestem (The Blues), CG, 1 Gal	Each
SPV.0060.63	Perennials, Moor Grass (Autumn), CG, 1 Gal	Each
SPV.0060.64	Perennials, Switchgrass (Shenandoah), CG, 1 Gal	Each
SPV.0060.65	Perennials, Russian Sage (Little Spire), CG, 1 Gal	Each
SPV.0060.66	Perennials, Salvia (May Night), CG, 1 Gal	Each
SPV.0060.67	Perennials, Sedum (Autumn Fire), CG, 1 Gal	Each
SPV.0060.68	Perennials, Sedge (Blue Zinger), CG, 1 Gal	Each

Payment for Perennials bid item are full compensation for providing, transporting, handling, storing, pruning, placing, and replacing plant materials; for excavating all plant holes, salvaging topsoil, mixing, and backfilling; for providing and applying all required fertilizer, mulch, water, rodent protection, herbicides and anti-desiccant spray; and for disposing of all excess and waste materials. Payment for Topsoil bid item used in planting will be as specified in standard spec 625 and SPV.0035.01, Planting Mixture.

105. Sanitary Tap, City of Madison, Item SPV.0060.69.

A Description

Work under this item shall include the connection of a new lateral or main to an existing structure and the connection of an existing lateral or main to a new structure.

B Materials

The flexible watertight connector to be installed in the tapped hole shall be a Kor-n-Seal flexible connector, or approved equal in accordance to Standard Detail Drawing 5.2.3 of the City of Madison Standard Specifications for Public Works Construction - Latest Edition.

C Construction

Existing Pipe to New Structure

The contractor shall provide a flexible connector to connect the existing pipe to any new pipe which is required to make the connection to the structure. Any new pipe that is installed by the contractor to reconnect the existing sewer main or lateral shall be PVC (SDR-26) and shall be considered incidental to this bid item. The newly installed pipe shall match the existing pipe's diameter or be of the next larger diameter. Field coring for the connection of existing laterals to the new structure shall be included in this item.

The pouring and construction of concrete benches and flowlines in new sewer access structures for the inlet or outlet pipes shall not be paid for under this bid item. The construction of concrete benches and flowlines shall be considered incidental to the installation of the sewer access structure (Bid Item: Sanitary Sewer Access Structure (4' Diameter), Madison Type).

The contractor shall be responsible for maintaining the normal flow of wastewater during tapping of the sewer access structure and shall do so in accordance to bid item Wastewater Control, City of Madison.

D Measurement

The department will measure Sanitary Sewer Tap, City of Madison as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.69	Sanitary Tap, City of Madison	Each

Payment is full compensation for furnishing all work, materials, labor and incidentals required to complete the work set forth in the description.

106. Compression Coupling, City of Madison, Item SPV.0060.70.

A Description

Work under this item shall include furnishing and placing a compression coupling as it is called for on the plan set. Compression Couplings shall be required at the junction between old pipe and new pipe.

B Materials

Compression Couplings for pipe connections between new sanitary main and old pipe shall meet the requirements of Article 503.3(f) and Standard Detail Drawing 5.3.3 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

C Construction

Compression Coupling shall be installed in accordance to all applicable provisions of Article 503.3(f) of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

D Measurement

The department will measure Compression Coupling, City of Madison as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.70	Compression Coupling, City of Madison	Each

Payment is full compensation for furnishing all labor, tools, equipment, materials, and incidentals necessary to furnish and install a compression coupling in accordance to Article 503.3(f) of the City of Madison Standard Specifications for Public Works Construction - Latest Edition.

107. Locate and Reestablish Section Corner Monuments, Item SPV.0060.71.**A Description**

This special provision describes locating and reestablishing section corner monuments from existing reference monuments as shown in the plans, as directed by the engineer and as hereinafter provided.

B Materials

Furnish one of the following survey monuments for each location: A Berntsen Steel Nail Marker, for placement in asphalt pavement; a Berntsen BP1 Brass Marker with anchoring plug for placement in concrete pavement; or a Berntsen Aluminum Break-Off Monument for placement in locations outside the pavement area.

C Construction**C.1 General**

Locate, tie-off, and document existing monuments within the limits of construction to the extent necessary to reestablish the monuments. Once properly located, tied-off and documented, remove existing monuments and reestablish.

All survey work required to reestablish the survey monument from the reference monuments is to be performed by, or under the direction of, a land surveyor registered in the State of Wisconsin. Provide an updated County specified tie sheet(s) to the County Surveyor and the engineer. Provide county coordinates for all ties and monuments shown on the tie sheet(s). Obtain an example of the specified tie sheet(s) from the corresponding County Surveyor.

C.2 Berntsen Steel Nail Marker

Locate the exact position for the monument on the asphalt pavement. Drive the Berntsen Steel Nail Marker into the pavement until the top of the Steel Nail Marker is countersunk below the surrounding finished asphalt pavement in accordance to the manufacturer's specifications.

C.3 Berntsen BP1 Brass Marker

Drill a hole in the finished concrete pavement using a drill bit approved by the manufacturer. Insert the ribbed plastic expansion plug into the drilled hole. Tap the brass marker stem into the expansion plug until the top of the brass marker is countersunk below the surrounding finished concrete pavement in accordance to the manufacturer's specifications.

C.4 Berntsen Aluminum Break-Off Monument

Install according to the pertinent provisions of standard spec 621.3 for Non-Driven Aluminum Monuments.

D Measurement

The department will measure Locate and Reestablish Section Corner Monuments 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.0060.71	Locate and Reestablish Section Corner Monuments	Each

Payment is full compensation for furnishing all excavation, backfilling, and drilling necessary to place section corner monuments; placing survey monuments; furnishing a land surveyor registered in the State of Wisconsin and all survey work; and for preparing and delivering tie sheets.

108. Manhole Structure 500, Item SPV.0060.72.

A Description

This special provision describes furnishing and installing manhole structure 500 in accordance to the applicable standard spec of 611 and as detailed in the plans.

B Materials

Furnish materials conforming to standard spec 611 and plan details.

C Construction

Construct in accordance to standard spec 611 and plan details.

D Measurement

The department will measure Manhole Structure 500 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.0060.72	Manhole Structure 500	Each

Payment is full compensation for furnishing and installing all materials required for the construction of the manhole structure.

109. Utility Line Opening (ULO), Item SPV.0060.73.**A Description**

This work consists of excavating to uncover utilities for the purpose of determining elevation and potential conflicts as shown on the plans or as directed by the engineer.

Perform the excavation in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

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

All utility line openings to be approved and coordinated with the engineer. Notify the utility engineers or their agents of this work a minimum of 3 days prior to the work so they may be present when the work is completed.

B (Vacant)**C (Vacant)****D Measurement**

The department will measure Utility Line Opening (ULO) as a single 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.0060.73	Utility Line Opening (ULO)	Each

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

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings will not be considered part of or paid for under Utility Line Openings, but are considered separate and measured and paid for separately as removal items. Replacement pavement, concrete curb, gutter, and sidewalk items are also considered separate from Utility Line Openings and will be measured and paid for separately.

110. Reflective Sign Post 14-FT, Item SPV.0060.74; 16-FT, Item SPV.0060.75.

A Description

This special provision describes furnishing and installing new reflective sign posts for signs. All sign posts shall be round tubular steel and installed as shown in the plans.

B Materials

Provide sign posts conforming to the standard specification for hot rolled carbon sheet steel, commercial quality, ASTM A-570-GR-33 for zinc coating tubing to resist corrosion. Provide 2-inch, schedule 40 sign posts will end cap at the lengths shown on the plans. Place two sheets of engineer grade yellow sheeting completely around pipe as shown in the plans.

C Construction

Install sign posts at the locations shown on the plans and approved by the engineer. If the finished grade cannot be determined, ask the engineer to identify the final grade. Install all signs in a true vertical position conforming to the latest edition of the Manual on Uniform Traffic Control Devices. Also, locate all underground utilities prior to placing sign posts. Cut off excess sign post length in the field to provided the desired sign clearance.

D Measurement

The department will measure Reflective Sign Post (size) as each individual reflective sign post (size), 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.0060.74	Reflective Sign Post 14-FT	Each
SPV.0060.75	Reflective Sign Post 16-FT	Each

Payment is full compensation for furnishing and installing all necessary posts, reflective sheeting, end caps, hardware and anchors. Replace all materials damaged during construction with new items at no cost to the department.

111. Curb Stop Relocation, Item SPV.0060.76.

A Description

This work consists of relocating existing curb stops within Stage 1, Phase 1 of the construction to the proposed roadway terrace as shown on the plans in accordance to the City of Monona Standard Sewer and Water Lateral Specifications, and as hereinafter provided.

B Materials

Water laterals shall be 1 1/2-inch-diameter Type K copper and all fittings shall meet the requirements of City of Monona Standard Technical Specifications.

Corporation stops shall be Mueller H-15013, or equal.

Curb stops shall be Mueller B-25155, or equal. Curb stops and fittings shall have a positive metal to metal connection.

Service boxes shall be Mueller H-10300-99002. The service box shall consist of an Minneapolis pattern base section, 1-inch upper section, a stationary 5660 stainless steel rod, and 2 7/8-inch lower section. Provide service boxes with a minimum length of 7 feet when extended without using extension sections.

C Construction

Remove the existing curb stop and relocate to proposed roadway terrace with minimum amount of service interruption. Up to 10 feet of 1 1/2-Inch diameter Type K copper and all couplings is be included in this bid item. The new curb stop, extension rod, and box will be included in bid item Water Service, Copper, 1 1/2-Inch. Backfill and compact as specified for adjacent water main. Install a clay dam at the end of the new lateral. Installation of the clay dam is included in this bid item.

D Measurement

The department will measure Curb Stop Relocation 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.0060.76	Curb Stop Relocation	Each

Payment is full compensation for furnishing all work herein specified including the pipe, couplings, excavation, dewatering, bedding, covering, laying, jointing, backfilling, and installing clay dams, maintenance surface, and all other labor and materials necessary for complete compliance with these specifications. The cost of all special connections to existing water service are included in the price bid.

112. Sanitary Sewer Internal Chimney Seal, City of Madison, Item SPV.0060.77.

A Description

Furnish and install an internal chimney seal on all new City of Madison sanitary sewer access structures located within 100 feet of a street low point, in greenways, and where indicated on the plan or in the field.

B Material

Internal Chimney seal shall consist of either rubber with metal bands or a low density polyethylene insert conforming to the City of Madison Standard Detail Drawing 5.7.17 - SAS Internal Chimney Seal or other equivalent chimney seal products as approved by the engineer.

C Construction

Internal Chimney Seal shall be installed in accordance to the manufacturer's instructions.

D Measurement

The department will measure Sanitary Sewer Internal Chimney Seal, City of Madison as each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.77	Sanitary Sewer Internal Chimney Seal, City of Madison	Each

Payment is full compensation for furnishing all labor, tools, materials, and all other work incidental to the installation of the sanitary internal chimney seal.

113. Slow Release Watering Bag, Item SPV.0060.78.

A Description

This special provision describes furnishing and installing slow release watering bags at tree locations.

B Materials

B.1 Slow Release Watering Bags

Furnish Slow Release Watering bags meeting the following requirements:

1. 20-gallon average water capacity.
2. Minimum bag dimensions (when full) - 30" tall x 18" wide (at base).
3. 2 water release points per bag.
4. Bag empties in approximately 5 to 9 hours.
5. UV stabilized to withstand exposure to sunlight.
6. Fill opening fits up to 3" diameter hose.

B.2 Warranty

A minimum five year limited manufacturer warranty from the date of purchase against defects and workmanship.

C Construction

Install and fill the slow release watering bags per manufacturer's recommendations at identified tree locations at the end of the plant establishment period. After installation, including the initial filling of the bags, the slow release watering bags become the property of the City of Monona.

D Measurement

The department will measure Slow Release Watering Bag as each individual watering bag, 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.0060.78	Slow Release Watering Bag	Each

Payment is full compensation for providing and installing all materials necessary to completely install each Slow Release Watering Bag; and for filling each bag with water.

114. Sanitary Sewer Access Structure (6-FT Diameter) - MMSD Type, Item SPV.0060.79.

A Description

Work under this item shall include installing 6-foot diameter Sewer Access Structures at the depths and locations shown on the plan set.

B Materials

All precast concrete sanitary Sewer Access Structures shall meet the requirements of Standard Detail Drawing 5.7.2, 5.7.15, and Article 507.3 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition and as detailed in the plans.

Furnish and install Sewer Access Structure Frame and Cover in accordance to Standard Detail Drawing 5.7.16 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

C Construction

Install Sanitary Sewer Access Structures in accordance to Article 507.3 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

Construct manhole concrete bench notch as detailed in the plans to facilitate the placement of a removable weir by others.

The minimum height from top of bench to underside of deck shall be 6 feet.

The top slab shall have a 24 inch offset opening placed over the steps.

Install steps 16 inches on center, perpendicular to the outgoing flow.

Maintain the normal flow of wastewater at all times during installation of the new sanitary Sewer Access Structure and when connecting pipes to the new structure. All bypass pumping, temporary piping, and/or temporary connections, which are required to maintain the normal flow of wastewater throughout construction, is included with this bid item.

D Measurement

The department will measure Sanitary Sewer Access Structure (6-FT Diameter) - MMSD Type as each individual sanitary sewer access structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.79	Sanitary Sewer Access Structure (6-FT Diameter) - MMSD Type	Each

Payment is full compensation for each Sanitary Sewer Access Structure satisfactorily installed in accordance to Article 507 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

115. Precast Sign Post Base, Item SPV.0060.80.

A Description

This special provision describes constructing and installing precast sign post bases at locations shown on the plans and as hereinafter provided.

B Materials

Furnish all materials for the work that meet the requirements for the class of materials named.

Specific reference is made to the following sections of the standard specifications:

Concrete Masonry	standard spec 501
Steel Reinforcement	standard spec 505

Provide concrete masonry of a minimum 3,200-psi strength in 28 days. Provide the 2-inch x 24-inch +1/3-inch insert meeting the requirements of ASTM Designation 120 A53 Fed Spec P404, Schedule 40 untreated pipe 2-inch diameter, with a galvanized rigid conduit coupling installed.

C Construction

Form the 24-inch x 11-inch precast base in accordance to the details in the plan. Weld the coupling and pipe over 50 percent of the circumference. Center the insert in the base and plumb with the vertical axis of the base, and place so that the coupling is flush 1/8-inch with the top of the troweled surface of the base. The bottom of the insert extends a minimum of 1/8-inch below the base and shall remain open to permit drainage. Weld 3/8-inch by 8-inch reinforcing bar to the insert 8 inches from the top of the base and 8 inches from the bottom of the base to prevent the insert from rotating within the concrete base.

Set the sign post bases at the locations shown on the plans.

Upon request and a seven day advance notice from the contractor, the engineer will establish and stake the location for sign post bases. The City of Madison Traffic Engineering Division Staff will verify all sign post base locations.

Coat the treads of the pipe and coupling in the base with graphite prior to assembly. Install the base and pipe as a unit, level with the finished grade of the surrounding surface with the pipe plumb. Tamp the material used for backfilling around the base in 6-inch layers to ensure the installation will remain plumb. Provide a 1-year warranty that the sign post base installation shall remain plumb.

Remove and dispose of all excess excavation, surplus material and debris resulting from operations and satisfactorily repair and restore other work damaged by operations.

D Measurement

The department will measure Precast Sign Post Base as each individual precast sign post base, 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.0060.80	Precast Sign Post Base	Each

Payment is full compensation for furnishing all materials; for the manufacturing of the sign post base; and for hauling, handling and installing the sign post base, including backfill.

116. Sanitary Lateral Electronic Markers, Item SPV.0060.81.

A Description

Work under this item shall include installing Sanitary Lateral Electronic Markers in accordance with Article 503.2 of the City of Madison Standard Specification for Public Works Construction - Latest Addition.

B Materials

All materials are described in Article 503.2(e) of the City of Madison Standard Specification for Public Works Construction - Latest Addition.

C Construction

Install Sanitary Lateral Electronic Markers in accordance with Article 503.2(e) of the Standard Specifications for Public Works Construction - Latest Edition.

D Measurement

The department will measure Sanitary Lateral Electronic Markers as each individual sanitary lateral electronic marker, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.81	Sanitary Lateral Electronic Markers	Each

Payment is full compensation for all work, materials, labor and incidentals required to complete the work set forth in the description.

117. Concrete Pavement Joint Sealing, Item SPV.0090.01.

A Description.

Work consists of sealing all longitudinal and transverse joints adjacent to concrete raised median nose special, concrete raised median nose special reject, and concrete raised median special as shown on the plan construction details and as hereinafter provided.

B Materials

Furnish joint sealant material conforming to the requirements for the Specifications for Joint Sealant. Hot-Poured, for Concrete and Asphalt Pavement, ASTM Designation: D 3405.

C Construction

Install Concrete Pavement Joint Sealing in accordance with the manufacturer recommendations.

D Measurement

The department will measure Concrete Pavement Joint Sealing 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.0090.01	Concrete Pavement Joint Sealing	LF

Payment is full compensation for furnishing all materials; for furnishing all labor, tools, equipment, and incidentals necessary to complete the work in accordance to the contract.

118. Concrete Curb and Gutter HES 18-Inch Type A, Item SPV.0090.02; Type D, Item SPV.0090.03.

A Description

Perform work in accordance to the applicable provisions of standard spec 601 and as detailed in the plans.

B Materials

Furnish air-entrained concrete conforming to standard spec 501. Use high early strength concrete.

C (Vacant)**D Measurement**

The department will measure Concrete Curb and Gutter HES 18-inch (Type) 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.0090.02	Concrete Curb and Gutter HES 18-Inch Type A	LF
SPV.0090.03	Concrete Curb and Gutter HES 18-Inch Type D	LF

Payment is full compensation for furnishing all foundation excavation and preparation; all special construction required at driveway and alley entrances, or curb ramps; for providing all materials, including concrete, expansion joints, and reinforcement tie bars unless specified otherwise; for placing, finishing, protecting, and curing; for sawing joints; and for disposing of surplus excavation material, and restoring the work site.

However, if the contract provides a bid item for excavation, then the department will pay for excavation required for this work as specified in the contract.

119. Concrete Curb and Gutter 24-Inch, Item SPV.0090.04.

A Description

Perform work in accordance to the applicable provisions of standard spec 601 and as detailed in the plans.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Concrete Curb and Gutter 24-Inch by the linear foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.04	Concrete Curb and Gutter 24-Inch	LF

Payment is full compensation for furnishing all foundation excavation and preparation; all special construction required at driveway and alley entrances, or curb ramps; for providing all materials, including concrete, expansion joints, and reinforcement tie bars unless specified otherwise; for placing, finishing, protecting, and curing; for sawing joints; and for disposing of surplus excavation material, and restoring the work site. However, if the contract provides a bid item for excavation, then the department will pay for excavation required for this work as specified in the contract.

120. Concrete Gutter HES 18-Inch Type D, Item SPV.0090.05.

A Description

Perform work in accordance to the applicable provisions of standard spec 601 and as detailed in the plans.

B Materials

Furnish air-entrained concrete conforming to standard spec 501. Use high early strength concrete.

C (Vacant)

D Measurement

The department will measure Concrete Gutter 18-Inch HES Type D 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.0090.05	Concrete Gutter HES 18-Inch Type D	LF

Payment is full compensation for furnishing all foundation excavation and preparation; all special construction required at driveway and alley entrances, or curb ramps; for providing all materials, including concrete, expansion joints, and reinforcement tie bars unless specified otherwise; for placing, finishing, protecting, and curing; for sawing joints; and for disposing of surplus excavation material, and restoring the work site. However, if the contract provides a bid item for excavation, then the department will pay for excavation required for this work as specified in the contract.

121. Concrete Raised Median Nose Special, Item SPV.0090.06; Concrete Raised Median Nose Special Reject, Item SPV.0090.07; Concrete Raised Median Special, Item SPV.0090.08.

A Description

This special provision describes the construction of concrete raised median (type) as detailed in the plans and provided hereinafter.

B Materials

Provide all materials in accordance to standard spec 601 and 620. Provide color to be approved by the engineer.

B.1 Concrete

Conform to standard spec 501 and as hereinafter provided:

Integrally color the concrete using non-fading synthetic iron oxides conforming to ASTM C979 at a minimum percent loading of 6% and a maximum percent loading of 8% by weight of the cementitious materials in the mix.

Add integral concrete colorant according to manufacturer's instructions.

Maintain mix characteristics for all colored concrete requiring a matching finish. Use the same source, brand, type, and color of portland cement, supplementary cementitious materials, aggregates and admixtures for colored concrete pavement throughout the project. Use constant cement content, supplementary cementitious material content. Except for minor adjustments, maintain a constant water/cementitious materials ratio.

B.2 Concrete Curing

Supply a liquid membrane-forming clear curing compound conforming to AASHTO M 148, type 1. Apply curing compound for integrally colored concrete

according to manufacturer's instructions using manufacturer's recommended application techniques. Apply curing compound at a standard time after each pour.

Do not cure colored concrete using plastic sheeting, unless necessary due to weather conditions.

B.3 Admixtures

Use admixtures designed for use and compatible with colored concrete pigments. Do not use calcium chloride or admixtures containing chlorides. Use the same admixtures for colored concrete pavement throughout the project.

C Construction

Construct concrete raised median (type) in accordance to standard spec 601 and 620 and as hereinafter provided.

Produce consistent colored concrete mixes. Except as required to maintain constant color, the engineer will not allow variations in the amounts, types, or source of materials. The contractor may make minor adjustments of water and air-entraining agent as field conditions dictate.

Colored concrete mixes for the entire project are to be consistent. If the contractor chooses to provide mixes with High Early Strength, then all colored concrete will be provided as High Early Strength. Switching from regular colored concrete to High Early Strength colored concrete or High Early Strength colored concrete to regular colored concrete will not be allowed.

If additional water is added to the colored concrete once a truck is on site, this concrete will be rejected.

If the engineer allows, minimal amounts of water may be applied to the surface of the colored concrete to complete the final surface finishing operations. If too much water is added to the surface of the colored concrete during final surface finishing operations the colored concrete may be rejected and removed at the direction of the engineer.

Cover and protect adjacent construction and concrete from discoloration and spillage during placement and curing of colored concrete. Remove and replace discolored concrete as the engineer directs.

Apply seal per manufacturer's recommendations. Apply two coats of seal. Apply second coat after first coat has dried. Do not seal over blemishes or imperfections caused by rainfall or protection materials.

Protect colored concrete from premature drying and excessive cold or hot temperatures. Apply evaporation retarders to concrete surfaces during initial finishing only if hot, dry, or windy conditions cause a moisture loss approaching 0.20 lb/sf/hr before and during initial finishing. Apply according to manufacturer's written instructions.

Protect the colored concrete from damage. Do not permit construction traffic or material storage on colored concrete sidewalk. Exclude other foot traffic from colored concrete sidewalk for at least 5 days after placement.

Remove and replace adjacent concrete that is discolored to the approval of the engineer.

D Measurement

The department will measure Concrete Raised Median (Type) 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.0090.06	Concrete Raised Median Nose Special	LF
SPV.0090.07	Concrete Raised Median Nose Special Reject	LF
SPV.0090.08	Concrete Raised Median Special	LF

Payment is full compensation for furnishing all foundation excavation and preparation; all special construction required at curb ramps; for providing all materials, including concrete, colored pigments, expansion joints, joint filler and tie bars; for hauling, placing, consolidating, shaping, finishing, protecting, and curing; for sawing joints; and for disposing of surplus excavation material, for protecting adjacent pavements, and restoring the work site. However, if the contract provides a bid item for excavation, then the department will pay for excavation required for this work as specified in the contract.

122. Construction Staking Concrete Sidewalk-Stage 1, Phase 2, Item SPV.0090.09.

A Description

Perform work in accordance to the applicable provisions of standard spec 650 and as detailed in the plans.

B (Vacant)

C Construction

Set construction stakes or marks at 50-foot intervals, maximum, and at additional locations as detailed in the plans. Set and maintain stakes as necessary to achieve the required accuracy and to support the method of operations. Set additional construction stakes as necessary to establish location of concrete sidewalk, including points of change in alignment grade and at driveway locations. Locate stakes to within 0.02 feet horizontally and establish the grade elevation to within 0.01 feet vertically.

D Measurement

The department will measure Construction Staking Concrete Sidewalk–Stage 1, Phase 2 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.0090.09	Construction Staking Concrete Sidewalk–Stage 1 Phase 2	LF

Payment is full compensation for locating and setting all construction stakes; for relocating and resetting damages or missing construction stakes.

123. Protection of Private Sprinkler Systems, Item SPV.0090.10.**A Description.**

Work consists of removing and/or sealing sections of sprinkler systems impacted by construction activities to maintain the integrity and operation of the remaining sprinkler system.

B (Vacant)**C Construction**

Remove the sections of the sprinkler system that are in conflict with construction. Coordinate with the property owner prior to removing any portion of the sprinkler system. Cut and seal the pipe and provide a water tight seal in accordance to accepted methods used for private irrigation systems. Provide all removed sprinkler materials to the landowner. If the landowner does not want these materials then properly dispose of them off of the right-of-way. Remove and/or seal pipe so that the operation of the remainder of sprinkler system is not adversely affected.

D Measurement

The department will measure Protection of Private Sprinkler Systems 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.0090.10	Protection of Private Sprinkler Systems	LF

Payment in full compensation for coordination with property owners; furnishing all materials; for all labor, tools, equipment, and incidentals necessary to complete the work in accordance to the contract.

124. Sanitary Sewer Main, Polyvinyl Chloride (PVC), 8-Inch, Item SPV.0090.11; 10-Inch, Item SPV.0090.12.

A Description

This work consists of excavating required trenches or tunnels, placing bedding and cover materials, laying therein the sanitary sewer pipe of the size and type specified, connection of the pipe to existing pipes or manholes; connections of the pipe to new manholes, tees, wyes, risers and all required fittings; all sheeting and shorings, backfilling and compacting the trenches, testing, and restoring the work site all as provided by the plans, specifications and contract.

B Materials

Provide polyvinyl chloride (PVC) sewer pipe meeting the requirements of Standard Specifications for Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings of the American Society for Testing Materials, Serial Designation D3034 for pipe sizes 4-inch through 15-inch and F679 for 18-inch through 36-inch.

All PVC sewer pipe shall have maximum standard dimension ratio (SDR) of 35.

Provide the wall thickness conforming to requirements for a T-1 wall. Provide PVC material with a cell classification 12454-B or 12454-C as defined in ASTM D1784 with minimum modules of elasticity of 400,000 psi in tension. Provide a minimum pipe stiffness of 46 psi when tested in accordance to ASTM D2412.

Provide pipe and fittings that are the product of one manufacturer with experience records substantiating acceptable performance of the pipe to be furnished.

Provide injection molded fittings.

Acceptance of piping will be subject to tests conducted by an approved testing agency in accordance to ASTM D3034 and/or ASTM F679.

Provide fittings such as saddles, elbows, tees, wyes and others of material and construction corresponding to and having a joint design compatible with the adjacent pipe. Provide approved adapters for transitions to other types of pipe.

Provide elastomeric type joints for pipes 4 inch or larger and elastomeric or solvent cement for pipes less than 4 inch.

Provide elastomeric joints with a bell and spigot joint conforming to ASTM D3212 sealed by a rubber gasket conforming to ASTM F477 so that the assembly will remain watertight under all conditions of service, including the movements resulting from the expansion, contraction, settlement and deformation of the pipe. Form bells integrally with the pipe so they contain a factory installed positively restrained gasket.

Assemble solvent cement joints using solvent cement obtained from the pipe manufacturer, which conforms to the requirements of ASTM D2564.

The assembled joint shall pass the performance tests as required in ASTM D3212.

Provide bedding material made by crushing sound limestone or dolomite ledge rock, or crushed gravel aggregate. Provide the material that is hard and durable meeting the following gradation specifications.

BEDDING STONE GRADATION

Sieve Size	Percentage by Weight Passing		
	Gradation No. 1	Gradation No. 2	Gradation No. 3
1 inch	100	--	--
3/4 inch	90 to 100	--	--
1/2 inch	--	100	100
3/8 inch	20 to 55	90 to 100	--
No. 4	0 to 10	--	75 to 100
No. 8	0 to 5	0 to 15	--
No. 30	--	0 to 3	--
No. 100	--	--	10 to 25

Material native to the trench cannot be used for bedding material.

Provide the engineer with a sieve analysis of the bedding material for review prior to starting construction.

Material which is to be placed from the bedding material to 12 inches above the top of the pipe will be termed cover material. Backfill all trenches by hand to 12 inches above the top of the pipe with cover material. Deposit cover material in the trench for its full width on each side of the pipe, fittings and appurtenances simultaneously in 1-inch layers and compact using hand tamping bars and/or mechanical tampers. Use special care in placing cover material so as to avoid injury to the pipe. Provide cover material consisting of durable granular particles ranging in size from fine to a maximum size of 3/4-inch. Unwashed bank run sand and crushed bank run gravel will be considered generally acceptable cover material. Provide cover material conforming to the following gradation specifications:

COVER MATERIAL GRADATION

<u>Sieve Size</u>	<u>Percentage by Weight Passing</u>
1 inch	100
3/4 inch	85 to 100
3/8 inch	50 to 80
No. 4	35 to 65
No. 40	15 to 30
No. 200	5 to 15

Native trench materials may be used for cover material if they substantially conform to the above gradation specifications and a suitable credit is extended to the owner.

