HIGHWAY WORK PROPOSAL

Proposal Number: 4 5

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

COUNTY	STATE PROJECT ID	FEDERAL PROJECT ID	PROJECT DESCRIPTION	HIGHWAY
Vilas	9231-07-70	WISC 2013 286	Woodruff – Lac du Flambeau West Bolton Lake lane – CTH D	STH 47

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

Proposal Guaranty Required, $ 75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Due Date: May 14, 2013 Time (Local Time): 9:00 AM	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time Fifty (50) Working Days	
Assigned Disadvantaged Business Enterprise Goal 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 Excavation common, grading, pulverizing and relaying, storm sewer, sidewalk, curb and gutter, street lighting, HMA pavement Type E-1, pavement marking, permanent signing, traffic control, erosion control, marsh excavation, subbase, base aggregate dense.	
Notice of Award Dated	Date Guaranty Returned

PLEASE ATTACH
PROPOSAL GUARANTY HERE

Effective with November 2007 Letting

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

Effective with August 2007 Letting

BID PREPARATION

Preparing the Proposal Schedule of Items

A General

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

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

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

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

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

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

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

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at http://www.dot.wisconsin.gov/business/engrserv/bid-letting-information.htm or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, Room 601, 4802 Sheboygan Avenue, Madison, WI, during regular business hours.

B Submitting Electronic Bids

B.1 On the Internet

(1) Do the following before submitting the bid:

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

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

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

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

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

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

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

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

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

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

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

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

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

C Waiver of Electronic Submittal

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

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

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

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

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

PROPOSAL BID BOND

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

Wisconsin Department of Transportation

DT1305 8/2003

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

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

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

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

(Signature of Authorized Contractor Representative) (Date)

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.

Special Provisions

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 9231-07-70, West Bolton Lake Lane-CTH D, STH 47, Vilas 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 common excavation, grading, pulverizing and relaying, storm sewer, sidewalk, curb and gutter, street lighting, HMA pavement Type E-1, pavement marking, permanent signing, traffic control, erosion control, marsh excavation, subbase, base aggregate dense, water main improvements 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.

No detours are permitted to be in place over the following periods: Memorial Day weekend, Fourth of July holiday, Labor Day weekend, July 12, July 13, July 14, September 14, and September 15, 2013.

At the beginning of the marsh excavation operations, close STH 47 from Stearns Lake Road to CTH H to through traffic for a maximum of 10 calendar days. Do not reopen until completing the following work: marsh excavation, granular backfill, subbase, and base aggregate dense from Station 473+00 to Station 479+50 and pulverizing and relaying (Station 479+50 to Station 574+00); grading and base aggregate dense (Station 500+00 to Station 503+00, Station 553+50 to 559+00 and Station 568+00 to Station 574+00); and removing small pipe culvert, culvert pipe and apron endwalls, reinforced concrete Class III 24-inch, subbase, grading and base aggregate dense (Station 428+47).

Supplement standard spec 108.11 as follows:

If the contractor fails to complete the work necessary to reopen STH 47 from Stearns Lake Road to CTH H to traffic within 10 calendar days, the department will assess the contractor $1,000.00 in interim liquidated damages for each calendar day contract work remains incomplete beyond 10 calendar days. An entire working day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

Urban Reconstruction Stage 1
Install storm sewer system along northern side of STH 47 from Station 611+50 to approximately Station 617+50 while under flagger control. The structures placed shall have temporary cover plates installed and the ends of the sewer lines stubbed out shall be temporarily sealed until a connection is made later in the construction staging. Construct temporary widening along the northbound lane of STH 47. Include the lower layer HMA pavement Type E-1 of the proposed right turn lane and tapers at CTH D (north) intersection, traffic control and temporary pavement marking, prior to shifting traffic and subsequently beginning work on the southbound lane.

Do not proceed to Stage 2 until completing the following work: asphaltic surface, water system improvements, storm sewer including utility insulation, inlets, pipe, manholes, grates, cover plates temporary, curb and gutter, sidewalk, electrical conduit across STH 47, concrete light pole bases, salvaged topsoil/topsoil, base aggregate dense, the placement of the proposed lower layer HMA pavement Type E-1, and other work as shown on the plans. Complete water system installation prior to storm sewer work from Station 615+50 to Station 635+50.

Urban Reconstruction Stage 2
Remove temporary widening along STH 47 northbound lanes. Complete construction of storm sewer, curb and gutter, sidewalk, electrical conduit across STH 47, concrete light poles bases, salvaged topsoil/topsoil, base aggregate dense, the placement of the lower layer HMA pavement Type E-1, and other work as shown on the plans.

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

Place the lower layer of asphaltic pavements on sideroads before the upper surface layer of asphaltic pavements are placed on the mainline adjacent to the sideroad.

Place the upper surface layer of asphaltic pavement on the sideroads within 7 calendar days after the upper surface layer of asphaltic pavement is placed on the mainline.

Place Asphaltic Surface Patching before areas are opened up to traffic or when flagmen are present to direct traffic through the work areas.

4. Traffic.

Provide traffic control as indicated in the plans and as described below. Perform construction operations on STH 47 according to the stages provided in the plans and as described below. Modifications to either shall be approved by the engineer prior to implementation.

STH 47 will be closed and detoured during the rural reconstruction and Station 428+47 culvert pipe replacement portions of this project. See detour overview and detour signing plans for detour routes and signing.

During the detour of the rural reconstruction (Station 473+00 to Station 479+50), local traffic will be allowed to access the project up to the reconstruction zone from both directions; therefore, a suitable driving surface shall be maintained for local traffic. Complete the culvert pipe removal and replacement at Station 428+47 while the rural reconstruction zone is under detour. Provide advanced signing for temporarily closing STH 47 at the culvert pipe crossing location including ROAD CLOSED TO THROUGH TRAFFIC on Type III barricades at West Bolton Lake Lane and Stearns Lake Road, a ROAD CLOSED 1,000 FEET at Station 418+00 and Station 439+00 and ROAD CLOSED centered on three Type III barricades approximately 1,000 feet on both sides of pipe location. Also complete the minor grading and placement of base aggregate dense following pulverizing and relay operations as shown on the plans from Stations 500+00 to 503+00, 553+50 to 559+00, and 568+00 to 574+00, while the rural reconstruction zone is under detour.

The rural recondition portion of STH 47 shall be constructed under traffic control suitable for moving operations.

Upon switching STH 47 traffic to temporary pavement, designate a representative approved by the engineer to monitor the condition of the temporary pavement for a period of not less than eight hours after the traffic switch. Should the temporary pavement show any signs of distress, rutting or failure, immediately notify the engineer and implement a pre-approved plan to address the pavement issues.

Provide flaggers when working within 3 feet of active traffic in STAGE 1 or STAGE 2 of the urban improvements. Return drums to plan location when not working adjacent to live traffic.

Do not disturb, remove, or obliterate any traffic control signs, advisory signs, or beam guard in place along STH 47 without the approval of the engineer.

Maintain access to all businesses at all times. Additional intermediate construction staging or staging gaps, not shown on the plans, may be necessary to maintain continuous access to all businesses. Provide temporary gravel driveways where necessary. Coordinate the closure of any access location to a business or private property with the owner(s), and provide written documentation of coordination with the owner(s) consent

48 hours in advance of the closure to the engineer. Notify the Lake of the Torches Resort Casino and the Lac du Flambeau School in writing 14 days prior to road closures and detours. Within the urban reconstruction segment allow access to residences from 7:00 PM until 7:00 AM the following workday.

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

5. Holiday Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 47 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, 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.

107-005 (20050502)

6. Information to Bidders - U.S. Army Corps of Engineers Section 404 Permit.

The department has obtained a U.S. Army Corps of Engineers Section 404 Permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the region office by contacting Jim Volkmann at (715) 365-5773. Methods of operations, including preparatory work, staging, site clean-up or storing materials, causing impacts to other wetlands or waters are not permitted.

If the contractor chooses a method of construction that is not covered by the department's 404 Permit, obtain the proper additional permits required from the U.S. Army Corps of Engineers. It is the contractor's responsibility to determine if additional permits are required. Obtain the additional permits prior to beginning construction operations requiring the permits. No time extensions as discussed in standard spec 108.10 will be granted for the time required to apply for and obtain the additional permits. The contractor must be aware that the U.S. Army Corps of Engineers may not grant the additional permits.

U.S. EPA Stormwater Permit.
A Stormwater Pollution Prevention Plan (SWPPP) permit is required for the project which is administered by Gretchen Watkins, Water Resources Specialist, LDF Tribe, (715) 588-4162. Ms. Watkins will coordinate National Pollutant Discharge Elimination

System General Permit for Discharge from Construction Activities with US EPA. An ECIP for road construction project shall be submitted to Ms. Watkins 14 days prior to preconstruction. Comply with the requirements of the permit and the previously prepared SWPPP in addition to requirements of these special provisions. A copy of the permit is available from the regional office by contacting Jim Volkmann at (715) 365-5773.

7. Property Marks – Protecting and Restoring.

Replace standard spec 107.11.3 (1) with the following:

Protect and carefully preserve all known property and survey marks, land monuments, and right-of-way monuments and marker posts. Notify the engineer of the nature and location of these monuments and markers. Do not disturb or destroy monuments or markers until the engineer has arranged for their referencing or perpetuation.

Reset or replace, to the required standard, any Property and survey marks, land monuments, and right-of-way monuments and marker posts that fall outside the construction limits that are shifted, lost or damaged by the contractor during construction operations, as determined by the engineer. If the contractor fails to restore the disturbed monuments or markers within a reasonable time, the department may, upon 48 hours written notice, restore the disturbed monuments or markers. The department will deduct restoration costs from payments due the contractor under the contract.

8. Utilities.

This contract comes 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 Digger's 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. Frequently, the utility companies encounter problems that prevent them from meeting their anticipated schedules. Bidders are advised to contact each utility company listed in the plans, prior to preparing their bids, to obtain current information on the status of any utility relocation work stated herein.

Bidders should note that some facilities will remain within the grading areas throughout the project. Close coordination will be needed between the contractor and the utility companies to prevent project delays and utility facility damage.

All station ranges given below reference the STH 47 northbound alignment.

Wisconsin Public Service has overhead and underground facilities along the project. Poles and cable conflicts will be addressed prior to construction. See attached table of conflicts.

Frontier Communications (fdba Verizon North, Inc.) has overhead and underground facilities along the project. Poles, pedestal and cable conflicts will be addressed prior to construction. See attached table of conflicts.

Gauthier Cablevision has underground facilities along the project. Pedestal and cable conflicts will be addressed prior to construction. See attached table of conflicts.

Lac du Flambeau Water and Sewer has underground and at grade facilities from Station 588+00 to the end of project (Station 650+30). Insulation of watermains and water services by the contractor during construction will be required where shown on the plans and as indicated in the attached table of conflicts and plan details. Valve box vertical adjustments will be required by the contractor during construction. Sanitary sewer manhole castings will be adjusted by the contractor to match finished grade during construction. Confirmation of watermain location by the utility will be required during construction prior to pouring concrete light pole bases. Hydrant conflicts will be addressed prior to construction. See attached table of conflicts.

Lake of the Torches Federal Development Corp. has underground facilities from Station 614+40 to the end of the project (Station 650+30). Cable and pedestal conflicts will be addressed prior to construction. See attached table of conflicts.

Gauthier Cablevision			
Station	**Offset**	**Utility**	**Conflict**
621+35 - 634+50	18'-25' LT	Buried television cable/television pedestals	Cut/fill in road, storm sewer, sidewalk, street light poles/cabling
634+50	25' LT-25' RT	Buried television cable	Cut/fill in road/sidewalk and storm sewer installation
Lac du Flambeau Water and Sewer			
Station	**Offset**	**Utility**	**Conflict**
601+50 - 650+30	15'-40' LT	Watermain	Cut/fill road and sidewalk, curb and gutter construction
615+35	17.5' LT	Watermain	(Contractor to insulate watermain under inlet)
615+65	18' LT	Watermain valve boxes	Fill curb and gutter, sidewalk
616+40	21' LT	Watermain	Street light pole
617+00 - 639+50	17'-27' RT	Sanitary sewer pipe/manholes (gravity and forcemain)	Cut/fill sidewalk construction (contractor to adjust manhole castings)
617+55	LT/RT	Water service	1' cut, 4" insulation required (by contractor)
618+50	20' LT	Watermain	Street light pole
618+90, 623+40, 625+10, 627+10, 631+25, 635+20	22' LT - 30' LT	Watermain	Hydrant/valve in sidewalk
619+26	17.5' LT	Watermain	(Contractor to insulate watermain under inlet/pipe)
622+50	20' LT	Watermain	Street light pole
622+93	17.5' LT	Watermain	(Contractor to insulate watermain under inlet/pipe)
623+75	LT/RT	Water service	Cut in road reconstruction, 4" insulation required (by contractor)
624+50	20' LT	Watermain	Street light pole
625+50	17.5' LT	Watermain	(Contractor to insulate watermain under inlet/pipe)
630+00	17.5' LT	Watermain	(Contractor to insulate watermain under inlet/pipe)
634+40	24' LT	Watermain	Street light pole
634+50	24' LT	Watermain	(Contractor to insulate watermain under storm sewer pipe)
636+75	25' LT	Watermain	Street light pole

638+62	17.5' RT	Sanitary sewer	(Contractor to insulate sanitary sewer under inlet)
639+00	30' LT	Watermain	Street light pole
641+00	29' LT	Watermain	Street light pole
641+45	17.5' RT	Sanitary sewer	(Contractor to insulate sanitary sewer under inlet/pipe)
641+00 - 642+00	22' RT - 25' LT	Sanitary sewer pipe/manholes	Cut/fill road reconstruction and sidewalk
643+00	26' LT	Watermain	Street light pole
645+00	35' LT	Watermain	Street light pole
647+00	33' LT	Watermain	Street light pole
Lake of the Torches Federal Development Corp.			
Station	**Offset**	**Utility**	**Conflict**
602+50 - 615+00	25' LT	Buried fiber optic cable, fiber optic pedestal	3'-4' fill sidewalk, storm sewers, and culvert pipe extension
614+70	20-30' LT	Buried fiber optic cable	Street light cabling
614+75	LT/RT	Buried fiber optic cable	1.5' cut plus road reconstruction and storm sewer installation
614+75	30' LT	Fiber optic pedestal	Fill inslope
643+90	LT/RT	Buried fiber optic cables	Road, sidewalk, storm sewer, street light cabling
647+00	LT/RT	Buried fiber optic cable	Road/sidewalk reconstruction, street light pole/cabling
Verizon North, Inc.			
Station	**Offset**	**Utility**	**Conflict**
416+10	30' RT	Telephone pole	2' fill inslope
424+85	35' LT	Telephone pedestal	Fill with intersection improvements
451+60	30' RT	Telephone pole	Fill with intersection improvements
451+70	30' RT	Telephone pedestal	Fill with intersection improvements
460+00 - 471+00	25-33' RT	Buried telephone cable	1-3' fill inslopes
461+40	27' RT	Telephone pedestal	2' fill inslope
463+60	28' RT	Telephone pedestal	2' fill inslope
472+75	40' RT	Telephone pedestal	Temporarily cut - marsh exc.
472+75 - 480+00	20'-30' RT	Buried telephone cable	Temporarily cut - marsh exc.
483+40	31' LT	Telephone pedestal and cable	Cut/fill intersection improvements
488+35	45' LT	Telephone pole	6' fill inslope
493+40 - 496+65	25'-40' RT	Buried telephone cable	Cut/fill, CTH H intersection

			improvements
495+00 - 499+00	15'-30' LT	Buried telephone cable	Cut/fill, CTH H bypass lane improvements
499+00 - 500+50	22'-30' LT	Buried telephone cable	1.5' fill inslope
510+00 - 512+50	26' LT - 45' LT	Buried telephone cable	1-3' fill inslopes
522+60 - 523+60	20-22' LT	Buried telephone cable	1' fill inslope
524+90 - 526+90	40' LT	Buried telephone cable	Fill inslope behind building
526+65	30' LT	Telephone pole	Fill inslope behind building
529+70 - 530+00	35-40' LT	Buried telephone cable	Cut/fill intersection improvements
533+95	30' RT	Telephone pole	1' fill inslope
536+80	30' LT	Telephone pole	1' fill inslope
536+80 - 539+75	30' LT	Buried telephone cable	1.5' fill inslope
536+95	32' RT	Telephone pole	1.5' fill inslope
538+80	30' LT	Telephone pole	1.5' fill inslope
545+00 - 564+50	25'-38' LT	Buried telephone cable	1.5' fill inslopes and cut/fill intersection improvements (Potts Bay Road)
552+40	27' LT	Telephone pole	1.5' fill inslope
560+75	35' LT	Telephone pedestal and telephone pole	Cut/fill for Potts Bay Road improvements
561+60	32' RT	Telephone pole	2.5' fill inslope
562+60	30' LT	Telephone pole	2' fill inslope
566+00 - 570+30	25' LT	Buried telephone cable	1' fill inslope
571+40 - 573+25	32' LT	Buried telephone cable	1.5' fill inslope
572+60	29' LT	Telephone pole	1.5' fill inslope
579+25 - 584+30	18-20' LT	Buried telephone cable	1' fill inslope
582+60	30' LT	Telephone pole	2' fill inslope
587+00 - 591+00	30'-100' LT	Buried telephone cable and telephone poles	Cut/fill for Thorofare Intersection improvements
589+50	32' RT	Telephone pole	2' fill inslope
595+85	32' RT	Telephone pole	2' fill inslope
596+50 - 601+00	25' RT	Buried telephone cable	1' fill inslope
600+60	21' LT	Telephone guy	1' fill inslope
601+00 - 602+50	25' LT	Buried telephone cable	Cut/fill Gaulke (E) intersection improvements
602+50 - 615+00	25' LT	Buried telephone cable, telephone guys, telephone pole, and telephone pedestal.	3'-4' fill sidewalk, storm sewers, and culvert pipe extension, street light poles/cabling
602+60	25' LT	Telephone guy	2' fill sidewalk, street light cabling