Bedding material may be substituted for cover material when requested by the contractor except where polyethylene encasement is used.

Bed all sanitary sewer pipe and related appurtenances using Class "B" bedding as shown on the Construction Drawings conforming to Gradation No. 1.

C Construction

Alignment And Grade – General. Lay and install utility lines to the lines and grades specified with valves, fittings, manholes, and other appurtenances at the specified locations; spigots centered in bells; and all manholes and riser pipes plumb. Unless otherwise noted, service lines shown on the drawings are approximate. The engineer will assist the contractor in staking the actual location in the field.

Deviations Occasioned By Existing Improvements. Wherever significant obstructions not shown on the drawings are encountered during the progress of the work and interfere to such an extent that an alteration in the plan may be necessary, the engineer will have the authority to change and request a deviation from the line and grade or arrange with the owners of the structure for the removal, relocation or reconstruction of the obstructions. Existing items unnecessarily damaged during the performance of this contract shall be repaired and replaced at the expense of the contractor.

Caution In Excavation. Proceed with caution in the excavation and preparation of the trench so that the exact location of underground structures may be determined. The contractor will be held responsible for the repair of such structures when broken or otherwise damaged because of carelessness on the part of the contractor.

Excavation And Preparation Of Trench – General. Dig the trench so that the pipe can be laid to the alignment and depth specified. Unless otherwise allowed by the engineer, trenches shall not be excavated more than 100 feet in advance of pipe laying.

Excavation To Grade. Finish the trench to the depth necessary to provide a uniform and continuous bearing and support for the pipe on the bedding material provided at every point between bell holes. Any part of the bottom of trench excavated below the specified grade shall be corrected with bedding material, thoroughly compacted in place. Shape and finish the bedding with hand tools to fit the bottom quadrant to the pipe.

Pile all excavated material in a manner that will not endanger the work. Conduct the work in such a manner that pedestrian and motor traffic is not unnecessarily disrupted. Fire hydrants, valve boxes and manholes shall be left unobstructed. Gutters shall be kept clear or other satisfactory provisions made for street drainage, and natural water courses shall not be obstructed.

Remove excavated material designated by the engineer as being undesirable for backfilling immediately as excavation progresses. All undesirable and surplus material must be disposed of in accordance to standard spec 205.3.11.

Dewatering. The contractor shall, at his own expense, keep the excavation clear of water while the sewers and appurtenances are being installed and backfilled. Wherever necessary, excavate in advance of the completed work and lead the water into sumps or pump wells. The expense for making all extra excavations necessary to prevent water from interfering with the proper construction of the work and for forming of all dams, digging sumps or pump wells, bailing and pumping shall be borne by the contractor.

The contractor's dewatering system shall ensure that soils within the trench will not be destabilized by hydrostatic uplift pressures from adjacent ground water. If conditions warrant, furnish and install well point systems or deep wells. Provide spacing and depth of well points or wells adequate to lower the ground water table and hydrostatic uplift pressure below the trench bottom. Obtain and pay for any permits necessary for the dewatering operations.

No extra payment will be made for dewatering of the trench whether accomplished by the use of sumps and pumps, well point systems, or deep wells.

Take all necessary precautions during the dewatering operation to protect adjacent structures against subsidence, flooding or other damage. Prior to dewatering, take into account the effect of proposed dewatering operation on existing private water supply systems and make arrangements with property owners for protecting their supplies or providing alternative supply.

In areas where continuous operation of dewatering pumps is necessary, avoid noise disturbance to nearby residences to the greatest extent possible by using electric driven pumps, intake and exhaust silencers, or housing to minimize noise.

Width of Trench. The contractor shall be responsible for determining and providing the minimum width necessary to provide a safe trench in accordance to current OSHA standards and all other applicable standards. Pay items related to maximum trench widths shall not limit the contractor's responsibility to provide safe trench conditions.

The width of trench below the outside top of the pipe shall be as shown in the following table for the sizes listed. A minimum clearance of 8 inches between the outside of the pipe barrel and the trench wall at the pipe spring line shall be maintained. If sheeting is used, the trench width will be measured as the clear distance between inside faces of the sheeting.

MINIMUM WIDTH OF TRENCH BELOW TOP OF PIPE

Internal Pipe Diameter (Inch)	Trench Width (Inch)
4	30
6	30
8	36
10	36
12	36
15	36
18 and Larger	See engineer

Where the width of trench below the outside top of the pipe barrel cannot be otherwise maintained within the limits shown above, the contractor, at his own expense, shall furnish an adequate pipe installation for the actual trench width which will meet design conditions. This may be accomplished by furnishing higher class bedding, a stronger pipe, concrete cradle, cap or envelope or by driving sheeting prior to excavation to subgrade. Removal of sheeting below the top of the pipe, if allowed by the engineer, shall be gradual during backfilling.

If the maximum trench width is exceeded for any reason other than by request of the engineer, the concrete cradle, cap, sheeting, bedding or the stronger pipe shall be placed by the contractor at his own expense. Where the maximum trench width is exceeded at the written request of the engineer, the concrete cradle, cap, sheeting, bedding, or stronger pipe will be paid for on the basis of the unit price bid. Keep the top width of trench excavation as narrow as is reasonably possible, and acceptable, to minimize pavement damage.

Width of Trench - Thermoplastic Pipe: The trench width for flexible pipe shall be the greater of twice the pipe outside diameter or the maximum trench width specified for rigid pipe, whichever is greater.

Braced And Sheeted Trenches. Sheet and brace open-cut trenches as required by any governing state laws and municipal ordinances and as may be necessary to protect life, property, improvements or the work. Protect underground or aboveground improvements to be left in place and, if damaged, repair or replace at the expense of the contractor.

Sheeting and bracing which is to be left in place must be removed for a distance of 4 feet below the established street grade or existing surface of the street, whichever is lower. Trench bracing, except that which is left in place, may be removed after backfilling has been completed or has been brought up to such an elevation as to permit its safe removal.

Pipe Installation – General. Prior to commencing pipe laying, notify the engineer of the intended date for starting work. The engineer may request the removal and relaying of pipe installed prior to notification of the engineer at the contractor's expense.

Provide and use proper implements, tools, and facilities for the safe and convenient prosecution of the work. Carefully lower all pipe, fittings, and appurtenances into the trench, piece by piece, with a crane, rope or other suitable tools or equipment, in such manner as to prevent damage to materials. Under no circumstance shall pipe be dropped or rolled into the trench.

Provide materials as shown on the drawings or as specified herein.

Material Inspection. Inspect the pipe, fittings, and appurtenances for defects when delivered to the job site and prior to lowering into the trench. Remove defective material from the job site. Provide material that is clean and free of deleterious substances prior to use in the work.

Bedding and Cover. Immediately prior to placing the pipe, shape the trench bottom by hand to fit the entire bottom quadrant of the pipe. If pipe is of the bell and spigot type, provide bell holes to prevent the bell from supporting the backfill load. Bell holes shall be large enough to permit proper making of the joint but not larger than necessary to make the joint. All adjustments to line and grade must be done by scraping away or filling in bedding material under the body of the pipe. Any fill used must be bedding material. If necessary to obtain uniform contact of the pipe with the subgrade, a template shall be used to shape the bedding material. All pipe shall be bedded in bedding material at least 4 inches thick. Perform all necessary excavation and furnish all necessary material to provide this bedding.

Pipe Laying. Lay all pipe accurately to the line and grade as designated. Preparatory to making pipe joints, all surfaces of the portions of the pipe to be joined or of the factory made jointing material shall be clean and dry. Use lubricants, primers, adhesives, and other joint material and install as recommended by the pipe or joint manufacturer's specifications. The jointing materials or factory fabricated joints shall then be placed, fitted, joined, and adjusted in such a workmanlike manner as to obtain the degree of watertightness specified. Furnish pertinent specifications from the joint and pipe manufacturer that outline procedures to be followed in making the joint to the engineer.

At times when pipe laying is not in progress, close the open ends of pipe with plugs to prevent the entry of foreign material. Remove all foreign material from the pipe prior to acceptance.

After placing a length of pipe in the trench, center the spigot end in the bell and force the pipe home and bring to correct line and grade. Secure the pipe in place with specified backfill material tamped around it except at the bells. Keep trenches water-free during bedding, laying, and jointing and for as long a period as necessary to permit proper execution of the work.

Pipe shall be brought home by using a cross member and levers or jacks. It will not be permissible to push pipe home with motor-powered excavation equipment.

Install sanitary sewer to an elevation tolerance of plus or minus 0.03 feet of the plan elevation or elevation provided on the grade sheet at any point along the main.

Install wyes, tees, and special as called for on the drawings or as requested by the engineer. In general, joint wyes, tees, and specials with the same type of joint as used in the main.

In joining two dissimilar types of pipe, use manufactured adaptors and fittings.

Do not exceed joint deflection limits established by the pipe manufacturer for the pipe and joint being used.

Portable Trench Box. Whenever a portable trench box or shield is used, take special precautions so as not to pull already jointed pipe apart or leave voids around the pipe wall. Whenever possible keep the bottom edge of the box at a level approximately even with the top of pipe. Place cover material to at least the top of pipe before moving the box ahead.

Backfilling. Backfill material shall be that material placed between the top of cover material to the subgrade for placement of restoration materials.

When the type of backfill material is not otherwise specified, the contractor may backfill with the excavated material, provided that such material consists of loam clay, sand, gravel or other materials that, in the opinion of the engineer, are suitable for backfilling.

All backfill material must exceed 35°F and be free from frost cinders, ashes, refuse, vegetable or organic matter, boulders, rocks, or stone, frozen lumps or other material which in the opinion of the engineer is unsuitable. From 12 inches above the top of the pipe to the trench subgrade, well-graded material containing stones up to 8-inch in their greatest dimension may be used, unless otherwise specified.

Granular Backfill. When called for on the drawings or requested by the engineer, provide granular backfill material consisting of durable particles ranging in size from fine to coarse in a substantially uniform combination. Sufficient fine material must be present to fill all the voids in the coarse material. No stones over 3-inch or clay lumps will be allowed.

Placement. Backfill all trenches using specified material so that excessive lengths of trench are not left open. In general the backfilling operation shall proceed so that no more than 100 feet of trench is open behind the pipe laying operation.

Leave backfill below the original surface to allow for placement of restoration materials including pavement, base course, concrete, topsoil, or sod. When settlement occurs, restore the surface improvements at contractor's expense, so as to maintain the finished surface.

Backfill Consolidation. Consolidate all trenches as specified in this section for the entire depth and width of the trench.

Consolidate by use of smooth surface vibratory compactors or backhoe-operated hydraulic compactors for granular materials and rotating segment pad mechanisms for loam/clay soils. The lift height shall not exceed 8 inches for walk-behind hand-operated vibratory compactors and segmented pad. Lift height shall not exceed 24 inches for self-propelled vibratory drum or backhoe-operated hydraulic compactors. Provide smaller lift heights as necessary to achieve the degree of compaction specified.

Provide compaction density a minimum of 90% of the maximum dry density as determined by the Modified Proctor Test (ASTM D1557) for all areas within current or future roadway right-of-way or any area restored under this Contract or future projects as identified on the drawings, with base course, asphalt, or concrete surface. Unless otherwise specified, compact backfill material placed in other areas to the point where no additional consolidation can be observed from the compaction equipment being used.

Recompact backfill material not meeting the compaction specification at no cost to the owner. Cost for additional testing on recompacted material will be at the contractor's expense.

Testing

Televisive completed sections of the sanitary sewer main. Provide a report and color video tape taken by a 360-degree radial-view camera for closeup view showing all completed work in accordance to NASCO PACP Standards. Low pressure air testing, and mandrel testing will not be required.

D Measurement

The department will measure Sanitary Sewer Main, Polyvinyl Chloride (PVC), (Size) by the linear foot, acceptably completed.

The quantity to be paid is measured from centerline of manhole to centerline of manhole, or from manhole to the end of a portion not starting or terminating in a manhole.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.11	Sanitary Sewer Main, Polyvinyl Chloride (PVC), 8-Inch	LF
SPV.0090.12	Sanitary Sewer Main, Polyvinyl Chloride (PVC), 10-Inch	LF

Payment is full compensation for furnishing all work herein specified; televising; and for furnishing all labor, tools, equipment and miscellaneous appurtenances necessary to complete the work.

125. Sanitary Sewer Lateral, Polyvinyl Chloride (PVC), 6 Inch, Item SPV.0090.13.

A Description

This work consists of excavating required trenches, connecting the lateral to the mainline pipe, placing bedding material, connecting the new lateral to the existing lateral, all required fittings, and bends, backfilling and compacting the trenches and restoring the work site all as provided by the plans, specifications and contract. The contractor shall be responsible for locating, identifying, and abandoning “inactive” laterals.

B Materials

Provide PVC pipe of the bell and spigot type conforming to the requirements of ASTM Specification D-1789-89, Schedule 40.

Provide bedding, cover materials, and backfill conforming to the sanitary sewer main specifications.

Provide a Valco CP test mini-box, or approved equal tracer wire access box.

Provide continuous 10-gauge solid tracer wire with a 5/8-inch-diameter steel grounding rod.

C Construction

Perform all pipe installation in accordance to the applicable provisions of sanitary sewer main and as modified hereinafter.

All sanitary sewer pipe and related appurtenances shall be bedded using Class “B” bedding as shown on the construction drawings conforming to Gradation No. 1.

The existing sanitary sewers have been televised and reports are available to indicate existing wyes and taps. Confer with each property owner to verify the location of the existing sanitary lateral. Provide new sanitary sewer laterals conforming to the requirements of the City of Monona Standard Sewer and Water Lateral Specifications.

Wherever shown on the drawings or requested by the engineer, build wye or tee branches into the main for use in making service and inlet connections. Provide openings in the wyes or tees for sanitary service pipes 6-inch in diameter unless otherwise shown or specified.

Turn wyes so that the branch is at an angle of 30° or 45° with the horizontal. Branches shall be of the same material as the main for smaller diameter sewers. For larger diameter mains, furnish and install special branch fittings as specified.

Furnish and install sanitary sewer laterals as shown on the drawings and as requested by the engineer. Under normal circumstances, service laterals will be installed within the right-of-way or easement to serve all existing buildings and all platted lots. In certain cases only wye or tee branches will be installed to vacant lots. Service laterals shall consist of a branch fitting at the main and extension of the specified lateral pipe to the end of lateral as called for and requested. Furnish and install all necessary fittings to complete the installation as shown on the Construction Details for Sanitary Sewer Laterals.

Service laterals for Standard Laterals, Type 1, or for Modified Laterals, Types 1, 2, 4 and 5 as shown on the Construction Details for Sanitary Sewer Laterals, shall be solid wall PVC unless otherwise shown on the drawings or as standardized upon by the owner.

Standard risers and pipe from risers, Type 3 and 6, shall be ductile iron pipe and fittings with push on joints as shown on the Construction Details.

Fittings for all laterals are to be of the same material as the lateral pipe unless special fittings are needed for transition between material types or sizes or standard fittings are not manufactured. Where the wye and lateral are dissimilar materials, provide a transition coupling, Fernco, or equal, designed to join the two pipe materials. All fittings used, including type of jointing, are subject to review by the engineer.

Under normal conditions and unless otherwise shown on the drawings or requested by the engineer, all service laterals shall be Standard Laterals, Type 1, as shown on the Construction Details. Service laterals of Types 2 through 6 may be requested by the engineer to meet field conditions.

It is the general intent to install Modified Laterals, Type 2, 4, or 5 for service to properties that presently have shallow or no basements or where the depth to ground water at the end of lateral is shallow.

Maintain a complete and accurate tabulation of length, depth, and location of all branches, risers, and laterals on cards available from the engineer. Make measurements from the nearest downstream manhole. Lateral installation to meet these specifications

and field conditions are the responsibility of the contractor. Problems occurring because of failure to provide proper installation or proper records shall be corrected by the contractor at his expense.

Do not backfill an installed lateral until the engineer has been notified that the lateral is complete and reasonable time is allowed for observation of the work.

D Measurement

The department will measure Sanitary Sewer Lateral, Polyvinyl Chloride (PVC), 6-Inch, by the linear foot, acceptably completed.

The quantity to be paid shall be measured from the connection of the mainline sewer pipe to the connection of the existing sanitary lateral along the centerline of the pipe.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.13	Sanitary Sewer Lateral, Polyvinyl Chloride (PVC), 6-Inch	LF

Payment is full compensation for furnishing all work herein specified. The price shall also be full payment for determining whether laterals are “active”, “inactive”, or abandoned, and the exact location and size of “active” lateral reconnections.

126. Water Main, Ductile Iron (DI), 6-Inch, Item SPV.0090.14; 8-Inch, Item SPV.0090.15; 10-Inch, Item SPV.0090.16; 12-Inch, Item SPV.0090.17.

A Description

This work consists of furnishing and installing water main in accordance to City of Monona Standard Water Main Specifications and as hereinafter provided.

B Materials

Iron pipe and fittings for water main shall be ductile iron, American, Tyler, Griffin, U.S. Pipe, or equal, and shall conform to AWWA C151/A21.51, with mechanical joints or push-on joints where buried and flanged joints elsewhere as shown on the drawings.

Furnish pipe wall thickness as required by AWWA C115 for flanged piping, and AWWA C150 for buried piping with the depth of cover as shown on the drawings for Class C bedding as shown on the Construction Details.

Gaskets for flanged piping shall be full face, 1/8 inch, synthetic rubber gaskets with factory-made holes for flange bolts. No field make-up flanges will be allowed.

Unless otherwise shown or specified, provide flanged pipe with minimum special thickness Class 53 with a minimum rated working pressure of 350 psi and a water

hammer allowance of 100 psi. Provide buried pipe with minimum special thickness Class 52 with a minimum rated working pressure of 330 psi or pressure Class 350 with a water hammer allowance of 100 psi.

In cases where corporation stops are to be tapped into mains, furnish pipe wall thickness as specified in AWWA C151 to provide four threads; furnish pipe saddles as approved by manufacturer.

Joints shall be mechanical joint AWWA C111 or slip joint. Furnish all water main, pipe, valves, and fittings with cable bond conductor or electrobond conductivity strips. Lead-tipped gaskets or bronze wedges will not be allowed.

Each pipe shall have the weight, class, or nominal thickness and casting period shown on it. Cast or stamp the manufacturer's mark, the year in which the pipe was produced, and the letters "DI" or "DUCTILE" on the pipe.

Provide ductile iron pipe centrifugally cast in metal or sand-lined molds having bell and spigot ends designed for a rubber gasket push-on joint or mechanical joints.

Provide pipe walls that are homogeneous from inside to outside and completely free of laminations, blisters, or other imperfections. Defects may be removed at the factory only.

Provide pipe with a cement mortar lining and internal and external bituminous coats. Lining and coating must be suitable for use with potable water systems and shall comply with AWWA C151.

Apply the bituminous coating over the cement lining on the inside of the pipe, and a bituminous seal coat on the exterior of all pipe and fittings. The coating shall be smooth and impervious to water without any tendency to scale off.

Improper or incomplete marking will be cause for rejection of the pipe.

Furnish certification data representing each class of pipe furnished. The certification report must clearly state that all pipe furnished meets the appropriate AWWA specification.

Unless otherwise specified, provide rubber gaskets conforming to AWWA C111 or ANSI 21.11 for Rubber Gasket Joints for Ductile Iron Pressure Pipe and Fittings.

Furnish gaskets in sufficient number for all joints. Furnish sufficient joint lubricant by the manufacturer with the gaskets.

Where required in the specifications or on the drawings. Provide polyethylene encasement conforming to AWWA C105 or ANSI A21.5. Film shall be Class C - Black, with a minimum nominal thickness of 0.008 inch (8 mils). Tape for securing the film shall be a thermoplastic material with a pressure sensitive adhesive face capable of bonding to metal, bituminous coating, and polyethylene. Tape shall have a minimum thickness of 0.008 inch (8 mils) and a minimum width of 1 inch.

The polyethylene film envelope shall be free as is commercially possible of gels, streaks, pinholes, particles of foreign matter and undispersed raw materials. There shall be no other visible defect such as holes, tears, blisters or thinning out at folds.

Fittings. Provide American-made ductile iron fittings.

Provide ductile iron fittings conforming to AWWA C110, C153 DI compact fittings or ANSI A21.10 for all ductile iron or PVC pressure pipe.

Ductile iron fittings shall be American made with mechanical joints in accordance to AWWA C110 and AWWA C111.

Provide ductile iron "compact fittings" rated at 350 psi and made in accordance to AWWA C153. Provide mechanical joint bolts and nuts made of high strength, low alloy steel having the characteristics specified in Section 11.6.5 of AWWA C111. Flange joints shall be made in accordance to AWWA C110 and ANSI B16.1.

Provide interior and exterior coatings conforming to AWWA C110. Cement mortar lining of standard fittings is not required unless specified.

Ductile iron "compact fittings" shall be cement lined on the interior conforming to AWWA C153.

Mechanical joint lugged retainer glands (Megalug, or equal) may be used with ductile iron or poly vinyl chloride pressure pipe.

Provide all plugs, caps, tees, hydrants, and bends for water mains and force mains with positive reaction backing. Reaction backing shall be poured-in-place concrete. Place backing between solid ground and the fitting to be anchored; the area of bearing on the pipe and on the ground in each instance shall be sized so that the soil bearing pressure does not exceed 1200 psi, using a working pressure in the main of 150 psi plus 100 psi water hammer allowance. Place the backing, unless otherwise shown or specified, so that the pipe and fitting joints will be accessible for repair. The contractor may use MEGALUG, or equal, restrained joints in lieu of reaction backing. The number of joints to be restrained to provide adequate restraint shall be as shown on the drawings.

C Construction

General: Perform construction in conformance with AWWA C600 for cast iron or ductile iron water main.

Installation. Provide sufficient and adequate equipment on the site of the work for unloading and lowering pipe and fittings into the trench. Exercise extreme in handling all pipe, fittings and special castings so as to prevent breakage. Under no circumstances shall they be dropped into the trench or so handled as to receive hard blows or jolts when being moved.

Field Inspection of Materials. Before lowering and while suspended, the pipe or fittings shall be inspected for defects. All materials used in the work must pass field inspection.

Direction of Laying. Unless otherwise ordered, lay pipe with the bell ends facing the direction of laying. When the grade exceeds 100 feet of rise per 300 feet of trench, face the bells upgrade.

Joining of Pipe. Take every precaution to prevent foreign material from entering the pipe while it is being placed in the line.

Cutting of Pipe. Cut the pipe at right angles to the centerline of the pipe. Perform cutting in a neat workmanlike manner without damage to the pipe and so as to leave smooth ends. Cut all pipes with an approved mechanical cutter. The cut end of the pipe to be used with a rubber gasket joint shall be tapered by grinding or filing back at an angle of approximately 30 degrees with the centerline of the pipe, and any sharp or rough edges shall be removed.

Obstructions in Line or Grade. Whenever it becomes necessary to lay a main over, under or around a known obstruction, the contractor will furnish and install the required fittings. The laying of such fittings will be paid for at the unit price bid for each size of main. No additional compensation will be paid to the contractor for any expenses incurred because of such obstruction. When an unknown underground structure interferes with the work to such an extent that an alteration of the plan is required, and such alteration results in a change in the cost to the contractor, the engineer will issue a written change order for such altered work, specifying the basis of payment or credit for such altered work.

Setting Valves. Provide and install valves in water mains in locations where shown on the plans. Provide a valve box for every valve. The valve box shall not transmit shock or stress to the valve and shall be centered and plumb over the wrench nut of the valve, with the box cover flush with the surface of the finished grade or such level as may be directed.

Polyethylene Wrap. Provide corrosion protection for all ductile pipe, iron tees, crosses, bends, etc., and all valves by use of polyethylene wrap.

Extend the wrap approximately 18 inches beyond all joints. Tape all seams securely. Place the cover material with care to prevent damage to the polyethylene wrap. Repair any rips or punctures in the wrap immediately.

Separation. Expose utilities that cross proposed facility prior to construction to allow the engineer to check for conflicts. Protect utilities from disturbance throughout Work.

Whenever water mains cross over sewers, lay the water main at such an elevation that the bottom of the water main is at least 6 inches above the top of the sewer. Whenever water mains cross under sewers, maintain a minimum vertical separation of 18 inches between the top of the water main and the bottom of the sewer. At crossings, center one full length of water pipe on the sewer so that both joints will be as far from the sewer as possible.

Disinfection. Furnish all material, equipment and labor necessary to disinfect all new water mains and all existing mains disturbed by construction including laboratory testing. Schedule sampling and testing to complete the work within the Contract Times. Furnish items of material for testing in the size and quantity necessary to properly complete the test. Interruption or delay of the contractor's work progress caused by testing and sampling will not be cause for extra payment under the Contract nor will they be cause for extension of Contract Time. Costs for items furnished under this section will be included as an incidental item of work under the various items included in the Bid. Material suppliers shall furnish certificates of compliance indicating that all tests required by the various Standards have been conducted and that the test results comply with the Standards.

Testing

Conduct hydrostatic pressure tests and leakage tests of all joints in accordance to the requirements of AWWA C600. During performance of the hydrostatic pressure test, subject the main to a minimum pressure of 125 psi. Remove all air from the water main during testing by flushing and by installing corporations at high points.

Prior to conducting the pressure and leakage test, backfill the trench for its full depth. All bends and special connections to the main shall be adequately blocked and tied prior to the test. Correct any damage caused to the water main or its appurtenances during performance of these tests.

Keep a record of all tests performed. These records shall show the individual lengths of main tested and test results.

Where connections are made to existing mains, it will be the responsibility of the contractor to provide the necessary hydrostatic tests on all new mains installed. This may necessitate, but is not limited to, the installation of temporary valves to isolate the new system from the existing system. All materials, work, and equipment necessary for this work will be furnished by the contractor at his expense.

Disinfect and sterilize all new work and old mains where it is necessary to cut into them. Perform disinfection in accordance to AWWA C651. Furnish all materials and equipment needed for disinfection of mains. Collect the necessary samples and deliver them to the testing laboratory. The cost of all work under this item is included in the price as bid under Water Main.

Furnish all equipment, labor and miscellaneous items necessary to perform electrical continuity tests on all new water main installed. Perform tests using an ohmmeter to assure that electrical continuity exists across all joints. Make all necessary repairs to establish continuity across joints.

All testing of pipelines shall proceed concurrently with installation. The contractor is advised that it may be advantageous to conduct daily preliminary testing of his work.

D Measurement

The department will measure Water Main, Ductile Iron (DI), (Size) by the linear foot, acceptably completed. Quantity to be paid for includes construction through valves and other fittings. Tees, reducers, sleeves, and bends will be measured and paid as water main.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.14	Water Main, Ductile Iron (DI), 6-Inch	LF
SPV.0090.15	Water Main, Ductile Iron (DI), 8-Inch	LF
SPV.0090.16	Water Main, Ductile Iron (DI), 10-Inch	LF
SPV.0090.17	Water Main, Ductile Iron (DI), 12-Inch	LF

Payment is full compensation for furnishing all work herein specified and for furnishing the pipe, excavation, dewatering, bedding, laying, jointing, backfilling, and maintenance of surface and all other labor and material necessary for complete compliance with these specifications. The cost of all special connections to existing mains and appurtenances shall be included in the prices bid.

127. Water Service, Copper, 1 1/2 Inch, Item SPV.0090.18.

A Description

This work consists of furnishing and installing new water service laterals complete with stop boxes from new water main as shown on the drawings in accordance to City of Monona Standard Sewer and Water Lateral Specifications, and as hereinafter provided.

B Materials

Water laterals shall be 1 1/2-inch-diameter Type K copper and all fittings shall meet the requirements of City of Monona Standard Technical Specifications.

Corporation stops shall be Mueller H-15013, or equal.

Curb stops shall be Mueller B-25155, or equal. Curb stops and fittings shall have a positive metal to metal connection.

Service boxes shall be Mueller H-10300-99002. The service box shall consist of an Minneapolis pattern base section, 1-inch upper section, a stationary 5660 stainless steel rod, and 2 7/8-inch lower section. Provide service boxes with a minimum length of 7 feet when extended without using extension sections.

C Construction

Install water service laterals with minimum amount of service interruption. Replacement corporation stops, curb stops, extension rods, and boxes for each water service reconnected will be included under this bid item. Install all curb boxes in the proposed terrace.

Backfill and compact as specified for adjacent water main.

Install a clay dam at the end of the new lateral.

D Measurement

The department will measure Water Service, Copper, 1 1/2-Inch by the linear foot acceptably completed, measured along centerline of tubing from the centerline of the main to the connection to the existing lateral.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.18	Water Service, Copper, 1 1/2-Inch	LF

Payment is full compensation for furnishing all work herein specified and for furnishing the pipe, corporation stop, curb stop, extension rod, and box, excavation, dewatering, bedding, cover, laying, jointing, backfilling, and maintenance of surface and all other labor and material necessary for complete compliance with these specifications. The cost of all special connections to existing mains and appurtenances is included in the prices bid.