616+50	LT/RT	Buried telephone cable	1' cut and reconstruction and storm sewer installation
622+25	LT/RT	Buried telephone cable	Cut in road and sidewalk and storm sewer
629+20	25'-27' RT	Buried telephone cable	Cut/fill sidewalk
630+50 - 631+30	34' LT	Telephone pedestals and buried telephone cable	Cut/fill sidewalk/road
631+30 - 631+80	20-30' LT	Buried telephone cable	Street light cabling
631+80	25' LT-25' RT	Buried telephone cable	Cut/fill road and sidewalk
633+85	25' LT-25' RT	Buried telephone cable	Cut in road reconstruction and storm sewer installation
633+85 - 634+50	25' LT-30' LT	Buried telephone cable	Street light cabling
636+00 - 641+75	24' RT	Buried telephone cable	Sidewalk
639+10	22' RT	Telephone pole	Sidewalk
639+90	23' RT	Telephone pole	Sidewalk
641+75	LT/RT	Buried telephone cable	Sidewalk/road reconstruction and storm sewer installation
643+90	LT/RT	Buried telephone	Road, sidewalk and storm sewer
Wisconsin Public Service			
Station	**Offset**	**Utility**	**Conflict**
446+40	28' RT	Power pole	Cut backslope
448+70	30' RT	Power pole	Cut backslope
451+00	30' RT	Power pole	Fill with intersection improvements
462+20	27' RT	Power pole	3' fill inslope
462+45	33' RT	Power pole	2.5' fill inslope
465+20	28' RT	Power pole	1' fill inslope
468+15	28' RT	Power pole	1' fill inslope
470+45	26' RT	Power pole	1' fill inslope
472+75	40' RT	Power pole	Temporarily cut - marsh exc.
478+20	28' RT	Power pole	Temporarily cut/1' final fill
489+30	32' RT	Power pole	1' fill inslope
494+20	30' RT	Power pole	Fill CTH H intersection improvements, RT turn lane
495+40	30' RT	Power pole	Fill intersection improvements
496+70	32' RT	Power pole	Fill intersection improvements
506+50	30' RT	Power pole	1' fill inslope
509+95	30' RT	Power pole	2' fill inslope
524+95	30' RT	Power pole	1' fill inslope
606+25	30’ RT	Meter	Flasher being removed
624+20	25' LT	Power pole and guy	1' cut sidewalk

630+40	25’ LT	Meter	Flasher being removed
635+40	27' RT	Power pole	Sidewalk
636+80	25' RT	Power pole	Sidewalk
637+00	23' LT	Power pole	Sidewalk
638+00	25' RT	Power pole	Sidewalk
638+10	23' LT	Power pole	Sidewalk
639+15	22' LT	Power pole, pedestal, guy. and buried electrical cable	Sidewalk
639+55	23' RT	Power pole	Sidewalk

9. Notice to Contractor – Contamination Beyond Construction Limits.

The department completed a Phase I Hazardous Materials Assessment for this project. All sites containing potential areas of contamination were located outside of the construction zone. It was determined that excavation activities are not likely to encounter contaminated soil or groundwater from the following sites:

Station 493+00 RT
Station 497+00 RT
Station 585+00 LT
Station 587+00 LT

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

The Hazardous Materials Report is available by contacting: Jim Volkmann, WisDOT Rhinelander office, 510 Hanson Lake Road, Rhinelander, WI 54501, (715) 365-5773.

10. Native American Hiring.

Pre-Bid

Prior to bid submittal, contact the Lac du Flambeau tribal labor office to provide information on hiring procedures and future employment opportunities, and gather information on the tribal work force.

Lac du Flambeau tribal labor office contact information:

J. Brooks BigJohn, Tribal Employment Rights Officer
PO Box 67
Lac du Flambeau, WI 54538
Office: (715) 588-3303
Cell: (715) 439-3947
Email: bbigjohn@ldftribe.com

Maintain documentation of all efforts made to communicate with the Lac du Flambeau tribal labor office. Pre-bid, present documentation in conjunction with the DT1633 form. The Eligible Bidders list will not be updated until after this documentation is received. Include the following information in documentation:

- Proposal number/route number/termini/county
- Person(s) contacted
- Method of communication (phone, email, written, in person)
- Information exchanged (hiring procedures, available positions, referrals received, employee performance, etc)

After Execution
At a minimum of 3 days before the Preconstruction Tribal meeting, contact the Lac du Flambeau Tribal Employee Rights Officer to provide the following information regarding available employment opportunities for prime and subcontractors:

- Job classification/trade
- Job qualifications and required skills
- Employment period
- Wage
- Copy of job application

The Lac du Flambeau Tribal Employee Rights Officer shall provide employment referrals within 3 business days. If no qualified referrals are received, use other recruitment sources.

Preconstruction Tribal Meeting
Between execution of contract and the project preconstruction conference, conduct a meeting with the Tribal officials and leaders at Lac du Flambeau. Prime contractor and all subcontractors shall be present. Discuss available employment opportunities and other tribal areas of interest such as scope of work, Tribal regulations, borrow sites, waste sites, and available aggregate.

At any time during the contract, provide Lac du Flambeau communication documentation within 5 business days of request by the department.

11. Sensitive Work Zones.

Areas of potential archaeological significance have been identified along the project corridor outside of the roadway construction limits.

The original archaeological report indicated no need for on-site monitoring.

Submit off-roadway locations proposed by the contractor and subcontractors for construction staging, material storage, equipment storage, and parking prior to the pre-construction meeting or 10 days before the start of construction.

If items of archaeological significance are encountered, stop work immediately. Notify the engineer and Tribal Historic Preservation Office (THPO), ldfthpo@nnex.net (715) 588-2139, and follow requirements according to standard spec 107.

The following procedures shall be followed by WisDOT, the contractor, and tribal officials for the duration of the project:

1. Notify the THPO ten working days prior to the start of construction. Include THPO and WisDOT in an on-site preconstruction meeting. THPO will determine tribal participants in the preconstruction meeting.

2. Should a discovery of archaeological resources be made, immediately stop construction activities in the area and fence off the site. The site area will remain fenced off until the THPO reviews the materials and makes a determination on methods of data recovery and/or methods for documentation. Upon completion of the data recovery, the engineer will authorize the removal of the fencing and notify the WisDOT engineer that construction may proceed in the area.
3. Take protective measures to safeguard the archaeological site after working hours. Measures will include one or more of the following: fencing, signage, and temporary hand backfilling of the area to conceal the location. If in the opinion of the THPO the archaeological site may be in jeopardy and cannot be protected, the THPO will determine steps necessary to ensure the safety of the site.
4. Conduct archaeological survey for borrow sites, batch plants, waste sites, and staging areas to be used for this project. If archaeological material is encountered, follow Section 106 or obtain another area for borrow, batch plants, waste sites, and staging areas. If human bone is discovered, notify THPO immediately. An alternate borrow, batch plant, waste site, or staging area will be required.

Any hand digging or signage that may be required due to these provisions shall be considered incidental to the work being performed which caused the discovery of human remains or archaeological resources. Any fencing required will be paid at the contract unit price for Fence Safety, Item 616.0700.S.

12. Wood Turtle Avoidance.

The contractor shall remove and sufficiently relocate any wood turtles found at an excavation site. All costs incurred in this effort shall be considered as part of the unit price costs of salvaged topsoil, marsh excavation, and common excavation to be paid for under those items.

13. Coordination with Businesses and Property Owners.

Coordinate and participate with the engineer in twice a month public meetings. The audience of the meetings is intended to be local officials, business people, and property owners affected by the construction project. The first meeting will be conducted a minimum of two weeks prior to the start of work under this contract. Discuss the following at the meetings: schedule of operations, progress of the project, access for businesses and property owners during construction, and any issues associated with vehicular and pedestrian access during construction operations. Arrange for a suitable location for the meetings that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings and serve as the lead during the meetings.

14. Environmental Protection, Aquatic Exotic Species Control.

Exotic invasive organisms such as VHS, zebra mussels, purple loosestrife, and Eurasian water milfoil are becoming more prolific in Wisconsin and pose adverse effects to waters of the state. Wisconsin State Statutes 30.07, “Transportation of Aquatic Plants and

Animals; Placement of Objects in Navigable Waters", details the state law that requires the removal of aquatic plants and zebra mussels each time equipment is put into state waters.

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

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

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

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.
107-055 (20110615)

15. Public Convenience and Safety.

Replace standard spec 107.8 (4) with the following:

Notify the following organizations and departments at least two business days before road closures, lane closures or detours are put into effect:

Vilas County Sheriff's Department
Wisconsin State Patrol
Town of Lac du Flambeau
Lac du Flambeau Tribe
Lac du Flambeau School District
Lac du Flambeau Post Office

The Vilas County Sheriff's Department 911 dispatches all area police, fire and ambulance services, and will relay any notification given by the contractor.

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 within the urban and rural recondition segments from 7:00 PM until 7:00 AM the following working day; and within the rural reconstruction (detoured) segment from 10:00 PM until 7:00 AM the following working day, unless prior written approval is obtained from the engineer.

16. Clearing and Grubbing.

Amend standard spec 201.3 as follows:

At the wetland mitigation site, the cleared trees and stumps shall be chipped and stockpiled in the area indicated on the plan sheets with silt fence around.

17. Removing Apron Endwalls, Item 204.9060.S.01.

A Description
This special provision describes removing apron endwalls 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 Apron Endwalls as each individual removing apron endwalls, acceptably completed.

E Payment
Supplement standard spec 204.5 to include the following:

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

18. Excavation Common.

Supplement standard spec 205.3.12 as follows:

Dispose of surplus material at tribe approved sites. Site must be previously approved by THPO.

19. 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 sublot with any property outside the specification limits is nonconforming. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

B Materials

B.1 Quality Control Plan

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

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

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication means that will be used, and action time frames.

3. A list of source and processing locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Test results for wear, sodium sulfate soundness, freeze/thaw soundness, and plasticity index of all aggregates requiring QC testing. Obtain this information from the region materials unit or from the engineer.
5. Descriptions of stockpiling and hauling methods.
6. Locations of the QC laboratory, retained sample storage, and where control charts and other documentation is posted.
7. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.

B.2 Personnel

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

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

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

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

B.3 Laboratory

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

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

B.4 Quality Control Documentation

B.4.1 General

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

B.4.2 Records

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

B.4.3 Control Charts

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

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

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

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

B.5 Contractor Testing

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

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

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

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

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

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

B.6 Test Methods

B.6.1 Gradation

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

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

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

(3) Maintain a separate control chart for each sieve size specified in standard spec 305 or 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)

20. Pulverize and Relay.

Replace standard spec 325.3(2) with the following:

(2) Immediately after pulverizing, relay the material with a paver, grader, or both the paver and grader. Use equipment with automatic grade and slope control systems for adjusting the slope through superelevated curves, transitions, and tangent sections and an averaging device to achieve a smooth profile. If the automatic control systems break down, the contractor may use manual controls for the remainder of that day only.

325-001 (20080902)

21. Protecting Concrete.

Supplement standard spec 415.3.14 as follows:

Provide 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. The finisher shall 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 shall be considered incidental to the contract unit price for each concrete item.

22. Pavement Safety Edge.

A Description

(1) This special provision describes providing a sloped safety edge at the locations the plans show for pavements and pavement overlays placed adjacent to aggregate shoulders.

(2) Department is conducting research on the safety edge. Cooperate with research activities as requested.

B (Vacant)

C Construction

C.1 General

(1) Construct the safety edge monolithically with the pavement extending beyond the edge of pavement. Prepare the foundation material underlying the extended safety edge as the engineer directs. Place the finished shoulder material to the top of the safety edge conforming standard spec 305.3.3.

(2) Ensure that after final rolling the safety edge angle is within the tolerances the plans show.

C.2 Equipment

(1) For HMA pavement and overlays use a paver with an engineer-approved safety edge system capable of constructing the specified edge cross section compacted conforming to standard spec 450.3.2.6. Do not use a single plate strike off. Before paving, provide documentation that the proposed system met these specifications on other projects or construct a test section. The engineer may allow a conforming test section to be incorporated into the work.

(2) For concrete pavement and overlays use slip-form paver modified to form the required edge.

(3) The engineer may allow hand placement for short sections where machine placement is not practicable The engineer may also allow full depth sawing to remove formed edges integrally placed with pavement where the plans do not show safety edge.

(4) The engineer may eliminate safety edge work from the contract if at any point the contractor fails to construct conforming work.

D Measurement

(1) The department will include the tonnage of material acceptably placed in the edge in the tonnage for the associated HMA pavement or overlay bid items.

(2) The department will include the plan-view area of material acceptably placed in the edge in the yardage of the associated concrete pavement bid items.

E Payment

(1) Payment for providing safety edge as well as full depth sawing to remove integrally placed edge is incidental to the associated pavement or overlay bid items.

(2) The department will make no compensation under standard spec 109.5 if the safety edge work is eliminated due to the contractor's failure to produce conforming work.

23. 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 sublot 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 x IRI)
≥ 35 to < 60	0
≥ 60 to < 75	1000 – (50/3 x 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 x IRI)
≥ 55 to < 85	0
≥ 85 to < 100	(4250/3) – (50/3 x 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 x 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)

24. QMP HMA Pavement Nuclear Density.

A Description

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

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

(2) Provide and maintain a quality control program defined as all activities and documentation of the following:

1. Selection of test sites.
2. Testing.
3. Necessary adjustments in the process.
4. Process control inspection.

(3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures. Obtain the CMM from the department's web site at:

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

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

B Materials

B.1 Personnel

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

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

B.2 Testing

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

B.3 Equipment

B.3.1 General

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

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

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

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

B.3.2 Correlation of Nuclear Gauges

B.3.2.1 Correlation of QC and QV Nuclear Gauges

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

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

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

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

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

B.3.2.2 Correlation Monitoring

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

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

(3) Check each gauge on the project reference site a minimum of one test per day if paving on the project. Calculate the difference between the gauge's daily test result and its reference value. Investigate if a daily test result is not within 1.5 lb/ft^3 of its reference value. Conduct 5 additional tests at the reference site once the cause of deviation is corrected. Calculate and record the average of the 5 additional tests. Remove the gauge from the project if the 5-test average is not within 1.5 lb/ft^3 of its reference value established in B.3.2.2(2).

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

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

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

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

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

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

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

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

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

Table 1

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

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

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

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

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

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

Table 2

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

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

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

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

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

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

B.4.2.2.2 Width of 5 Feet or Less

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

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

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

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

B.4.2.4 Documentation

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

B.4.3 Corrective Action

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

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

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

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

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

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

B.5 Department Testing

B.5.1 Verification Testing

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

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

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

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

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

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

B.5.2 Independent Assurance Testing

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

B.6 Dispute Resolution

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

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

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

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

B.7 Acceptance

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

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

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

E.2 Disincentive for HMA Pavement Density

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

E.3 Incentive for HMA Pavement Density

(1) Delete standard spec 460.5.2.3.