128. Shovel Cut Edging, Item SPV.0090.19.

A Description

This special provision describes furnishing and installing a Shovel Cut Edging at the locations shown on the plans and as hereinafter provided.

B Materials

Provide Shredded Hardwood Bark Mulch for trench backfill as shown in the landscaping plan details and in accordance to bid item SPV.0180.07.

C Construction

Install shovel cut edge at the perimeter of planting beds as indicated in Drawings. Manually or machine cut edge to a minimum depth of 6" and a width of 6-8". Fill shovel cut edge with shredded hardwood bark mulch and finish approximately 2" below adjacent lawn grades. Tamp shredded hardwood bark mulch lightly and add mulch, as necessary, such that the final level of the shredded hardwood bark mulch after compacting is level with adjacent lawn grades.

D Measurement

The department will measure Shovel Cut Edging by the linear 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.0090.19	Shovel Cut Edging	LF

Payment is full compensation for furnishing and installing all materials including Shredded Hardwood Bark Mulch.

129. Sawing Curb Head, Item SPV.0090.20.**A Description**

This special provision describes sawing curb head as shown on the plans and as hereinafter provided.

B (Vacant)**C Construction**

Saw curb head in accordance to the applicable portions of standard spec 690.

Remove leftover concrete curb head material debris in accordance to the applicable portions of standard spec 204.

D Measurement

The department will measure Sawing Curb Head by the linear 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.0090.20	Sawing Curb Head	LF

Payment is full compensation for furnishing all sawing and sludge removal; and for disposal of leftover concrete curb head material debris.

130. Concrete Curb and Gutter HES 30-Inch Type D, Item SPV.0090.21.**A Description**

Perform work in accordance to the applicable provisions of standard spec 601 and as detailed in the plans.

B Materials

Furnish air-entrained concrete conforming to standard spec 501. Use high early strength concrete.

C (Vacant)

D Measurement

The department will measure Concrete Curb and Gutter HES 30-Inch (Type) 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.0090.21	Concrete Curb and Gutter HES 30-Inch Type D	LF

Payment is full compensation for furnishing all foundation excavation and preparation; all special construction required at driveway and alley entrances, or curb ramps; for providing all materials, including concrete, expansion joints, and reinforcement tie bars unless specified otherwise; for placing, finishing, protecting, and curing; for sawing joints; and for disposing of surplus excavation material, and restoring the work site. However, if the contract provides a bid item for excavation, then the department will pay for excavation required for this work as specified in the contract.

131. Sanitary Sewer Main, Polyvinyl Chloride (PVC), 8-Inch, SDR-26, Item SPV.0090.22.

A Description

This special provisions describes installing Sanitary Sewer Main, Polyvinyl Chloride (PVC), 8-Inch, SDR-26 at the alignment and grades shown on the plan.

All sections of the sewer mainline are required to pass a low pressure air test as specified in Article 501.3(b) of the City of Madison Standard Specifications for Public Works Construction – Latest Edition. Costs associated with the testing of the gravity main are included in the contract unit price bid for this item.

B Materials

Provide solid-wall Poly Vinyl Chloride (PVC) sanitary sewer pipe and fittings meeting the requirements for Poly Vinyl Chloride (PVC) Sewer Pipe and Fittings, ASTM D 3034.

Provide pipe and fittings having a standard dimension ratio of 26.

Assemble solvent cement joints using solvent cement obtained from the pipe manufacturer, which conforms to the requirements of ASTM D2564.

The assembled joint shall pass the performance tests as required in ASTM D3212.

C Construction

Install the sanitary sewer pipe in accordance with all applicable provisions of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

Remove all abandoned or existing material located in the new sanitary sewer alignment. Removal of material (including existing sanitary sewer/watermain/etc) is incidental to this bid item.

Use manufactured wye fittings to install new laterals to the new main as called for on the plans; provide and place in accordance to Article 503 of Standard Specifications for Public Works Construction – Latest Edition. Do not install saddle type wyes without prior approval from the City of Madison.

Complete testing and televising of new sewer lines in accordance with Article 501 of the City Standard Specifications for Public Works Construction - Latest Edition.

D Measurement

The department will measure Sanitary Sewer Main, Polyvinyl Chloride (PVC), 8-Inch, SDR-26 in length by the linear foot, acceptably completed.

The quantity to be paid is measured from centerline of manhole to centerline of manhole, or from manhole to the end of a portion not starting or terminating in a manhole.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.22	Sanitary Sewer Main, Polyvinyl Chloride (PVC), 8-Inch, SDR-26	LF

Payment is full compensation for all materials, including wyes, necessary to perform the work; excavation of the trench, except tunneling and jacking; installation and removal of sheeting and bracing; disposal of surplus material from the trench; backfilling the trench and compaction of the backfill material; embankment over the sewer using surplus material from the excavation of the trench; bedding the pipe; laying the pipe and installing the fittings and accessories; jointing and sealing of joints in pipe, fittings and accessories; encasement, where specified; connections to new structures; cleaning out the sewer; restoring the site; testing, televising; and all labor, tools, equipment necessary to complete the work.

132. Sanitary Sewer Rock Excavation, Item SPV.0090.23.

A Description

This special provision describes sanitary sewer rock excavation as shown on the plans and as hereinafter provided.

B Materials

Classify rock excavation for sanitary sewer as specified for rock excavation in section 205.2.3 of the standard specifications, except include rock boulders with a volume of 1/2 cubic yard or more.

C Construction

Perform sanitary sewer rock excavation operations in accordance to standard spec 205.3.7.

Excavate the trench to a depth of at least 6 inches below the bottom of the pipe.

D Measurement

The department will measure Sanitary Sewer Rock Excavation by the linear foot, acceptably completed, along the centerline of the sanitary sewer utility trench where rock excavation is required, regardless of the vertical depth from the top of the rock to the bottom of the excavated rock.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.23	Sanitary Sewer Rock Excavation	LF

Payment is full compensation for furnishing all rock excavation and disposal.

133. Water Main Rock Excavation, Item SPV.0090.24.**A Description**

This special provision describes water main rock excavation as shown on the plans and as hereinafter provided.

B Materials

Classify rock excavation for water main as specified for rock excavation in standard spec 205.2.3, except include rock boulders with a volume of 1/2 cubic yard or more.

C Construction

Perform water main rock excavation operations in accordance to standard spec 205.3.7.

Excavate the trench to a depth of at least 6 inches below the bottom of the pipe.

D Measurement

The department will measure Water Main Rock Excavation by the linear foot, acceptably completed, along the centerline of the water main utility trench where rock excavation is required, regardless of the vertical depth from the top of the rock to the bottom of the excavated rock.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.24	Water Main Rock Excavation	LF

Payment is full compensation for furnishing all rock excavation and disposal.

134. Sanitary Sewer Lateral, Polyvinyl Chloride (PVC), 8 Inch, Item SPV.0090.25.

A Description

This work consists of excavating required trenches, connecting the lateral to the mainline pipe, placing bedding material, connecting the new lateral to the existing lateral, all required fittings, and bends, backfilling and compacting the trenches and restoring the work site all as provided by the plans, specifications and contract. The contractor shall be responsible for locating, identifying, and abandoning "inactive" laterals.

B Materials

Provide Polyvinyl Chloride (PVC) pipe of the bell and spigot type conforming to the requirements of ASTM Specification D-1789-89, Schedule 40.

Provide bedding, cover materials, and backfill conforming to the sanitary sewer main specifications.

Provide a Valco CP test mini-box, or approved equal tracer wire access box.

Provide continuous 10-gauge solid tracer wire with a 5/8-inch-diameter steel grounding rod.

C Construction

Perform all pipe installation in accordance to the applicable provisions of sanitary sewer main and as modified hereinafter.

All sanitary sewer pipe and related appurtenances shall be bedded using Class "B" bedding as shown on the construction drawings confirming to Gradation No. 1.

The existing sanitary sewers have been televised and reports are available to indicate existing wyes and taps. Confer with each property owner to verify the location of the existing sanitary lateral. Provide new sanitary sewer laterals conforming to the requirements of the City of Monona Standard Sewer and Water Lateral Specifications.

Wherever shown on the drawings or requested by the engineer, build wye or tee branches into the main for use in making service and inlet connections. Provide openings in the wyes or tees for sanitary service pipes 6-inch in diameter unless otherwise shown or specified.

Turn wyes so that the branch is at an angle of 30° or 45° with the horizontal. Branches shall be of the same material as the main for smaller diameter sewers. For larger diameter mains, furnish and install special branch fittings as specified.

Furnish and install sanitary sewer laterals as shown on the drawings and as requested by the engineer. Under normal circumstances, service laterals will be installed within the right-of-way or easement to serve all existing buildings and all platted lots. In certain cases only wye or tee branches will be installed to vacant lots. Service laterals shall consist of a branch fitting at the main and extension of the specified lateral pipe to the end of lateral as called for and requested. Furnish and install all necessary fittings to complete the installation as shown on the Construction Details for Sanitary Sewer Laterals.

Service laterals for Standard Laterals, Type 1, or for Modified Laterals, Types 1, 2, 4 and 5 as shown on the Construction Details for Sanitary Sewer Laterals, shall be solid wall PVC unless otherwise shown on the drawings or as standardized upon by the owner.

Standard risers and pipe from risers, Type 3 and 6, shall be ductile iron pipe and fittings with push on joints as shown on the Construction Details.

Fittings for all laterals are to be of the same material as the lateral pipe unless special fittings are needed for transition between material types or sizes or standard fittings are not manufactured. Where the wye and lateral are dissimilar materials, provide a transition coupling, Fernco, or equal, designed to join the two pipe materials. All fittings used, including type of jointing, are subject to review by the engineer.

Under normal conditions and unless otherwise shown on the drawings or requested by the engineer, all service laterals shall be Standard Laterals, Type 1, as shown on the **Construction Details**. Service laterals of Types 2 through 6 may be requested by the engineer to meet field conditions.

It is the general intent to install Modified Laterals, Type 2, 4, or 5 for service to properties that presently have shallow or no basements or where the depth to ground water at the end of lateral is shallow.

Maintain a complete and accurate tabulation of length, depth, and location of all branches, risers, and laterals on cards available from the engineer. Make measurements from the nearest downstream manhole. Lateral installation to meet these specifications and field conditions are the responsibility of the contractor. Problems occurring because of failure to provide proper installation or proper records shall be corrected by the contractor at his expense.

Do not backfill an installed lateral until the engineer has been notified that the lateral is complete and reasonable time is allowed for observation of the work.

D Measurement

The department will measure Sanitary Sewer Lateral, Polyvinyl Chloride (PVC), 8-Inch in length by the linear foot acceptably completed.

The quantity to be paid shall be measured from the connection of the mainline sewer pipe to the connection of the existing sanitary lateral along the centerline of the pipe.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.25	Sanitary Sewer Lateral, Polyvinyl Chloride (PVC), 8-Inch	LF

Payment is full compensation for furnishing all work herein specified; and for furnishing all labor, tools, equipment and incidentals necessary to complete the work. The price shall also be full payment for determining whether laterals are “active”, “inactive”, or abandoned, and the exact location and size of “active” lateral reconnections.

135. City of Madison Sanitary Sewer Lateral, Polyvinyl Chloride (PVC), 6-Inch, Item SPV.0090.26.

A Description

This work consists of excavating required trenches, connecting the lateral to the mainline pipe, placing bedding material, connecting the new lateral to the existing lateral, all required fittings, and bends, backfilling and compacting the trenches and restoring the work site all as provided by the plans, specifications and contract. This work also consists of locating, identifying, and abandoning “inactive” laterals.

B Materials

Furnish sanitary sewer pipe and fittings that are solid-wall Poly Vinyl Chloride (PVC) and that conform to the requirements of the Specification for PVC Sewer Pipe and Fittings, ASTM D 3034.

Provide sanitary sewer pipe and fittings having a standard dimension ratio of 26.

Furnish elastomeric or solvent cement joints made as recommended by the manufacturer.

C Construction

Sewer laterals shall be installed in accordance with Article 503.3 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

The use of 45-degree bends is not permitted except with connecting to a wye at the sanitary sewer main. Bends of 22.5 degrees or less may be used, provided they are separated by at least two feet of straight pipe. Provide new lateral pipe having a minimum diameter of six inches that is also greater than or equal to the diameter of the adjoining lateral. Connecting a new lateral pipe to an existing lateral having a smaller diameter than the existing lateral is not permitted.

Installation of sanitary sewer lateral electronic markers is paid for under bid item Sanitary Lateral Electronic Markers.

D Measurement

The department will measure City of Madison Sanitary Sewer Lateral, Polyvinyl Chloride (PVC), 6-Inch in length by the linear foot, acceptably completed.

The quantity to be paid shall be measured from the connection of the mainline sewer pipe to the connection of the existing sanitary lateral along the centerline of the pipe.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.26	City of Madison Sanitary Sewer Lateral, Polyvinyl Chloride (PVC), 6-Inch	LF

Payment is full compensation for furnishing all materials, including required fittings where laterals are connected to risers, necessary to perform the work; excavation of the trench; installation and removal of sheeting and bracing; backfilling the trench; and compaction of the backfill material; bedding the pipe; laying the pipe and installing the fittings; jointing and sealing of joints in pipe and fittings; encasement, where specified; cleaning out the lateral; restoring the site; determining whether laterals are “active”, “inactive”, or abandoned, and the exact location and size of “active” lateral reconnections; and all labor, tools, equipment necessary to complete the work.

136. Concrete Pavement Joint Layout, Item SPV.0105.01.

A Description

This special provision describes providing a concrete pavement or concrete base joint layout design for intersections and marking the location of all joints in the field.

B (Vacant)

C Construction

Plan and locate all points necessary to establish the horizontal position of the transverse and longitudinal joints in the concrete pavement to prevent uncontrolled cracking. Submit a joint layout design to the engineer before paving each intersection. Mark the location of all concrete joints in the field. Follow the plan details for joints in concrete pavements making adjustments as required to fit field conditions.

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.0105.01	Concrete Pavement Joint Layout	LS

Payment is full compensation for providing the intersection joint layout designs and marking all joints in the field.

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

- 137. Temporary Crosswalk Access (Monona Drive and Nichols Road), Item SPV.0105.03; Temporary Crosswalk Access (Monona Drive and St. Teresa Terrace), Item SPV.0105.04; Temporary Crosswalk Access (Monona Drive and Dean Avenue), Item SPV.0105.05; Temporary Crosswalk Access (Monona Drive and Springhaven Avenue), Item SPV.0105.06; Temporary Crosswalk Access (Monona Drive and Lofty Avenue), Item SPV.0105.07; Temporary Crosswalk Access (Monona Drive and Coldspring Avenue), Item SPV.0105.08; Temporary Crosswalk Access (Monona Drive and Parkway Street), Item SPV.0105.09; Temporary Crosswalk Access (Monona Drive and Winnequah Road), Item SPV.0105.10.**

A Description

The work under this item consists of furnishing, loading, hauling, maintaining, moving, placing, reconstructing, and removing material at intersection locations where temporary pedestrian crosswalks must be maintained near existing crosswalk locations.

B Materials

Provide a hard surface material approved by the engineer, such as temporary pavement, any grade of concrete, skid resistant steel plating, plywood, skid resistant plastic mat, patio blocks, or alternative material as approved by the engineer. Gravel or base course material is not acceptable.

C Construction

Provide a temporary walkway in compliance with the requirements of the current Americans with Disabilities Act Accessibility Guidelines (ADAAG), Wisconsin Administrative Code, Chapter Ind. 1, Ind. 9, and other pertinent code requirements.

Provide a temporary walkway with a minimum clear width of 4-feet and locate the temporary walkway outside the immediate work area as approved by the engineer.

Reconstruct or move Temporary Crosswalk Access if required for utility installation or paving operations.

Maintain accessible crosswalk accesses that are free from mud, sand, and construction debris.

D Measurement

The department will measure Temporary Crosswalk Access (Location) as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.03	Temporary Crosswalk Access (Monona Drive and Nichols Road)	LS
SPV.0105.04	Temporary Crosswalk Access (Monona Drive and St. Teresa Terrace)	LS
SPV.0105.05	Temporary Crosswalk Access (Monona Drive and Dean Avenue)	LS
SPV.0105.06	Temporary Crosswalk Access (Monona Drive and Springhaven Avenue)	LS
SPV.0105.07	Temporary Crosswalk Access (Monona Drive and Lofty Avenue)	LS
SPV.0105.08	Temporary Crosswalk Access (Monona Drive and Coldspring Avenue)	LS
SPV.0105.09	Temporary Crosswalk Access (Monona Drive and Parkway Street)	LS
SPV.0105.10	Temporary Crosswalk Access (Monona Drive and Winnequah Road)	LS

Payment is full compensation for furnishing, loading, and hauling; for preparing the foundation; for placing, maintaining, and removing; and for reconstructing or moving.

138. Research and Locate Existing Property Monuments, Item SPV.0105.11.

A Description

This special provision describes researching and locating existing property monuments located within permanent easement and temporary easement areas, within the construction limits that may be lost or disturbed by construction operations, as directed by the engineer, and as hereinafter provided.

This provision does not relinquish the contractor of his responsibility under standard spec 107.11.

B (Vacant)

C Construction

Prior to construction, research, locate and document the adjacent property monuments located within permanent easement and temporary easement areas. Tie the located property monuments in with coordinates accurate to 1:3000 and tied to at least two adjacent section corners that will not be disturbed by any project.

Prepare a property monument location map showing the type of monuments originally found with their coordinates. A legible tax map or right-of-way plat is acceptable as a base map for the property monument location map. Provide a copy of the property monument location map to the engineer.

All work under this item is to be performed by, or under the direction of, a land surveyor registered in the State of Wisconsin.

After construction is completed property monument locations will be verified and reset, if necessary, under the item titled "Verify and Replace Existing Property Monuments".

D Measurement

The department will measure Research and Locate Existing Property Monuments as a single lump sum unit of work, acceptably completed.

E. Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.11	Research and Locate Existing Property Monuments	LS

Payment is full compensation for furnishing all research, field survey, locating, and recording of field data necessary to locate and determine coordinates for existing property monuments within the construction limits prior to construction; furnishing a registered land surveyor; and for preparing, annotating and delivering the property monument location map to the engineer.

139. Verify and Replace Existing Property Monuments, Item SPV.0105.12.

A Description

This special provision describes verifying the location of, and replacing existing property monuments, which were previously located under the item "Research and Locate Existing Property Monuments", that are determined to be lost or disturbed, as directed by the engineer, and as hereinafter provided.

This provision does not relinquish the contractor of his responsibility under standard spec 107.11.

B Materials

Provide replacement property monuments that are one-inch inside diameter by 24-inch long iron pipe or ¾-inch diameter iron rod or rebar that are 24 inches long in locations outside of pavement areas, a Berntsen Steel Nail Marker for placement in asphalt pavement, or a Berntsen BP1 Brass Marker with anchoring plug for placement in concrete pavement.

C Construction

After construction is completed, verify the location of all property monuments previously located under the item “Research and Locate Existing Property Monuments”. Replace or reset as necessary, any property monuments that are lost or disturbed.

Prepare a property monument location map showing the type of monuments originally found, and the type of replacement monument used to replace or reset the lost or disturbed monuments, with their coordinates. A legible tax map or right-of-way plat is acceptable as a base map for the property monument location map. The property monument location map is to explicitly state that the replaced or reset monuments are not being certified as an actual property monument, only that evidence of a property monument was found and reset. Provide a copy of the property monument location map to the engineer and the county surveyor.

All work under this item is to be performed by, or under the direction of, a land surveyor registered in the State of Wisconsin.

D Measurement

The department will measure Verify and Replace Existing Property Monuments as a single lump sum unit of work, 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.0105.12	Verify and Replace Existing Property Monuments	LS

Payment is full compensation for furnishing all survey work necessary to verify the location of all property monuments previously located under the item “Research and Locate Existing Property Monuments”; replacing or resetting, as necessary, property monuments that are lost or disturbed from their original location; furnishing property monuments; and for furnishing a registered land surveyor; preparing, annotating and delivering the property monument location map.

140. Optical Signal Preempt, Item SPV.0105.13.

A Description

This special provision describes furnishing and installing optical signal preempt equipment for the three signalized intersections. The acceptability of alternate equipment rests solely with the City of Madison Traffic Engineering Division.

B Materials

Provide the following material:

- Two channel discriminator for each of two intersections
- Four channel discriminator for one intersection
- Optical detectors, eight total
- Card rack for each intersection, three total
- Detector cable as necessary
- Cables and auxiliary equipment as necessary for a complete operating system

All equipment shall be from the same manufacturer and fully compatible. The discriminator shall detect and prioritize Tomar and Opticom brand emitters. The discriminator shall be capable of locking out non-coded emitters. The acceptability of equipment rests solely with the City of Madison Traffic Engineering Division.

C Construction

Install detectors on the top horizontal member of monotube arms/trombone arms, between the first and second traffic signal head, and as otherwise shown on the plan or directed by City of Madison Traffic Engineering.

The detectors will generally be on the far side of the intersection, and aimed at approaching traffic, as further directed by Madison Traffic Engineering staff. Install detector cable from the detector to the control cabinet at each intersection, using the shortest path.

Complete installation methods in compliance with the manufacturer's instructions.

Card rack and discriminator installation, as well as cabinet connections, will be made by City of Madison Traffic Engineering staff.

D Measurement

The department will measure Optical Signal Preempt as a single complete lump sum unit of work for opticom signal preempt, 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.0105.13	Optical Signal Preempt	LS

Payment is full compensation furnishing and installing detectors and cable; and for furnishing and delivering discriminators, card racks, cables and miscellaneous materials to the City of Madison Traffic Engineering Field Office, 1120 Sayle St.

141. Temporary Water, Project 5994-00-78, Item SPV.0105.14.

A Description

This special provision describes furnishing and installing temporary water main and services as hereinafter provided.

B Materials

Provide 1-Inch NSF hoses for temporary laterals and NSF Schedule 80 2-Inch PVC for temporary water main.

C Construction

Coordinate temporary water with the City of Monona Water Utility.

City of Monona Water Utility Contact: Floyd Kessler
(608) 692-8491 (cell)
fkessler@ci.monona.wi.us

Notify the City of Monona Water Utility and affected property owners a minimum of 48 hours in advance of any water service shut off.

Limit water service shut offs to the maximum extent possible.

Provide temporary ramping at driveways, intersections, and sidewalks as necessary to protect temporary water main and services from vehicular and pedestrian traffic. Maintain temporary ramping until the new water main and services are installed and operational and the temporary water items have been removed.

D Measurement

The department will measure Temporary Water, Project 5994-00-78 as a single lump sum unit for Temporary Water, Project 5994-00-78, 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.0105.14	Temporary Water, Project 5994-00-78	LS

Payment is full compensation for furnishing and materials, labor, tools, equipment, and incidentals necessary to complete the contract work.

142. Abandoning Water Main, Project 5994-00-78, Item SPV.0105.15.

A Description

This special provision describes removing and/or abandoning existing water main by filling it with cellular concrete in accordance to the pertinent requirements of standard spec 204 and 501, removing hydrants that are being replaced, and removing existing valve boxes 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

Abandon: Fill the abandoned water pipe with cellular concrete as directed by the engineer. If the sewer cannot be completely filled from tie-in locations, tap the water pipe where necessary and fill from these locations.

Remove: Removed pipe will become the property of the contractor. Backfill trench in accordance to the applicable provisions of Water Main Ductile Iron. Additional surface impacts due to removing the pipe versus abandoning the pipe will not be allowed.

Deliver removed hydrants to the City of Monona.

D Measurement

The department will measure Abandoning Water Main, Project 5994-00-78 as a single 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.0105.15	Abandoning Water Main, Project 5994-00-78	LS

Payment is full compensation for furnishing all materials including granular backfill if necessary; and for excavating and backfilling where necessary.

143. Abandoning City of Monona Sanitary Sewer, Project 5994-00-77, Item SPV.0105.16; Abandoning City of Madison Sanitary Sewer, Project 5994-00-77, Item SPV.0105.17.

A Description

This special provision describes abandoning existing sewer mains and laterals and manholes by filling them with cellular concrete in accordance to the pertinent requirements of standard spec 204 and 501, removing the top 4 feet of manholes to be abandoned, and 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 sanitary sewer pipe and manholes with cellular concrete as directed by the engineer. If the sanitary sewer cannot be completely filled from existing manholes, tap the sanitary sewer where necessary and fill from these locations.

D Measurement

The department will measure Abandoning (Municipality) Sanitary Sewer, Project 5994-00-77 as a single lump sum unit of work for abandoning sanitary sewer, 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.0105.16	Abandoning City of Monona Sanitary Sewer, Project 5994-00-77	LS
SPV.0105.17	Abandoning City of Madison Sanitary Sewer, Project 5994-00-77	LS

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

144. Temporary Lighting for Non-Signalized Intersections (St. Teresa Terrace), Item SPV.0105.18; Temporary Lighting for Non-Signalized Intersections (Springhaven Avenue), Item SPV.0105.19; Temporary Lighting for Non-Signalized Intersections (Lofty Avenue), Item SPV.0105.20; Temporary Lighting for Non-Signalized Intersections (Parkway Street), Item SPV.0105.21.

A Description

This special provision describes furnishing, installing, maintaining, and removing temporary lighting at non-signalized intersection locations identified in the plans and in accordance to the applicable provisions of standard spec 655, 657, 659, and 661.

B Materials

Furnish wood poles with minimum 30-foot above grade height in accordance to the applicable provisions of standard spec 661.

Furnish luminaire arms with a minimum length of 6-feet and hardware connectors in accordance to the applicable provisions of standard spec 657.

Furnish 250-watt (minimum) high-pressure sodium luminaires in accordance to the applicable provisions of standard spec 659.

Furnish electrical wiring in accordance to the applicable provisions of standard spec 655.

Provide appropriate guy wire supports and braces in accordance to the applicable provisions of standard spec 661.

C Construction

Install and maintain a minimum of one lighting unit (pole, luminaire arm, luminaire, guy wires) at the non-signalized tee-intersections.

Do not remove temporary lighting until the new corridor lighting is fully installed and operating.

Coordinate electrical power connection with the local electric distribution utility within the project corridor.

Relocate temporary lighting units as necessary to accommodate construction staging operations, including providing electrical power to the new location.

D Measurement

The department will measure Temporary Lighting for Non-Signalized Intersections (location) as a single 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.0105.18	Temporary Lighting for Non-Signalized Intersections (St. Teresa Terrace)	LS
SPV.0105.19	Temporary Lighting for Non-Signalized Intersections (Springhaven Avenue)	LS
SPV.0105.20	Temporary Lighting for Non-Signalized Intersections (Lofty Avenue)	LS
SPV.0105.21	Temporary Lighting for Non-Signalized Intersections (Parkway Street)	LS

Payment is full compensation for furnishing and installing temporary wood poles, luminaire arms and hardware connectors, high-pressure sodium luminaires, electrical wiring, and guy wires; for operating, maintaining, repairing, relocating, and removing the complete temporary lighting installation; and for furnishing all utility coordination including utility charges for installation, disconnection, and energy service through project completion.

145. Oil Disposal Stone Veneer Wall, Item SPV.0105.22.

A Description

This special provision describes re-facing the existing oil disposal site wall with a stone veneer wall as shown on the plans and as hereinafter provided.

B Materials

Furnish Cementitious fiber-mat reinforced sheathing backer unit in compliance with ASTM C1325 and ANSI A118.9 and as supplied by:

Durock or approved equal.

Furnish galvanized structural steel angles in accordance to standard spec 506.

Furnish cold formed galvanized 7/8" x .033 mil thickness furring hat channels in accordance to ASTM C645 and ASTM A653.

Structural steel and furring channel fasteners shall be stainless steel powder actuated concrete nails with stainless steel washers of sufficient length to penetrate 2-inches into the existing concrete wall.

Furnish 1 1/4" long stainless steel screws for fastening sheathing to furring channels in accordance to ASTM C954.

Furnish metal lath conforming to ASTM C 847 requirements. Metal lath shall be self furring 2.5 lb/yd² and shall be galvanized.

MORTAR: Furnish Mortar with a color of tan / buff. Mortar shall be Type S Portland cement-lime mortar with proportion restrictions as stated in the Wisconsin Commercial Building Code. Mortar and masonry cements will not be permitted. Provide integral waterproofing compound in mortar. Portland cement shall conform to ASTM C150, Type I or III. Hydrated lime shall conform to ASTM C207, Type S. Integral waterproofing compound shall be Dry-Block by W.R. Grace Company, or equal. Mortar aggregate shall consist of clean, sharp sand, conforming to ASTM C144. The sand shall be graded within the following limits:

Sieve Number	Percent by Weight Passing
4	100
8	95 to 100
16	70 to 100
30	40 to 75
50	10 to 35
100	2 to 15
200	---

Sand from any one source shall not vary over the extreme limits shown above. For unusually thin joints, such as occur with a unit having cut or ground edges, the aggregate used shall conform to these specifications except that 95% shall pass a No. 16 sieve. Water used in mixing water shall be clean and free of injurious materials. Mortar shall be thoroughly mixed until of uniform color and consistency. Only sufficient mortar to meet the immediate requirements of the work shall be mixed at one time. No mortar shall be retempered after it has begun to set, and no partially set mortar shall be used. No antifreeze materials shall be used in the mortar to lower the freezing point.

Furnish stone veneer, ledgerstone, and cap as supplied by:

- Fond du Lac Stone, N 4224 Hwy. 175, Fond Du Lac, WI 54937;
- Valders Stone and Marble, 443 Quarry Road, Valders, WI 54245 or;
- Vetter Stone, 23894 Third Avenue, Mankato, MN 56001, or equal.

Provide stone with a minimum compression strength of 4000 psi. Veneer stone to be random ashlar pattern, rock face, color to be buff. All end pieces shall be “L” cut. All corner pieces shall be “L” cut to match wall angle. Stone ledgerstone and cap to be rock face, color buff.

Furnish fieldstone used for exterior masonry veneer, resistant to freezing and thawing and the local microclimate and suitable for this specific application. Provide fieldstone matching the desired shape, size and thickness indicated in the drawings and match the stonework on the Monona Drive Phase 1 (Broadway – Nichols Road) walls, Project 5994-00-70/73/74. Example stone veneer wall can be viewed at the intersection of Monona Drive and Acacia Lane.

Furnish corrugated wall ties.

Furnish weep vents. Color to match mortar.

Furnish precast concrete panels for text. Provide panels matching the sizes indicated in the drawings and having a minimum compression strength of 4000 psi. Furnish color exactly matching Monona Drive Phase 1 (Broadway – Nichols Road) walls, Project 5994-00-70/73/74.

Furnish rubber templates for text. Provide text font and size indicated in the drawings and matching Monona Drive Phase 1 (Broadway – Nichols Road) walls, Project 5994-00-70/73/74.

Furnish epoxy for text, color to be dark brown exactly matching the color on the Monona Drive Phase 1 (Broadway – Nichols Road) walls, Project 5994-00-70/73/74.

Furnish stainless steel pins.

C Construction

Install cementitious backer, furring channels and structural steel, veneer stone, ledgerstone, and cap as shown on the drawings.

Install furring hat channels horizontally (level). Attach cementitious backer unit to furring channels according to manufacturer's recommendations.

Install lath horizontally with the cups up. Overlap horizontal and vertical seams a minimum of 1-inch. Install nominal 1/2-inch thick mortar scratch coat over lath. When mortar is thumb-print hard, scratch the surface horizontally to create the mortar scratch coat. Prior to the application of mortar to the scratch coat or limestone veneer, the surfaces should be moistened so that surfaces appear damp but without standing water. Install limestone veneer with the cut face roughened to +/- 1/4-Inch amplitude to the unexposed side. The back of each stone should be entirely buttered with mortar to a nominal thickness of 1/2-inch. Mortar joints shall be full 3/8-inch-thick and shall be completely filled. All joints shall be raked and tooled to a uniform depth. Do not install mortar if temperatures are below 40-degrees F. Limestone veneer pattern shall be random ashlar. Sand blast text over rubber templates.

Provide samples for veneer stone exhibiting extremes of the full range of color, size and other visual characteristics expected in the completed work; stone is subject to the engineer's approval. Samples will establish the standard by which stone provided will be judged.

Provide samples and/or product data for all other materials specified in this section; materials and colors are subject to the engineer's approval. Provide shop drawings along with samples for approval to engineer prior to fabrication of stone pieces or construction of any mockups.

Build a mockup of a typical wall area approximately 48 inches long by 128 inches high by full thickness of wall section, including face and backup accessories. Include mortared joints and veneer anchors in wall mockup. Approval of the mockup is for color, texture, and appearance of stone veneer, ledgerstone and cap and precast concrete panels; relationship of mortar color; tooling of joints; and aesthetic qualities of workmanship. The mockup is subject to the engineer's approval and will become the standard to which all work will be judged. If approved mockup is installed in place as shown on the drawings and undamaged at the end of construction it can become part of the completed work subject to the engineer's approval.

Install cementitious backer, furring channels and structural steel, veneer stone, ledgerstone, and cap as shown on the drawings. Sand blast text over rubber templates.

D Measurement

The department will measure Oil Disposal Stone Veneer Wall as a single lump sum unit of work, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.22	Oil Disposal Stone Veneer Wall	LS

Payment is full compensation for providing and installing all materials necessary to provide the acceptably completed Oil Disposal Stone Veneer Wall; furnishing and installing hardware, for performing all tasks associated with the finished Oil Disposal Stone Veneer Wall necessary to complete the contract work.

146. Wastewater Control, City of Madison, Item SPV.0105.23; Wastewater Control, City of Monona, Item SPV.0105.24.

A Description

Work under this item shall include all equipment, labor, materials, coordination, and incidentals required to control or divert, to the engineer's satisfaction, sanitary sewer flows during reconstruction of the sanitary sewer.

B (Vacant)**C Construction**

This work shall include a pump with a capacity of 100 g.p.m. and all associated equipment required to maintain a functioning sanitary sewer system during construction. At no time shall the normal flow of wastewater in sanitary sewer service laterals be disrupted without prior approval from the engineer. This condition shall also hold at the time of connection of an existing lateral to the new sewer main.

If the contractor elects to use bypass pumping as a means of wastewater control, the methods, equipment, type of hose, etc. shall be subject to approval by the engineer. Hoses crossing streets, driveways, parking areas, etc., are to be ramped over to prevent damage to hoses. Spillage of wastewater is to be contained within the trenches and disposed of downstream to previously installed sewer piping. No spillage of wastewater to adjacent streets, lawns, etc. shall be tolerated. If any such spillage should occur, all construction operations shall cease. Cleanup shall commence immediately and be completed to the satisfaction of the engineer prior to the resumption of any construction operations.

D Measurement

The department will measure Wastewater Control (City) as a single lump sum unit of work for all sanitary sewer control, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.23	Wastewater Control, City of Madison	LS
SPV.0105.24	Wastewater Control, City of Monona	LS

Wastewater control shall be paid for at the contract price, which shall be full compensation for furnishing all work as outlined in the description for sanitary sewer control and diverting required to reconnect sewer laterals to main lines and to construct the sanitary sewer as designed.

147. Traffic Signal Flasher Cabinet Assembly (Station 94+33), Item SPV.0105.25; Traffic Signal Flasher Cabinet Assembly (Station 102+56), Item SPV.0105.26.

A Description

This special provision describes furnishing, assembling, and installing a traffic signal flasher cabinet assembly and accessories as specified herein. See other electrical special provisions for related items that shall be provided.

B Materials

B.1 Cabinet

Provide a cabinet body, door, and latch cast from aluminum alloy 319 or equivalent, free of voids, pits, dents, molding sand and excessive foundry grinding marks. Provide smooth and intact design radii. Provide a smooth and cosmetically acceptable exterior and interior surface, free of molding fins, cracks and other exterior blemishes.

Provide cabinets(s) meeting the following minimum requirements:

1. 5" x 9" x 14" minimum inside dimensions.
2. 3/16" minimum wall thickness of aluminum castings.
3. Cast iron hood over top of door opening of cabinet body.
4. Neatly machined keyhole so as not to interfere with key being inserted into the lock.
5. Door that will accept machining for Police Lock.
6. Hinge door with two each 3/16" diameter pins in cast hinge bosses that allow door to swing no less than 180 degrees when open.
7. The door flange which is in full contact with and compressing a neoprene shall be water resistant.
8. Alodine conversion coating on cabinet assemble to provide corrosion resistance.
9. Provide all cabinet and other mounting hardware in the color black in accordance to the factory/manufacturer color options.

Equip each cabinet with the necessary rigid rear mount for a 4 inch ID pole with 4.5 inch OD pole clamps. Provide all necessary hardware for proper mounting.

B.2 Flasher Control Equipment

Provide a solid state, 2-circuit device which controls the flashing sequence of the beacon when activated by the pedestrian push-button. The flasher will flash at a rate of 60 flashes

per minute. The flasher will flash for a period of time that is programmable. Provide flasher control equipment capable of operating in a temperature range of -40 degrees C and +85 degrees C.

B.3 Time Clock

Provide a time clock meeting the following minimum requirements:

1. Non-volatile memory so that a power failure will not erase the program.
2. Capacitive backup power rated at 168 hours in the event of power failure.
3. Capable of leap year compensation and will automatically compensate for daylight savings time.
4. Capable of establishing school year program based on school calendar and can establish exceptions such as holidays and other events.
5. Easily programmed with LCD display.

B.4 Warranty

A minimum one year warranty from the date of system installation is required for all system components.

C Construction

Mount the control panel containing the electronics (circuit breaker, flasher and time clock) inside the cabinet using bolts for quick and easy removal.

D Measurement

The department will measure Traffic Signal Flasher Cabinet Assembly (location) as a single lump sum unit of work for each cabinet assembly, 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.0105.25	Pedestrian Flasher Cabinet Assembly (Station 94+33)	LS
SPV.0105.26	Pedestrian Flasher Cabinet Assembly (Station 102+56)	LS

Payment is full compensation for furnishing, assembling, and installing pedestrian flasher cabinet assembly; and for assembly and installation of components.

148. Construction Staking Sanitary Sewer, City of Madison Item SPV.0105.27.

A Description

This special provision describes staking line and grade for installation of proposed City of Madison sanitary sewer, laterals, sanitary sewer access structures and castings, and sanitary manholes. Provide construction staking for sanitary sewer as follows.

B (Vacant)

C Construction

Perform this work in accordance to standard spec 650.3.1 and as specified below.

Sanitary Sewer Staking: Include staking structures and pipe staking at 25' intervals to 100' from structures, then 50' intervals. Determine offsets in conjunction with contractor requirements. Verify the invert elevations of existing structures which are to remain and be tied into.

Casting Staking: Include two stakes set at each casting at offsets to be determined to allow the contractor to set casting at finished roadway cross slope.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate stakes to within 0.02 feet of the true horizontal, and to establish the grade elevations within 0.01 feet of the true vertical position.

D Measurement

The department will measure Construction Staking Sanitary Sewer, City of Madison as a single lump sum unit for each construction staking sanitary sewer, City of Madison, 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.0105.27	Construction Staking Sanitary Sewer, City of Madison	LS

Payment is full compensation for locating and setting all construction stakes; and for relocating and resetting damaged or missing construction stakes.

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 21 days of completing the work. The department will deduct from payments due to contractor for additional costs specified in standard spec 105.6.

149. Water for Seeded Areas, Item SPV.0120.01.

A Description

This special provision describes furnishing, hauling and applying water to seeded areas as directed by the engineer, and as hereinafter provided.

B Materials

When watering seeded areas, use clean water, free of impurities or substances that might injure the seed.

C Construction

If rainfall is not sufficient, keep all seeded areas thoroughly moist by watering or sprinkling. Water for 30 days after seed placement or as the engineer directs. Apply water in a manner to preclude washing or erosion. Do not leave the topsoil un-watered for more than 3 days during this 30-day period unless the engineer determines that it is excessively wet and does not require watering. The equivalent of one inch of rainfall per week is considered the minimum.

D Measurement

The department will measure Water for Seeded Areas by volume by the thousand gallon units (MGAL), acceptably completed. The department will determine volume by engineer-approved meters or from tanks of known capacity.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0120.01	Water for Seeded Areas	MGAL

Payment is full compensation for furnishing, hauling, and applying the water.

150. Concrete Sidewalk HES 7-Inch, Item SPV.0165.01.**A Description**

Perform work in accordance to the applicable provisions of standard spec 602 and as detailed in the plans.

B Materials

Furnish air-entrained concrete conforming to standard spec 501. Use high early strength concrete.

C (Vacant)**D Measurement**

The department will measure Concrete Sidewalk HES 7-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 item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Concrete Sidewalk HES 7-Inch	SF

Payment is full compensation for providing all materials, including concrete, reinforcement, and expansion joints; for excavating and preparing the foundation; backfilling and disposing of surplus material; for placing, finishing, protecting, and

curing; and restoring the work site. However, if the contract provides a bid item for excavation, then the department will pay for work required and performed in constructing concrete sidewalks as specified in the contract.

151. Stamped Concrete Sidewalk 4-Inch, Item SPV.0165.02.

A Description

This special provision describes constructing stamped concrete sidewalk on a prepared foundation as shown on the plans and as hereinafter provided.

B Materials

Provide all materials in accordance to standard spec 602.

B.1 Concrete

Provide all materials in accordance to standard spec 501.

Color concrete conforming to bid item Coloring Concrete Monona Drive Red.

B.2 Stamping Pattern

Provide the stamping pattern as detailed on the plans.

B.3 Form Release Agent

Supply a powder antiquing form release agent. Apply form release agent according to manufacturer's instructions using manufacturer's recommended application techniques.

B.4 Concrete Curing

Supply a liquid membrane-forming clear curing compound conforming to AASHTO M 148, type 1. Apply curing compound for integrally concrete according to manufacturer's instructions using manufacturer's recommended application techniques. Apply curing compound at a standard time after each pour.

Do not cure concrete using plastic sheeting, unless necessary due to weather conditions.

B.5 Admixtures

Use admixtures designed for use and compatible with colored concrete pigments. Do not use calcium chloride or admixtures containing chlorides. Use the same admixtures for stamped concrete sidewalk throughout the project.

C Construction

Construct stamped concrete sidewalk in accordance to standard spec 602 and as hereinafter provided.

Color concrete as specified under bid item Coloring Concrete Monona Drive Red.

Prior to work commencing for stamped concrete, provide a finished stamped concrete sample having minimum dimensions of 2 feet by 2 feet by 2 inches (length, width, thickness). Up to five sample panels may be submitted to the engineer to demonstrate the typical pattern, texture, surface finish, and standard workmanship. Notify the engineer seven days in advance of delivering the finished stamped concrete samples.

Uniformly apply liquid release agent onto the still plastic state concrete to provide clean release of imprinting tools from the concrete surface without lifting imprint or tearing concrete.

While initially finished concrete is in plastic state, accurately align and place imprinting stamps. Contractor will need to monitor the setting up of the concrete. Once the concrete has set to the point it can be stamped begin stamping. Uniformly pound or press imprint tools into concrete to produce required pattern and depth of imprint on concrete surface. Remove platform tools immediately. Hand texture and stamp edges and surfaces unable to be imprinted by stamp mats. Touch up imperfections such as broken corners, double imprints and surface cracks.

Stamp concrete consistently so that stamped concrete does not have a vertical elevation difference of 1/2 inch or depressions in concrete capable of causing ponding water or ice.

For concrete hand stamp edges and surfaces that are unable to be imprinted by platform tools, use texture mats and single blade hand stamps to match platform tool stamping pattern. Finish imprinting to match sample panels.

After concrete has been stamped and the sheen has left the surface of the concrete, seal colored concrete. Apply per manufacturer's recommendations. Apply two coats of seal. Apply second coat after first coat has dried. Do not seal over blemishes or imperfections caused by rainfall or protection materials.

Protect concrete from premature drying and excessive cold or hot temperatures. Apply evaporation retarders to concrete surfaces during initial finishing only if hot, dry, or windy conditions cause a moisture loss approaching 0.20 lb/sf/hr before and during initial finishing. Apply according to manufacturer's written instructions.

Protect the concrete from damage. Do not permit construction traffic or material storage on stamped concrete sidewalk. Exclude other foot traffic from stamped concrete sidewalk for at least 5 days after placement.

Remove and replace adjacent concrete that is discolored to the approval of the engineer.

D Measurement

The department will measure Stamped Concrete Sidewalk 4-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 item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.02	Stamped Concrete Sidewalk 4-Inch	SF

Payment will be in accordance to standard spec 602.

Payment also includes full compensation for excavation, forming, for providing placing and finishing stamped concrete; for furnishing materials including concrete masonry, stamping and patterning, curing and release agents, and necessary admixtures; for providing sample panels; and for protecting adjacent pavements and curb and gutter.

The department will pay separately for coloring concrete under bid item Coloring Concrete Monona Drive Red.

152. Cast Iron Truncated Domes Yellow, Item SPV.0165.03.**A Description**

This special provision describes furnishing and installing cast iron truncated domes.

B Material

Provide Neenah detectable warning plates manufactured of ASTM A-48, Class 30 B Gray Iron. Provide a casting that is steel shot blasted and free of any adhering sand or debris and that has a color of Federal Yellow. Standard section will be 24 inches square with bolt lugs on the underside edges providing anchorage and the means for fastening two plates together with two 3/8-inch steel bolts and nuts. Provide a minimum plate thickness of 5/16 inch with a weight of 62 pounds.

Provide 4 vent holes to allow entrapped air to escape during installation. Countersink these vent holes to allow optional stainless steel countersunk flathead anchor screws to be inserted through the holes into the concrete below. The top surface is to have truncated domes that meet the size and spacing as specified in ADA and ABA guidelines. The plate surface and dome truncation surface is to have a tight pattern of raised conical points to increase the coefficient of friction.

Review cast iron truncated dome location and alignment with engineer prior to installation.

C Construction

Install cast iron truncated domes conforming to manufacturer recommended procedures.

D Measurement

The department will measure Cast Iron Truncated Domes Yellow by the square foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.03	Cast Iron Truncated Domes Yellow	SF

Payment is full compensation for furnishing and installing unpainted cast iron truncated domes.

153. Salvage and Replace Brick Pavers, Item SPV.0165.04.**A Description**

This special provision describes salvaging, storing, and relaying existing paver bricks located as shown on the plans and as hereinafter provided.

B Materials

Provide crushed limestone screenings with 100% passing the 3/8-inch sieve.

C Construction

Remove, salvage, handle, and reinstall existing brick pavers in a manner that prevents damaging the brick pavers.

If the contractor damages existing brick pavers through its own operations, the contractor shall replace them at no expense to the department.

Be advised that the existing brick paver sidewalk services the Dean House historical property. Determination of Conditional No Adverse Effect was approved by the State Historic Preservation on March 6, 2007.

Prior to relaying the brick pavers, compact and level a bed of crushed limestone screening to minimum depth of 6 inches. Relay the brick pavers in a regular pattern to match the pattern of the existing brick pavers. Do not exceed a brick jointing of 1/8-inch. Vibrate the relay bricks to their final level by a vibrating plate compactor. Brush crushed limestone screenings over the surface and vibrate into the joints with additional passes of the plate vibrator so as to completely fill the joints.

Any salvaged brick pavers remaining after reinstallation operations will remain the property of the City of Madison Parks Monona Golf Course. Contact Kevin Briski, City of Madison Parks Superintendent, at (608) 266-4711 one week prior to salvaging and replacing the brick pavers at the Dean House to coordinate a stockpile location for the remaining salvaged brick pavers.

D Measurement

The department will measure Salvage and Replace Brick Pavers by the square foot, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.04	Salvage and Replace Brick Pavers	SF

Payment is full compensation for furnishing all materials; for removing, storing, and relaying the brick pavers; for preparation of the foundation and laying bed; for cutting brick paver if necessary; and for stockpiling unused existing brick pavers.

154. Wall Modular Block Gravity Special, Item SPV.0165.05.

A Description

This special provision describes designing, furnishing materials, and erecting a permanent earth retention system in accordance to the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 75 years.

B Materials

B.1 Proprietary Modular Block Gravity Wall Systems

The department specifies approved modular block gravity wall products on the department's approved products list.

Proprietary wall systems may be used for this work, but must conform to the requirements of this specification and be pre-approved for use by the departments' Bureau of Structures, Structures Development Section. The name of the companies supplying pre-approved material shall be furnished within 25 days after the award of contract. The department maintains a list of pre-approved systems of retaining walls. To be eligible for use on this project, a system must have been pre-approved and added to that list prior to the bid opening date.

Applications for pre-approval may be submitted at any time. Applications must be prepared in accordance to the requirements of chapter 14 of the department's Bridge manual. Information and assistance with the pre-approval process can be obtained by contacting the Structures Development Section in Room 601 of the Hill Farms State Transportation Building in Madison or by calling (608) 266-8494.

B.2 Design Requirements

It is the responsibility of the contractor to supply a design and supporting documentation as required by this special provision for review by the department to show that the proposed wall design is in compliance with the design specifications. The following shall be submitted to the engineer for review and acceptance no later than 21 days before wall construction will begin.

The design/shop plans shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the project identification number and structure number, if applicable.

Design calculations and notes shall be on 8½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page.

The design of the Modular Block Gravity Wall shall be in conformance to the latest edition of the AASHTO Standard Specifications for Highway Bridges including interim specifications, the standard specifications, and standard engineering design procedures as determined by the department. The design must include analyses that clearly show the factors of safety for soil bearing stress. The width of the modular block from front face to back face of the wall shall be given in the design computations and shown on the wall shop drawings.

The minimum embedment to the bottom of the modular block shall be 1 foot 6 inches, or as specified in the plan.

B.3 Wall System Components

Materials furnished under this contract shall conform to the requirements hereinafter provided.

B.3.1 Backfill

Wall Backfill, Type A, shall comply with the requirements for coarse aggregate No. 1 as given in standard spec 501.2.5.4. All backfill placed within a zone from the base of the leveling pad to the top of the final layer of wall facing units and within 1 foot behind the back face of the wall shall be Wall Backfill, Type A. This includes all material used to fill openings in the wall facing units.

B.3.2 Wall Facing

Provide wall facing units that consist of precast modular concrete blocks. All units shall incorporate a mechanism or devices that will develop a mechanical connection between vertical block layers. Units that are cracked, chipped or have other imperfections in accordance to ASTM C1372 or excessive efflorescence shall not be used within the wall. A single block type and style shall be used throughout each wall. The color and surface texture of the block shall be as given on the plan, or chosen by the engineer.

The top course of facing units shall be a solid precast concrete unit designed to be compatible with the remainder of the wall. The finishing course shall be bonded to the underlying facing units with a durable, high strength, flexible adhesive compound compatible with the block material. A formed cast-in-place concrete cap may also be used to finish the wall. A cap of this type shall be designed to have texture, color, and an appearance that complements the remainder of the wall. The vertical dimension of the cap shall not be less than 3½ inches. Expansion joints shall be placed in the cap to correspond with each 24-inch change in vertical wall height or at a maximum spacing of 10 feet. Concrete for all cast-in-place caps shall be Grade A and shall conform to the requirements of subsection 501.3 of the standard specifications.

Block dimensions may vary no more than $\pm 1/8$ inch from the standard values published by the manufacturer, in accordance to ASTM C1372. Blocks must have a minimum depth (front face to back face) of 8 inches. The minimum front face thickness of blocks shall be 4 inches measured perpendicular from the front face to inside voids greater than 4 square inches. Also the minimum allowed thickness of any other portion of the block is 2 inches. The front face of the blocks shall conform to plan requirements for color, texture, or patterns.

Cementitious materials and aggregates for modular blocks shall conform to the requirements of ASTM C1372 section 4.1 and 4.2. Modular blocks shall meet the following requirements:

Test	Method	Requirement
Compressive Strength (psi)	ASTM C140	5000 min.
Water Absorption (%)	ASTM C140	6 max.
Freeze-Thaw Loss (%)	ASTM	
40 cycles, 5 of 5 samples	C1262 ⁽¹⁾	1.0 max. ⁽²⁾
50 cycles, 4 of 5 samples		1.5 max. ⁽²⁾

(1) Test shall be run using a 3% saline solution.

(2) Test results that meet either of the listed requirements for Freeze-Thaw Loss are acceptable

All blocks shall be certified as to strength, absorption, and freeze-thaw requirements unless, due to contract changes after letting, certified blocks are not available when required. At the time of delivery of the certified blocks, furnish the engineer a certified test report from a department-approved independent testing laboratory for each lot of modular blocks. The certified test report shall clearly identify the firm conducted the sampling and testing, the type of block, the date sampled, name of the person conducting the sampling, the represented lot, the number of blocks in the lot, and the specific test results for each of the stated requirements of this specification. A lot shall not exceed 5000 blocks. The certified test results will represent all blocks within the lot. Each pallet of blocks delivered shall bear lot identification information. Block lots that do not meet the requirements of this specification or blocks without supporting certified test reports will be rejected and shall be removed from the project at the contractor's expense.

A department-approved independent testing laboratory shall control and conduct all modular block sampling and testing for certification. Prior to sampling, the manufacturer's representative shall identify all pallets of modular blocks contained in each lot. All pallets of blocks within the lot shall be numbered and marked to facilitate random sample selection. The representative of the independent testing laboratory shall identify five pallets of blocks by random numbers and shall then select one block from each of these pallets. Solid blocks used as a finishing or top course shall not be selected. The selected blocks shall remain under the control of the person who conducted the sampling until shipped or delivered to the testing laboratory. All pallets of blocks within a lot shall be strapped or wrapped to secure the contents and tagged or marked for identification. The engineer will reject any pallet of blocks delivered to the project

without intact security measures. The contractor shall remove all rejected blocks from the project at no expense to the department.

The department may conduct testing of certified or non-certified modular blocks lots delivered to the project. The department will not do freeze-thaw testing on blocks less than 45 days old. If a random sample of five blocks of any lot tested by the department fails to meet any of the requirements of this specification (nonconforming), the contractor shall remove from the project site all blocks from the failed lot that have not been installed in the finished work, at no cost to the department, unless the engineer allows otherwise. Nonconforming blocks installed in the finished work will be considered approved by the department as stated in standard spec 106.5(2) and any adjustment to the contract price will not exceed the price of the blocks charged by the supplier.

B.3.3 Leveling Pad

For all walls over 5 feet tall measured from the top of the leveling pad to the top of the wall, the wall leveling pad shall consist of a poured concrete masonry pad made from Grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for class II concrete as specified in standard spec 716. The depth of the leveling pad shall be as shown on the plans or 6-inches minimum. The leveling pad shall be as wide as the blocks plus 6-inches. Six inches of leveling pad shall extend beyond the front face of the blocks. The bottom of the blocks shall be horizontal and 100% of the block surface shall bear on the leveling pad. A concrete leveling pad shall be used for the entire length of the wall. All walls with a Structure Number assigned (such as R-XX-XXX) shall be built using the concrete leveling pad given above. The leveling pad shall step to follow the general slope of the ground line. The leveling pads steps shall keep the bottom of the wall within one block's thickness of the minimum embedment, i.e. minimum embedment plus up to the thickness of one block. Additional embedment may be detailed but will not be measured for payment.

On walls less than or equal to 5 feet in height without a wall number assigned, a compacted leveling pad made from base aggregate dense 1¼ inch as given in standard spec 305 may be used. The depth of the aggregate leveling pad shall be as shown on the plans or 12-inches minimum. The aggregate leveling pad shall be as wide as the blocks plus 12 inches with 12 inches of pad extending beyond the front face of the wall.

C Construction

C.1 General

Construct the modular block gravity wall in accordance to the manufacturer's instructions, at the locations and to the dimensions shown on the plan and as directed by the engineer. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the front face of the wall.

Place materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth. Backfilling shall closely follow erection of each course of wall facing units.

Compact each layer of wall backfill Type A with at least three passes of lightweight manually operated compaction equipment acceptable to the engineer.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facing units. At no expense to the department, correct any such damage or misalignment as directed by the engineer.

Do not operate tracked or wheeled equipment within 3 feet of the back face of the blocks. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing units.

After construction of the wall, restore the surrounding area located above and below all precast block retaining wall sites to its original condition and to the finished details on the plans.

Extend existing downspout and pipe drain as detail in the plan using conventional materials and fittings as approved by the engineer.

C.2 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. The allowable soil bearing capacity is given on the plan. After completion of excavation, the department's Regional Soils Engineer will inspect the site and determine if the foundation is adequate for the intended loads. Allow the region's Soils Engineer two working days to perform the inspection.

D Measurement

The department will measure Wall Modular Block Gravity Special in area by the square foot of face on a vertical plane between the top of the leveling pad and a line indicating the top of wall including wall cap or copings as required and shown on the plans. Unless directed by the engineer, wall area constructed above or below these limits will not be measured for payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.05	Wall Modular Block Gravity Special	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of surplus materials; supplying all necessary wall components to produce a functional system including cap and copings; constructing the retaining system; providing backfill, backfilling, and compacting the

backfill; and furnishing and installing downspout and pipe drain extensions. Parapets, railings, and other items above the wall cap or coping will be paid for separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price of topsoil, fertilizer, seeding or sodding and mulch, respectively.

155. Parking Lot Emulsion Sealcoat, Item SPV.0180.01.

A Description.

Work consists of sealing existing parking lot asphaltic pavement at locations shown on the plans and as hereinafter provided.

B Materials

Furnish sealcoat that is an asphalt emulsion blended with latex, silica sand, and water to the manufacture's specifications.

Furnish crack sealer in the original manufacturers containers. Each container is to provide the manufacturer's name, batch number, and manufacturer's recommendation for melting and application. Sealant must meet ASTM D 3405 specification for rubber asphalt joint sealant.

Furnish a router with a minimum of 24 horsepower using star wheeled carbide tipped router blades attached to a main cutting head. The router is to have in-line wheels and a cutting head capable of following random cracks, and also an automatic depth control to provide consistent and accurate routing depths.

Furnish an air compressor and heat lance of sufficient size to maintain a minimum air pressure of 125 P.S.I. and provide moisture and oil free compressed air to clean and dry the cracks with the heat lance prior to filling.