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

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

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

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

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

460-020 (20100709)

25. Sleeved/Lined Culvert Pipe Extension.

Supplement standard spec 520.3.3 and 520.5 with the following:

For sleeved/lined culvert pipe requiring extensions it is permissible (regardless of flow direction) and possibly necessary to provide and install the first length of extension with a special expanded bell end that fits around the outside diameter of the existing grouted and lined culvert pipe. Construct a concrete collar around said joint.

All pipe and collar costs incurred in this effort shall be considered as part of the unit price costs of culvert pipe and concrete collar, respectively.

26. 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)

27. 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 as units, acceptably completed in place.

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)

28. Insulation Board Polystyrene, 4-Inch, Item 612.0902.S.01.

A Description
This special provision describes furnishing and placing polystyrene insulation board as shown on the plans and as hereinafter provided.

B Materials
Provide polystyrene insulation board that conforms to the requirements for Extruded Insulation Board, AASHTO Designation M230, except as hereinafter revised.

Delete flammability requirement.

B.1 Certification
Before installation, obtain from the manufacturer a certification indicating compliance and furnish it to the engineer.

C (Vacant)

D Measurement
The department will measure Insulation Board Polystyrene (Size) by area in square yards of work completed and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
612.0902.S.01	Insulation Board Polystyrene 4-Inch	SY

Payment is full compensation for furnishing all excavation; and for furnishing and placing the insulation board.
612-005 (20030820)

29. 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)

30. Removing Signs.

Supplement standard spec 638.3.4 with the following:

Do not move or remove any specific information signs (blue gas, food, lodging, camping or attraction signs) or their associated posts. A separate contractor, Derse, Inc., maintains these signs. Contact Mark Rognsvoog of the Derse Company at (800) 345-5772 a minimum of 14 calendar days in advance to coordinate moving, removing or re-installation of these signs.

Supplement standard spec 638.3.4 (2) as follows:

Return aluminum Type II signs to either one of the department's North Central Region Office Sign Shops located at 2841 Industrial Street, Wisconsin Rapids or 501 North Hanson Lake Road, Rhinelander. Contact the Signing Lead Worker at (715) 421-8006.

31. Field Facilities.

Supplement standard spec 642.2.1(3) as follows:

Provide a water cooler to dispense the bottled drinking water.

Supplement standard spec 642.3 as follows:

Set up the field office within seven days after notice from the engineer.

Provide a parking area large enough to park a minimum of six cars directly adjacent to the field office. The parking area and approach to the field office shall be well drained and consist of a crushed base aggregate or an existing paved surface and shall be ready for use within seven days after the field office is set up.

32. Traffic Control.

Supplement standard spec 643.3.1 with the following.

Lighting devices shall be covered or rendered inoperative when not in use.

Provide the engineer, Lac du Flambeau Police Department(s), County Sheriff's Department, and the State Patrol District Headquarters responsible for that county the current telephone number(s) the contractor or their representative can be contacted at all times 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 or made aware of the damaged or disturbed traffic control devices.

Do not park or store equipment, vehicles, or construction materials within 10 feet of the edge of the traffic lane of any roadway during non-working hours.

Utilize two-way radios, and/or additional flag persons, within lane closure areas and at public road intersections, in order to positively direct, control, and safeguard traffic through the work zone.

All contractor vehicles or equipment operating within the project limits shall be equipped with and have flashing yellow lights operating.

A third flag person is required at all moving construction operations involving milling, paving, and shouldering. The third flag person is required to be located at the area of the

moving operation to safely guide traffic around the equipment and personnel working at the moving operation.

Promptly replace all state owned signs that are removed by the contractor because of interference with construction operations. At no time may stop signs be removed or moved without flag persons present.
(NCR-05102012)

33. Locating No-Passing Zones, Item 648.0100.

For this project, the spotting sight distance in areas with a 55 mph posted speed limit is 0.21 miles (1108 feet).
648-005 (20060512)

34. Lighting Control Cabinet 3060, Item 661.0400.S.01.

A Description
This special provision describes furnishing and installing lighting control cabinets as shown on the plans and as hereinafter provided.

B Materials
The cabinet type shall be Type 3060 as detailed in the plans.

C (Vacant)

D Measurement
The department will measure Lighting Control Cabinet (Type) as a unit, completed in accordance to the contract and accepted.

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

ITEM NUMBER	DESCRIPTION	UNIT
661.0400.S.01	Lighting Control Cabinet 3060	Each

Payment is full compensation for furnishing and installing all materials, including lighting control cabinets, hardware and fittings.
661-001 (20030820)

35. Storm Sewer Tap, Item SPV.0060.01.

A Description
Tap 12-inch storm sewer pipe into existing inlet at the location shown on the plans.

Perform the work in accordance to the applicable provisions of standard spec 607 and standard spec 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 as each individual storm sewer tap, 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	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, cleaning out.

36. Salvage Flasher Assembly, Item SPV.0060.02.

A Description
This special provision describes the removal and salvaging a flasher assembly as shown on the plans and as hereinafter provided.

B Materials
Dispose of all materials except the flasher assembly resulting from removing the flasher assembly including but not limited to poles, breakaway bases, wire and conduit off the job site.

C Construction
Do not remove existing flasher assembly until proper disconnects and wiring changes at the meter have been made. Remove all signal hardware including wiring, conduit, signal assemblies and mounts. Remove, handle, and deliver to Lac du Flambeau tribe's street department, George Thompson, (715) 588-3303, the existing flasher assembly in a manner that prevents damaging the assembly. Terminate electrical service at the adjacent meter and contact electric utility that flasher assembly disconnection is complete.

D Measurement
The department will measure Salvage Flasher Assembly as each individual salvage flasher 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.0060.02	Salvage Flasher Assembly	Each

Payment is full compensation for removing the existing flasher assembly including wiring and duct; for cleaning, transporting and delivering the flasher assembly; for notifying electric utility; for rewiring as necessary, for properly disposing of all materials, and for furnishing all incidentals necessary to complete the contract work. Payment for removing attached signs, removing posts and concrete foundation will be under separate bid items in the contract.

37. Concrete Sidewalk Bench, Item SPV.0060.03.

A Description

This special provision describes concrete park bench as shown on the plans and details.

B Materials

Concrete

Portland Cement

Use cement conforming to ASTM specifications as follows:

1. Type I Portland cement; ASTM C 150.
2. Type III Portland cement; ASTM C 150, for high early strength.

Ensure concrete attains a minimum 28-day compressive strength of 5,000 pounds per square inch.

Air Entrainment

Air entrainment shall be 6 to 8 percent, as recommended by ACI 318.

Admixtures

All admixtures shall conform to ASTM 260 and ASTM 494.

Aggregates

Furnish material conforming to the following:

1. Component requirements of standard spec 501.2.5.3 for fine aggregates.
2. Component requirements of standard spec 501.2.5.4 for Size No. 1 coarse aggregates.

Certification

Provide a manufacturer's written certification stating that the product meets all criteria.

B.1 Bench Back

Provide a 1/4-inch powder-coated steel bench back in black with a wildlife design as illustrated on the detail.

B.2 Acceptable Manufacturer
Custom Design Precast
Weston, WI 54476
Phone (715) 355-2143

Product: CDP 1011-Weston Classic Park Bench with back

C Construction
Install park benches as specified on plans.

D Measurement
The department will measure Concrete Park Bench as each individual concrete park bench, 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	Concrete Park Bench	Each

Payment is full compensation for furnishing and placing the park bench.

38. Sign Lighting, Entrance Sign, Item SPV.0060.04.

A Description
This special provision describes the Sign Lighting, Entrance Sign as indicated in the plan details.

B Materials
Furnish a complete lighting circuit and conduit per plan details.

C Construction
Install lighting circuit per plan details.

D Measurement
The department will measure the sign lighting, entrance sign as a complete unit for the circuitry wiring from the junction box to the location indicated in the plans.

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	Sign Lighting, Entrance Sign	Each

Payment is full compensation for furnishing and installing the light system.

39. Pole Type 6, Enhancement, Festoon and Circuitry, Item SPV.0060.05.

A Description
This special provision describes the pay item for enhancements to type 6 poles.

B Materials
Furnish the festoon and circuitry described in the plans.

C Construction
Install per plan detail.

D Measurement
The department will measure Pole Type 6, Enhancement, Festoon and Circuitry as each individual unit, acceptably completed. Wiring and conduits are measured under separate pay items.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Pole Type 6, Enhancement, Festoon and Circuitry	Each

Payment is full compensation for furnishing and installing festoon enhancement to Type 6 poles.

40. Construction Staking Wetland Site, Item SPV.0105.01.

A Description
This special provision describes the contractor-performed construction staking required to establish the horizontal and vertical position for the construction of non-highway related earthwork. Conform to standard spec 650 and the following:

B (Vacant)

C Construction
Replace standard spec 650.3.3 with the following:

650.3.3 Site Grading
650.3.3.1 General
Under this bid item the contractor may substitute global positioning system (GPS) machine guidance for conventional subgrade staking on all or part of the work. The engineer may require the contractor to revert to conventional subgrade staking methods for all or part of the work at any point during construction if, in the engineer's opinion, the GPS machine guidance is producing unacceptable results.

650.3.3.2 Site Grading
Set construction stakes or marks on a 100-foot by 100-foot grid minimum, with more stakes where grading operations require. Set and maintain sufficient stakes to match the grading plan contours, achieve the required accuracy and to support the method of operations. Locate stakes within 0.5 feet horizontally and establish the grade elevation within plus 0.10 feet vertically or minus 0.10 feet vertically of proposed finished grade elevations. Include additional stakes as necessary to match the grading plan for the new wetland construction.

Primary horizontal and vertical control for construction of earthwork will be provided by the department along with a disk containing 3-dimensional data. The contractor is responsible for utilizing the 3-dimensional data to complete the earthwork construction to the lines and grades as shown on the plans or as directed by the designated, on-site wetland biologist.

D Measurement
The department will measure Construction Staking Wetland Site, completed in accordance to the contract and accepted, as a single complete lump sum unit of work.

E Payment
Measured quantities at the contract unit price will be paid for under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0105.01	Construction Staking Wetland Site	LS

Payment is full compensation for locating and setting all construction stakes, relocating and resetting damaged or missing construction stakes, and measuring final grade as necessary.

41. Research and Locate Existing Property Monuments, Item SPV.0105.02.

A Description
This special provision describes researching and locating existing property monuments located within permanent easement, temporary easement or construction permit 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, temporary easement and construction permit 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.0105.02	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; preparing, annotating and delivering the property monument location map to the engineer.

42. Verify and Replace Existing Property Monuments, Item SPV.0105.03.

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 shall 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.0105.03	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; furnishing a registered land surveyor; preparing, annotating and delivering the property monument location map.

43. Wetland Mitigation Site.

Tracking pad according to standard spec 628.2.14 except aggregate shall have no more than 20% (by weight) passing the 1 ½ inch sieve.

All equipment to be used on the site must be free of material that may contain weed seed or invasive species. Complete the inspection of equipment and removal procedure before equipment is brought to the project site and before equipment leaves the project site.

Notify Tribal Forestry Department (Scott McDougall (715) 588-9165 or Larry Wawronowicz (715) 588-4213) regarding clearing and grubbing areas 7 days prior to activity.

Install tracking pad according to standard spec 628.3.16. The tracking pad shall be 12 inches minimum thickness and 50 feet long with adequate width for vehicles being used. The aggregate will remain on site following construction.

Existing windrows on both sides of the access road shall be cleared and grubbed to the established outer limits of the constructed wetland. Cleared material shall be chipped for tribal use and stockpiled as indicated on DOOTOOBII plan set or per Tribal Forestry Department instructions. Silt fence shall be installed around all stock piles.

Contractor shall rough grade site in conjunction with activities for the STH 47 construction. Approximately 28,000 cubic yards of material will be excavated from the site to create a 3.09 acre basin. The excavated material from the wetland site will be used as fill, backfill granular, or for maintenance fill of the Powell Marsh dike. Material salvageable as fill or backfill granular excavated from the constructed wetland shall be transported to the STH 47 project. Store unacceptable material or excess material at the north end of the constructed wetland site near the Powell Marsh dike as indicated on the plan sheet and per Tribal Forestry Department guidance. Install silt fence around stockpiles.

A designated, qualified wetland biologist provided by WisDOT will be on site to monitor the elevation and finishing of DOOTOOBII. Contract shall not perform final grading or finishing work at DOOTOOBII without the designated wetland monitor on site.

The wetland hydrology shall be established by intercepting the watertable between elevations 1607 and 1608 NAVD 88 (1993). A 0.55-acre area at elevation 1605 shall be excavated according to the DOOTOOBII plan set to allow shallow marsh to develop. Any deviations, adjustments, or problems with reaching desired elevations or areas during construction shall immediately be relayed by wetland monitor or contractor to USCOE (Eric Norton at (715) 345-7911) and the DOT Project Manager before proceeding.

The DOOTOOBII wetland shall be over-excavated and then covered with nine inches of topsoil stored at the site/brought in by the contractor. The bottom of the proposed wetland will have undulating micro topography between elevations 1605 and 1608 as indicated in the plan sheets. It will then be top-dressed uniformly with a maximum thickness of 3” of salvaged wetland topsoil to provide a native seed bank. Salvaged wetland topsoil shall be placed using equipment types that will minimize compaction (i.e. small bulldozer). After placing the material, the area shall not be worked with discs, harrows, or other like equipment to minimize compaction. Irrigation or live planting is not needed for the site.

As DOOTOOBII is being finished, hand rake the two existing wetland edges to create a seamless transition into the created wetland. Remove the temporary flagging or fencing and any berm or ridge that may have developed along the boundary of the existing wetlands.

Erosion control at DOOTOOBII is limited to silt fence on the project site and a tracking pad. Silt fence will be removed from the stockpile areas when the soils or wood chips have been removed or as directed by the Tribal Forestry Department. The tracking pad shall remain at the site. The access road shall be in a state equal to its original condition as directed by the engineer.

A decorative cedar sign with posts and bracts will be provided by WisDOT, and shall be installed by the contractor as indicated on the wetland mitigation plan sheets. The sign is 6 feet wide by 4 feet tall and shall be mounted on 8-inch by 8-inch by 10-foot treated posts (provided) with four L-bracts (provided). The posts shall be installed 3 feet below the surface. The post hole shall be backfilled with pea gravel to allow drainage and compacted to be secure. The post and sign shall be picked up at the Rhinelander WisDOT office at 510 N. Hanson Lake Road and transported to the project site by the contractor.

44. Salvaged Topsoil, 9-Inch, Item SPV.0180.01.

A Description

This special provision describes work associated with Salvaged Topsoil, 9-Inch.

B Materials

Material shall consist of salvaged topsoil obtained from project limits at STH 47 and DOOTOOBII site. Material shall also include salvageable marsh excavation. The salvaged material shall be reasonably free from subsoil, stumps, brush and rocks.

C Construction

Place salvaged topsoil to a depth of 9 inches over the wetland site per Wetland Mitigation Site Finishing instructions.

D Measurement

The department will measure Salvaged Topsoil 9-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.0180.01	Salvaged Topsoil, 9-Inch	SY

Payment is full compensation for removing, stockpiling, reclaiming, hauling, and placing material; and for undercutting excavations, or underfilling embankments necessary to receive this material. The department will make no deductions from the Excavation bid items for the quantities of Salvage Topsoil, 9-Inch material obtained from areas of cut sections. Additionally, the department will not measure or pay for volumes of Salvaged Topsoil, 9-inch removed from sites of proposed embankments under the Excavation bid items, or make any allowance, adjustment, or measurement for payment under the Excavation bid items for undercutting cut sections, or underfilling embankments.

45. Protective Thermoplastic Coating at Snowmobile Trail Crossings, Item SPV.0180.02.

A Description

This special provision describes furnishing and placing a three layer system of thermoplastic protective surface for HMA and concrete pavements at snowmobile crossings as shown in the plan, in accordance to the standard specifications, and as hereinafter provided.

B Materials

Furnish the thermoplastic material listed below

Product Trade Name	Supplier	Telephone
Cleanosol E4190-35	Clark Highway Services/ PK Contracting	(231) 839-4430

A minimum of 10 working days prior to applying the thermoplastic coating, submit certification to the engineer verifying the product trade name and supplier. The supplier shall provide technical literature to the contractor with advice on storing, mixing, and applying, clean up, and disposing of excess materials.

C Construction

Delineate the area to be coated using a string line across the full pavement width. The surface of the area to be coated shall be swept of all dust, dirt and debris, and shall be completely dry. The thermoplastic coating shall be placed in three layers, with the first and third layers placed perpendicular to highway traffic and the second layer placed longitudinally with highway traffic.

The handling and placement of the thermoplastic material shall follow the manufacturer's recommendations.

D Measurement

The department will measure Protective Thermoplastic Coating at Snowmobile Trail Crossings in area 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	Protective Thermoplastic Coating at Snowmobile Trail Crossing	SY

Payment is full compensation for furnishing and hauling all materials, including thermoplastic material, silica sand; mixing and applying the thermoplastic material; removing and disposing of all excess materials; preparing the surface.

46. Water and Sewer Improvement Items; Water Main 10-Inch PVC Open Trench, Item SPV.0090.01; Water Main 10-Inch PE Directional Drilled, Item SPV.0090.02; Water Main 8-Inch PVC Open Trench, Item SPV.0090.03; Water Main 8-Inch PE Directional Drilled, Item SPV.0090.04; Gate Valve 10-Inch, Item SPV.0060.06; Gate Valve 8-Inch, Item SPV.0060.07; Fire Hydrant Package, Item SPV.0060.08; Connect to Existing Water System, Item SPV.0060.09; Water Service Line Open Trench, Item SPV.0090.05; Water Service Line Directional Drilled, Item SPV.0090.06; Corporation Stop, Item SPV.0060.10; Curb Stop, Item SPV.0060.11; Abandon Existing Facilities, Item SPV.0105.04; Reroute Sanitary Sewer Laterals, Item SPV.0060.12; Adjust Sanitary Manhole Rims, Item SPV.0060.13; Gate Valve 6-Inch, Item SPV.0060.14; Install Sanitary Manhole Barrel, Item SPV.0105.05.

A Description

A.1

This specification describes work on water system and sanitary sewer facilities completed with project 9231-07-70. Complete work according to plans inserted into project plan set as prepared by Indian Health Service (HIS) and specifications attached to this article.

A.2

Engineer referred to in this article is the Indian Health Service engineer found in Section 1.10 of the Summary of Work, Matthew Zoch, P.E.

A.3

Conditions defined in this section apply only to water main and sanitary sewer work items.

B Materials

All cast iron and steel items completed for the water system and sanitary sewer work shall comply with the “Buy America” clauses applied by the WisDOT.

C Construction

Complete water system and sanitary sewer work in accordance to conditions specified in this article as provided by the Indian Health Service.

D Measurement

Measurement for water system and sanitary sewer work shall comply with Section 01270 of this article.

E Payment

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

ITEM NUMBER	DESCRIPTION (IHS DESCRIPTIONS)	UNIT
SPV.0090.01	Water Main 10-Inch PVC Open Trench (10-Inch PVC C900 DR 13 Water Main (Open Trench))	LF
SPV.0090.02	Water Main 10-Inch PE Direction Drilled (10-Inch PE DIPS DR11 Water Main (Directional Drilled))	LF
SPV.0090.03	Water Main 8-Inch PVC Open Trench (8-Inch PVC C900 DR 18 Water Main (Open Trench))	LF
SPV.0090.04	Water Main 8-Inch PE Directional Drilled (8-Inch PE DIPS DR11 Water Main (Directional Drilled))	LF
SPV.0060.06	Gate Valve 10-Inch (10-Inch Gate Valve and Box)	Each
SPV.0060.07	Gate Valve 8-Inch (8-Inch Gate Valve and Box)	Each
SPV.0060.08	Fire Hydrant Package (Fire Hydrant with 6-Inch Gate Valve and Box)	Each
SPV.0060.09	Connect to Existing Water System (Connection to Existing Water System)	Each
SPV.0090.05	Water Service Line Open Trench (1-Inch and 1½-Inch PE Water Service Line (Open Trench))	LF
SPV.0090.06	Water Service Line Directional Drilled (1-Inch and 1½-Inch PE Water Service Line (Directional Drilled))	LF
SPV.0060.10	Corporation Stop (1-Inch and 1½-Inch Corp. Stop with Saddle)	Each
SPV.0060.11	Curb Stop (1-Inch and 1½-Inch Curb Stop with Box)	Each
SPV.0105.04	Abandon Existing Facilities (Abandon Existing Facilities)	LS
SPV.0060.12	Reroute Sanitary Sewer Laterals (Reroute Sanitary Sewer Laterals Under Storm Sewer)	Each
SPV.0060.13	Adjust Sanitary Manhole Rims (Adjust Manhole Rim Elevations)	Each
SPV.0060.14	Gate Valve 6-Inch	Each
SPV.0105.05	Install Sanitary Manhole Barrel (Install Manhole Barrel Extension (Manhole 12 B-1))	LS

Payment is full compensation for excavation, installation, backfill, abandoning, and adjustment for water system and sanitary sewer work.

47. Luminaires Utility Led 160 Watt, Item Spv.0060.15.

A Description
This special provision describes furnishing and installing highway, walkway, and other outdoor lighting.

B Materials
Furnish material that is according to the pertinent requirements of standard spec 659.

Revise standard spec 659.2.1(1) by adding the following:

In addition to matching the wattage, IES type, and voltage per the plans, use luminaire meeting the following lighting criteria based on use of Type 6 Poles, 10-foot truss arms, and the spacing as per the project plans:

Light Loss Factor: 0.828
Illuminance Value - Average fc: 0.80 to 0.90
Illuminance Value - Uniformity Minimum 2.9:1, Maximum 3.2:1
IES Distribution and BUG Rating: II-B2-UO-G2

Additional design information is available in the permit application package. A copy of the permit application package is available from the region office by contacting Jim Volkmann at (715) 365-5773.

C Construction
Complete in accordance to standard spec 659.3.

D Measurement
The department will measure Luminaires Utility LED 160 Watt as each individual 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.0060.15	Luminaire Utility LED 160 Watt	Each

Payment is full compensation for the Luminaires bid item is full compensation for providing and installing all materials including luminaires, ballasts, fittings, brackets, hardware and attachments; and for luminaire fusing if required.

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TECHNICAL SPECIFICATIONS

LAC DU FLAMBEAU
HWY 47 WATER AND SEWER IMPROVEMENTS
IHS PROJECT NO. BE-13-J04

48. Section 01100 - Summary Of Work

PART 1 - GENERAL

1.01 SUMMARY

A. The work to be performed under this contract shall consist of furnishing the following to perform the work outlined in these specifications and as indicated by Project Drawings:

1. tools
2. equipment
3. materials
4. labor
5. supplies
6. manufactured articles
7. all transportation to complete the work
8. temporary facilities

B. Location of Work: Lac du Flambeau, Vilas County, Wisconsin

C. Incidentals Items: All work, materials, and services not expressly listed as being provided by others or not expressly called for in the contract but are necessary for the completion of the work in good faith, shall be furnished, installed, and performed by the contractor.

1.02 SUMMARY OF WORK TO BE DONE BY CONTRACTOR

A. Water Main Replacement

1. Procure and install approximately 1,475 feet of 10-inch C-900 DR18, Class 150 PVC water main by open trench.

2. Procure and install approximately 510 feet of 10-inch AWWA C906, DR 11, PE water main by directional drilling.

3. Procure and install approximately 30 feet of 8-inch C-900 DR18, Class 150 PVC water main by open trench.

4. Procure and install approximately 60 feet of 8-inch AWWA C906, DR 11, PE water main by directional drilling.

5. Procure and install miscellaneous water main appurtenances including, but not limited to an estimated 7 gate valves with boxes and 4 fire hydrants with 6-inch gate valves and boxes.

6. Procure and install approximately 320 feet of 1-inch and 1 ½-inch PE water service line by open trenching and directional drilling.

7. Existing facilities abandonment including water main, fire hydrants and gate valves.

B. Sewer Adjustments

1. Re-routing existing sewer service lines to pass under the proposed storm sewer where conflicts exist.

2. Adjust rim elevations to match proposed grade for approximately 12 existing sewage manholes.

3. Install a manhole barrel extension for 1 existing sewage manhole and adjust rim elevation to match proposed grade.

1.03 ORDER OF CONSTRUCTION

A. Construct in a manner to minimize impacts to water service. Water service needs to be maintained throughout construction.

1.04 SPECIAL REQUIREMENTS

A. WATER SUPPLY/CONNECTIONS

1. Houses and businesses: Maximum four hour time limit without water.

B. Time Limitations

1. Work scheduled to be performed that will affect water/sewer service, shall be communicated to Tribal Utilities 5 days in advance of work starting.

2. Allowable work hours: Monday through Friday 7:00 am – 5:00 pm unless otherwise approved by the engineer and the Utility.

3. Work affecting residential connections (i.e. shut-offs) shall be completed between 8:30 AM and 4:00 PM

C. Contractor shall be responsible for any utility work necessary to complete construction (e.g. any relocations necessary and/or supporting of power poles). No separate payment shall be made for this work.

1.05 EMPTY

1.06 RECORD DRAWINGS

A. Provide record drawings for all facilities constructed under this contract meeting the following requirements:

1. Completely and accurately describe all facilities installed.

2. Include ties from at least three existing permanent structures to each new structure, and major fitting such as an elbow or tee.

3. Include the pipe layout and actual lengths installed.

1.07 WARRANTY

A. Provide a minimum 1 year warranty for all materials and labor, covering defects in the materials or deficiencies resulting from contractor installation and materials.

1.08 SAFETY

A. Follow OSHA safety guidelines at all times.

B. Examples of required safety practices include, but are not limited to:

1. Hard hats worn on the job site.

Trench shoring and/or other practices required to ensure safety to workers in trenches.

Barricades, covers or other adequate methods of preventing passerby access to unattended excavations.

1.09 DISCOVERY OF ARCHEOLOGICAL SITES

A. Instructions for discovery of archeological sites are attached to the project manual as Appendix B – LDF THPO – Treatment of Human Remains.

1.10 ADDITIONAL INFORMATION

A. For information regarding the technical aspects of the project, contact the engineer:

Matthew Zoch, P.E.
Sr. Field Engineer
Indian Health Service
9A South Brown Street
Rhinelander, WI 54501
Telephone: (715) 365-5107

B. For information regarding the existing community water and sewer system/facility operation, contact:

Scott Valliere
LDF Tribal Utilities Director
P.O. Box 67
Lac du Flambeau, WI 54538
Telephone: (715) 588-7887

C. For information regarding Tribal Historic information, contact the Tribal Historical Preservation Officer for this project:

Melinda Young
Tribal Historic Preservation Officer
P.O. Box 67
Lac du Flambeau, WI 54538
Telephone: (715) 588-2270

D. Comply with all Tribal regulations related to the completion of the work including the acquisition of necessary permits and the payment of Tribal taxes.

END OF SECTION

49. Section 01270 - Price And Payment

PART 1 - GENERAL

1.01 SUMMARY

A. Work covered by this section includes method of measurement and basis of payment for all divisions included.

B. Payment for the various items of the Bid Schedules, as further specified herein, shall include all compensation to be received by the contractor for furnishing all tools, equipment, materials, labor, supplies, manufactured articles, transportation, and temporary facilities required to complete the work in accordance to contract documents including incidentals.

C. Respective prices and payment shall constitute full compensation for all work completed including incidentals.

D. All items not expressly listed as being provided by others that are necessary for the completion of work shall be furnished and installed by the contractor.

E. No payment shall be made for mobilization and demobilization of equipment.

1.02 ESTIMATED QUANTITIES

A. All quantities stipulated in the bid schedule or other contract documents are approximate and are to be used: (1) as a basis for estimating the probable cost of the work and (2) for the purpose of comparing the bids submitted.

B. The contractor shall be paid for actual quantities installed based on the quantities measured in the field. The actual amounts of work completed and materials furnished may differ from estimated quantities. The contractor shall make no claim for damages, anticipated profits, or otherwise, on account of differences between the estimated amounts and the actual amount of work performed and materials furnished.

1.03 SURVEY AND MEASUREMENTS

A. All quantity measurements shall be the responsibility of the contractor and will be verified by the engineer.

B. All measurements and subsequent payments will be based on completed and accepted work performed in strict accordance with the drawings, specifications, and other contract documents.

PART 2 – BID SCHEDULE ITEMS

3.01 GENERAL

A. Payment shall be full compensation to complete the work items in good faith, including incidental work.

B. In addition to the those things listed under each item, the unit price bid shall be full compensation for all of the following:

1. General requirements in Division 01, but not limited to the following.
   a. Submittals
   b. Record drawings

2. Specific requirements in Division 02, including but not limited to the following (unless otherwise expressly defined as a line item in the bid schedule):

   a. Erosion control.
   b. Silt fencing.
   c. Dewatering.
   d. Clearing and grubbing.
   e. Removal and replacement of obstructions.
   f. Associated trenching, excavation and backfill including the removal of any nuisance water, suitable materials for bedding and backfill, bedding, haunching, and compaction.
   g. Disposal of any excess material.
   h. Traffic control.
   i. Removal and reinstallation of existing culverts
   j. Any required utility work, and
   k. Finish work, including rough grading, plant preparation mats, topsoiling, seeding, mulching, fertilizing, site grading and landscaping.

3.02 BID ITEMS

A. Payment shall be as described below for all of the items included on Bid Schedules A-

1. 10-Inch PVC C900 DR18 Water Main (Open Trench)

   a. Measurement: Linear feet of pipe installed measured horizontally over the centerline of the pipe.

   b. Basis for Payment: Includes pipe and pipe installation, fittings, thrust restraint, flushing and disinfection, pressure testing, appurtenances for flushing and pressure testing if hydrants are not available, warning tape, tracing wire and boxes, clearing and grubbing, site grading, restoration, and all other appurtenances required to complete the work as specified.

2. 10-Inch PE DIPS DR11 Water Main (Directional Drilled)

    a. Measurement: Linear feet of pipe installed measured horizontally over the centerline of the pipe.

    b. Basis for Payment: Includes all pipe and installation, fittings, connection restraint, directional drill equipment and records, flushing and disinfection, pressure testing, appurtenances for flushing and pressure testing if hydrants are not available, tracing wire and boxes and all other appurtenances required to complete the work.

3. 8-Inch PVC C900 DR18 Water Main (Open Trench)

    a. Measurement: Linear feet of pipe installed measured horizontally over the centerline of the pipe.

    b. Basis for Payment: Includes pipe and pipe installation, fittings, thrust restraint, flushing and disinfection, pressure testing, appurtenances for flushing and pressure testing if hydrants are not available, warning tape, tracing wire and boxes, clearing and grubbing, site grading, restoration, and all other appurtenances required to complete the work as specified.

4. 8-Inch PE DIPS DR11 Water Main (Directional Drilled)

    a. Measurement: Linear feet of pipe installed measured horizontally over the centerline of the pipe.

    b. Basis for Payment: Includes all pipe and installation, fittings, connection restraint, directional drill equipment and records, flushing and disinfection, pressure testing, appurtenances for flushing and pressure testing if hydrants are not available, tracing wire and boxes and all other appurtenances required to complete the work.

5. 10-inch Gate Valve and Box

    a. Measurement: By each installed.

    b. Basis of Payment: Includes gate valve and box, gate valve box adapter, thrust restraint, concrete support block and all other appurtenances required to complete the work as specified.

6. 8-inch Gate Valve and Box

    a. Measurement: By each installed.

    b. Basis of Payment: Includes gate valve and box, gate valve box adapter, thrust restraint, concrete support block and all other appurtenances required to complete the work as specified.

7. Fire Hydrant with 6-Inch Gate Valve and Box

    a. Measurement: By each hydrant installed.

    b. Basis for Payment: Includes the hydrant, 6 inch gate valve and box, gate valve box adapter, up to 6 feet of 6-inch C900 DR 18 PVC hydrant lead, fittings, thrust restraint, concrete support blocks for valve and hydrant, plug for tee if applicable, and all other appurtenances required to complete the work as specified.