Furnish a kettle for heating the sealant that is an oil jacketed double boiler type melting unit equipped with both agitation and recirculation systems capable of maintaining a homogeneous consistency of the sealant mixture throughout the application process. The kettle must have separate temperature thermometers for both the oil bath and melting vat to ensure proper temperature for the sealant. The kettle must be equipped with a pump to pressure fill cracks with a wand applicator. The use of a single wall kettle will not allowed.

Furnish a spray distributor capable of blending all products in the mix to a uniform consistency and applying on desired surface at the manufacturer's rate of application.

C Construction

Do not apply parking lot emulsion sealcoat when the surface to receive the sealcoat is wet or when humidity or impending weather conditions will not allow proper curing nor when the atmospheric or pavement temperature is below 50 degrees Fahrenheit.

Route all cracks and joints exceeding 1/8-inch in width within the area to receive sealcoat to a minimum width of 3/4-inch and a depth of 3/4-inch. Blow out cracks with a air compressor and heat lance to clean out routed debris and dry out moisture. Pressure fill all cracks with a wand applicator from the bottom up and overfill and squeegee to a ratio of 3 times the width of the routed crack. Surface and hairline cracks up to 1/8-inch wide will not require repair.

Prior to placing the sealcoat, the surface of the pavement is to be clean and free from dust, dirt, or other loose foreign matter, grease, oil, or any type of objectionable surface film. Clean the pavement surface with a vacuum sweeper, then power blowers and hand wire brushes to provide a clean bonding surface. Burn, wire brush, and treat with oil spot primer areas that have been subjected to fuel or oil spillage to prevent the sealcoat from debonding.

Apply the sealcoat in two coats at a minimum of 1/10 of a gallon per square yard per coat. Sealcoat or trim around concrete, buildings, or other non-asphaltic concrete areas by hand to prevent overspray. Allow the first coat to cure sufficiently, so that it can be driven over without damage, prior to applying the second coat.

After the final applications, allow the sealcoat to cure for not less than 24 hours, during which time all traffic will be excluded from the area that has been sealed. Do not apply pavement marking until after the sealcoat has cured.

D Measurement

The department will measure Parking Lot Emulsion Sealcoat by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Parking Lot Emulsion Sealcoat	SY

Payment in full compensation for furnishing and applying all materials; and for furnishing all surface preparation.

156. Salvage and Replace Landscaping Mulch, Item SPV.0180.02.

A Description

This special provision describes salvaging and replacing landscaping mulch as shown on the plans and as hereinafter provided.

B (Vacant)

C Construction

Remove, handle, store and reinstall existing landscaping mulch in a manner that prevents foreign material from being intermixed with the mulch. If fabric or plastic sheeting underlies the existing landscaping mulch, then replace in a similar manner meeting the approval of the engineer.

D Measurement

The department will measure Salvage and Replace Landscaping Mulch by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.02	Salvage and Replace Landscaping Mulch	SY

Payment is full compensation for providing all materials, including all fabric or plastic sheeting; for furnishing all excavating, backfilling, properly disposing of surplus material; and for cleaning out and restoring the work site.

157. Salvage and Replace Landscaping Stone, Item SPV.0180.03.**A Description**

This special provision describes salvaging and replacing landscaping stone as shown on the plans and as hereinafter provided.

B (Vacant)**C Construction**

Remove, handle, store and reinstall existing landscaping stone in a manner that prevents foreign material from being intermixed with the stone. If fabric or plastic sheeting underlies the existing landscaping stone, then replace in a similar manner meeting the approval of the engineer.

D Measurement

The department will measure Salvage and Replace Landscaping Stone by the square 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.0180.03	Salvage and Replace Landscaping Stone	SY

Payment is full compensation for providing all materials, including all fabric or plastic sheeting; for furnishing all excavating, backfilling, disposing of surplus material, and for cleaning out and restoring the work site, and all incidentals necessary to complete the contract work.

158. Construction Staking Parking Lots Subgrade and Base, Item SPV.0180.04.

A Description

Perform the work in accordance to the applicable provisions of standard spec 650.3.3, for subgrade, and standard spec 650.3.4 for base.

B (Vacant)

C Construction

Set additional construction stakes as necessary to establish location and grade of the parking lots including points of change in alignment and grade in accordance to the plans.

D Measurement

The department will measure Construction Staking Parking Lots Subgrade and Base by the square yard, 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.0180.04	Construction Staking Parking Lots Subgrade and Base	SY

Payment for Construction Staking Parking Lots bid item is full compensation for locating and setting all construction stakes; and for relocating and resetting damaged or missing construction stakes.

159. Crosswalk Concrete Pavement 8-Inch, Item SPV.0180.05; 8 1/2-Inch, Item SPV.0180.06.

A Description

This special provision describes constructing crosswalk concrete pavement on a prepared foundation as shown on the plans and as hereinafter provided.

B Materials

B.1 Concrete

Provide all materials in accordance to standard spec 501.

Color concrete conforming to bid item Coloring Concrete Monona Drive Red.

B.2 Stamping Pattern

Provide the stamping pattern as detailed on the plans.

B.3 Form Release Agent

Supply a powder antiquing form release agent. apply form release agent according to manufacturer's instructions using manufacturer's recommended application techniques.

B.4 Concrete Curing

Supply a liquid membrane-forming clear curing compound conforming to AASHTO M 148, type 1. Apply curing compound for integrally concrete according to manufacturer's instructions using manufacturer's recommended application techniques. Apply curing compound at a standard time after each pour.

Do not cure concrete using plastic sheeting, unless necessary due to weather conditions.

B.5 Admixtures

Use admixtures designed for use and compatible with colored concrete pigments. Do not use calcium chloride or admixtures containing chlorides. Use the same admixtures for crosswalk concrete pavement throughout the project.

C Construction

Construct crosswalk concrete pavement in accordance to standard spec 415 and as hereinafter provided.

Color concrete as specified under bid item Coloring Concrete Monona Drive Red.

At crosswalk locations on the mainline of Monona Drive, pave through the intersections with the mainline concrete paving and then come back and saw cut where the crosswalk will be constructed. Saw the concrete pavement before the new curb and gutter is constructed to prevent having to saw into the new curb and gutter. Make a double saw cut to prevent the abutting concrete pavement from chipping. Remove new concrete pavement where the crosswalk will be constructed. Install pavement ties and dowel bars as directed by the engineer.

The contractor will be required prior to work commencing for crosswalk concrete pavement to provide a finished stamped concrete pavement sample having minimum dimensions of 2 feet by 2 feet by 2 inches (length, width, thickness). Up to five sample panels may be submitted to the engineer to demonstrate the typical pattern, texture, surface finish, and standard workmanship. Notify the engineer seven days in advance of delivering the finished crosswalk concrete samples.

If the engineer allows, minimal amounts of water may be applied to the surface of the concrete to complete the final surface finishing operations. If too much water is added to the surface of the concrete during final surface finishing operations, such that the concrete no longer conforms to the sample panel, the concrete may be rejected and removed at the direction of the engineer.

Cover and protect adjacent construction and concrete from discoloration and spillage during placement and curing of concrete. Remove and replace discolored concrete as the engineer directs.

Uniformly apply liquid release agent onto the still plastic state concrete to provide clean release of imprinting tools from the concrete surface without lifting imprint or tearing concrete.

While initially finished concrete is in plastic state, accurately align and place imprinting stamps. Contractor will need to monitor the setting up of the concrete. Once the concrete has set to the point it can be stamped begin stamping. Uniformly pound or press imprint tools into concrete to produce required pattern and depth of imprint on concrete surface. Remove platform tools immediately. Hand texture and stamp edges and surfaces unable to be imprinted by stamp mats. Touch up imperfections such as broken corners, double imprints and surface cracks.

Stamp concrete consistently so that stamped concrete does not have a vertical elevation difference of 1/2 inch or depressions in concrete capable of causing ponding water or ice.

For concrete hand stamp edges and surfaces that are unable to be imprinted by platform tools, use texture mats and single blade hand stamps to match platform tool stamping pattern. Finish imprinting to match sample panels.

After concrete has been stamped and the sheen has left the surface of the concrete, seal concrete. Apply per manufacturer's recommendations. Apply two coats of seal. Apply second coat after first coat has dried. Do not seal over blemishes or imperfections caused by rainfall or protection materials.

Protect concrete from premature drying and excessive cold or hot temperatures. Apply evaporation retarders to concrete surfaces during initial finishing only if hot, dry, or windy conditions cause a moisture loss approaching 0.20 lb/sf/hr before and during initial finishing. Apply according to manufacturer's written instructions.

Protect the concrete from damage. Do not permit construction traffic or material storage on crosswalk concrete pavement. Exclude other foot traffic from crosswalk concrete pavement for at least 5 days after placement.

D Measurement

The department will measure Crosswalk Concrete Pavement (Inch) by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.05	Crosswalk Concrete Pavement 8-Inch	SY
SPV.0180.06	Crosswalk Concrete Pavement 8 1/2-Inch	SY

Payment will be in accordance to standard spec 415.

Payment also includes full compensation for excavation, forming, for providing placing and finishing concrete; for furnishing materials including concrete masonry, stamping and patterning, curing and release agents, and necessary admixtures; for providing sample panels; and for protecting adjacent pavements and curb and gutter.

The department will pay separately for coloring concrete under bid item Coloring Concrete Monona Drive Red.

160. Shredded Hardwood Bark Mulch, Item SPV.0180.07.

A Description

This special provision describes furnishing and installing Shredded Hardwood Bark Mulch at the locations shown on the plans and in accordance to the requirements of standard spec 632, the plans, and as hereinafter provided.

B Materials

Provide Shredded Hardwood Bark Mulch, as shown on plan and in accordance to standard spec 632.2.6.

Shredded Hardwood Bark Mulch shall be finely shredded and shall be the product of a mechanical chipper, hammermill, or tub grinder. The material shall be fibrous and uniformly dark brown in color, free of large wood chunks, and shall be substantially free of mold, dirt, sawdust, and foreign material. No portion of the material shall be in an advanced state of decomposition. The material shall not contain chipped up manufactured boards or chemically treated wood, including but not limited to wafer board, particle board, and chromated copper arsenate (CCA) or penta-treated wood. The material shall contain no bark of the black walnut tree. The material, when air dried, shall all pass a 4-inch screen and no more than 20 percent by mass of the material shall pass a 0.10-inch sieve. Unattached bark or greenleaf composition, either singly or combined, shall not exceed 20 percent each by mass. The maximum length of individual pieces shall not exceed 4 inches.

C Construction

Install mulch in accordance to standard spec 632.3.9 to a depth of 3 inches over entire area of bed.

Keep mulch 1" below finish elevation of adjacent paved surfaces while maintaining 3 inch depth.

Do not use any weed barrier fabric in bark mulch areas.

Place the Shredded Hardwood Bark Mulch in such a manner as to not damage plants already in place.

D Measurement

The department will measure Shredded Hardwood Bark Mulch by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.07	Shredded Hardwood Bark Mulch	SY

Payment is full compensation for furnishing and installing all materials.

161. Temporary Surface Same Day, Item SPV.0180.08.

A Description

This special provision describes replacing disturbed pavement in a mainline traveled lane with a minimum driving surface of Base Aggregate Dense 1 1/4-Inch the same day and Asphaltic Surface Temporary within one working day. This item is to be used to replace disturbed pavement when a storm sewer, water main or sanitary sewer installation requires a single lane closure to excavate into the mainline traveled lane. A closed lane will not be allowed to re-open until the excavation is covered by an approved temporary surface.

B Materials

Provide Base Aggregate Dense 1 1/4-Inch as specified under standard spec 305.

Provide Asphaltic Surface Temporary as specified under standard spec 465.2.

Furnish temporary pavement consisting of a minimum of 5 inches of Asphaltic Surface Temporary over 10 inches of Base Aggregate Dense 1 1/4-Inch.

C Construction

Place Base Aggregate Dense as specified under standard spec 305.3.

Place Asphaltic Surface Temporary as specified under subsection 465.3.1.

Maintain work done under Temporary Surface Same Day for the time the contract specifies.

D Measurement

The department will measure Temporary Surface Same Day by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.08	Temporary Surface Same Day	SY

Payment is full compensation for excavating, backfilling and properly disposing of excess material; preparing the foundation; furnishing, placing, and compacting the base material; furnishing and placing asphaltic surface temporary; maintaining the surface during the time the contract specifies; and for removing the temporary pavement.

162. Excavation, Hauling, and Disposal of Chlorinated Solvent Contaminated Soil, Item SPV.0195.01.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and disposing of nonhazardous, chlorinated solvent contaminated soil at a DNR approved landfill. Two DNR-approved landfills that will accept the solvent contaminated soil with the existing soil analytical data have been identified. The landfills are Madison Prairie Landfill at 6002 Nelson Road, Sun Prairie, WI 53590 and Deer Track Park Landfill at N6756 Waldmann Lane, Watertown, WI 53094.

Perform this work in accordance 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 Location(s)

The owner of the property completed testing for soil and groundwater contamination for locations within this project where excavation is required. Testing indicated that chlorinated solvent contaminated soil is present at the following location(s):

1. Station 92+50 to 94+75 from the reference line to the slope intercept RT of reference line.
2. Station 10+00 HS to 13+40 HS from 10 feet LT of reference line to slope intercept RT of reference line.

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

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

Name: Daniel Stephany, City of Monona DPW
Address: 5211 Schluter Road, Monona, WI 53716
Phone: (608) 222-2525
Fax: (608) 222-9225
E-mail: dstephany@ci.monona.wi.us

A.3 Coordination

Coordinate work under this contract with Dan Stephany, City of Monona DPW, who will provide the environmental consultant contact information for the project prior to the start of construction:

Name: Daniel Stephany, City of Monona DPW
Address: 5211 Schluter Road, Monona, WI 53716
Phone: (608) 222-2525
Fax: (608) 222-9225
E-mail: dstephany@ci.monona.wi.us

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 and field observations of soil that is excavated;
2. Identifying contaminated soils to be hauled to the landfill;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of contaminated soil from the landfill.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days 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 approved landfill that will be used for disposal of contaminated soils, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from

the landfill. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

A.4 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter soil contaminated with chlorinated solvents. 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 evaluate soil excavated from the contaminated areas to determine if the soil will require landfill disposal. The environmental consultant will evaluate excavated soil based on field 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 25 cubic yards excavated.

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Excavation, Hauling, and Disposal of Chlorinated Solvent Contaminated Soil	Ton

Payment is full compensation for excavating, segregating, loading, hauling, and disposal of chlorinated solvent contaminated soil, including associated fees; 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.

163. Construct Outside Drop (8" SDR-35), Item SPV.0200.01.**A Description**

This special provision describes constructing outside drops in the locations shown on the plan set. Outside Drops are required if the elevation difference between the incoming pipe and the springline of the outgoing pipe is greater than 2 ft.

B Materials

Outside Drop shall meet the requirements of Standard Detail Drawing 5.7.2 and Article 507.3(d)1 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition. The vertical pipe used shall be 8" diameter PVC.

C Construction

Install Construct Outside Drop in accordance to Article 507.3(d)1 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition.

Maintain the normal flow of wastewater at all times during installation of the new sanitary Sewer Access Structure and when connecting pipes to the new structure. All bypass pumping, temporary piping, and/or temporary connections, which are required to maintain the normal flow of wastewater throughout construction, are included in this bid item.

D Measurement

The department will measure Construct Outside Drop (8" SDR-35) as a completed vertical foot measured from the invert of the entry tee to the springline of the outgoing sewer main, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0200.01	Construct Outside Drop (8"SDR-35)	VF

Payment is full compensation for vertical foot of outside drop satisfactorily installed in accordance to Article 507.3(d)1 of the City of Madison Standard Specifications for Public Works Construction – Latest Edition. This includes all materials, equipment, labor, and incidentals necessary to complete the work.

**ADDITIONAL SPECIAL PROVISION 1 (ASP 1)
FOR TRANSPORTATION ALLIANCE FOR NEW SOLUTIONS (TrANS)
PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS**

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including “pipeline” activities. The core programs includes: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

TrANS is an employment program originally established in 1995 in Southeastern Wisconsin. Currently TrANS has expanded to include TrANS program locations to serve contractors in Southeast (Milwaukee and surrounding counties), Southcentral (Dane County and surrounding counties including Rock County), and most Northeastern Wisconsin counties from locations in Keshena, Rhinelander and surrounding far Northern areas. TrANS attempts to meet contractor’s needs in other geographic locations as possible. It is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities and non-minorities as laborers and apprentices in the highway skilled trades. These candidate preparation and contractor coordination services are provided by community based organizations. For a list of the TrANS Coordinators contact the Disadvantaged Business Enterprise Office at (414) 438-4583 in Milwaukee or (608) 266-6961 in Madison. These services are provided to you at no cost.

I. BASIC CONCEPTS

Training reimbursements to employing contractors for new placements, rehires or promotions to apprentice of TrANS Program graduates will be made as follows:

- 1) **On-the-Job Training, Item ASP.1T0G, ASP 1 Graduate.** At the rate of \$5.00 per hour on federal aid projects when TrANS graduates are initially hired, or seasonally rehired, as unskilled laborers or the equivalent.

Eligibility and Duration: To the employing contractor, for up to 2000 hours from the point of initial hire as a TrANS program placement.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 5 (number) TrANS Graduate(s) be utilized on this contract.

- 2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of \$5.00 per hour on federal aid projects at the point when an employee who came out of the TrANS Program is subsequently entered into an apprenticeship contract in an underutilized skilled trade (this will include the Skilled Laborer Apprenticeship when that standard is implemented).

Eligibility and Duration: To the employing contractor, for the length of time the TrANS graduate is in apprentice status.

Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that 2 (number) TrANS Apprentice(s) be utilized on this contract.

- 3) The maximum duration of reimbursement is two years as a TrANS graduate plus time in apprentice status.
- 4) If a TrANS program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified under Items ASP.1T0G and ASP.1T0A. For more information, contact the Disadvantaged Business Enterprise Office at the phone numbers listed above.
- 5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

I. RATIONALE AND SPECIAL NOTE

The \$5.00 per hour now being paid for TrANS placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the \$5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit TrANS candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of TrANS graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. *Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that TrANS placements still contribute toward fulfilling the new hire goal of 50% women and minorities.* Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

NOTE: *Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

II. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL-

OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level.

It is the contractor's responsibility to note on their Certified Payrolls if their employee is a TrANS graduate or a TrANS apprentice. The District EEO Coordinators utilize the information on the Certified Payrolls to track the hours accumulated by TrANS Graduates and TrANS apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources.

TrANS is nondiscriminatory by regulation, and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

IV. TRANS TRAINING

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows:

The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract.

Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

V. APPRENTICESHIP TRAINING

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical under-representation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230) to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

- (1) To increase the overall effectiveness of the State highway agencies' approved training programs.
- (2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b) (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a) (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Civil Rights Office. A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT Civil Rights Office, 4802 Sheboygan Avenue, P.O. Box 7965, Rm. 451, Madison, WI 53707.

ADDITIONAL SPECIAL PROVISION 3 DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

1. Description

General

- a. The disadvantaged business enterprise (DBE) requirements of 49 CFR Part 26 apply to this contract. The department's DBE goal is shown on the cover of the bidding proposal. The contractor can meet the specified contract DBE goal by procuring services or materials from a DBE or by subcontracting work to a DBE. The department calculates the DBE participation as the dollar value of DBE participation included in the bid expressed as a percentage of the total contract bid amount.
- b. Under the contract, the contractor agrees to provide the assistance to participating DBE's in the following areas:
 - i. Produce accurate and complete quotes.
 - ii. Understand highway plans applicable to their work.
 - iii. Understand specifications and contract requirements applicable to their work.
 - iv. Understand contracting reporting requirements.
- c. The department encourages the contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.
- d. For information on the disadvantaged business program, visit the department's Civil Rights and Compliance Section website at:

<http://www.dot.wisconsin.gov/business/engrserv/dbe-main.htm>

2. Definitions

- a. Interpret these terms, used throughout this additional special provision, as follows:
 - i. **Bid Percentage:** The DBE percentage indicated in the bidding proposal at the time of bid.
 - ii. **DBE:** A disadvantaged business enterprise (DBE) certified as a DBE by the department and included on the department's list of certified DBE's who are determined to be ready, willing and able.
 - iii. **DBE goal:** The amount of DBE participation expected in the contract as shown on the cover of the Highway Work Proposal.
 - iv. **Discretionary Goal:** A contractor assigned DBE goal, typically abbreviated as "Disc" on the cover of the Highway Work Proposal, which is enforced as committed.
 - v. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.
 - vi. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.
 - vii. **Voluntary Achievement:** The amount of DBE participation achieved and reported in the contract in excess of the assigned goal.

3. DBE Percentage Required at Bid Submission

Indicate the bid percentage (i.e. 0% through 100%) of DBE participation on the completed bidding proposal, including projects with discretionary goals. For electronic submittals, show the percentage in the miscellaneous data folder, Item 3, DBE Percent. For paper submittals, show the percentage on the sheet included after the schedule of items. By submission of the bid, the bidder contractually commits to DBE participation at or above the bid percentage, or certifies that they have utilized

comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, and that the bid percentage is reflective of these good faith efforts. If the bidder does not indicate the bid percentage of DBE participation on the completed bidding proposal, the department will consider the bid irregular and may reject the bid.

4. Department's DBE Evaluation Process

a. Documentation Submittal

Within 10 business days after the notification of contract award, the contractor is to identify, by name, the DBE firms whose utilization is intended to satisfy this provision, the items of work of the DBE subcontract or supply agreement and the dollar value of those items of work by completing the Commitment to Subcontract to DBE Form [DT1506] and all necessary attachment A forms, as well as, Good Faith Waiver Form [DT1202] and supporting documentation as necessary. If the contractor fails to furnish the required forms within the specified time, the department may cancel the award. Delay in fulfilling this requirement is not a cause for extension of the contract time and shall not be used as a tool to delay execution.

i. Bidder Meets DBE Goal

If the bidder indicates that the contract DBE goal is met, after award and before execution, the department will evaluate the Commitment to Subcontract to DBE Form DT1506 and attachment A(s) to verify the actual DBE percentage achieved. If the DBE commitment is verified, the contract is eligible for execution with respect to the DBE commitment.

ii. Bidder Does Not Meet DBE Goal

- (1) If the bidder indicates a bid percentage on the Commitment to Subcontract to DBE Form [DT1506] that does not meet the contract DBE goal, the bidder must submit a Good Faith Waiver Form [DT1202] and supporting documentation. After award and before execution, the department will evaluate the bidder's DBE commitment and consider the bidder's good faith waiver request.
- (2) The department will review the bidder's good faith waiver request and notify the bidder of one of the following:
 - a. If the department grants a good faith waiver, the bid is eligible for contract execution with respect to DBE commitment.
 - b. If the department rejects the good faith waiver request, the department may declare the bid ineligible for execution. The department will provide a written explanation of why the good faith waiver request was rejected. The bidder may appeal the department's rejection as allowed under 7 a. & b.

5. Department's Criteria for Good Faith Effort

The Code of Federal Regulations {CFR}, 49 CFR Part 26-Appendix A, is the guiding regulation concerning good faith efforts. However, the federal regulations do not define "good faith" but states that bidder must actively and aggressively attempt to meet the goal. The federal regulations are general and do not include every factor or effort that can be considered. As a result, each state must establish its own processes and consider the factors established in its own process when making a determination of good faith.

- a. The department will only grant a good faith waiver if the bidder has made the effort, given the relevant circumstances under the contract that a bidder actively and aggressively seeking to meet the goal would make. The department will evaluate the bidder's good faith effort to determine whether a good faith waiver will be granted. The bidder must demonstrate, on the DT1202 that they have aggressively solicited DBE participation in an attempt to meet the contract DBE goal and attaining the stated DBE goal is not feasible.

- b. The department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.
- c. Prime Contractors should:
 - i. Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use the Civil Rights & Compliance System [CRCS] and related WisDOT-approved DBE outreach tools, including the Bid Express Small Business Network, to foster DBE participation on all applicable contracts.
 - ii. Request quotes by identifying potential items to subcontract and solicit. Prime contractors are strongly encouraged to include in their initial contacts a single page including a detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in Appendix A.* Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, **as required by federal rules**. In some cases, it might be appropriate to use DBE's to do work in a prime contractor's area of specialization.
 - (1) Solicit quotes through all reasonable and available means from certified DBE firms who match 'possible items to subcontract' and send copies to DBESS office, highlighting areas in which you are seeking quotes. Email is acceptable.
 - (2) SBN is the preferred outreach tool. <https://www.bidx.com/wi/main>. Other acceptable means include postal mail, email, fax, phone call.
 - a. Primes must ask DBE firms for a response in their solicitations. See *Sample Contractors Solicitation Letter* in Appendix. This letter can be included as an attachment to the SBN sub-quote request.
 - b. Solicit quotes at least 10 calendar days prior to the letting date {ideally two Fridays before the letting} to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking them if they need help in putting together a quote, or helping to arrange for equipment needs, or solve other problems.
 - (3) Second solicitation should take place within 5 days
 - a. An email solicitation is highly recommended for this second solicitation
 - (4) Upon request, provide interested DBE firms with adequate information about plans, specifications and the requirements of the contract by letter, information session, email, phone call and/or referral.
 - (5) When potential exists, advise interested DBE firms on how to obtain bonding, line of credit or insurance as may be requested.
 - (6) Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:
 - a. Email to all prospective DBE firms in relevant work areas
 - b. Phone call log to DBE firms who express interest via written response or call.
 - c. Fax/letter confirmation
 - d. Copy of the DBE quotes
 - e. Signed copy of Bid Express SBN Record of Subcontractor Outreach Effort.
- d. Evaluate DBE quotes as documentation is critical if the prime does not utilize the DBE firm's quote for any reason.
 - i. Evaluate DBE firm's capability to perform 'possible items to subcontract' using legitimate reasons, including but not limited to, **a discussion with the DBE firm** regarding its

- capabilities prior to the bid letting. If lack of capacity is your reason for not utilizing the DBE quote, you are required to contact the DBE directly regarding their ability to perform the work indicated in the UCP directory as their work area [NAICS code]; only the work area and/or NAICS code listed in the UCP directory will be counted for DBE credit. Documentation of the conversation is required.
- ii. In striving to meet a DBE conscious contract goal, prime contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.
 - iii. **Special Circumstance:** Evaluation of DBE quotes with tied bid items. "Tied quotes are the condition in which a subcontractor submits quotes including multiple areas of expertise across multiple work areas noting that the items and price are tied. Typically this type of quoting represents a cost saving to the prime but is not clearly stated as a discount; tied quotes are usually presented as 'all or none' quote to the prime." When non-DBE subcontractors submit tied bid items in their quotes to the prime, the DBE firms' quote may seem not competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples.
 - (1) Compare bid items common to both quotes, noting the reasonableness in the price comparison.
 - (2) Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.
- e. After notification of contract award, submit '**Commitment to Subcontract**' form within the time period specified in the contract.
 - i. Provide the following information along with department form DT1202:
 - (1) The names, addresses, e-mail addresses, telephone numbers of DBE's contacted. The dates of both initial and follow-up contact. A printed copy of SBN solicitation is acceptable.
 - (2) A description of information provided to the DBE's regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE.
 - (3) Photocopies or electronic copies of all written solicitations to DBE's.
 - (4) Documentation of each quote received from a DBE and, if rejected, the reason for that rejection.
 - (5) Bidder attendance at any pre-solicitation or pre-bid meetings the department held to inform DBE's of participation opportunities available on the project.
 - f. The department's DBE Support Services Office is available by phone, email or in writing to request assistance in meeting the DBE goal:

DBE Support Services Office
6150 Fond du Lac Ave.
Milwaukee, WI 53218
Phone: 414-438-4583 / 608-266-6961
Fax: 414-438-5392
E-mail: DOTDBESupportServices@dot.wi.gov

6. Bidder's Appeal Process

- a. A bidder can appeal the department's decision to deny the bidder's good faith waiver request. The bidder must provide written documentation refuting the specific reasons for rejection as stated in the department's rejection notice. The bidder may meet in person with the department if so

requested. Failure to appeal within 7 calendar days after receiving the department's written notice of rejection of a good faith waiver request under constitutes a forfeiture of the bidder's right of appeal. If the bidder does not appeal, the department may declare the bid ineligible for execution.

- b. The department will appoint a representative, who did not participate in the original determination, to assess the bidder's appeal. The department will issue a written decision within 7 calendar days after the bidder presents all written and oral testimony. In that written decision, the department will explain the basis for finding that the bidder did or did not meet the contract DBE goal or make an adequate good faith effort to meet the contract DBE goal. The department's decision is final. If the department finds that the bidder did not meet the contract DBE goal or did not make adequate efforts to meet the DBE goal, the department may declare the bid ineligible for execution.

7. Department's Criteria for DBE Participation

Department's DBE List

- a. The department maintains a DBE list on the department's website at <http://app.mylcm.com/wisdot/Reports/WisDotUCPDirectory.aspx>
- b. The DBE office is also available to assist at 414-438-4583 or 608-266-6961.