8. Connection to Existing Water System

    a. Measurement: By each connection made.

    b. Basis for Payment: Includes pipe, fittings, disinfection of materials, determination of size and type of existing piping, connections, and all other appurtenances required to complete the work as specified.

9. 1-inch and 1.5-inch PE Water Service Line (open trench)

    a. Measurement: Linear feet of pipe installed measured horizontally over the centerline of the pipe.

    b. Basis of Payment: Includes pipe, all required fittings including transitional fittings, connections to existing service line and/or curb stops, tracing wire, disinfection, testing and all other appurtenances' required to complete the work as specified.

10. 1-inch and 1.5-inch PE Water Service Line (Directional Drilled)

    a. Measurement: Linear feet of pipe installed measured horizontally over the centerline of the pipe.

    b. Basis of Payment: Includes pipe, all required fittings including transitional fittings, directional drill equipment and records, connections to existing service line and/or curb stops, tracing wire, disinfection, testing and all other appurtenances' required to complete the work as specified.

11. 1-inch and 1.5-inch Corp. Stop with Saddle

a. Measurement: By each installed.

b. Basis of Payment: Includes saddle, corporation stop, main tapping, and all other appurtenances required to complete the work as specified.

12. 1-inch and 1.5-inch Curb Stop with Box

a. Measurement: By each installed.

b. Basis of Payment: Includes curb stop, box, stationary rod, removal/disposal of existing curb stop and box (if applicable) and all other appurtenances required to complete the work as specified.

13. Road and Driveway Restoration

a. Measurement: Lump sum.

a. Basis of Payment: Includes special compaction, saw cutting of asphalt, subbase, asphalt paving (if applicable per Section 02705 – Road Restoration), gravel paving, grading to meet the specifications, and all other appurtenances required to complete the work as specified.

Note: This pay item is intended to cover restoration work associated with the water main installation outside of the roadway reconstruction area. Road and driveway restoration within the area disturbed by roadway reconstruction activities shall be paid for under the roadway reconstruction project.

14. Abandon Existing Facilities

a. Measurement: By the lump sum.

b. Basis for Payment: Includes excavation and removal of existing hydrants and salvaging and returning hydrants to the Lac du Flambeau Utility Department, abandonment of gate valves and boxes, abandonment of curb stop boxes, capping of water mains and all other appurtenances required to complete the work as specified. **See Section 02220 Selective Demolition for specifics on facilities to be abandoned.**

15. Re-Route SSL's Under Storm Sewer

a. Measurement: By each installed.

b. Basis for Payment: Includes all labor, equipment and materials required to relocate the existing sewer service lines under the proposed storm sewer in locations where a conflict exists. Includes exposing the existing service line, installation of fittings as required to re-route the service line, approximately 40-ft of new 4-inch SDR35 sewer service line and connecting the new section of service line to the existing saddle or wye fitting at the main.

16. Adjust MH Rim Elevations

a. Measurement: By each installed.

b. Basis for Payment: Includes all labor, equipment and materials required to adjust the existing manhole rim elevation to match the proposed new grade. Includes removal of the manhole frame and cover, installing additional or removing existing adjustment rings as necessary, installing external chimney seals and reinstalling the frame and cover.

17. Install MH Barrel Extension (MH12-B-1)

a. Measurement: By the lump sum.

b. Basis for Payment: Includes all labor, equipment and materials required to install a barrel extension in the existing manhole. Includes removal of the existing cover, frame, adjustment rings and top cone section, installation of a 20" high x 48" diameter barrel extension, reinstallation of the existing cone section, installation of adjustment rings, re-installation of existing manhole cover and frame and installation of external chimney seal. Also includes adjustment of manhole steps as necessary to maintain a 16-inch spacing.

PART 3 – EXECUTION (N/A)

END OF SECTION

50. Section 01330 - Submittal Procedure

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes information on submittal procedures. Materials requiring submittal are listed in the appropriate specification section.

1.02 SUBMITTAL PROCEDURES

A. Submit copies of submittals to the engineer, unless requested otherwise.

1. Contractor's option:
    i. Two (2) hard copies.
    ii. An electronic copy in pdf format delivered to engineer via email or other means as approved by the engineer.

B. Identify each cut sheet or shop drawing with the following information:

1. Contract number.
2. Supplier.
3. Specification section to which the submittal pertains.

C. Submit the following information, as applicable:

1. Manufacturer's cut sheets indicating compliance with references (e.g. applicable ASTM, AWWA standards).
2. Laboratory results, as applicable.
3. Dimensional drawings or shop drawings, as applicable.
4. Other information necessary for the engineer to determine compliance with the specifications.
5. Clearly identify brand, manufacturer, model number, sizes, and all other information on each cut sheet to identify the exact product being submitted for approval.

D. Identify variations from the contract documents and product or system limitations that may be detrimental to successful performance of the completed work.

E. Revise and resubmit submittals as required and identify all changes made since previous submittal.

F. Distribute copies of reviewed submittals to concerned parties, (i.e. suppliers, sub-contractors).

G. Submit written communication of any inability to comply with the engineer's comments.

H. Submit information to the engineer at least three weeks in advance of the work to be performed.

I. Approval of submittals must be provided by the engineer prior to installation of materials.

END OF SECTION

51. Section 01420 - References

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes a list of organizations, associations or appropriate agencies with jurisdiction that have references, standards, laws or regulations cited in these specifications.

B. Use latest revision of all references, standards, laws or regulations.

1.02 LIST OF ORGANIZATIONS, ASSOCIATIONS and AGENCIES

A. National Standards Organizations and Associations

American Association of State Highway and Transportation Officials (AASHTO)
444 North Capital Street NW, Suite 249
Washington DC, 20001
(202) 624-5800
www.aashto.org

American Concrete Institute (ACI)
ACI International
PO Box 9094
Farmington Hills, Michigan 48333-9094
(810) 848-3700
www.aci-int.org

American Society for Testing and Materials (ASTM)
100 bar Harbor Drive
West Conshohocken, Pa 19428-2959
(610) 832-9585
www.astm.org

American Water Works Association
AWWA
6666 West Quincy Avenue
Denver, CO 80235
(303) 794-7711
www.awwa.org

National Electric Code (NEC)
National Fire and Protection Association
1 Batterymarch Park
Quincy, MA 02269-9959
1 888 632-2633
www.nec.com

National Electrical Manufacturer's Association NEMA
1300 North 17th Street
Rosslyn, VA 22209
(703) 841-3200
www.nema.org

Underwriters' Laboratories, Inc. UL
333 Pfingston Road
Northbrook, IL 60062
(847) 272-8800
www.ul.com

B. Federal Agencies

Environmental Protection Agency (EPA)
Region 5
77 West Jackson
Chicago, IL 60604-3507
http://www.epa.gov/r5water/

Occupational Health and Safety Administration Region 5 (OSHA)
238 South Dearborn Street , Room 3244
Chicago, IL 60604
www.osha.gov

C. State Agencies

Michigan Department of Transportation MIDOT
1601 Lunington Street
PO Box 355
Escanaba, MI 49829
(906) 786-1800
www.mdot.state.mi.us

Michigan Dept. of Consumer and Industry Services
G. Mennen William Bldg.
525 W. Ottawa
P.O. Box 30004
Lansing, MI 48909
(517) 373-1820
www.cis.state.mi.us

Michigan Department of Environmental Quality
Surface Water Quality Division
Storm Water Program
P.O. Box 30438 Lansing, MI 48909
www.deq.state.mi.us/swq/stormw/stormw.htm

Minnesota Department of Transportation (MNDOT)
Transportation Building
395 John Ireland Boulevard
St. Paul, MN 55155
(800) 651-3774
www.dot.state.mn.us

Minnesota Pollution Control Agency (MPCA)
Individual Sewage Treatment System Standard
520 Lafayette Road
St Paul, MN 55155
(800) 657-3864
www.pca.state.mn.us

Minnesota Department of Health
717 Delaware Street South East
Minneapolis, MN 55440-9441
(651) 201-5000
www.health.state.mn.us

Wisconsin Department of Commerce
PO Box 7839
Madison, WI 53707
(608) 266-3723
www.commerce.state.wi.us

Wisconsin Department of Natural Resources
Nonpoint Source and Land Management
(Section – WR/2)
P.O. Box 7921
Madison, WI 53707-7921
www.dnr.state.wi.us

Wisconsin Department of Transportation
WIDOT
Madison, WI 53707
(608) 266-2615
www.dot.state.wi.us

D. Tribal Organizations

1. See Section 01100 for appropriate tribal contact regarding tribal laws.

PART 2 – PRODUCTS (N/A)

PART 3 – EXECUTION (N/A)

END OF SECTION

52. Section 01430 - Quality Assurance

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes prerequisites and procedures to assure the quality of construction.

1.02 SUBMITTALS

A. Contractor Name and License Number

1.03 INSTALLER QUALIFICATIONS

A. Work shall be performed under the direction of personnel licensed in the state/reservation where the project is proposed and where licensing of the trade is regulated by the state/reservation including, but not limited to, plumbing, well drilling, septic system installation, HVAC, and electrical work.

1.04 CONTROL OF INSTALLATION

A. Review materials for acceptability when delivered to the site.

B. Store and handle materials to prevent damage.

C. Review materials, services, and workmanship to ensure that work is performed in accordance to the specifications.

D. Comply fully with manufacturers' instructions.

E. Should manufacturers' instructions conflict with contract documents, request clarification from engineer before proceeding.

F. Correct defective work to the satisfaction of the engineer.

1.05 MANUFACTURER'S FIELD SERVICES

A. Provide reports on observations and documentation of workmanship to the engineer within 30 days of visit for review where manufacturers' field services are provided.

1.06 WARRANTY

A. Provide a minimum 1 year warranty for all materials and labor, covering defects in the materials or deficiencies resulting from contractor installation.

B. Provide additional warranties as required under other sections.

END OF SECTION

53. Section 01720 - Staking And Construction Surveying

PART 1 - GENERAL

1.01 SUMMARY

A. This section outlines the staking and surveying work related to provide reference points in the field. The section clarifies engineer responsibilities and Contractor responsibilities.

1.02 RELATED WORK

A. Section 02315 – Excavation, Trenching and Backfill for Pipelines

B. Section 02510 – Water Distribution Mains

C. Section 02511 Water Service Lines

1.03 WORK PERFORMED BY THE ENGINEER

A. Water Main Staking

1. Centerline staking (approximately every 100 feet)

1.04 CONTRACTOR'S RESPONSIBILITY

A. Notify the engineer at least 14 calendar days in advance of the times and places that pipeline staking will be needed.

B. Provide supplementary staking, grade staking, offsets, temporary bench marks, and control points as necessary to complete the work in accordance to the plans and specifications.

C. Request clarification from the engineer regarding apparent conflicts before proceeding with installation of facilities.

D. Preserve all reference staking placed by the engineer, until such time as the pipeline or other facilities are installed. Reference stakes needing replacement due to Contractor error or negligence to secure the site must be replaced by one of the following means:

1. A professional land surveyor or engineer hired by the Contractor, or
2. The engineer/Owner, at a rate of $800 per day, credited to the contract.

E. All permanent survey points/markers (i.e. property corners) and bench marks not directly in the line of work shall be preserved,

1. Replace all permanent survey markers disturbed or destroyed using a Professional Land Surveyor at no cost to the Owner/engineer.
2. Provide evidence of reestablishment of permanent survey markers to the engineer.

END OF SECTION

54. Section 01770 - Closeout Procedures

PART 1 - GENERAL

1.01 SUMMARY

A. Section includes information on closeout procedures and final cleaning.

1.02 RELATED WORK

A. Section 01780 – Closeout Submittals

1.03 CLOSEOUT PROCEDURES

A. Submit written certification that work is complete in accordance to contract documents and ready for final inspection at least 3 working days prior to final inspection.

B. Provide warranties and record documents (e.g. as-built drawings) to the Engineer that are required within 10 days after date of first beneficial use. Refer to Section 01780.

1.04 FINAL CLEANING

A. Complete final clean-up prior to final inspection.

B. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.05 FINAL INSPECTION

A. A final inspection of the facilities shall be conducted in the presence of the Owner, the Engineer, and the Contractor, at a minimum.

B. Final inspection shall include inspection of all facilities installed under the project.

1.06 PUNCH LIST

A. Any deficiencies noted at the Final Inspection will be communicated to the Contractor through a letter from the Engineer.

B. All deficiencies will need to be completed before full payment is made.

END OF SECTION

55. Section 01780 - Closeout Submittals

PART 1 - GENERAL

1.01 SUMMARY

A. This section describes the requirements for closeout submittals including, record drawings and warranty information.

1.02 RELATED WORK

A. Section 01430 – Quality Assurance
B. Section 01770 – Closeout Procedures

1.03 DELIVERY

A. Provide all closeout submittals meeting these requirements and any specific requirements of each section.

B. Closeout submittals must be received before payment is requested for the work that the drawings describe or illustrate.

C. All closeout submittals must be received in a correct and complete manner before final payment can be made. If material is deficient, the deficiencies will be indicated in punch lists (Section 01770).

1.04 DEFINITIONS

A. Record Drawing: A drawing showing the actual installation of facilities, showing changes from the plans, and showing detail enough that future persons can readily locate all objects.

B. Ties: Measurements from permanent easily located objects to an installed object.

PART 2 – PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

2.01 RECORD DRAWINGS

A. Provide record data in one of the following manners:

1. On a set of project drawings, neatly draw tie measurements and changes.
2. On separate 8½ X 11 sheets (see 01780D – Closeout Submittal Drawings), neatly draw site sketches, structure sketches, etc., indicating the necessary information.

B. Provide 3 swing tie measurements to all buried utility objects that may need to be located in the future, including, but not limited to:

1. Gate valves
2. Corporation stops
3. Curb stops
4. Water main fittings
5. Couplings to existing water systems.
6. Cleanouts
7. Sewer wyes.
8. Utility crossings.
9. Septic tank manholes and access covers.
10. Corners of drainfields

C. Provide offset measurements for buried utilities (e.g. water main) installed parallel to roads.

D. Provide revised elevation data for all items that have elevations shown on the plan drawings, including, but not limited to, the following:

1. Manhole rims
2. Other elevations indicated on profiles.

E. Provide installed bid schedule items quantities for individual facilities on 8½ X 11 sheets.

1. Engineer may supply standard forms for use by the Contractor.

3.02 WARRANTIES

A. Submit all warranty information regarding the materials installed.

B. Minimum warranty information is listed in Section 01430.

END OF SECTION

56. Section 02220 - Selective Demolition

PART 1 - GENERAL

1.01 SUMMARY

A. Work in this section includes the selective demolition of the existing water distribution facilities and appurtenances currently in service in the project area.

1.02 RELATED WORK

A. Section 02310 – Grading
B. Section 02315 – Excavation, Trenching, and Backfill
C. Section 02510 – Water Distribution

1.03 ACCEPTANCE

A. Work covered by this section will not be accepted until satisfactory testing, backfilling and restoration work is complete.

PART 2 - PRODUCTS

2.01 MATERIALS FOR SELECTIVE DEMOLITION

A. All acceptable products are referenced under their specific section. Refer to those sections for further information on the products.

PART 3 - EXECUTION

3.01 GENERAL

A. Coordinate the work in this section with the Owner. Demolition work must be completed in a manner that allows for the continued operation of the existing water system.

B. For demolition of items that require removal from the site, disposal shall be in a legal manner off-site at the Contractor's expense unless otherwise stated in the contract documents.

C. Facilities where selective demolition is to take place shall be isolated from the water systems prior to this work taking place to eliminate any potential for contamination.

3.02 DEMOLITION

A. General

1. Comply with Section 02315 for excavation, trenching, and backfill requirements and complete finish work for all areas disturbed including road restoration, topsoiling and seeding, etc., as applicable, per other sections of the specifications.

B. Fire Hydrants with Gate Valves

1. Turn off the gate valve, remove locking cover and top section of valve box (if not in pavement), fill remaining gate valve box sections with sand or concrete. See 3.02 C for abandonment of valves in paved and un-paved areas.

2. Excavate and disconnect hydrant from gate valve without damaging the hydrant and remove all debris such as concrete from hydrant. Unless otherwise directed by engineer.

3. Remove and deliver hydrants to the Lac du Flambeau Utilities Department. Contact Scott Valliere, Utilities Manager, (715) 588-7887 with questions.

C. Gate Valve and Boxes

1. Un-paved Areas
    i. Close the gate valve, remove locking cover and top section, fill remaining gate valve box sections with sand and compact in accordance to Section 02315 – Excavation, Trenching, and Backfill.

2. Paved Areas
    i. For gate valves in paved areas, close the gate valve, remove locking cover but do not remove top section of valve box. Fill entire valve box with concrete.

D. Curb Stop and Boxes

1. Remove upper section of box and cut stationary rod if present to a minimum depth of 2’ below grade.

2. Dispose of waste off site.

E. Water main

1. Mains to be abandoned shall be abandoned by capping the main remaining in service at the closest possible point. For example, if main to be abandoned comes off of a tee or cross, the piping shall be removed from tee or cross, and an appropriately restrained plug/cap installed on it. The line shall then be re-pressurized and the connection visibly inspected for leaks per Section 02510. The main being taken out of service shall be also be capped either by filling end with concrete or by placing a non-pressure rated cap on its end.

2. If a water main is being cut into to allow a connection to a new main to be made, and that water main is going to remain in service temporarily, the Contractor shall install an appropriately restrained plug/cap. The line shall then be re-pressurized and the connection visibly inspected for leaks per Section 02510.

3.03 FACILITIES TO BE ABANDONED

A. General

1. The estimated quantities listed below may not be all-inclusive. The contractor shall verify the facilities to be abandoned based on the plans and base his/her bid accordingly.

B. Water Main Facilities

1. An estimated 5 fire hydrants

2. An estimated 4 gate valves

3. An estimated 7 curb stops with boxes

4. Water main at an estimated 3 locations
   a. Note: For water main abandonment, the estimated number is based on the number of excavation locations required to cap the existing water main being abandoned. Abandonment locations where more than one cap is required are counted as a single abandonment location.

END OF SECTION

57. Section 02230 - Clearing And Grubbing

PART 1 - GENERAL

1.01 SUMMARY

A. This section covers clearing and grubbing within the proposed areas of construction.

1.02 RELATED WORK (as applicable)

A. Section 02315 - Excavation, Trenching, and Backfill

PART 2 – PRODUCTS (N/A)

PART 3 - EXECUTION

3.01 CLEARING AND GRUBBING

A. Obtain necessary permit from Owner prior to cutting any trees or brush (if applicable.)

B. Remove and dispose of all trees, stumps, brush, debris, and all other obstructions as needed to complete construction as specified.

C. If possible within right-of-way and property lines, extend clearing and grubbing a minimum of 10 feet beyond all proposed structures unless otherwise directed by the Engineer.

D. The Contractor shall not burn, bury, and/or leave materials in construction areas unless approved by the Tribe.

END OF SECTION

58. Section 02310- Grading

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes rough and finished site grading of all areas disturbed during construction.

1.02 RELATED WORK

A. Section 01119 – Revisions to Standard Specifications
B. Section 02315 – Excavation, Trenching and Backfill
C. Section 02370 – Temporary Erosion and Sediment Control
D. Section 02920 – Topsoiling, Seeding, Fertilizing and Mulching

PART 2 – PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.01 ROUGH GRADING

A. Grade the area in the vicinity of the excavation to prevent surface water from flowing into the excavation.

B. Maintain existing drainage.

3.02 FINISH GRADING

A. Grade site to true grades as specified on the plans after all structures and piping have been installed.

B. Grade sites for effective drainage away from structures.

C. Dress and trim all slopes.

END OF SECTION

59. Section 02315 - Excavation, Trenching And Backfill

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes excavation, trenching and backfill necessary for the construction of the facilities as indicated on the plans including, but not limited to: water mains and service lines, sewer mains and service lines, concrete manholes, septic tanks, and other structures.

1.02 RELATED WORK (as applicable)

A. Section 01720 – Staking and Construction Surveying
B. Section 01780 – Closeout Submittals
C. Section 02310 – Grading
D. Section 02317 – Structural Fill
E. Section 02370 – Temporary Erosion And Sediment Control
F. Section 02511 – Water Service Lines
G. Section 02530 – Sanitary Sewer
H. Section 02532 – Sanitary Sewer Manholes
I. Section 02538 – Sewage Force Main
J. Section 02920 – Topsoiling, Seeding, Fertilization and Mulching

1.03 REFERENCES

A. Manual on Uniform Traffic Control Devices.

B. ASTM D698 – Test Methods for Moisture Density Relations of Soils and Soil-Aggregate Mixtures Using 5.5 lb. Rammer and 12-in. Drop [Standard Proctor Test].

C. ASTM D2321 – Underground installation of Flexible Thermoplastic Sewer Pipe.

D. ASTM D2487 – Classification of Soils for Engineering Purposes [Unified Soil Classification System].

E. OSHA – Occupational Safety and Health Standards 1910 and 1926.

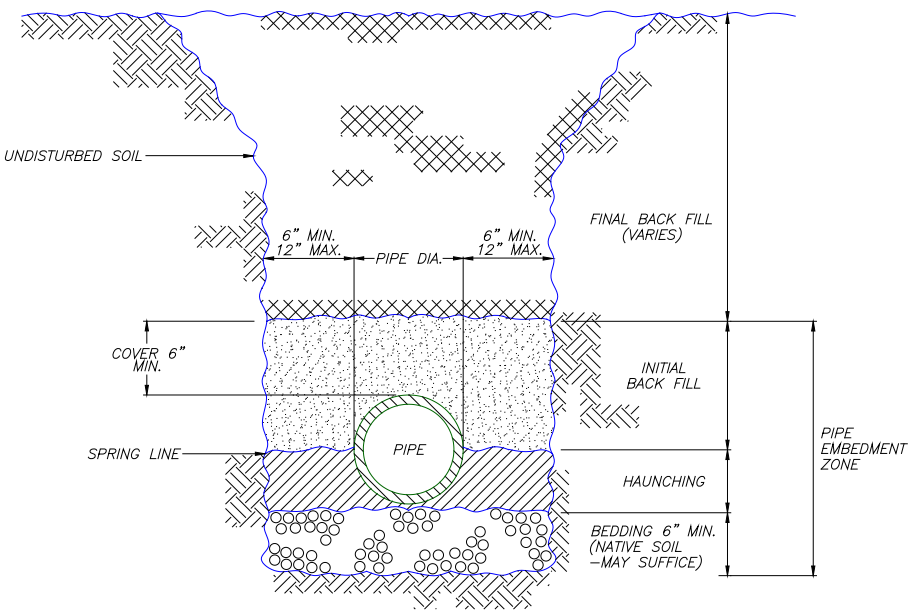
1.04 SUBMITTALS

A. Polystyrene Insulation

B. Polyethylene Encasement (as applicable)

1.05 DEFINITIONS

A. Bedding, Haunching and Initial Backfill zones as defined herein and on the standard pipe trench detailed drawing below:



PIPE TRENCH DETAIL

B. Soil Materials as summarized in the table below and defined in ASTM D2321 and ASTM D2487

Description and Comparison of Soil Material Classifications

ASTM D2321		*ASTM D2487*	
Class	*Type*	*USCS Group Symbol*	*Description*
IA	Manufactured aggregates: ¼ to 1 ½ inch open graded, clean.	* *None*	Closest to "Poorly graded gravel (GP)"
IB	Manufactured aggregates: ¼ to 1 ½ inch dense graded, clean.	* *None*	Closest to "Poorly graded gravel with sand (GP)"
II	Coarse sands and gravels with maximum particle size of 1 ½ inch, clean.	GW	Well-graded gravels and gravel-sand mixtures; little or no fines.
		GP	Poorly graded gravels and gravel sand mixtures; little or no fines.
		SW	Well-graded sands and gravelly sands; little or no fines.
		SP	Poorly graded sands and gravelly sands; little or no fines
	Coarse sands and gravels with maximum particle size of 1 ½ inch, borderline clean.	GW-GC SP-SM Etc.	Sands and gravels which are borderline between clean and with fines
III	Fine sand and clayey gravels.	GM	Silty gravels, gravel-sand-silt mixtures.
		GC	Clayey gravels, gravel-sand-clay mixtures
		SM	Silty sands, sand-silt mixtures
		SC	Clayey sands, sand-clay mixtures
IV	Fine grained soils (inorganic)	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, silts with slight plasticity.
		CL	Inorganic clays of low to medium plasticity, gravely clays, sandy clays, silty clays, lean clays.
		MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		CH	Inorganic clays of high plasticity, fat clays.
V	Organic soils	OL	Organic silts and organic silty clays of low plasticity.
		OH	Organic clays of medium to high plasticity, organic silts.
		PT	Peat and other high organic soils.

* USCS system is limited to naturally occurring soils. Manufactured aggregates not covered.

PART 2 – PRODUCTS

2.01 BEDDING, HAUNCHING AND INITIAL BACKFILL MATERIAL

A. Class I, Class II or Class III, utilized in accordance to restrictions described in Part 3 - Execution.

2.02 INSULATION

A. Rigid extruded polystyrene insulation board, having a minimum compressive strength of 25 psi.

B. Width:

1. 4-foot for mains 6-inch (nominal diameter) and larger.
2. 2-foot for mains and service lines less than 6-inches (nominal diameter).

C. Thickness: As stipulated on the bid schedule.

2.03 POLYETHYLENE ENCASEMENT

A. Minimum 8 mils thickness.

PART 3 - EXECUTION

3.01 GENERAL

A. Trenching and excavation work shall be done in accordance to proper emphasis on safety as determined by the Contractor to conform to recommended safety standards such as OSHA 1910 and 1926.

B. Obtain all permits from appropriate road agency for construction within road right-of-way.

C. Repair damage resulting from settlement, slides, cave-ins, water pressure, and other causes.

D. Provide adequate signs, barricades, fences and amber lights and take all necessary precautions to protect the work and the safety of the public in all construction areas.

1. Placement of construction signs and barricades shall conform to the “Manual on Uniform Traffic Control Devices.”

2. Protect barricades and obstructions at night by amber signal lights that burn from sunset to sunrise. Barricades shall also be of substantial construction, painted white or with reflective paint to increase their visibility at night.

3. Perform work without obstruction to traffic or inconvenience to the general public and the residents in the vicinity of the work.

E. Road Crossing

1. Comply with all construction and material requirements of roadway authorities having jurisdiction.

2. Maintain one lane of traffic open at all times.

3. Refer to Section 02705 – Road Restoration for backfill and restoration requirements.

3.02 EXCAVATION

A. Remove trees and stumps from excavation and site.

B. Remove and stockpile existing topsoil.

C. Install facilities as staked unless otherwise approved by Engineer.

D. Maintain surface drainage away from trenching or excavation.

E. Remove unsuitable foundation materials from excavation as shown on the plans or as authorized by the Engineer.

F. Maintain a minimum 1-foot clearance between outer surface of structure being installed and wall of excavation.

G. Rock encountered shall be classified, excavated and measured in accordance to Section 02316 – Rock Excavation

3.03 TRENCHING

A. Bottom width: No less than 12 inches or more than 24 inches wider than the outside diameter of the pipe.

B. Depth: Provide minimum cover as specified, or depths shown on plans.

3.04 BEDDING

A. If existing soil cannot provide uniform, stable bearing support, over-excavate 6 inches below bottom of pipe or structure and provide bedding material.

B. Utilize Class I, II or III materials as appropriate for bedding as listed in Table below.

Use of Soils and Aggregate for Bedding

	Class IA	*Class IB*	*Class II*	*Class III*
General	Excellent pipe support. Excellent drainage.	Excellent pipe support. Good drainage. Minimizes migration of adjacent material.	Good pipe support. Fair drainage.	Reasonable pipe support. Poor drainage
Compaction	Not required	Not required	Required 90% of Standard Proctor.	Required 90% of Standard Proctor.
Wet Conditions (below current or future water table). Rock Cuts	Acceptable. Must use same material for Haunching.	Acceptable. Must use same material for Haunching.	Acceptable. Clean groups only suitable for drainage blanket.	Not- Acceptable
Dry Conditions	Acceptable	Acceptable	Acceptable	Acceptable

3.05 HAUNCHING AND INITIAL BACKFILL

A. General

1. Provide complete and uniform bearing and support for the pipe, including allowance for bell holes, or structure.

2. Work material under and around the pipe to ensure full pipe support.

3. Prevent movement of the pipe during placement of material.

4. Avoid contact between the pipe and mechanical compaction equipment.

B. Utilize Class I, II or III materials as appropriate for haunching and initial backfill as listed in Table below. No frozen materials or frozen clods.

Use of Soils and Aggregate for Haunching and Initial Backfill

	Class IA	*Class IB*	*Class II*	*Class III*
General	Excellent pipe support. Excellent drainage. Install to a minimum of 6" above the pipe crown.	Excellent pipe support. Good drainage. Minimizes migration of adjacent material. Install to a minimum of 6" above the pipe crown.	Good pipe support. Fair drainage. Install and compact to a minimum of 6" above the pipe crown.	Reasonable pipe support. Poor drainage. Install and compact to a minimum of 6" above the pipe crown.
Compaction	Not required	Not required	Required 85% of Standard Proctor. 6 inch maximum lifts.	Required 90% of Standard Proctor. 6 inch maximum lifts.
Wet Conditions (below current or future water table). Rock Cuts	Acceptable. Must use same material for Bedding. Extend Haunching to the top crown of the pipe.	Acceptable. Must use same material for Bedding. Extend Haunching to the top crown of the pipe.	Acceptable. Clean groups only suitable for drainage.	Not- Acceptable
Dry Conditions	Acceptable	Acceptable	Acceptable	Acceptable

3.06 FINAL BACKFILL

A. Backfill remainder of excavation with native material, free from large clods, large stones, organic material or frost chunks unless otherwise specified below.

B. Backfill within roadways, driveways, and shoulders.

1. Conform to Section 02705 – Road Restoration for backfill requirements under roadways, driveways, and shoulders.

C. Backfill around structures.

1. Backfill and compact around manholes, valve boxes, and other appurtenances in 12-inch lifts.

a. Compact with a mechanical tamper to a density not less than 90% of the maximum dry density, determined by ASTM D 698.

b. Compaction around structures in roadways, driveways, and shoulders shall conform to Section 02705.

2. Backfill around septic tanks in 18-inch lifts.

a. Compact in a manner that will not produce undue strain on the tank.

b. Compaction may be accomplished with the use of water, provided the material is thoroughly wetted from the bottom up, and the tank is filled with water to prevent floating.

D. Backfill of trenches and other locations not listed above.

1. Compact in 18-inch lifts to a density not less than the density of the surrounding undisturbed soil.

2. Provide 3 feet minimum of backfill over the pipe before wheel loading the trench.

3. Provide 4 feet minimum cover over the top of the pipe before utilization of hydrohammer compaction equipment.

4. Compact in smaller lifts if the required compaction cannot be obtained.

5. Lifts may be increased at the discretion of the Engineer if required compaction can be obtained.

E. Repair any trenches improperly backfilled or where settlement occurs, then refill and compact.

F. Restore surface to the required grade and compaction. Conform to Section 02310 – Grading for rough grading, finish grading and site surface drainage.

G. Remove all surplus backfill materials to a location approved by the Engineer.

3.07 FROST PROTECTION

A. Place insulation in areas where water main, sewer service lines or water service lines cross a road, driveway, traveled path, as indicated on the plans or as directed by the Engineer.

B. Center insulation over the main with no more than 6 inches of compacted fill between the pipe and the insulation. Grade fill so insulation lays flat.

C. Maintain a straight alignment of insulation.

D. Extend insulation a minimum of 5 feet on each side of the crossing.

E. Lap insulation by 6 inches or stagger by 6 inches if composed of two layers.

F. Minimum thickness for the first lift of backfill over the insulation is 8 inches.

1. Do not operate construction equipment directly on insulation. Do not compact first lift with backhoe-mounted compactor, or any other large compaction equipment.

2. Compact remaining backfill using normal construction practices.

3.08 POLYETHYLENE ENCASEMENT

A. All metallic mainline pipe, fittings, and appurtenances installed in aggressive soils shall be wrapped with polyethylene in accordance to ANSI/AWWA C105/A21.5.

B. The wrap shall extend 2-feet beyond all metallic fittings/appurtenances and cover the entire length of metallic pipe. All rips or punctures shall be repaired with tape or by rewrapping that area with polyethylene film.