8. Counting DBE Participation

Assessing DBE Work

- a. The department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the unified certification program agencies. If a firm becomes DBE certified before entering into a subcontract, the department may consider that DBE usage towards the contract goal. The department only counts the value of the work a DBE actually performs towards the DBE goal. The department assesses the DBE work as follows:
- b. The department counts work performed by the DBE's own resources. The department includes the cost of materials and supplies the DBE obtains for the work. The department also includes the cost of equipment the DBE leases for the work. The department will not include the cost of materials, supplies, or equipment the DBE purchases or leases from the prime contractor or its affiliate, except the department will count non-project specific leases the DBE has in place before the work is advertised.
- c. The department counts fees and commissions the DBE charges for providing a bona fide professional, technical, consultant, or managerial services. The department also counts fees and commissions the DBE charges for providing bonds or insurance. The department will only count costs the engineer deems reasonable based on experience or prevailing market rates.
- d. If a DBE subcontracts work, the department counts the value of the subcontracted work only if the DBE's subcontractor is also a DBE.
- e. The contractor shall maintain records and may be required to furnish periodic reports documenting its performance under this item.
- f. It is the prime contractor's responsibility to determine the DBE's ability to perform the work with the use of the UCP directory.

9. Commercially Useful Function

- a. The department counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.
- b. A DBE is performing a commercially useful function if the following conditions are met:
- c. For contract work, the DBE is responsible for executing a distinct portion of the contract work and it is carrying out its responsibilities by actually performing, managing, and supervising that work.
- d. For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.

10. Trucking

All bidders are expected to adhere to the department's current trucking policy posted on the HCCI website at

<http://www.dot.wisconsin.gov/business/engrserv/docs/dbe-trucking-notice.pdf>

11. Manufacturers and Suppliers

The department counts material and supplies a DBE provides under the contract. The department will give full credit toward the DBE goal if the DBE is a manufacturer of those materials or supplies. The department will give 60 percent credit toward the DBE goal if the DBE is merely a supplier of those materials or supplies. It is the bidder's responsibility to find out if the DBE is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506.

12. DBE Prime

If the prime contractor is a DBE, the department will only count the work the contractor performs with its own forces, the work DBE subcontractors perform, and the work DBE suppliers or manufacturers perform.

13. Joint Venture

If a DBE performs as a participant in a joint venture, the department will only count that portion of the total dollar value of the contract equal to that portion of the work that the DBE performs with its own forces.

14. Mentor Protégé

- a. If a DBE performs as a participant in a mentor protégé agreement, the department will credit the portion of the work performed by the DBE protégé firm
- b. On every other project that the mentor protégé team identifies itself on.
- c. For no more than one half of the total contracted DBE goal on any WisDOT project.

15. DBE Replacement

In the event a Prime Contractor needs to replace a DBE firm originally listed on the approved DBE Commitment Form DT1506, the Prime Contractor must comply with the department's DBE Replacement Policy located on the DBE page on the following web site:

<http://www.dot.wisconsin.gov/business/engrserv/docs/policyreplacingdbe.pdf>

16. Changes to the approved DBE Commitment Form DT1506

If there are any changes to the approved Commitment to Subcontract to DBE Form DT1506, the prime contractor must submit a revised DBE Commitment Form DT1506 and relevant attachment A(s) to the DBE Programs Office within 5 business days.

17. Contract Modifications

When additional opportunity is available by contract modifications, the Prime Contractor shall utilize DBE Subcontractors, that were committed to equal work items, in the original contract.

18. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

APPENDIX A
Sample Contractor Solicitation Letter Page 1
This sample is provided as a guide not a requirement

GFW SAMPLE MEMORANDUM

TO: DBE FIRMS
FROM: POTENTIAL PRIME CONTRACTOR OR MAJOR SUBCONTRACTOR
SUBJECT: REQUEST FOR DBE QUOTES
LET DATE & TIME
DATE: MONTH DAY YEAR
CC: DBE OFFICE ENGINEER

Our company is considering bidding on the projects indicated on the next page, as a prime and/or a subcontractor for the Wisconsin Department of Transportation Month- date -year Letting. Page 2 lists the projects and work items that we may subcontract for this letting. We are interested in obtaining subcontractor quotes for these projects and work categories. Also note that we are willing to accept quotes in areas we may be planning to perform ourselves as required by federal rules.

Please review page 2, respond whether you plan to quote, highlight the projects and work items you are interested in performing and return it via fax or email within 3 days. Plans, specifications and addenda are available through WisDOT at the DBE Support Services office or at the Highway Construction Contract Information (HCCI) site at <http://roadwaystandards.dot.wi.gov/hcci/>

Your quote should include all of the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Page 2, with the indicated projects and items you plan to quote, should be used as a cover sheet for your quote.

Please make every effort to have your quotes into our office by time deadline the prior to the letting date. **Make sure the correct letting date, project ID and proposal number, unit price and extension are included in your quote.** We prefer quotes be sent via SBN but prime's alternative's are acceptable. Our office hours are include hours and days. Please call our office as soon as possible prior to the letting if you need information/clarification to prepare your quote at contact number.

If you wish to discuss or evaluate your quote in more detail, contact us after the contract is awarded. Status of the contract can be checked at WisDOT's HCCI site at <http://roadwaystandards.dot.wi.gov/hcci/>

All questions should be directed to:

Project Manager, John Doe,
Phone: (000) 123-4567
Email: Joe@joetheplumber.com
Fax: (000) 123- 4657

Sample Contractor Solicitation Letter Page 2

This sample is provided as a guide not a requirement

REQUEST FOR QUOTATION

Prime's Name: _____

Letting Date: _____

Project ID: _____

Please check all that apply

- ☐ Yes, we will be quoting on the projects and items listed below
- ☐ No, we are not interested in quoting on the letting or its items referenced below
- ☐ Please take our name off your monthly DBE contact list
- ☐ We have questions about quoting this letting. Please have some one contact me at this number

Prime Contractor 's Contact Person

Phone: _____
Fax: _____
Email: _____

DBE Contractor Contact Person

Phone _____
Fax _____
Email _____

Please circle the jobs and items you will be quoting below

Proposal No.	1	2	3	4	5	6	7
County							

WORK DESCRIPTION:

Clear and Grub	X		X	X		X	X
Dump Truck Hauling	X		X	X		X	X
Curb & Gutter/Sidewalk, Etc.	X		X	X		X	X
Erosion Control Items	X		X	X		X	X
Signs and Posts/Markers	X		X	X		X	X
Traffic Control		X	X	X		X	X
Electrical Work/Traffic Signals		X	X	X		X	
Pavement Marking		X	X	X	X	X	X
Sawing Pavement		X	X	X	X	X	X
QMP, Base	X	X		X	X	X	X
Pipe Underdrain	X			X			
Beam Guard				X	X	X	X
Concrete Staining							X
Trees/Shrubs	X						X

Again please make every effort to have your quotes into our office by time deadline prior to the letting date.

We prefer quotes be sent via SBN but prime's preferred alternative's are acceptable.

If there are further questions please direct them to the prime contractor's contact person at phone number.

APPENDIX B BEST PRACTICES FOR PRIME CONTRACTOR & DBE SUBCONTRACTOR GOOD FAITH EFFORT

This list is not a set of requirements; it is a list of potential strategies

Primes

- Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance
- Participate in speed networking and mosaic exercises as arranged by DBE office
- Host information sessions not directly associated with a bid letting;
- Participate in a formal mentor protégé or joint venture with a DBE firm
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings
- Facilitate a small group DBE ‘training session’ Clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications and communication methods
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you
- Quality of communication, not quantity creates the best results. Contractors should do as thorough a job as possible in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

DBE

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list, and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation-related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs
- Participate on advisory and mega-project committees
- Sign up to receive the DBE Contracting Update
- Consider membership in relevant industry or contractor organizations
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the department are the only ways to get work.

APPENDIX C

Types of Efforts considered in determining GFE

This list represents concepts being assessed; analysis requires additional steps

1. Whether the contractor attended any pre-solicitation or pre-bid meetings that were scheduled by WisDOT to inform DBEs of contracting and subcontracting opportunities;
2. Whether the contractor provided written notice to a reasonable number of specific DBEs that their interest in the contract was being solicited, in sufficient time to allow the DBEs to participate effectively;
3. Whether the contractor followed up initial solicitations of interest by contacting DBEs to determine if the DBEs were interested; returned the phone calls of interested DBE firms.
4. Whether the contractor selected portions of the work to be performed by DBEs in order to increase the likelihood of meeting the DBE goal;
5. Whether the contractor provided interested DBEs with adequate information about the plans, specifications and requirements of the contract;
6. Whether the contractor negotiated in good faith with interested DBEs, not rejected DBEs as unqualified without sound reasons based on a thorough investigation of their capabilities;
7. Whether the contractor made efforts to assist interested DBEs in being more competitive.
8. Whether the contractor effectively used the services of available minority community organizations: minority contractors groups, local, state, and Federal minority business assistance offices, and other organizations that provide assistance to small businesses and DBE firms.
9. Whether Prime used CRCS to identify DBE who specialize in relevant work areas.
10. Whether the contractor used available resources including contacting the DBE office, using WisDOT's website
11. Whether the contractor returned calls of firms expressing interest in a timely manner.

APPENDIX D
Good Faith Effort Evaluation Guidance
Excerpt from Appendix A of 49 CFR Part 26

APPENDIX A TO PART 26 -- GUIDANCE CONCERNING GOOD FAITH EFFORTS

- I. When, as a recipient, you establish a contract goal on a DOT assisted contract, a bidder must, in order to be responsible and/or responsive, make good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.
- II. In any situation in which you have established a contract goal, part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, it is up to you to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made. The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call: meeting quantitative formulas is not required.
- III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.
- IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.
 - A. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBEs to respond to the solicitation. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
 - B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.
 - C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

- D.
 - (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
 - E. Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non solicitation of bids in the contractor's efforts to meet the project goal.
 - F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
 - G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
 - H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- V. In determining whether a bidder has made good faith efforts, you may take into account the performance of other bidders in meeting the contract. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts.

Appendix E

Small Business Network [SBN] Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription. Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
 - a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for completion at a later time.
2. Create sub-quotes for the subcontracting community:
 - a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
 - b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
 - c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE-preferred request
 - d. Add attachments to sub-quotes
3. View sub-quote requests & responses:
 - a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
 - b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing
4. View Record of Subcontractor Outreach Effort:
 - a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a “Good Faith” effort in reaching out to the DBE community.
 - b. Easily locate pre-qualified and certified small and disadvantaged businesses
 - c. Advertise to small and disadvantaged businesses more efficiently and cost effectively
 - d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency)

The Small Business Network is a part of the Bid Express® service that was created to ensure that small businesses have a centralized area to access information about upcoming projects. It can help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs.

1. View and reply to sub-quote requests from primes:
 - a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests, or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
 - a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
 - b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes
 - c. Add attachments to a sub-quote
3. Create and send unsolicited sub-quotes to specific contractors:
 - a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
 - a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on an per-item basis as well.
 - b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder
 - c. Add attachments to a sub-quote
 - d. Add unsolicited work items to sub-quotes that you are responding to
5. Easy Access to Valuable Information
 - a. Receive a confirmation that your sub-quote was opened by a prime
 - b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
 - c. View important notices and publications from DOT targeted to small and disadvantaged businesses
6. Accessing Small Business Network for WisDOT contracting opportunities
 - a. If you are a contractor not yet subscribing to the Bid Express service, go to **www.bidx.com** and select “Order Bid Express.” The Small Business Network is a part of the Bid Express Basic Service.
 - b. DBE firms can request a Bid Express Small Business Network Account at no cost by calling 414-438-4588

ADDITIONAL SPECIAL PROVISION 4

Payment to all Subcontractors. Within 10 calendar days of receipt by a contractor of a progress payment for work performed, materials furnished, or materials stockpiled by a subcontractor, the contractor shall pay that subcontractor for all work satisfactorily performed and for all materials furnished or stockpiled.

The contractor agrees further to release retainage amounts to each subcontractor within 10 calendar days after the subcontractor's work is satisfactorily completed. In addition, whenever the Department reduces the contract retainage amount, within 10 calendar days of receipt by a contractor of a retainage payment, the contractor must reduce the total amount retained from subcontractors to no more than remains retained by the Department.

The contractor shall pay the subcontractor within the time frames described above unless the contractor complies with both of the following within 10 calendar days of receiving the Department's progress payment:

- 1) The contractor notifies the subcontractor in writing that the work is not satisfactorily completed.
- 2) The contractor requests approval from the Department to delay payment because the subcontractor has not satisfactorily completed the work.

The contractor's request for approval should include the written notification to the subcontractor and shall provide sufficient documentation of good cause to assist the engineer in making a timely decision. If the engineer does not grant approval, the contractor shall pay the subcontractor within 10 calendar days of the Department's decision.

All subcontracting agreements made by a contractor shall include the above provisions and shall be binding on all contractors and subcontractors.

The contractor certifies compliance with the requirements of this Additional Special Provision by signing the contract. This clause applies to both DBE and non-DBE subcontractors.

ADDITIONAL SPECIAL PROVISION 6 MODIFICATIONS TO THE STANDARD SPECIFICATIONS

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

106.3.4.3.1 General

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

- (2) Required sampling and testing methodologies and documentation are specified in CMM chapter 8.
 - (3) If disputed, approval of materials and components, as well as acceptance of the work incorporating those materials or components, is subject to review under the QMP dispute resolution process.
-

107.17.3 Railroad Insurance Requirements

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

- (1) If required by the special provisions, provide or arrange for a subcontractor to provide railroad protective liability insurance in addition to the types and limits of insurance required in 107.26. Keep railroad protective liability insurance coverage in force until completing all work, under or incidental to the contract, on the railroad right of way or premises of the railroad and until the department has accepted the work as specified in 105.11.2.4.
- (2) Provide railroad protective liability insurance coverage written as specified in 23 CFR part 646 subpart A. Provide a separate policy for each railroad owning tracks on the project. Ensure that the railroad protective liability insurance policies provide the following minimum limits of coverage:
 - 1. Coverage A, bodily injury liability and property damage liability; \$2 million per occurrence.
 - 2. Coverage B, physical damage to property liability; \$2 million per occurrence.
 - 3. An annual aggregate amount of \$6 million that shall apply separately to each policy renewal or extension.
- (3) Obtain coverage from insurance companies licensed to do business in Wisconsin that have an A.M. Best rating of A- or better. The cost of providing the required insurance coverage and limits is incidental to the contract. The department will make no additional or special payment for providing insurance.
- (4) Submit the following to each railroad owning tracks on the project as evidence of that railroad's respective coverage:
 - 1. A certificate of insurance for the types and limits of insurance specified in 107.26.
 - 2. The railroad protective liability insurance policy or other acceptable documentation to the railroad company.
- (5) Submit the following to the region as evidence of the required coverage:
 - 1. A copy of the letter to the railroad company transmitting the submittal documents specified in 107.17.3(4).
 - 2. A certificate of insurance for the required railroad protective liability coverages.
- (6) Do not begin work on the right of way or premises of the railroad company until the region receives the submittals specified in 107.17.3(5) and notification from the railroad company that the contractor has provided sufficient insurance information to begin work.
- (7) Notify the railroad and the region immediately upon cancellation or initiating cancellation, whichever is earlier, or any material change in coverage. Cease operations within 50 feet of the railroad right of way immediately if insurance is cancelled or reduced. Do not resume operations until the required coverage is in force.

460.2.8.3.1.4 Department Verification Testing Requirements

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

- (4) The department will randomly test each design mixture at the following minimum frequency:
- FOR TONNAGES TOTALING:
- Less than 501 tons no tests required
- From 501 to 5,000 tons..... one test
- More than 5,000 tons..... add one test for each additional 5,000-ton increment

501.2.5.5 Sampling and Testing

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

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

^[1] As modified in CMM 8-60.

506.3.22 Shop Inspection

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

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

506.5 Payment

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

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

507.2.2.1 General

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

- (4) Ensure that there are no unsound knots or knot holes. Also ensure that there are no tight knots of a diameter exceeding one-quarter of the greater dimension at the point where they occur. Measure a knot by taking its diameter at right angles to the length of the timber. Ensure that the sum of sizes of all knots in any one-foot length does not exceed 2 times the size of the largest allowed single knot. The engineer will treat cluster knots as if they were a single knot. A cluster knot is 2 or more knots grouped together, with the fibers of the wood deflected around the entire unit.
-

512.3.1 Driving and Cutting Off

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

512.3.1.1 General

- (1) Coordinate driving operations to prevent damage or displacement of concrete in substructure units or damage to adjacent facilities due to vibrations.
- (2) Drive sheeting with a variation of 1/4 inch or less per foot from the vertical or from the batter the plans show. Ensure that the sheetpiles are within 6 inches of the plan position after driving. Do not damage sheetpiles attempting to correct for misalignment.
- (3) Remove and replace, or otherwise correct, sheetpiles the engineer deems unacceptable under 105.3. Submit details of planned corrections to the engineer for review and approval before initiating any corrective actions.
- (4) Drive sheetpiles to or beyond the required tip elevation the plans show.

512.3.1.2 Driving System

- (1) Furnish a sheetpile driving system capable of driving the sheetpiles to the required minimum tip elevation the plans show.
- (2) The engineer may order the contractor to remove a pile driving system component from service if it causes insufficient energy transfer or damages the sheetpiles. Do not return a component to service until the engineer determines that it has been satisfactorily repaired or adjusted.
- (3) Drive sheetpiles with diesel, air, steam, gravity, hydraulic, or vibratory hammers.

512.3.1.3 Cut-Offs

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

526.3.3 Temporary Structures

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

- (2) Inspect temporary structures conforming to the National Bridge Inspection Standards (NBIS) and the department's structure inspection manual before opening to traffic. Perform additional inspections, as the department's structure inspection manual requires, based on structure type and time in service. Submit inspection reports on department form DT2007 to the engineer and electronic copies to the department's bureau of structures maintenance section. Ensure that a department-certified active team leader, listed online in the department's highway structures information system (HSIS), performs the inspections.
- (3) Maintain temporary structures and approaches in place until no longer needed. Unless the engineer directs otherwise, completely remove and dispose of as specified in 203.3.4. Contractor-furnished materials remain the contractor's property upon removal.

614.2.5 Wood Posts and Offset Blocks

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

614.2.5 Posts and Offset Blocks**614.2.5.1 Wood Posts and Offset Blocks**

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

Douglas fir	Southern pine	Ponderosa pine	Jack pine	White pine
Red pine	Western hemlock	Western larch	Hem-fir	Oak
- (2) Ensure that posts are the size the plans show and conform to the nominal and minimum dimensions tabulated in 507.2.2.3. The contractor does not have to surface the posts. Provide posts of the net length the plans show after setting and cut off.
- (3) Use stress graded posts rated at 1200 psi f_b or higher. Determine the stress grade rating for douglas fir, western larch, and southern pine as specified in 507.2.2.4.
- (4) For hem-fir, hemlock, red pine, white pine, jack pine, ponderosa pine, and oak conform to the following:

TABLE 614-1 PROPERTIES FOR WOOD POSTS AND BLOCKS

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

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

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

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

614.2.5.2 Steel Posts

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

614.2.5.3 Plastic Offset Blocks

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

614.3.1 General

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

- (1) Paint the ends of cut-off galvanized posts, rail, bolts, cut or drilled surfaces of galvanized components, and areas of damaged zinc coating with 2 coats of zinc dust/zinc oxide paint. Clean the damaged and adjacent areas thoroughly before applying paint.
- (2) Apply 2 coats of wood preservative to cut surfaces of wood components. Use the same preservative originally used to treat that component or use a 2-percent solution of copper naphthenate conforming to AWWA Standard P8 or P36.

614.3.2.1 Installing Posts

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

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

628.2.13 Rock Bags

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

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

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

701.4.2 Verification Testing

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

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

715.3.1.3 Department Verification Testing

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

- (1) The department will perform verification testing as specified in 701.4.2 except as follows:
- Air content, slump, and temperature: a minimum of 1 verification test per lot.
 - Compressive strength: a minimum of 1 verification test per lot.

Errata

Make the following corrections to the 2012 edition of the standard specifications:

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

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

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

506.2.6.5.2 Pad Construction

Correct errata by changing ASTM A570 to ASTM A1011.

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

512.3.3 Painting

Correct errata by changing 511.3.5 to 550.3.11.3.

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

513.2.2.8 Toggle Bolts

Correct errata by changing r ASTM A570 to ASTM A1011.

- (1) Use toggle bolts made of steel, conforming to the plans. Make the assembly from the material specified below:
- | | |
|---------------------------|--|
| Toggle bolt and pin | Cold finished steel heat-treated Brinell 311-363 ASTM A354. |
| Toggle washer | Hot rolled steel ASTM A1011. Manufacturer's standard washer. |
| Spacer nut | Grade 1213, ASTM A108. Cold finished steel heat-treated ASTM A325. |
-

660.2.1 General

Correct errata by changing section 511 to 550.

- (1) Furnish materials conforming to the following:
- | | |
|--------------------------|-------------|
| Concrete | section 501 |
| Concrete bridges | section 502 |
| Luminaires | section 659 |
| Steel piling | section 550 |
| Steel reinforcement..... | section 505 |
-

660.3.2.3 Pile Type Foundations

Correct errata by changing section 511 to 550.

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

701.3 Contractor Testing

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

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

TABLE 701-2 TESTING STANDARDS

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

^[1] As modified in CMM 8-60.

^[2] As modified in CMM 8-70.

ADDITIONAL SPECIAL PROVISION 7

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

**ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll Submittal**

(1) Use the department's Civil Rights Compliance System (CRCS) to submit certified payrolls electronically. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:

<http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm>

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

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

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

(5) Firms wishing to export payroll data from their computer system into CRCS should have their payroll coordinator send several sample electronic files to Tess two months before a payroll needs to be submitted. Not every contractor's payroll system is capable of producing export files. For details, see section 3.2 of the CRCS System Background Information manual available online on the Labor, Wages, and EEO Information page at:

<http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/docs/crc-basic-info.pdf>

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

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

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

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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

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

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

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

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

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

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

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

SEPTEMBER 2002

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE
EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.
2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

Goals for Minority Participation for Each Trade:

<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

As referred to in this section, the Director means:

Director
Office of Federal Contract Compliance Programs
Ruess Federal Plaza
310 W. Wisconsin Ave., Suite 1115
Milwaukee, WI 53202

The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

APRIL 2012

ADDITIONAL FEDERAL-AID PROVISIONS

BUY AMERICA

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials 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.

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

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

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

Effective 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
- II. Payroll Requirements
- III. Postings at the Site of the Work
- IV. Affidavits
- V. Wage Rate Redistribution
- VI. Additional Classifications

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 contracts.

While the wage rates shown are the minimum rates required by the contract to be paid during its life, this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price 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
DANE COUNTY**

Compiled by the State of Wisconsin - Department of Workforce Development
for the Department of Transportation
Pursuant to s. 103.50, Stats.
Issued on April 1, 2012

CLASSIFICATION: Contractors are required to call the Department of Workforce Development if there are any questions regarding 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.

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Bricklayer, Blocklayer or Stonemason	32.66	15.92	48.58
Carpenter	30.23	15.16	45.39
Cement Finisher	30.68	15.68	46.36
Future Increase(s): Add \$1.86 on 6/1/12; Add \$1.87 on 6/1/13; Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; Add \$1.75 on 6/ 1/ 16.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Electrician	37.25	14.68	51.93
Fence Erector	35.62	0.00	35.62
Ironworker	30.90	19.11	50.01
Line Constructor (Electrical)	35.97	18.08	54.05
Painter	28.00	11.15	39.15
Pavement Marking Operator	26.65	14.92	41.57
Piledriver	29.56	15.16	44.72
Roofer or Waterproofer	28.06	0.00	28.06
Teledata Technician or Installer	21.26	6.99	28.25
Tuckpointer, Caulker or Cleaner	32.66	16.20	48.86
Underwater Diver (Except on Great Lakes)	36.20	18.81	55.01
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	35.42	12.90	48.32
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	14.27	49.77
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.18	14.07	39.25
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	23.38	12.48	35.86

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.30	10.97	32.27

TRUCK DRIVERS

Single Axle or Two Axle	22.35	16.19	38.54
Future Increase(s): Add \$1.75/hr on 6/1/2012; Add \$1.85/hr on 6/1/2013.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Three or More Axle	22.50	16.19	38.69
Future Increase(s): Add \$1.75/hr on 6/1/2012; Add \$1.85/hr on 6/1/2013.			
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Articulated, Euclid, Dumptor, Off Road Material Hauler	24.91	15.63	40.54
Pavement Marking Vehicle	23.84	14.76	38.60
Shadow or Pilot Vehicle	24.76	15.35	40.11
Truck Mechanic	24.91	15.35	40.26

LABORERS

General Laborer	27.20	13.45	40.65
Future Increase(s): Add \$1.60/hr on 6/1/2012; Add \$1.70/hr on 6/1/2013; Add \$1.60/hr on 6/1/2014.			
Premium Pay: Add \$.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add \$.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add \$.20/hr for blaster and powderman; Add \$.25/hr for bottomman; Add \$.35/hr for line and grade specialist; Add \$.45/hr for pipelayer. / DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Asbestos Abatement Worker	23.96	12.88	36.84
Landscaper	27.20	13.45	40.65
Future Increase(s): Add \$1.60/hr on 6/1/12; Add \$1.70/hr on 6/1/13; Add \$1.60/hr on 6/1/14.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).			
Flagperson or Traffic Control Person	23.55	13.45	37.00
Future Increase(s): Add \$1.60/hr on 6/1/2012; Add \$1.70/hr on 6/1/2013; Add \$1.60/hr on 6/1/2014.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.			
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	16.51	0.00	16.51
Railroad Track Laborer	14.00	4.77	18.77

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$
HEAVY EQUIPMENT OPERATORS			
Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add \$2/hr on 6/1/12; Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr 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).	34.22	18.90	53.12
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$2/hr on 6/1/12; Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr 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).	33.72	18.90	52.62
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches	33.22	18.90	52.12

<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
	\$	\$	\$

& A- Frames.			
Future Increase(s): Add \$2/hr on 6/1/12; Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr 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).			

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 Sawyer (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.	32.96	18.90	51.86
Future Increase(s): Add \$2/hr on 6/1/12; Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr 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).			

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.	32.67	18.90	51.57
Future Increase(s): Add \$2/hr on 6/1/12; Add \$2/hr on 6/1/13; Add \$1.75/hr on 6/1/14.			
Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr 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).			

Fiber Optic Cable Equipment.	22.00	7.27	29.27

SUPERSEDES DECISION WI20070010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

DECISION NUMBER: W1080010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: September 28, 2012

LABORERS CLASSIFICATION:		Basic Hourly Rates	Fringe Benefits		Basic Hourly Rates	Fringe Benefits
Group 1:	General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence and Bridge Builder; Landscaper, Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, Utility Man); Batch Truck Dumper; or Cement Handler; Bituminous Worker; (Dumper, Ironer, Smoother, Tamper); Concrete Handler	\$27.20.....	13.45	Truck Drivers:		
Group 2:	Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer	27.30.....	13.45	1 & 2 Axles	23.16.....	17.13
Group 3:	Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	27.35.....	13.45	Three or More Axles; Euclids, Dumptr & Articulated, Truck Mechanic.....	23.31.....	17.13
Group 4:	Line and Grade Specialist	27.55.....	13.45			
Group 5:	Blaster and Powderman	27.40.....	13.45			
Group 6:	Flagperson and Traffic Control Person	23.55.....	13.45			

CLASSES OF LABORER AND MECHANICS

Bricklayer	28.41.....	12.81
Carpenter	30.56.....	14.81
Millwright	32.16.....	14.81
Piledriverman	31.06.....	14.81
Ironworker	31.25	19.48
Cement Mason/Concrete Finisher	32.09.....	16.13
Electrician	See Page 3	
Line Construction		
Lineman.....	38.25.....	18.00
Heavy Equipment Operator	34.43.....	16.71
Equipment Operator.....	30.60.....	15.41
Heavy Groundman Driver.....	26.78.....	14.11
Light Groundman Driver	24.86.....	13.45
Groundsman.....	21.04.....	12.16
Painter, Brush	24.50.....	16.27
Painter, Spray, Structural Steel,Bridges.....	25.50.....	16.27
Well Drilling:		
Well Driller.....	16.52.....	3.70

Notes: Welders receive rate prescribed for craft performing operation to which welding is incidental. Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR, 5.5(a)(1)(ii)). Includes Modification 0, dated March 12, 2010; Modification 1, dated March 19, 2010; Modification 2, dated June 4, 2010; Modification 3, dated July 2, 2010; Modification 4, dated August 6, 2010; Modification 5, dated September 3, 2010; Modification 6, dated October 1, 2010; Modification 7, dated November 5, 2010; Modification 8; dated November 15, 2010; Modification 9, dated January 7, 2011; Modification #10 dated February 11, 2011; Modification #11 dated May 6, 2011; Modification #12 dated May 13, 2011; Modification #13 dated June 3, 2011; Modification #14 dated July 29, 2011; Modification #15 dated August 12, 2011; Modification #16 dated August 26, 2011; Modification #17 dated September 16, 2011; Modification #18 dated October 14, 2011; Modification #19 dated November 11, 2011; Modification #0, dated January 6, 2012; Modification #1 dated January 13, 2012; Modification #2 dated February 3, 2012; Modification #3 dated February 10, 2012; Modification #4 dated March 2, 2012; Modification #5 dated May 4, 2012; Modification #6 dated May 11, 2012; Modification #7 dated June 1, 2012; Modification #8 dated June 15, 2012; Modification #9 dated July 6, 2012; Modification #10 dated August 3, 2012; Modification #11 dated August 31, 2012; Modification #12 dated September 28, 2012.