C. After assembling the pipe joint, the polyethylene shall be overlapped approximately 1-foot and at all joints sealed with approved adhesive tape. Additional taping shall be used at 3-foot intervals along the pipe. All copper service connections shall be wrapped for a distance of 3-feet from the center line of the main. Before installing the polyethylene wrap, the exterior of the pipe shall be free of foreign material.

3.09 REMOVAL OF NUISANCE WATER

A. Remove nuisance water entering the trenches. Nuisance water that can be removed through the use of sump or trash pumps is not considered dewatering.

B. Keep trenches free from water until the facilities are in place, sealed against the entrance of water, and backfill has been placed and compacted above the water level.

3.10 LOCATE EXISTING UTILITIES

A. Field locate all existing underground utilities.

1. Utilize state “dig-safe” or “one-call” hotlines.

2. Contact all other utility owners not covered by the state “dig safe” hotlines.

3.11 UTILITY CONFLICTS

A. Protect existing utilities from damage during excavation and backfilling operations.

B. Provide temporary support for existing water, gas, telephone, power, or other utility services that cross the trench until backfilling of trench is complete

1. Compact backfill to 95% of Standard Proctor Density under disturbed utilities.

2. Repair or replace any damaged existing utilities, at no additional cost to the project.

C. Water and sewer main crossing and parallel installation

1. Maintain a 10 foot horizontal separation (O.D. to O.D.) for parallel mains.

2. Upon approval by the Engineer, water and sewer mains may be installed closer than 10 feet, provided all of the following conditions;

a. Vertical separation is 18 inches (O.D. to O.D.)
b. Water main is above the sewer main.
c. Separate trenches are maintained.

3. Maintain a minimum 18-inch vertical separation (O.D. to O.D.) for crossing mains.

a. Lay pipe with joints equidistant from the point of crossing.

4. If it is impossible to meet any of the above separation distances and deviations, one of the following methods shall be adhered to.

a. Sewer main shall be constructed to water main pressure pipe standards, and successfully pass a 150-psi pressure test prior to backfilling.

b. Either the water main or the sewer main may be encased in a watertight carrier pipe that extends 10 feet on both sides of the crossing. The carrier pipe shall be of materials approved by the regulatory agency for use in water main construction.

D. Water and sewer service crossing and parallel installation.

1. Maintain a 30-inch horizontal separation from water and sewer services.

2. Maintain a 12-inch vertical separation for crossing water and sewer services.

3. Water service line splices or joints will not be permitted within 10 feet of a sewer line crossing.

3.12 MOVING FENCES AND MINOR STRUCTURES

A. Remove and reset culverts, drainage pipes or other minor structures that fall within the alignment of the new construction, to their original location and grade.

B. Visit the project site and determine actual conditions with regard to the existence of old car bodies, abandoned houses, fences, driveways, trees, stumps, brush, sidewalks, approaches, and other miscellaneous obstacles to construction.

1. Unless specifically referenced in a bid item, no separate payment will be made for the removal or replacement of these items.

3.13 RECORDS

A. Conform to as-built requirements in Section 01780 – Closeout Submittals.

END OF SECTION

60. Section 02370 - Temporary Erosion And Sediment Control

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes temporary erosion and siltation control measures accomplished through the use of silt fences, hay bales, erosion mats and other erosion control devices or methods.

1.02 RELATED WORK (as applicable)

A. Section 02310 – Grading
B. Section 02315 – Excavation, Trenching and Backfill
C. Section 02920 – Topsoiling, Seeding, Fertilizing and Mulching

1.03 REFERENCES

A. Wisconsin Department of Natural Resources – Construction Site Best Management Practice Handbook.

B. Michigan Department of Environmental Quality – Guidebook of Best Management Practices for Michigan Watersheds.

C. Minnesota Pollution Control Agency – Best Management Practices Handbook

D. Environmental Protection Agency - 1987 Congressional Amendments, Clean Water Act, Section 402.

1.04 SUBMITTALS

A. Method of Erosion Control
B. Silt Fence and Appurtenances
C. Erosion Mats and Appurtenances
D. Erosion Control Plan (If requested by the Engineer)

1.05 QUALITY ASSURANCE

A. Erosion control materials, methods and practices shall conform to the applicable state agency handbooks of Best Management Practices, or tribal laws established for the purpose of erosion control on construction sites.

B. Obtain and pay for permits and inspections in accordance to the provisions of all local government agencies having jurisdiction. No additional claim for compensation will be allowed because of the Contractor's failure to obtain or pay for such permits and inspections.

PART 2 - PRODUCTS

2.01 SILT FENCING

A. Applicability

1. Heavy Duty: General use during site grading to protect critical areas and bodies of water.
2. Standard: Light-duty applications to protect temporary construction or to supplement the other types of silt fence.
3. Machine-slice: For most applications.

B. Geotextile properties:

Description	**Heavy Duty**	**Standard**	**Machine Slice**
Type	Woven	Woven	Monofilament
Width	48 inches	36 inches	36 inches
Grab Tensile Strength (ASTM D 4632)	100 lb Min	100 lb Min	130 lb Min
Apparent Opening Size (ASTM D 4751)	20-70 Sieve	20-70 Sieve	30-40 Sieve
UV Stability (ASTM D 4355 500 hr)	70% Min	70% Min	70% Min
Top-fastening Component	Overlap around woven wire backing	Sewn-In cord	

* From Minnesota BMP

C. Net Backing

Description	**Heavy Duty**	**Standard**	**Machine Slice**
Material	Woven wire	N/A	N/A
Min. Weight	14-1/2 gauge		
Min. Mesh Opening	2 inches		
Max Mesh Opening	6 inches		
Min. Width	30 inches		
Tensile Strength (ASTM D 4595)	100 lb/ft		
UV Stability (ASTM D 4355 500 hr)	70% Min		

* From Minnesota BMP

D. Post properties:

Description	Heavy Duty	Standard	Machine Slice
Material	Metal	Wood	Metal
Min. Size	1.25 lb/ft	1.5 inch x 1.5 inch	1.25 lb/ft
Min. Length	5 feet	4 feet	5 feet
Min. Embedment	2 feet	1.5 feet	2 feet
Max. Spacing	8 feet	8 feet	6 feet
Type of Post Fasteners	U-shaped clips. No. 16 gauge wire	Gun staples 0.5 inch long	Plastic zip ties (50lb tensile strength)
Min. Fasteners per Post	3	5	3

* From Minnesota BMP

E. All seams shall be heat sealed or sewn

2.02 EROSION BALES

A. Applicability: Can be used in locations where silt fencing is used.

B. Rectangular clean hay bales or straw bale.

C. Posts: Wood or steel, 2" x 2" x 54" minimum.

2.03 EROSION CONTROL MATS

A. Biodegradable or photodegradable erosion control mat equal to American Excelsior Curlex II with a minimum 4-foot mat width.

2.04 OTHER

A. Other materials proposed by the Contractor shall conform to standards published by the applicable state agency handbooks of Best Management Practices (BMP's).

PART 3 – EXECUTION

3.01 GENERAL

A. Coordinate temporary and permanent erosion control measures to assure economical, effective and continuous erosion control.

B. Keep construction areas small.

C. Divert drainage away from construction areas.

D. Perform construction in and adjacent to rivers, streams, lakes or other waterways in such a manner as to avoid washing, sloughing or deposition of material into waterways which will result in undue or avoidable contamination, pollution or siltation of such waterways.

E. Inspect and maintain erosion control materials to ensure its continued effectiveness.

1. Remove sediment material captured by erosion control systems before systems fails.
2. Inspect and repair erosion control systems within 48 hours of rain event.

F. Remove erosion control only after the area has stabilized and vegetation has developed to the extent that further erosion is unlikely.

G. Submit a plan for erosion control measures that are in compliance with State BMPs and/or Federal EPA requirements, if the area to be disturbed is greater than one (1) acre total.

3.02 TEMPORARY EROSION CONTROL

A. Use temporary erosion control measures to protect ditches and drainage ways as shown on the detailed drawings and as directed by the Engineer.

B. Silt fencing (in lieu of or in combination with erosion bales)

1. Install silt fence in accordance to manufacturer's recommendations.
2. Construct the silt fence as shown on the plans and/or install on the contour of the slope.
3. Place silt fences in an arc or horseshoe shape with the ends pointing up towards the slope.
4. Maximum drainage area = ¼ acre per 100 feet of fence
5. Installation limitations:

Slope Steepness	Maximum Slope Length
2:1 (50%)	15 feet
3:1 (33%)	15 feet
4:1 (25%)	15 feet
5:1 (20%)	25 feet
10:1 (10%)	50 feet
20:1 (5%)	75 feet

6. Compact the soil immediately next to the silt fence fabric.
7. Clean silt fence when sediment reaches 1/3 height of the silt fence.

C. Erosion Bales

1. Install hay bales as shown on the plans and/or install on the contour of the slope.
2. Installation limitations:

Slope Steepness	Maximum Slope Length
2:1 (50%)	15 feet
3:1 (33%)	15 feet
4:1 (25%)	15 feet
5:1 (20%)	25 feet
10:1 (10%)	50 feet
20:1 (5%)	75 feet

3. Install hay bales in 4-inch deep trench.
4. Place bales at right angles to the direction of flow.
5. Securely anchor each bale with stakes as shown on the plans.
6. Compact soil on the upslope side of the hay bales.
7. Fill gaps between bales with straw.
8. Clean sediment away from bale when sediment reaches 1/2 height of the hay bale.
9. Replace damaged, destroyed or rotted bales immediately.
10. Bales may be used for mulching material if they meet the specifications of Section 02920.

D. Erosion Control Mats

1. Where indicated on the plans, by the Engineer, or on slopes greater than 5%, use a wood fiber mat in lieu of mulch.
2. Install in accordance to manufacturer's recommendations
3. Roll matting strips in the direction of the flow.
4. Spread mat evenly, smoothly, and in a natural position without stretching and with all parts touching the soil.

END OF SECTION

61. Section 02401 - Directional Drilling

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes directional drilling method of installing piping under railroads, highways, streets, rivers, levees, wetlands, and other surface structures or obstructions.

1.02 RELATED WORK

A. Section 02315 – Excavation, Trenching, and Backfill
B. Section 02510 – Water Distribution
C. Section 02511 – Water Service Lines

1.03 REFERENCES

A. ASTM D2239 – Polyethylene Plastic Pipe Based on Controlled Inside Diameter

B. ASTM D2737 – Polyethylene Plastic Tubing

C. ASTM D3350 –Polyethylene Plastics Pipe and Fittings Material

D. ASTM F714 – Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter

E. AWWA C901 – ½ -inch through 3-inch Polyethylene Pipe

F. AWWA C906 – 4-inch through 63-inch Polyethylene Pipe

1.04 SUBMITTALS

A. Pipe Material: Water main, sewer force main, water service line and sewer service line (as applicable).

B. Pipe fusing method.

C. Drilling method.

D. Technical data for digital control system to be used in directional boring operations.

E. Joint restraint and pipe material transitions.

F. Tracing wire, splice kit, and box.

1.05 REGULATORY REQUIREMENTS

A. Secure all necessary permits to complete the requirements of this Section.

B. Coordinate with Owner, other contractors, sub-contractors and local governing bodies.

1.06 PROTECTION OF EXISTING IMPROVEMENTS

A. Repair buildings, utilities, and other improvements damaged by directional drilling at no additional expense.

PART 2 - PRODUCTS

2.01 Directional Drilling Pipe

A. Water main and water service line:

1. Refer to appropriate Sections 02510, 02511.

2. Pipe size as indicated on the bid schedule.

3. High density, ultra high molecular weight polyethylene pipe compound PE-3608 or 4710.

4. Equal to Performance Pipe Driscoplex.

B. Joints and Fittings (for water main only)

1. PE-to-PE joints

a. Butt-fused joints required. No product info applicable.
b. Electrofusion couplings as approved by Engineer.

1. Use and location of electrofusion couplings shall be on a case-by-case basis.
2. Use shall be limited to locations where installation of butt-fused joints is considered not practical.

2. PE to PVC and ductile iron joints

a. Independent Pipe Products MJ Adapter (IPS or DIPS) DR 11 or equal as approved by the Engineer

1. MJ ductile iron sleeve equal to Tyler Union C153 sleeve.
2. Anchoring retaining glands equal to EBAA Iron Megalugs.

b. Mueller AquaGrip coupling or equal as approved by the Engineer.

1. Use and location of AquaGrip couplings shall be on a case-by-case basis.

2. Use shall be limited to locations where installation of MJ adapter is considered not practical.

c. Mechanical joint sleeve with stainless steel stiffener and restraining gland.

1. Cascade HDPE stainless steel stiffener or equal as approved by the Engineer.
2. MJ ductile iron sleeve equal to Tyler Union C153 sleeve.
3. Anchoring retaining glands equal to EBAA Iron Megalugs.

2.02 REAMER OR WING CUTTER

A. Pipe from 2-inches through 6-inches: do not exceed the diameter of the pipe by more than 2-inches.

B. Pipes 8-inches and larger: do not exceed the diameter of the pipe by more than 150 percent.

2.03 DRILLING FLUID

A. Sodium montmorillonite (bentonite) or polymer based mud.

2.04 TRACER WIRE AND BOX (Water Main ONLY)

A. Insulated Stainless Steel Wire: 1/8" 316 stainless steel insulated braided wire equal to Kris-Tech polyethylene coated tracing wire.

B. Copper Clad Steel Wire: #12 AWG extra-high-strength copper-clad steel tracing wire, insulated with 45 mil HDPE, equal to Copperhead #12 (EHS-CCS) Tracing Wire.

C. Box: Tracer wire access box with ABS stand and cast iron top and lockable lid. Valvco Tracer Wire Access Box, SnakePit Roadway Box, or equal.

D. Splice Kit: Underground waterproof splice materials.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Inspect pipe and appurtenances for defects.

B. Reject defective, damaged or unsound pipe and appurtenances.

3.02 DEPTH OF BORE

A. Bore a minimum of 8-feet below finished grade unless otherwise shown on the plans or directed by the Engineer.

3.03 ACCESS PITS

A. Perform all excavation and ground-disturbing activities in accordance to Section 02315.

B. Groundwater Control – Refer to Section 02315.

3.04 DIRECTIONAL DRILLING

A. Obtain Engineer's approval of drilling method prior to the start of construction.

B. Use a digitally controlled system to track the elevation and location of the bore-head.

C. Pull-Back Operation

1. Pull pipe back at a constant velocity

a. Velocity: 1 to 2 feet per minute.

b. Obtain Engineer's approval for velocities outside the range of 1 to 2 feet per minute.

2. Contractor shall monitor tensile load on pipe during pull-back operation and not exceed the manufacturer's recommendation for allowable tensile load.

D. When the reamer or wing cutter exceeds the pipe diameter by more than the allowable reamer or wing cutter diameter, pump flowable fill or approved grout into the void between the pipe and drill hole displacing the drilling fluid.

1. Flowable fill or suitable grout material and method of placement shall be as approved on the permit or by the Engineer.

E. Pull an extra 3-5 percent of the total pipe length through to allow for pipe relaxation.

F. The contractor shall control and contain drilling fluid to the immediate drilling area and restore drilling area to its original condition prior to final acceptance of work.

G. The contractor is responsible to contain and remove any drilling fluid that is visible at the ground surface over the length of the drill. Containment may be provided by straw bales or other practical means. If this occurs in a wetland the contractor shall take all necessary steps to minimize the impacts to the wetland and is responsible for its restoration.

H. No joints shall be installed under any roadways; PE pipe under the roadway shall be solid with no joints or splices.

I. After PE pipe has been installed allow pipe to relax for a minimum of 12 hours before connecting to adjacent pipe material.

J. Provide joint restraint at connection with adjacent pipe material.

K. Plug ends of pipe until connection to system is completed.

3.05 TRACING WIRE INSTALLATION

A. Use products as specified in Part 2.04 of this Section.

B. Refer to Section 02510 and 02538 as applicable.

3.06 PE TO PE TRANSITION

A. Butt-fuse all joints

1. Strictly follow manufacturer's recommendations.

2. Ensure that HDPE pipes are of the same grade and dimensions.

3. Do not remove bead unless determined necessary. If bead is removed do not remove below pipe outside diameter.

B. Electrofusion couplings

1. Strictly follow manufacturer's recommendations.

2. Ensure HDPE is properly prepared including scraping of the pipe and cleaning with alcohol.

3. Any couplings not installed in accordance to manufacturer's recommendations shall be replaced at the contractor's expense.