SUPERSEDES DECISION WI20070010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

DECISION NUMBER: W1080010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: September 28, 2012

<u>POWER EQUIPMENT OPERATORS CLASSIFICATION:</u>	<u>Basic Hourly Rates</u>	<u>Fringe Benefits</u>	<u>POWER EQUIPMENT OPERATORS CLASSIFICATION: (Continued)</u>	<u>Basic Hourly Rates</u>	<u>Fringe Benefits</u>
Group 1: Cranes, tower cranes and derricks, with or without attachments, with a lifting capacity of over 100 tons or cranes, tower cranes and derricks with boom, leads and/or jib lengths measuring 176 feet or longer	\$35.22	\$19.65	(scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); end loader hydraulic backhoe (tractor-type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller (over 5 tons); percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches and A-frames; post driver; material hoist operator.	\$34.22	\$19.65
Group 2: Cranes, tower cranes and derricks, with or without attachments, with a lifting capacity of 100 tons or less or cranes, tower cranes and derricks with boom, leads and/or jib lengths measuring 175 feet or less, and backhoes (excavators) having a manufacturer's rated capacity of 3 cu. yds. and over, caisson rigs, pile driver, dredge operator, dredge engineer.....	\$34.72	\$19.65	Group 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self-propelled; tractor (mounted or towed compactors and light equipment); shouldering machine; self-propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint saw (multiple blade) belting machine; burlap machine; texturing machine; tractor, end loader (rubber tired) - light; jeep digger; fork lift; mulcher; launch operator; fireman; environmental burner.	\$33.96	\$19.65
Group 3: Mechanic or welder - heavy duty equipment, cranes with a lifting capacity of 25 tons or less, concrete breaker (manual or remote); vibrator/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pavement spreader - heavy duty (rubber tired); concrete spreader and distributor, automatic subgrader (concrete); concrete grinder and planing machine; concrete slipform curb and gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi and over); bridge paver; concrete conveyor system; concrete pump; stabilizing mixer (self propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter and grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer and scarifier; backhoes (excavators) having a manufacturers rated capacity of under 3 cu. yds.; grader or motor patrol; tractor			Group 5: Air compressor; power pack; vibratory hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; concrete proportioning plants generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; oiler; pump (over 3 inches); drilling machine helper.....	\$33.67	\$19.65
			Group 6: Off - road material hauler with or without ejector	\$27.77	\$19.65
			Premium Pay: EPA Level "A" protection - \$3.00 per hour EPA Level "B" protection - \$2.00 per hour EPA Level "C" protection - \$1.00 per hours		

SUPERSEDES DECISION WI20070010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin

DECISION NUMBER: W1080010

DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

DATE: September 28, 2012

LABORERS CLASSIFICATION: Rates Benefits

			Area 4 -	BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE (Wausauke and area south thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West boundary of Oconto County), SHAWANO (except area North of Townships of Aniwa and Hutchins) COUNTIES.
Electricians				
Area 1	\$27.80	16.52		
Area 2:				
Electricians.....	29.13	17.92	Area 5 -	ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Area North of the town of Wausauke), MENOMINEE (Area West of a line 6 miles West of the West boundary of Oconto County), ONEIDA, PORTAGE, SHAWANO (Area North of the townships of Aniwa and Hutchins), VILAS AND WOOD COUNTIES
Area 3:				
Electrical contracts under \$130,000	26.24	16.85		
Electrical contracts over \$130,000	29.41	16.97		
Area 4:	28.10	17.24		
Area 5	28.61	16.60		
Area 6	35.25	19.30	Area 6 -	KENOSHA COUNTY
Area 8				
Electricians.....	30.00	17.76	Area 8 -	DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington township), ROCK and WALWORTH COUNTIES
Area 9:				
Electricians.....	32.94	18.71	Area 9 -	COLUMBIA, DANE, DODGE, (area west of Hwy. 26, except Chester & Emmet Townships), GREEN LAKE (except townships of Berlin, Seneca and St. Marie), IOWA, MARQUETTE (except townships of Neshkoka, Crystal Lake, Newton and Springfield), and SAUK COUNTIES
Area 10	28.97	19.55		
Area 11	31.27	23.12		
Area 12	32.87	19.22	Area 10 -	CALUMET (Township of New Holstein), DODGE (East of Hwy. 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES
Area 13	32.20	21.64		
Teledata System Installer			Area 11 -	DOUGLAS COUNTY
Area 14				
Installer/Technician	21.89	11.83	Area 12 -	RACINE (except Burlington township) COUNTY
Sound & Communications				
Area 15			Area 13 -	MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES
Installer	16.47	14.84		
Technician.....	24.75	16.04	Area 14 -	Statewide.
Area 1 -			Area 15 -	DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupun), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES.
CALUMET (except township of New Holstein), GREEN LAKE (N. part, including Townships of Berlin, St. Marie and Seneca), MARQUETTE (N. part, including Townships of Crystal Lake, Neshkoro, Newton & Springfield), OUTAGAMIE, WAUPACA, WAUSHARA and WINNEBAGO COUNTIES.				
Area 2 -				
ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK (except Mayville, Colby, Unity, Sherman, Fremont, Lynn and Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST. CROIX, SAWYER, TAYLOR, TREMPLEAU, VERNON and WASHBURN COUNTIES				
Area 3 -				
FLORENCE (townships of Aurora, Commonwealth, Fern, Florence and Homestead), MARINETTE (Niagara township)				

FEBRUARY 1999

**NOTICE TO BIDDERS
WAGE RATE DECISION**

The wage rate decision of the Secretary of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Secretary of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate. The higher of state or federal rate will apply.

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130108005PROJECT(S):
5994-00-72
5994-00-77
5994-00-78FEDERAL ID(S):
WISC 2013018
N/A
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS

SECTION 0001 CONTRACT ITEMS

0010	201.0120 CLEARING	1,302.000 ID	.		.	
0020	201.0220 GRUBBING	1,302.000 ID	.		.	
0030	204.0100 REMOVING PAVEMENT	31,776.000 SY	.		.	
0040	204.0130 REMOVING CURB	850.000 LF	.		.	
0050	204.0150 REMOVING CURB & GUTTER	8,711.000 LF	.		.	
0060	204.0155 REMOVING CONCRETE SIDEWALK	4,649.000 SY	.		.	
0070	204.0170 REMOVING FENCE	75.000 LF	.		.	
0080	204.0185 REMOVING MASONRY	0.600 CY	.		.	
0090	204.0195 REMOVING CONCRETE BASES	41.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130108005PROJECT(S):
5994-00-72
5994-00-77
5994-00-78FEDERAL ID(S):
WISC 2013018
N/A
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0100	204.0210 REMOVING MANHOLES	8.000 EACH	.		.	
0110	204.0220 REMOVING INLETS	30.000 EACH	.		.	
0120	204.0245 REMOVING STORM SEWER (SIZE) 01. 6-INCH	35.000 LF	.		.	
0130	204.0245 REMOVING STORM SEWER (SIZE) 02. 8-INCH	16.000 LF	.		.	
0140	204.0245 REMOVING STORM SEWER (SIZE) 03. 12-INCH	930.000 LF	.		.	
0150	204.0245 REMOVING STORM SEWER (SIZE) 04. 15-INCH	321.000 LF	.		.	
0160	204.0245 REMOVING STORM SEWER (SIZE) 05. 18-INCH	1,400.000 LF	.		.	
0170	204.0245 REMOVING STORM SEWER (SIZE) 06. 24-INCH	390.000 LF	.		.	
0180	204.0245 REMOVING STORM SEWER (SIZE) 07. 30-INCH	415.000 LF	.		.	
0190	204.0245 REMOVING STORM SEWER (SIZE) 08. 36-INCH	608.000 LF	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:

PROJECT(S):

FEDERAL ID(S):

20130108005

5994-00-72

WISC 2013018

5994-00-77

N/A

5994-00-78

N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0200	204.0245 REMOVING STORM SEWER (SIZE) 09. 42-INCH	135.000 LF	.		.	
0210	204.0280 SEALING PIPES	2.000 EACH	.		.	
0220	204.0291.S ABANDONING SEWER	1.400 CY	.		.	
0230	204.9060.S REMOVING (ITEM DESCRIPTION) 01. INLET COVERS	14.000 EACH	.		.	
0240	204.9060.S REMOVING (ITEM DESCRIPTION) 02. CONCRETE BUMPERS	24.000 EACH	.		.	
0250	204.9060.S REMOVING (ITEM DESCRIPTION) 03. WOODEN POST	3.000 EACH	.		.	
0260	204.9060.S REMOVING (ITEM DESCRIPTION) 04. COMMERCIAL SIGNS	7.000 EACH	.		.	
0270	204.9060.S REMOVING (ITEM DESCRIPTION) 05. STONE VENEER WALL	2.000 EACH	.		.	
0280	204.9060.S REMOVING (ITEM DESCRIPTION) 06. DECORATIVE LIGHT POLE AND LUMINAIRE	1.000 EACH	.		.	
0290	204.9060.S REMOVING (ITEM DESCRIPTION) 07. YELLOW WARNING FLASHER UNIT	2.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130108005PROJECT(S):
5994-00-72
5994-00-77
5994-00-78FEDERAL ID(S):
WISC 2013018
N/A
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0300	204.9090.S REMOVING (ITEM DESCRIPTION) 01. LANDSCAPING TIMBERS	235.000 LF	.		.	
0310	204.9090.S REMOVING (ITEM DESCRIPTION) 02. LANDSCAPING BLOCKS	44.000 LF	.		.	
0320	204.9165.S REMOVING (ITEM DESCRIPTION) 01. CONCRETE STEPS	46.000 SF	.		.	
0330	205.0100 EXCAVATION COMMON	48,974.000 CY	.		.	
0340	205.0501.S EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	75.000 TON	.		.	
0350	209.0100 BACKFILL GRANULAR	17,936.000 CY	.		.	
0360	209.0300.S BACKFILL COARSE AGGREGATE (SIZE) 01. SIZE NO. 1	78.000 CY	.		.	
0370	213.0100 FINISHING ROADWAY (PROJECT) 01. 5994-00-72	1.000 EACH	.		.	
0380	305.0110 BASE AGGREGATE DENSE 3/4-INCH	1,283.000 TON	.		.	
0390	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	33,899.000 TON	.		.	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130108005PROJECT(S):
5994-00-72
5994-00-77
5994-00-78FEDERAL ID(S):
WISC 2013018
N/A
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0400	305.0130 BASE AGGREGATE DENSE 3-INCH	764.000 TON	.		.	
0410	312.0110 SELECT CRUSHED MATERIAL	32,635.000 TON	.		.	
0420	415.0080 CONCRETE PAVEMENT 8-INCH	22,770.000 SY	.		.	
0430	415.0085 CONCRETE PAVEMENT 8 1/2-INCH	2,920.000 SY	.		.	
0440	415.0210 CONCRETE PAVEMENT GAPS	51.000 EACH	.		.	
0450	415.1080 CONCRETE PAVEMENT HES 8-INCH	4,573.000 SY	.		.	
0460	416.0270 CONCRETE DRIVEWAY HES 7-INCH	941.000 SY	.		.	
0470	416.0610 DRILLED TIE BARS	47.000 EACH	.		.	
0480	416.0620 DRILLED DOWEL BARS	1,993.000 EACH	.		.	
0490	440.4410.S INCENTIVE IRI RIDE	1,200.000 DOL	1.00000		1200.00	

SCHEDULE OF ITEMS

REVISED:

CONTRACT:
20130108005PROJECT(S):
5994-00-72
5994-00-77
5994-00-78FEDERAL ID(S):
WISC 2013018
N/A
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0500	455.0105 ASPHALTIC MATERIAL PG58-28	20.000 TON	.		.	
0510	455.0115 ASPHALTIC MATERIAL PG64-22	67.000 TON	.		.	
0520	455.0120 ASPHALTIC MATERIAL PG64-28	57.000 TON	.		.	
0530	455.0605 TACK COAT	264.000 GAL	.		.	
0540	460.1100 HMA PAVEMENT TYPE E-0.3	365.000 TON	.		.	
0550	460.1103 HMA PAVEMENT TYPE E-3	2,332.000 TON	.		.	
0560	460.2000 INCENTIVE DENSITY HMA PAVEMENT	1,740.000 DOL	1.00000		1740.00	
0570	460.4110.S REHEATING HMA LONGITUDINAL JOINTS	7,170.000 LF	.		.	
0580	465.0110 ASPHALTIC SURFACE PATCHING	50.000 TON	.		.	
0590	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	1,836.000 TON	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
0600	465.0125 ASPHALTIC SURFACE TEMPORARY	3,664.000 TON	.		.	
0610	465.0310 ASPHALTIC CURB	231.000 LF	.		.	
0620	465.0315 ASPHALTIC FLUMES	24.000 SY	.		.	
0630	520.8000 CONCRETE COLLARS FOR PIPE	25.000 EACH	.		.	
0640	601.0110 CONCRETE CURB TYPE D	282.000 LF	.		.	
0650	601.0199.S CONCRETE CURB PRECAST	55.000 EACH	.		.	
0660	601.0405 CONCRETE CURB & GUTTER 18-INCH TYPE A	7,857.000 LF	.		.	
0670	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D	4,702.000 LF	.		.	
0680	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A	21.000 LF	.		.	
0690	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D	1,302.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0700	601.0600 CONCRETE CURB PEDESTRIAN	23.000 LF	.		.	
0710	602.0410 CONCRETE SIDEWALK 5-INCH	44,630.000 SF	.		.	
0720	602.1500 CONCRETE STEPS	24.000 SF	.		.	
0730	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	550.000 LF	.		.	
0740	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	550.000 LF	.		.	
0750	607.5000 STORM SEWER ROCK EXCAVATION	650.000 CY	.		.	
0760	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	1,173.000 LF	.		.	
0770	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	8.000 LF	.		.	
0780	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	2,565.000 LF	.		.	
0790	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	297.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0800	608.0342 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH	434.000 LF	.		.	
0810	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	2,374.000 LF	.		.	
0820	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	124.000 LF	.		.	
0830	608.0421 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH	27.000 LF	.		.	
0840	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH	943.000 LF	.		.	
0850	608.0430 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 30-INCH	149.000 LF	.		.	
0860	608.0436 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 36-INCH	367.000 LF	.		.	
0870	608.0442 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 42-INCH	87.000 LF	.		.	
0880	610.0114 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 14X23-INCH	88.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0890	610.0119 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 19X30-INCH	66.000 LF	.		.	
0900	610.0124 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 24X38-INCH	626.000 LF	.		.	
0910	610.0424 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 24X38-INCH	86.000 LF	.		.	
0920	610.0434 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 34X53-INCH	68.000 LF	.		.	
0930	611.0530 MANHOLE COVERS TYPE J	61.000 EACH	.		.	
0940	611.0612 INLET COVERS TYPE C	4.000 EACH	.		.	
0950	611.0624 INLET COVERS TYPE H	88.000 EACH	.		.	
0960	611.0639 INLET COVERS TYPE H-S	48.000 EACH	.		.	
0970	611.0642 INLET COVERS TYPE MS	3.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
0980	611.2004 MANHOLES 4-FT DIAMETER	58.000 EACH	.		.	
0990	611.2005 MANHOLES 5-FT DIAMETER	9.000 EACH	.		.	
1000	611.2006 MANHOLES 6-FT DIAMETER	7.000 EACH	.		.	
1010	611.2007 MANHOLES 7-FT DIAMETER	6.000 EACH	.		.	
1020	611.2008 MANHOLES 8-FT DIAMETER	1.000 EACH	.		.	
1030	611.3230 INLETS 2X3-FT	124.000 EACH	.		.	
1040	611.3901 INLETS MEDIAN 1 GRATE	3.000 EACH	.		.	
1050	611.8110 ADJUSTING MANHOLE COVERS	8.000 EACH	.		.	
1060	611.8115 ADJUSTING INLET COVERS	4.000 EACH	.		.	
1070	611.8120.S COVER PLATES TEMPORARY	7.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1080	611.9710 SALVAGED INLET COVERS	2.000 EACH	.		.	
1090	612.0208 PIPE UNDERDRAIN UNPERFORATED 8-INCH	8.000 LF	.		.	
1100	612.0212 PIPE UNDERDRAIN UNPERFORATED 12-INCH	8.000 LF	.		.	
1110	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH	2,628.000 LF	.		.	
1120	616.0206 FENCE CHAIN LINK 6-FT	25.000 LF	.		.	
1130	616.0700.S FENCE SAFETY	2,400.000 LF	.		.	
1140	619.1000 MOBILIZATION	1.000 EACH	.		.	
1150	620.0300 CONCRETE MEDIAN SLOPED NOSE	570.000 SF	.		.	
1160	623.0200 DUST CONTROL SURFACE TREATMENT	45,310.000 SY	.		.	
1170	624.0100 WATER	163.000 MGAL	.		.	
1180	625.0100 TOPSOIL	15,100.000 SY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1190	627.0200 MULCHING	11,186.000 SY	.		.	
1200	628.1504 SILT FENCE	3,430.000 LF	.		.	
1210	628.1520 SILT FENCE MAINTENANCE	6,860.000 LF	.		.	
1220	628.1905 MOBILIZATIONS EROSION CONTROL	5.000 EACH	.		.	
1230	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	15.000 EACH	.		.	
1240	628.2006 EROSION MAT URBAN CLASS I TYPE A	1,440.000 SY	.		.	
1250	628.6510 SOIL STABILIZER TYPE B	2.300 ACRE	.		.	
1260	628.7005 INLET PROTECTION TYPE A	148.000 EACH	.		.	
1270	628.7010 INLET PROTECTION TYPE B	9.000 EACH	.		.	
1280	628.7570 ROCK BAGS	150.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1290	629.0210 FERTILIZER TYPE B	10.100 CWT	.		.	
1300	630.0140 SEEDING MIXTURE NO. 40	199.000 LB	.		.	
1310	630.0200 SEEDING TEMPORARY	300.000 LB	.		.	
1320	631.0300 SOD WATER	107.000 MGAL	.		.	
1330	631.1000 SOD LAWN	4,645.000 SY	.		.	
1340	632.0101 TREES (SPECIES, ROOT, SIZE) 01. AMUR MAACKIA, 'STARBURST', B&B, 2 - INCH CAL.	4.000 EACH	.		.	
1350	632.0101 TREES (SPECIES, ROOT, SIZE) 02. BIRCH, WHITESPIRE (SHRUB FORM TREE), B&B , 8 - FOOT HT.	4.000 EACH	.		.	
1360	632.0101 TREES (SPECIES, ROOT, SIZE) 03. COFFEETREE, B&B, 2 1/2 - INCH CAL.	1.000 EACH	.		.	
1370	632.0101 TREES (SPECIES, ROOT, SIZE) 04. COFFEETREE, 'ESPRESSO', B&B, 2 1/2 - INCH CAL.	2.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1380	632.0101 TREES (SPECIES, ROOT, SIZE) 05. ELM, 'FRONTIER', B&B, 2 1/2 - INCH CAL.	18.000 EACH	.		.	
1390	632.0101 TREES (SPECIES, ROOT, SIZE) 06. ELM, 'REGAL', B&B, 2 1/2 - INCH CAL.	12.000 EACH	.		.	
1400	632.0101 TREES (SPECIES, ROOT, SIZE) 07. ELM, 'VALLEY FORGE', B&B, 2 1/2 - INCH CAL.	1.000 EACH	.		.	
1410	632.0101 TREES (SPECIES, ROOT, SIZE) 08. GINKGO, 'AUTUMN GOLD', B&B, 2 1/2 - INCH CAL.	14.000 EACH	.		.	
1420	632.0101 TREES (SPECIES, ROOT, SIZE) 09. GINKGO, 'PRINCETON SENTRY', B&B, 2 1/2 - INCH CAL.	5.000 EACH	.		.	
1430	632.0101 TREES (SPECIES, ROOT, SIZE) 10. HACKBERRY, B&B, 2 1/2 - INCH CAL.	2.000 EACH	.		.	
1440	632.0101 TREES (SPECIES, ROOT, SIZE) 11. HACKBERRY, 'CHICAGOLAND', B&B, 2 1/2 - INCH CAL.	28.000 EACH	.		.	
1450	632.0101 TREES (SPECIES, ROOT, SIZE) 12. HONEYLOCUST, 'SKYLINE', B&B, 2 1/2 - INCH CAL.	16.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1460	632.0101 TREES (SPECIES, ROOT, SIZE) 13. HONEYLOCUST, 'SUNBURST', B&B, 2 1/2 - INCH CAL.	3.000 EACH	.		.	
1470	632.0101 TREES (SPECIES, ROOT, SIZE) 14. HORSECHESTNUT, 'FT. MCNAIR', B&B, 2 1/2 - INCH CAL.	4.000 EACH	.		.	
1480	632.0101 TREES (SPECIES, ROOT, SIZE) 15. LINDEN, AMERICAN 'SENTRY', B&B, 2 1/2 - INCH CAL.	10.000 EACH	.		.	
1490	632.0101 TREES (SPECIES, ROOT, SIZE) 16. MAPLE, 'ARMSTRONG' B&B, 2 1/2 - INCH CAL.	2.000 EACH	.		.	
1500	632.0101 TREES (SPECIES, ROOT, SIZE) 17. MAPLE, 'CELEBRATION', B&B, 2 1/2 - INCH CAL.	7.000 EACH	.		.	
1510	632.0101 TREES (SPECIES, ROOT, SIZE) 18. MAPLE, RED 'BURGUNDY BELLE', B&B, 2 1/2 - INCH CAL.	4.000 EACH	.		.	
1520	632.0101 TREES (SPECIES, ROOT, SIZE) 19. MAPLE, 'SIENNA GLENN', B&B, 2 1/2 - INCH CAL.	1.000 EACH	.		.	
1530	632.0101 TREES (SPECIES, ROOT, SIZE) 20. OAK, 'REGAL PRINCE', B&B, 2 1/2 - INCH CAL.	15.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1540	632.0101 TREES (SPECIES, ROOT, SIZE) 21. OAK, SWAMP WHITE, B&B, 2 1/2 - INCH CAL.	1.000 EACH	.		.	
1550	632.0101 TREES (SPECIES, ROOT, SIZE) 22. PEAR, 'CLEVELAND SELECT', B&B, 2 1/2 - INCH CAL.	35.000 EACH	.		.	
1560	632.0101 TREES (SPECIES, ROOT, SIZE) 23. CRABAPPLE, 'ROYAL RAINDROPS', B&B, 2 - INCH CAL.	3.000 EACH	.		.	
1570	632.0101 TREES (SPECIES, ROOT, SIZE) 24. HAWTHORN, 'WINTER KING', B&B, 2 - INCH CAL.	3.000 EACH	.		.	
1580	632.0101 TREES (SPECIES, ROOT, SIZE) 25. LILAC, 'SUMMER SNOW', B&B, 2-INCH CAL.	16.000 EACH	.		.	
1590	632.0101 TREES (SPECIES, ROOT, SIZE) 26. PEAR, KOREAN SUN, B&B, 2 - INCH CAL.	3.000 EACH	.		.	
1600	632.0101 TREES (SPECIES, ROOT, SIZE) 27. JUNIPER, BROADMOOR, CONTAINER, 18 - INCH HT.	5.000 EACH	.		.	
1610	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 01. BURNING BUSH, 'RUDY HAAG', CONTAINER, 18 - INCH HT.	12.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1620	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 02. CHOKEBERRY, BLACK 'IROQUOIS BEAUTY', CONTAINER, 18 - INCH HT.	29.000 EACH	.		.	
1630	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 03. HONEYSUCKLE, DWARFBUSH 'JEWELL', CONTAINER, 18 - INCH HT.	39.000 EACH	.		.	
1640	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 04. LILAC, MEYERI, CONTAINER, 24 - INCH HT.	32.000 EACH	.		.	
1650	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 05. NINEBARK, 'SUMMER WINE', CONTAINER, 24 - INCH HT.	21.000 EACH	.		.	
1660	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 06. ROSE, 'DWARF PAVEMENT', CONTAINER, 24 - INCH HT.	57.000 EACH	.		.	
1670	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 07. ROSE, 'FRAU DAGMAR HASTRUP', CONTAINER, 24 - INCH HT.	5.000 EACH	.		.	
1680	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 08. SPIREA, BIRCHLEAF 'TOR', CONTAINER, 18 - INCH HT.	52.000 EACH	.		.	
1690	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 09. SPIREA, JAPANESE 'FROEBEL', CONTAINER, 24 - INCH HT.	28.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1700	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 10. SPIREA, KOREAN, CONTAINER, 18 - INCH HT.	119.000 EACH	.		.	
1710	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 11. SPIREA, 'MAGIC CARPET', CONTAINER, 18 - INCH HT.	59.000 EACH	.		.	
1720	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 12. SERVICEBERRY, 'REGENT' , CONTAINER, 24 - INCH HT.	7.000 EACH	.		.	
1730	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 13. ST. JOHN'S WORT, KALM'S, CONTAINER, 18 - INCH HT.	18.000 EACH	.		.	
1740	632.0201 SHRUBS (SPECIES, ROOT, SIZE) 14. VIBURNUM, KOREANSPICE COMPACT, CONTAINER, 24 - INCH HT.	3.000 EACH	.		.	
1750	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	26.000 EACH	.		.	
1760	637.0202 SIGNS REFLECTIVE TYPE II	528.450 SF	.		.	
1770	637.0402 SIGNS REFLECTIVE FOLDING TYPE II	62.160 SF	.		.	
1780	638.2102 MOVING SIGNS TYPE II	124.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1790	638.2602 REMOVING SIGNS TYPE II	65.000 EACH	.		.	
1800	638.3000 REMOVING SMALL SIGN SUPPORTS	62.000 EACH	.		.	
1810	638.4000 MOVING SMALL SIGN SUPPORTS	83.000 EACH	.		.	
1820	642.5201 FIELD OFFICE TYPE C	1.000 EACH	.		.	
1830	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 01. 5994-00-72	430.000 DAY	.		.	
1840	643.0300 TRAFFIC CONTROL DRUMS	195,848.000 DAY	.		.	
1850	643.0410 TRAFFIC CONTROL BARRICADES TYPE II	3,498.000 DAY	.		.	
1860	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	14,281.000 DAY	.		.	
1870	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	1,103.000 EACH	.		.	
1880	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	1,103.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1890	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	28,328.000 DAY	.		.	
1900	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	55,669.000 DAY	.		.	
1910	643.0800 TRAFFIC CONTROL ARROW BOARDS	654.000 DAY	.		.	
1920	643.0900 TRAFFIC CONTROL SIGNS	36,275.000 DAY	.		.	
1930	643.1050 TRAFFIC CONTROL SIGNS PCMS	560.000 DAY	.		.	
1940	645.0135 GEOTEXTILE FABRIC TYPE SR	40,920.000 SY	.		.	
1950	646.0103 PAVEMENT MARKING PAINT 4-INCH	12.000 LF	.		.	
1960	646.0106 PAVEMENT MARKING EPOXY 4-INCH	13,593.000 LF	.		.	
1970	646.0116 PAVEMENT MARKING EPOXY 6-INCH	11,975.000 LF	.		.	
1980	646.0126 PAVEMENT MARKING EPOXY 8-INCH	1,984.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
1990	646.0600 REMOVING PAVEMENT MARKINGS	36,110.000 LF	.		.	
2000	647.0156 PAVEMENT MARKING ARROWS EPOXY TYPE 1	2.000 EACH	.		.	
2010	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2	35.000 EACH	.		.	
2020	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3	4.000 EACH	.		.	
2030	647.0206 PAVEMENT MARKING ARROWS BIKE LANE EPOXY	27.000 EACH	.		.	
2040	647.0256 PAVEMENT MARKING SYMBOLS EPOXY	9.000 EACH	.		.	
2050	647.0356 PAVEMENT MARKING WORDS EPOXY	11.000 EACH	.		.	
2060	647.0406 PAVEMENT MARKING WORDS BIKE LANE EPOXY	59.000 EACH	.		.	
2070	647.0456 PAVEMENT MARKING CURB EPOXY	344.000 LF	.		.	
2080	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH	434.000 LF	.		.	

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N/A
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CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2090	647.0576 PAVEMENT MARKING STOP LINE EPOXY 24-INCH	73.000 LF	.		.	
2100	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY	16.000 EACH	.		.	
2110	647.0653 PAVEMENT MARKING PARKING STALL PAINT	5,057.000 LF	.		.	
2120	647.0713 PAVEMENT MARKING DIAGONAL PAINT 8-INCH	999.000 LF	.		.	
2130	647.0746 PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	139.000 LF	.		.	
2140	647.0766 PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	2,201.000 LF	.		.	
2150	647.0776 PAVEMENT MARKING CROSSWALK EPOXY 12-INCH	135.000 LF	.		.	
2160	647.0955 REMOVING PAVEMENT MARKINGS ARROWS	40.000 EACH	.		.	
2170	647.0965 REMOVING PAVEMENT MARKINGS WORDS	2.000 EACH	.		.	
2180	649.0100 TEMPORARY PAVEMENT MARKING 4-INCH	53,326.000 LF	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2190	649.0200 TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	10,604.000 LF	.		.	
2200	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	27,309.000 LF	.		.	
2210	649.0701 TEMPORARY PAVEMENT MARKING 8-INCH	5,525.000 LF	.		.	
2220	649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	1,040.000 LF	.		.	
2230	649.1100 TEMPORARY PAVEMENT MARKING STOP LINE 18-INCH	421.000 LF	.		.	
2240	649.1200 TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH	319.000 LF	.		.	
2250	649.1700 TEMPORARY PAVEMENT MARKING ARROWS	70.000 EACH	.		.	
2260	649.1800 TEMPORARY PAVEMENT MARKING ARROWS REMOVABLE TAPE	42.000 EACH	.		.	
2270	650.4000 CONSTRUCTION STAKING STORM SEWER	209.000 EACH	.		.	
2280	650.4500 CONSTRUCTION STAKING SUBGRADE	5,235.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2290	650.5000 CONSTRUCTION STAKING BASE	1,766.000 LF	.		.	
2300	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	19,124.000 LF	.		.	
2310	650.7000 CONSTRUCTION STAKING CONCRETE PAVEMENT	4,445.000 LF	.		.	
2320	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 5994-00-72	LUMP	LUMP		.	
2330	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 5994-00-72	LUMP	LUMP		.	
2340	650.9920 CONSTRUCTION STAKING SLOPE STAKES	6,875.000 LF	.		.	
2350	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	10,788.000 LF	.		.	
2360	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	9,350.000 LF	.		.	
2370	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH	1,610.000 LF	.		.	
2380	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH	4,630.000 LF	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
2390	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM	3.000 EACH	.		.	
2400	652.0800 CONDUIT LOOP DETECTOR	2,930.000 LF	.		.	
2410	652.0900 LOOP DETECTOR SLOTS	90.000 LF	.		.	
2420	653.0905 REMOVING PULL BOXES	17.000 EACH	.		.	
2430	654.0101 CONCRETE BASES TYPE 1	4.000 EACH	.		.	
2440	654.0105 CONCRETE BASES TYPE 5	75.000 EACH	.		.	
2450	654.0113 CONCRETE BASES TYPE 13	6.000 EACH	.		.	
2460	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG	1,685.000 LF	.		.	
2470	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG	588.000 LF	.		.	
2480	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG	999.000 LF	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2490	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG	450.000 LF	.		.	
2500	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG	669.000 LF	.		.	
2510	655.0280 CABLE TRAFFIC SIGNAL 19-14 AWG	32.000 LF	.		.	
2520	655.0410 COMMUNICATION CABLE INSTALLED IN CONDUIT	8,950.000 LF	.		.	
2530	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	10,390.000 LF	.		.	
2540	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	32,146.000 LF	.		.	
2550	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG	35,211.000 LF	.		.	
2560	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG	19,531.000 LF	.		.	
2570	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG	14,621.000 LF	.		.	
2580	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG	8,792.000 LF	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2590	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG	90.000 LF	.		.	
2600	655.0700 LOOP DETECTOR LEAD IN CABLE	7,247.000 LF	.		.	
2610	655.0800 LOOP DETECTOR WIRE	9,372.000 LF	.		.	
2620	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 01. LC-5	LUMP	LUMP		.	
2630	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 02. LC-6	LUMP	LUMP		.	
2640	656.0100 ELECTRICAL SERVICE METER SOCKET (LOCATION) 03. LC-7	LUMP	LUMP		.	
2650	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. NICHOLS & MONONA DR.	LUMP	LUMP		.	
2660	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 02. DEAN & MONONA DR.	LUMP	LUMP		.	
2670	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 03. COLDSPRING & MONONA DR.	LUMP	LUMP		.	

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			DOLLARS	CTS	DOLLARS	CTS
2680	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 04. STATION 94+33 RT	LUMP	LUMP			.
2690	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 05. STATION 102+56 LT	LUMP	LUMP			.
2700	657.0100 PEDESTAL BASES	15.000 EACH	.			.
2710	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	12.000 EACH	.			.
2720	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	4.000 EACH	.			.
2730	658.0103 TRAFFIC SIGNAL FACE 1-12 INCH VERTICAL	2.000 EACH	.			.
2740	658.0110 TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	39.000 EACH	.			.
2750	658.0115 TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL	6.000 EACH	.			.
2760	658.0120 TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL	1.000 EACH	.			.
2770	658.0155 TRAFFIC SIGNAL FACE 3-12 INCH HORIZONTAL	1.000 EACH	.			.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2780	658.0165 TRAFFIC SIGNAL FACE 5-12 INCH HORIZONTAL	1.000 EACH	.		.	
2790	658.0210 BACKPLATES SIGNAL FACE 1 SECTION 12-INCH	2.000 EACH	.		.	
2800	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH	40.000 EACH	.		.	
2810	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12-INCH	6.000 EACH	.		.	
2820	658.0225 BACKPLATES SIGNAL FACE 5 SECTION 12-INCH	2.000 EACH	.		.	
2830	658.0412 PEDESTRIAN SIGNAL FACE 12-INCH	21.000 EACH	.		.	
2840	658.0500 PEDESTRIAN PUSH BUTTONS	20.000 EACH	.		.	
2850	658.0660 LED MODULES COUNTDOWN TIMER 12-INCH	21.000 EACH	.		.	
2860	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 01. NICHOLS & MONONA DR.	LUMP	LUMP		.	
2870	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 02. DEAN & MONONA DR.	LUMP	LUMP		.	

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			DOLLARS	CTS	DOLLARS	CTS
2880	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 03. COLDSPRING & MONONA DR.	LUMP	LUMP		.	
2890	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 04. STATION 94+33 RT	LUMP	LUMP		.	
2900	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 05. STATION 102+56 LT	LUMP	LUMP		.	
2910	661.0200 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 01. MONONA DRIVE & NICHOLS ROAD	LUMP	LUMP		.	
2920	661.0200 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 02. MONONA DRIVE & DEAN AVENUE	LUMP	LUMP		.	
2930	661.0200 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 03. MONONA DRIVE & COLDSPRING AVENUE	LUMP	LUMP		.	
2940	690.0150 SAWING ASPHALT	3,966.000 LF	.		.	
2950	690.0250 SAWING CONCRETE	15,383.000 LF	.		.	
2960	715.0415 INCENTIVE STRENGTH CONCRETE PAVEMENT	9,472.000 DOL	1.00000		9472.00	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
2970	ASP.1T0A ON-THE-JOB TRAINING APPRENTICE AT \$5.00/HR	1,200.000 HRS	5.00000		6000.00	
2980	ASP.1T0G ON-THE-JOB TRAINING GRADUATE AT \$5. 00/HR	1,550.000 HRS	5.00000		7750.00	
2990	SPV.0035 SPECIAL 01. PLANTING MIXTURE	611.000 CY	.		.	
3000	SPV.0035 SPECIAL 02. TOPSOIL SPECIAL	801.000 CY	.		.	
3010	SPV.0035 SPECIAL 03. COLORING CONCRETE MONONA DRIVE RED	240.000 CY	.		.	
3020	SPV.0060 SPECIAL 01. INLET COVERS TYPE DW	21.000 EACH	.		.	
3030	SPV.0060 SPECIAL 02. INLET COVERS TYPE T3	1.000 EACH	.		.	
3040	SPV.0060 SPECIAL 03. TERRACE INLET TYPE 3	1.000 EACH	.		.	
3050	SPV.0060 SPECIAL 04. INLET PROTECTION TYPE HC	212.000 EACH	.		.	
3060	SPV.0060 SPECIAL 05. MANHOLES 9-FT DIAMETER	1.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
3070	SPV.0060 SPECIAL 06. LIGHTING CONTROL CABINET BLACK	3.000 EACH	.		.	
3080	SPV.0060 SPECIAL 07. PRIVATE STORM SEWER LATERAL RECONNECT	1.000 EACH	.		.	
3090	SPV.0060 SPECIAL 08. SIGN POST 12-FT	13.000 EACH	.		.	
3100	SPV.0060 SPECIAL 09. SIGN POST 14-FT	18.000 EACH	.		.	
3110	SPV.0060 SPECIAL 10. SIGN POST 16-FT	4.000 EACH	.		.	
3120	SPV.0060 SPECIAL 11. ROOT PRUNING EXISTING TREES	60.000 EACH	.		.	
3130	SPV.0060 SPECIAL 12. SALVAGE AND REPLACE DIGITAL SPEED LIMIT SIGN AND RADAR UNIT	2.000 EACH	.		.	
3140	SPV.0060 SPECIAL 13. SALVAGE AND REPLACE DECORATIVE LIGHT POLE AND LUMINAIRE	4.000 EACH	.		.	
3150	SPV.0060 SPECIAL 14. SALVAGE AND REPLACE CITY OF MADISON LIGHT POLE AND LUMINAIRE	1.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
3160	SPV.0060 SPECIAL 15. ADJUSTING MONITORING WELL CAPS	2.000 EACH	.		.	
3170	SPV.0060 SPECIAL 16. SALVAGE AND REPLACE BENCH	1.000 EACH	.		.	
3180	SPV.0060 SPECIAL 17. SALVAGE AND REPLACE TRASH RECEPTACLE	1.000 EACH	.		.	
3190	SPV.0060 SPECIAL 18. STORM SEWER TAP	2.000 EACH	.		.	
3200	SPV.0060 SPECIAL 19. CONSTRUCTION STAKING CURB RAMP LAYOUT	47.000 EACH	.		.	
3210	SPV.0060 SPECIAL 20. TRAFFIC SIGNAL CONTROL CABINET, BLACK	3.000 EACH	.		.	
3220	SPV.0060 SPECIAL 21. PULL BOX TYPE I	40.000 EACH	.		.	
3230	SPV.0060 SPECIAL 22. PULL BOX TYPE III	27.000 EACH	.		.	
3240	SPV.0060 SPECIAL 23. PULL BOX TYPE V	9.000 EACH	.		.	
3250	SPV.0060 SPECIAL 24. DECORATIVE LIGHT POLE AND LUMINAIRE	71.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
3260	SPV.0060 SPECIAL 25. POLE 20-FOOT, BLACK, 7 GAUGE	3.000 EACH	.		.	
3270	SPV.0060 SPECIAL 26. POLE 30-FOOT, BLACK, 11 GAUGE	8.000 EACH	.		.	
3280	SPV.0060 SPECIAL 27. MONOTUBE POLE, TYPE 12, BLACK	6.000 EACH	.		.	
3290	SPV.0060 SPECIAL 28. MONOTUBE ARM, 35-FOOT, BLACK	6.000 EACH	.		.	
3300	SPV.0060 SPECIAL 29. TRAFFIC SIGNAL TROMBONE ARM BLACK, ALUMINUM 18-FOOT	3.000 EACH	.		.	
3310	SPV.0060 SPECIAL 30. CONCRETE BASE TYPE G	13.000 EACH	.		.	
3320	SPV.0060 SPECIAL 31. CONCRETE BASE TYPE LB-3	8.000 EACH	.		.	
3330	SPV.0060 SPECIAL 32. CONCRETE BASE TYPE LB-8	3.000 EACH	.		.	
3340	SPV.0060 SPECIAL 33. CONCRETE BASE TYPE M	3.000 EACH	.		.	
3350	SPV.0060 SPECIAL 34. CONCRETE BASE TYPE P	3.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
3360	SPV.0060 SPECIAL 35. TRAFFIC SIGNAL MASTER CONTROLLER	1.000 EACH	.		.	
3370	SPV.0060 SPECIAL 36. NEMA-PLUS CONFLICT MONITOR	3.000 EACH	.		.	
3380	SPV.0060 SPECIAL 37. SANITARY MANHOLE	20.000 EACH	.		.	
3390	SPV.0060 SPECIAL 38. SANITARY MANHOLE COVER	20.000 EACH	.		.	
3400	SPV.0060 SPECIAL 39. GATE VALVE AND VALVE BOX, 6-INCH	8.000 EACH	.		.	
3410	SPV.0060 SPECIAL 40. GATE VALVE AND VALVE BOX, 8-INCH	4.000 EACH	.		.	
3420	SPV.0060 SPECIAL 41. GATE VALVE AND VALVE BOX, 10-INCH	3.000 EACH	.		.	
3430	SPV.0060 SPECIAL 42. GATE VALVE AND VALVE BOX, 12-INCH	19.000 EACH	.		.	
3440	SPV.0060 SPECIAL 43. HYDRANTS	13.000 EACH	.		.	
3450	SPV.0060 SPECIAL 44. LIGHTING FIXTURES TYPE-A	8.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
3460	SPV.0060 SPECIAL 45. RELOCATING HYDRANT	1.000 EACH	.		.	
3470	SPV.0060 SPECIAL 46. SANITARY SEWER ACCESS STRUCTURE (4' DIAMETER)-MADISON TYPE	4.000 EACH	.		.	
3480	SPV.0060 SPECIAL 47. STONE VENEER WALL	7.000 EACH	.		.	
3490	SPV.0060 SPECIAL 48. BENCH	5.000 EACH	.		.	
3500	SPV.0060 SPECIAL 49. TRASH RECEPTACLE	5.000 EACH	.		.	
3510	SPV.0060 SPECIAL 50. BULBS	278.000 EACH	.		.	
3520	SPV.0060 SPECIAL 51. PERENNIALS, CARNATION (ARCTIC FIRE), CG, 1 GAL	39.000 EACH	.		.	
3530	SPV.0060 SPECIAL 52. PERENNIALS, CHIVE, ORNAMENTAL (PINK GIANT), CG, 1 GAL	82.000 EACH	.		.	
3540	SPV.0060 SPECIAL 53. PERENNIALS, CHIVE, ORNAMENTAL (SUMMER BEAUTY), CG, 1 GAL	44.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
3550	SPV.0060 SPECIAL 54. PERENNIALS, CONEFLOWER, DWARF ORANGE (LITTLE SUZY), CG, 1 GAL	138.000 EACH	.		.	
3560	SPV.0060 SPECIAL 55. PERENNIALS, SWITCHGRASS (HEAVY METAL), CG, 1 GAL	39.000 EACH	.		.	
3570	SPV.0060 SPECIAL 56. PERENNIALS, CORAL BELLS (PALACE PURPLE), CG, 1 GAL	15.000 EACH	.		.	
3580	SPV.0060 SPECIAL 57. PERENNIALS, DAYLILY (LITTLE BUSINESS), CG, 1 GAL	67.000 EACH	.		.	
3590	SPV.0060 SPECIAL 58. PERENNIALS, DAYLILY (STELLA DE ORO), CG, 1 GAL	15.000 EACH	.		.	
3600	SPV.0060 SPECIAL 59. PERENNIALS, FEATHER REED GRASS (KARL FOERSTER), CG, 1 GAL	187.000 EACH	.		.	
3610	SPV.0060 SPECIAL 60. PERENNIALS, GAYFEATHER, SPIKED (KOBOLD), CG, 1 GAL	7.000 EACH	.		.	
3620	SPV.0060 SPECIAL 61. PERENNIALS, GERANIUM (BIOKOVO KARMINA), CG, 1 GAL	34.000 EACH	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
3630	SPV.0060 SPECIAL 62. PERENNIALS, LITTLE BLUESTEM (THE BLUES), CG, 1 GAL	221.000 EACH	.		.	
3640	SPV.0060 SPECIAL 63. PERENNIALS, MOOR GRASS (AUTUMN), CG, 1 GAL	17.000 EACH	.		.	
3650	SPV.0060 SPECIAL 64. PERENNIALS, SWITCHGRASS (SHENANDOAH), CG, 1 GAL	60.000 EACH	.		.	
3660	SPV.0060 SPECIAL 65. PERENNIALS, RUSSIAN SAGE (LITTLE SPIRE), CG, 1 GAL	21.000 EACH	.		.	
3670	SPV.0060 SPECIAL 66. PERENNIALS, SALVIA (MAY NIGHT), CG, 1 GAL	56.000 EACH	.		.	
3680	SPV.0060 SPECIAL 67. PERENNIALS, SEDUM (AUTUMN FIRE), CG, 1 GAL	9.000 EACH	.		.	
3690	SPV.0060 SPECIAL 68. PERENNIALS, SEDGE (BLUE ZINGER), CG, 1 GAL	293.000 EACH	.		.	
3700	SPV.0060 SPECIAL 69. SANITARY TAP, CITY OF MADISON	4.000 EACH	.		.	
3710	SPV.0060 SPECIAL 70. COMPRESSION COUPLING, CITY OF MADISON	1.000 EACH	.		.	
3720	SPV.0060 SPECIAL 71. LOCATE AND REESTABLISH SECTION CORNER MONUMENTS	2.000 EACH	.		.	

SCHEDULE OF ITEMS

REVISED:

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5994-00-72
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WISC 2013018
N/A
N/A

CONTRACTOR : _____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
3730	SPV.0060 SPECIAL 72. MANHOLE STRUCTURE 500	1.000 EACH	.		.	
3740	SPV.0060 SPECIAL 73. UTILITY LINE OPENING (ULO)	68.000 EACH	.		.	
3750	SPV.0060 SPECIAL 74. REFLECTIVE SIGN POST 14-FT	70.000 EACH	.		.	
3760	SPV.0060 SPECIAL 75. REFLECTIVE SIGN POST 16-FT	4.000 EACH	.		.	
3770	SPV.0060 SPECIAL 76. CURB STOP RELOCATION	37.000 EACH	.		.	
3780	SPV.0060 SPECIAL 77. SANITARY SEWER INTERNAL CHIMNEY SEAL, CITY OF MADISON	5.000 EACH	.		.	
3790	SPV.0060 SPECIAL 78. SLOW RELEASE WATERING BAG	219.000 EACH	.		.	
3800	SPV.0060 SPECIAL 79. SANITARY SEWER ACCESS STRUCTURE (6' DIAMETER)-MMSD TYPE	1.000 EACH	.		.	
3810	SPV.0060 SPECIAL 80. PRECAST SIGN POST BASE	100.000 EACH	.		.	
3820	SPV.0060 SPECIAL 81. SANITARY LATERAL ELECTRONIC MARKERS	5.000 EACH	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
3830	SPV.0090 SPECIAL 01. CONCRETE PAVEMENT JOINT SEALING	1,291.000 LF	.		.	
3840	SPV.0090 SPECIAL 02. CONCRETE CURB & GUTTER HES 18-INCH TYPE A	1,127.000 LF	.		.	
3850	SPV.0090 SPECIAL 03. CONCRETE CURB & GUTTER HES 18-INCH TYPE D	312.000 LF	.		.	
3860	SPV.0090 SPECIAL 04. CONCRETE CURB & GUTTER 24-INCH	3,105.000 LF	.		.	
3870	SPV.0090 SPECIAL 05. CONCRETE GUTTER HES 18-INCH TYPE D	50.000 LF	.		.	
3880	SPV.0090 SPECIAL 06. CONCRETE RAISED MEDIAN NOSE SPECIAL	878.000 LF	.		.	
3890	SPV.0090 SPECIAL 07. CONCRETE RAISED MEDIAN NOSE SPECIAL REJECT	223.000 LF	.		.	
3900	SPV.0090 SPECIAL 08. CONCRETE RAISED MEDIAN SPECIAL	135.000 LF	.		.	
3910	SPV.0090 SPECIAL 09. CONSTRUCTION STAKING CONCRETE SIDEWALK - STAGE 1, PHASE 2	4,870.000 LF	.		.	
3920	SPV.0090 SPECIAL 10. PROTECTION OF PRIVATE SPRINKLER SYSTEMS	206.000 LF	.		.	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
3930	SPV.0090 SPECIAL 11. SANITARY SEWER MAIN, POLYVINYL CHLORIDE (PVC), LF 8-INCH	4,419.000	.		.	
3940	SPV.0090 SPECIAL 12. SANITARY SEWER MAIN, POLYVINYL CHLORIDE (PVC), LF 10-INCH	323.000	.		.	
3950	SPV.0090 SPECIAL 13. SANITARY SEWER LATERAL, POLYVINYL CHLORIDE (PVC), LF 6-INCH	619.000	.		.	
3960	SPV.0090 SPECIAL 14. WATER MAIN, DUCTILE IRON (DI), 6-INCH LF	439.000	.		.	
3970	SPV.0090 SPECIAL 15. WATER MAIN, DUCTILE IRON (DI), 8-INCH LF	348.000	.		.	
3980	SPV.0090 SPECIAL 16. WATER MAIN, DUCTILE IRON (DI), 10-INCH LF	135.000	.		.	
3990	SPV.0090 SPECIAL 17. WATER MAIN, DUCTILE IRON (DI), 12-INCH LF	4,468.000	.		.	
4000	SPV.0090 SPECIAL 18. WATER SERVICE, COPPER, 1 1/2 INCH LF	1,132.000	.		.	
4010	SPV.0090 SPECIAL 19. SHOVEL CUT EDGING LF	520.000	.		.	
4020	SPV.0090 SPECIAL 20. SAWING CURB HEAD LF	163.000	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
4030	SPV.0090 SPECIAL 21. CONCRETE CURB & GUTTER HES 30-INCH TYPE D	343.000 LF	.		.	
4040	SPV.0090 SPECIAL 22. SANITARY SEWER MAIN, POLYVINYL CHLORIDE (PVC), 8-INCH, SDR-26	353.000 LF	.		.	
4050	SPV.0090 SPECIAL 23. SANITARY SEWER ROCK EXCAVATION	2,500.000 LF	.		.	
4060	SPV.0090 SPECIAL 24. WATER MAIN ROCK EXCAVATION	700.000 LF	.		.	
4070	SPV.0090 SPECIAL 25. SANITARY SEWER LATERAL, POLYVINYL CHLORIDE (PVC), 8 INCH	15.000 LF	.		.	
4080	SPV.0090 SPECIAL 26. CITY OF MADISON SANITARY SEWER LATERAL, POLYVINYL CHLORIDE (PVC), 6-IN	117.000 LF	.		.	
4090	SPV.0105 SPECIAL 01. CONCRETE PAVEMENT JOINT LAYOUT	LUMP	LUMP		.	
4100	SPV.0105 SPECIAL 03. TEMPORARY CROSSWALK ACCESS (MONONA DRIVE & NICHOLS ROAD	LUMP	LUMP		.	
4110	SPV.0105 SPECIAL 04. TEMPORARY CROSSWALK ACCESS (MONONA DRIVE & ST. TERESA TERRACE)	LUMP	LUMP		.	

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N/A

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE		BID AMOUNT	
			DOLLARS	CTS	DOLLARS	CTS
4120	SPV.0105 SPECIAL 05. TEMPORARY CROSSWALK ACCESS (MONONA DRIVE & DEAN AVENUE)	LUMP	LUMP			.
4130	SPV.0105 SPECIAL 06. TEMPORARY CROSSWALK ACCESS (MONONA DRIVE & SPRINGHAVEN AVENUE)	LUMP	LUMP			.
4140	SPV.0105 SPECIAL 07. TEMPORARY CROSSWALK ACCESS (MONONA DRIVE & LOFTY AVENUE)	LUMP	LUMP			.
4150	SPV.0105 SPECIAL 08. TEMPORARY CROSSWALK ACCESS (MONONA DRIVE & COLDSPRING AVENUE)	LUMP	LUMP			.
4160	SPV.0105 SPECIAL 09. TEMPORARY CROSSWALK ACCESS (MONONA DRIVE & PARKWAY STREET)	LUMP	LUMP			.
4170	SPV.0105 SPECIAL 10. TEMPORARY CROSSWALK ACCESS (MONONA DRIVE & WINNEQUAH ROAD)	LUMP	LUMP			.
4180	SPV.0105 SPECIAL 11. RESEARCH AND LOCATE EXISTING PROPERTY MONUMENTS	LUMP	LUMP			.
4190	SPV.0105 SPECIAL 12. VERIFY AND REPLACE EXISTING PROPERTY MONUMENTS	LUMP	LUMP			.

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			DOLLARS	CTS	DOLLARS	CTS
4200	SPV.0105 SPECIAL 13. OPTICAL SIGNAL PREEMPT	LUMP	LUMP			.
4210	SPV.0105 SPECIAL 14. TEMPORARY WATER, PROJECT 5994-00-78	LUMP	LUMP			.
4220	SPV.0105 SPECIAL 15. ABANDONING WATER MAIN, PROJECT 5994-00-78	LUMP	LUMP			.
4230	SPV.0105 SPECIAL 16. ABANDONING CITY OF MONONA SANITARY SEWER, PROJECT ID 5994-00-77	LUMP	LUMP			.
4240	SPV.0105 SPECIAL 17. ABANDONING CITY OF MADISON SANITARY SEWER, PROJECT 5994-00-77	LUMP	LUMP			.
4250	SPV.0105 SPECIAL 18. TEMP. LIGHTING FOR NON-SIGNALIZED INTERSECTIONS (ST. TERESA TERRACE)	LUMP	LUMP			.
4260	SPV.0105 SPECIAL 19. TEMP. LIGHTING FOR NON-SIGNALIZED INTERSECTIONS (SPRINGHAVEN AVENUE)	LUMP	LUMP			.
4270	SPV.0105 SPECIAL 20. TEMP. LIGHTING FOR NON-SIGNALIZED INTERSECTIONS (LOFTY AVENUE)	LUMP	LUMP			.

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			DOLLARS	CTS	DOLLARS	CTS
4280	SPV.0105 SPECIAL 21. TEMP. LIGHTING FOR NON-SIGNALIZED INTERSECTIONS (PARKWAY STREET)	LUMP	LUMP			.
4290	SPV.0105 SPECIAL 22. OIL DISPOSAL STONE VENEER WALL	LUMP	LUMP			.
4300	SPV.0105 SPECIAL 23. WASTEWATER CONTROL, CITY OF MADISON	LUMP	LUMP			.
4310	SPV.0105 SPECIAL 24. WASTEWATER CONTROL, CITY OF MONONA	LUMP	LUMP			.
4320	SPV.0105 SPECIAL 25. TRAFFIC SIGNAL FLASHER CABINET ASSEMBLY (STATION 94+33)	LUMP	LUMP			.
4330	SPV.0105 SPECIAL 26. TRAFFIC SIGNAL FLASHER CABINET ASSEMBLY (STATION 102+56)	LUMP	LUMP			.
4340	SPV.0105 SPECIAL 27. CONSTRUCTION STAKING SANITARY SEWER CITY OF MADISON	LUMP	LUMP			.
4350	SPV.0120 SPECIAL 01. WATER FOR SEEDED AREAS	232.000 MGAL		.		.
4360	SPV.0165 SPECIAL 01. CONCRETE SIDEWALK HES 7-INCH	7,380.000 SF		.		.

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			DOLLARS	CTS	DOLLARS	CTS
4370	SPV.0165 SPECIAL 02. STAMPED CONCRETE SIDEWALK 4-INCH	3,270.000 SF	.		.	
4380	SPV.0165 SPECIAL 03. CAST IRON TRUNCATED DOMES YELLOW	448.000 SF	.		.	
4390	SPV.0165 SPECIAL 04. SALVAGE AND REPLACE BRICK PAVERS	80.000 SF	.		.	
4400	SPV.0165 SPECIAL 05. WALL MODULAR BLOCK GRAVITY SPECIAL	20.000 SF	.		.	
4410	SPV.0180 SPECIAL 01. PARKING LOT EMULSION SEALCOAT	1,155.000 SY	.		.	
4420	SPV.0180 SPECIAL 02. SALVAGE AND REPLACE LANDSCAPING MULCH	66.000 SY	.		.	
4430	SPV.0180 SPECIAL 03. SALVAGE AND REPLACE LANDSCAPING STONE	317.000 SY	.		.	
4440	SPV.0180 SPECIAL 04. CONSTRUCTION STAKING PARKING LOTS SUBGRADE AND BASE	9,666.000 SY	.		.	
4450	SPV.0180 SPECIAL 05. CROSSWALK CONCRETE PAVEMENT 8-INCH	654.000 SY	.		.	
4460	SPV.0180 SPECIAL 06. CROSSWALK CONCRETE PAVEMENT 8 1/2-INCH	234.000 SY	.		.	

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			DOLLARS	CTS	DOLLARS	CTS
4470	SPV.0180 SPECIAL 07. SHREDDED HARDWOOD BARK MULCH	914.000 SY	.		.	
4480	SPV.0180 SPECIAL 08. TEMPORARY SURFACE SAME DAY	135.000 SY	.		.	
4490	SPV.0195 SPECIAL 01. EXCAVATION HAULING AND DISPOSAL OF CHLORINATED SOLVENT CONTAMINATED SOIL	2,450.000 TON	.		.	
4500	SPV.0200 SPECIAL 01. CONSTRUCT OUTSIDE DROP (8" SDR-35)	2.300 VF	.		.	
	SECTION 0001 TOTAL				.	
	TOTAL BID				.	

PLEASE ATTACH SCHEDULE OF ITEMS HERE