3.07 PE TO PVC TRANSITION

A. MJ adapter and mechanical joint sleeve shall be installed in accordance to manufacturer recommendations.

1. Install back-up ring and butt-fuse HDPE MJ Adapter fitting to end of PE pipe.

2. Install mechanical joint sleeve on HDPE MJ adapter.

3. Slide retaining gland onto PVC pipe and install PVC pipe in mechanical joint sleeve.

4. Restrain joints a minimum of 50-feet on the PVC side of transition.

B. AquaGrip coupling shall be installed in accordance to manufacturer recommendations.

1. Install AquaGrip coupling onto PE and PVC pipe. The pipe ends should be installed into the coupling as noted by the manufacturer.

   a. 3”-4” sizes: 3-3/4” from pipe end
   b. 6”-12” pipe: 6-1/4” from pipe end

2. Tighten the bolts evenly working around the coupling. Contractor shall make sure the coupling ends are draw together evenly.

3. For use with PVC and PE pipe, continue to tighten the bolts until the end parts contact each other on the coupling. If using ductile iron pipe, torque the bolts to 70-90 ft/lbs.

C. Mechanical joint sleeve and stainless steel stiffener for HDPE pipe shall be installed in accordance to manufacturer recommendations.

1. Install stainless steel stiffener in end of PE pipe.

2. Slide retaining gland onto PE pipe and install mechanical joint sleeve.

3. Slide retaining gland onto PVC pipe and install PVC pipe in mechanical joint sleeve.

4. Restrain joints a minimum of 50-feet on the PVC side of transition.

3.08 FIELD QUALITY CONTROL

A. Measure the vertical deviation of the boring. Immediately notify the Engineer if the boring deviates from the alignment or grade required on the plans.

1. Sewer service lines: Refer to Section 02531 for grade requirements.
2. Sewer service line out of alignment with respect to line or grade, by more than 0.3 feet, shall be reinstalled at the Contractor's expense.

B. The Engineer shall make final determination if a boring must be abandoned.

3.09 TESTING and DISINFECTION

A. Perform testing and disinfection for water main and water service line in accordance to Section 02510 and Section 02511.

B. Perform testing for sewage force main in accordance to Section 02538.

END OF SECTION

62. Section 02510 - Water Distribution

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes the installation of water mains, valves, hydrants and other appurtenant structures for community water systems.

1.02 RELATED WORK

A. Section 02315 – Excavation, Trenching and Backfill
B. Section 02401 – Directional Drilling
C. Section 02511 – Water Service Lines

1.03 REFERENCES

A. ANSI/AWWA C104/A21.4 – Cement-Mortar Lining for Ductile Iron Pipe and Fittings for Water

B. ANSI/AWWA C110/A21.10 – Ductile Iron and Gray Iron Fittings, 3 Inch Through 48 Inch, for Water and Other Liquids

C. ANSI/AWWA C111/A21.11 – Rubber-Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings

D. ANSI/AWWA C150/A21.50 – Thickness Design of Ductile Iron Pipe

E. ANSI/AWWA C151/A21.51 – Ductile Iron Pipe, Centrifugally Cast, for Water or Other Liquids

F. ANSI/AWWA C153/A21.53 – Ductile Iron Compact Fittings, 3 Inch Through 16 Inch, for Water and Other Liquids

G. ANSI/AWWA C502 – Dry Barrel Fire Hydrants

H. ANSI/AWWA C509 – Resilient Seat Gate Valves for Water and Sewerage Systems

I. ANSI/AWWA C515 – Reduced Wall, Resilient Seated Gate Valve for Water Supply Service

J. ANSI/AWWA C600 – Installation of Ductile Iron Water Main and Their Appurtenances

K. ANSI/AWWA C605 – Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water

L. ANSI/AWWA C651 – Disinfecting Water Mains

M. ANSI/AWWA C900 – Polyvinyl Chloride (PVC) Pressure Pipe, 4 Inch Through 12 Inch, for Water Distribution

N. ASTM D 3139 – Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals

O. ASTM F 477 – Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

P. Plastics Pipe Institute, Incorporated – Handbook of Polyethylene Pipe

Q. Standard Methods for Examination of Water and Wastewater

1.04 SUBMITTALS

A. Water Main and Fittings

B. PE Pipe: Pipe Butt Fusing Equipment

C. PE Pipe: Transmission Main Couplings

D. Thrust Restraint Products

E. Gate Valves and Boxes with valve adaptor

F. Fire Hydrants and Flush Hydrants

G. Warning Tape

H. Tracing Wire, Box, and Splice Materials

I. Method of Disinfection

J. Water Testing Lab

K. Method of Connection to Existing Distribution System

1.05 ACCEPTANCE

A. Work covered by this section will not be accepted until the backfilling and testing connected with the work has been completed satisfactorily.

B. Any section of water main that is found defective in material, alignment, or joints before acceptance shall be corrected to the satisfaction of the Engineer.

PART 2 - PRODUCTS

2.01 WATER DISTRIBUTION PIPE AND FITTINGS

A. Pipe size, material, and pressure rating as indicated on the bid schedule.

B. Ductile Iron Pipe

1. Conform to AWWA C151 with a thickness design in accordance to AWWA C150.

2. Pipe ends to have welded copper straps or other approved method to maintain electrical continuity throughout the length of the installed sections.

C. Polyvinyl Chloride Pipe - C900

1. Pipe: Conform to AWWA C900 (pressure class)

2. Joints: Conform to ASTM D 3139 with elastomeric seals (gaskets) conforming to ASTM F477.

D. High Density Polyethylene

1. Pipe: AWWA C906, PE3608 or PE4710, DIPS dimensions

2. Joints:
   a. Butt Fused
   b. Flanged with back-up rings and SAE Grade 3 bolts.
   c. Equal to Victaulic Style 995 with internal stainless steel stiffener.
   d. Mechanical coupling with internal stainless steel stiffener.

E. Fittings

1. Conform to AWWA C110 and AWWA C111 for ductile and gray iron fittings.

2. Conform to AWWA C153 for ductile iron compact fittings.

F. Thrust Restraint

1. Special Anchoring Retainer Glands:

a. Ductile iron: Equal to Megalugs, EBAA Iron, Inc.
b. PVC: Equal to 2000PV, EBAA Iron, Inc.

2. Joint Restraint:

a. Ductile iron: Equal to Gripper Gasket (shall only be used for pipe-to-pipe joint end restraint)

3. Joint Restraint Rodding:

a. 3/4 inch mild steel threaded rods
b. Tie bolts
c. Duc lugs

2.02 GATE VALVES

A. Meet or exceed AWWA C509 or C515.

B. Constructed with a non-rising stem (NRS) and a 2-inch square stem-operating nut, opening counter-clockwise.

C. Supply valves with mechanical or "push-on" joints.

D. Provide valves equal to: Mueller A–2360–20 or Waterous (American Flow Control) Series 2500.

2.03 GATE VALVE ADAPTOR

A. Shall be ¼-inch steel with a UV polyurethane protective coating and a ¾-inch rubber gasket attached to the Gate Valve Adaptor.

B. Provide adaptor equal to: Adaptor Inc. Gate Valve Adaptor

2.04 VALVE BOXES

A. Provide 3 piece, screw type, adjustable cast iron valve boxes equal to Tyler model 6860-F.

B. Provide locking cover with:

1. Brass cotter pin or brass rod as a keeper
2. "WATER" plainly marked

C. Valve box shall be for a minimum of 8 feet of pipe cover or as specified in Section 01119 – Revisions to Standard Specifications.

2.05 FIRE HYDRANTS

A. Conform to AWWA C502.

B. Supply fire hydrants equipped with the following:

1. An arrow cast on the hydrant showing the direction of opening as counter clockwise.

2. Two National Standard 2 ½-inch hose nozzles and one 4 ½-inch pumper nozzle.

3. Traffic flange

4. Weep holes to allow the hydrant to drain, unless directed otherwise in Section 01119 – Revisions to Standard Specifications.

5. Minimum 4 ¼-inch hydrant valve opening capable of opening against water pressure.

6. Minimum hydrant length of 8 1/2 feet, unless otherwise directed in Section 01119 – Revisions to Standard Specifications, as measured from the ground line to the bottom of the trench carrying the connection pipe.

C. When a hydrant manufacturer and model is specified in the bid schedule, that exact unit must be supplied in order to maintain compatibility with the existing hydrants on the system.

D. Provide hydrants equal to Mueller A421 or Waterous (AFC) WB-67.

E. Provide heavy-duty red and white striped 5-foot x 3/8-inch diameter spring-equipped fiberglass hydrant marker with top-mounted flag and mounting tab shall be supplied for each hydrant that is installed.

2.06 WARNING TAPE

A. Supply detectable warning tape that is a minimum of 2 inches wide, blue or striped blue, and have printing that warns of a water line below.

2.07 TRACER WIRE AND BOX

A. Wire: Provide #10 AWG jacketed solid copper wire, with 30 mil HDPE coating rated for direct bury.

B. Box: Tracing wire access box with ABS stand and cast iron top with lockable lid. Valvco Tracer Wire Access Box, SnakePit Roadway Box, or equal.

C. Splice Kit: Provide underground waterproof splice materials.

2.08 WATER TESTING LAB

A. Use a state certified lab.

2.09 ACCESSORIES

A. Supply gate valve keys, valve box cover keys and hydrant wrenches only if specified in Section 01119 – Revisions to Standard Specifications.

PART 3 - EXECUTION

3.01 WATER MAIN INSTALLATION

A. Engineer to provide stakes in accordance to Section 01720.

B. Install water mains and appurtenances in the locations and of the sizes and materials shown on the drawings and bid schedule.

C. Refer to Section 02315 for excavation, trenching, bedding, and backfill requirements and for minimum separation distances.

D. Install pipe with a minimum bury depth of 8 feet, measured from finished grade, unless otherwise noted on the plans or in Section 01119 – Revisions to Standard Specifications.

E. PVC pipe shall be installed in accordance to manufacturer's recommendations.

F. Bending/deflection of PVC pipe shall not exceed manufacturer's recommendations.

G. PE Pipe Installation

1. HDPE Pipe Cold Bending:

a. 50-feet if not near a fitting or joint.
b. 100-feet if near a fitting or joint.
c. Make necessary provisions to ensure that localized curvature is within the tolerances over the length of curve.
d. For tighter curve requirements, use prefabricated HDPE fittings of the same DR and OD as the pipe.

2. Butt Fused Joints: Butt-fuse all HDPE joints, except as otherwise indicated.

    a. Strictly follow manufacturer's recommendations.
    b. Ensure that HDPE pipes are of the same grade and dimensions.
    c. Do not remove bead unless determined necessary. If bead is removed do not remove below pipe outside diameter.

3. Victaulic Style 995 Joints:

    a. Install no more frequently than once per 500-feet unless otherwise indicated on the plans or approved by Engineer.
    b. Install stainless steel stiffeners inside pipe at joint.
    c. Follow manufacturer's recommendations for installation.

4. Flanged Joints:

    a. Install no more frequently than once per 500-feet unless otherwise indicated on the plans or approved by the Engineer.
    b. Strictly follow manufacturer's recommendations.
    c. Install flanges with gaskets.
    d. Ensure flanges are aligned properly before tightening.
    e. Torque bolts to manufacturer's recommendations.

H. Install thrust restraint on all fittings and appurtenances including in-line valves and hydrant tees. Contractor's option:

1. Special Anchoring Retainer Glands:

    a. Install in accordance to manufacturer's recommendations.
    b. All pipe joints less than 20 feet from fittings with special retainer glands shall be restrained.
    c. Engineer may specify additional restraint be used for pipe sections near critical fittings.

2. Joint Restraint

    a. Ductile Iron: Install Gripper Gasket or equal in accordance to manufacturer's recommendations (shall only be used for pipe-to-pipe joint end restraint).

3. Joint Restraint Rodding:

    a. Rod from hydrant tees to ears on the hydrant base elbow.
    b. Rod from fitting to fitting.
    c. Install tie bolts to connect tie rods, if required.
    d. Install duc lugs where required to increase the width of the rodding.

3.02 TRACING WIRE INSTALLATION

A. Install with all PVC or PE pipe.

B. Wrap or tape tracing wire a minimum of three times around each pipe length or attach to pipe a minimum of three times per pipe length.

C. Make all splices with an underground, waterproof splice kit.

D. Provide riser boxes at hydrant locations. If distance between hydrants is greater than 1,000 feet, provide riser boxes at maximum intervals of 1,000 feet between hydrants at Engineer approved locations.

1. Install tracing wire between each tracing wire box in each direction of pipe.

2. Bring tracing wire a minimum of 18 inches above ground surface directly behind each hydrant or at Engineer approved location.

3. Install box to finished grade elevation.

3.03 WARNING TAPE INSTALLATION

A. Install warning tape in water main trench 2 feet below grade maintaining the same depth throughout.

3.04 GATE VALVE INSTALLATION

A. Refer to Section 02315 for excavation and backfill requirements.

B. Install valves at locations indicated on the plans.

C. Install suitable thrust restraints on all valves.

D. Support gate valves on a solid concrete block as shown on the plans.

E. Set valves plumb and provide with a valve box and gate valve adaptor.

F. Install the valve box upon the valve with the use of a gate valve adaptor. The adaptor shall be installed in lieu of hardwood blocking and shall be incidental to the valve and box installation.

G. Center the valve box over the valve with the box cover:

1. Flush with finished grade elevation.

2. Flush with the surfaced street.

3. 3 inches below the level of an unimproved street.

3.05 HYDRANT INSTALLATION

A. Refer to Section 02315 for excavation and backfill requirements.

B. Install hydrant and auxiliary gate valve at the location indicated on the plans.

C. Connect auxiliary gate valve to tee using a 3-foot section of 6-inch C900 water main pipe unless otherwise specified in Section 01119 – Revisions to Standard Specifications.

D. Connect hydrant to auxiliary gate valve using a 3-foot section of 6-inch C900 water main pipe unless otherwise specified in Section 01119 – Revisions to Standard Specifications.

E. Install suitable thrust restraint on tee, valve, and hydrant.

F. Set hydrant on a solid concrete block and restrain as shown on the plans.

G. Set hydrant with the traffic flange at an elevation of 1 to 3 inches above finished grade.

H. Stand hydrant plumb with the pumper nozzle toward the street.

I. Install suitable thrust restraint at the base of each hydrant as shown on the plans or detailed in these specifications.

1. Do not obstruct proper operation of weep hole(s).

J. Place Class 1A or Class 1B aggregate, a minimum of 18 cubic feet per hydrant, from 18 inches below to 6 inches above the weep hole opening.

1. Cover aggregate in geotextile.

2. Refer to Section 02315 – Excavation, Trenching and Backfill for gradation specifications.

K. Install hydrant markers on one of the bolts located on the side opposite of the 4 ½-inch pumper nozzle of each hydrant.

3.06 PRESSURE AND LEAKAGE TESTING - PVC

A. Whenever practical, before backfill is fully placed or joints fully covered, test pipe for leaks in the presence of an IHS representative.

B. Furnish necessary material, equipment, and labor for testing including, but not limited to: water, pump, water storage vessel, piping, pressure gauge, valve, hydrant, and corporation stop.

   1. Pressure gauge shall be liquid filled with 5 psi or less increments.

C. Test duration: 2 hours minimum.

D. Maximum length of test section: 1/2 mile.

E. Testing Procedure – Test in accordance to the Hydrostatic Testing Method outlined in ANSI/AWWA C605.

   1. Slowly fill test section with water and expel air from mains.

   2. Install corporation stops at high points to facilitate removal of air, if necessary.

      a. Remove corporation stops and plug prior to pressure testing.

   3. Verify all hydrant lead valves and main valves within the test section are open.

   4. Place test section under constant pressure.

      a. 1.5 times working pressure or 150 psi, whichever is greater.
      b. Do not exceed 115% of pipe pressure rating at the lowest point in the test section.

   5. If pressure drops more than 5 psi during the test, immediately re-pressurize the line to the original test pressure and continue test.

      a. Record amount of water required to re-pressurize the line.

   6. At the end of the test, re-pressurize the line to the original test pressure.

      a. Record amount of water required to re-pressurize the line.

   7. Add total amount of water required to re-pressurize the line during and at the end of the test and compare with the allowable leakage as calculated below.

      a. If leakage is greater than allowable leakage, test fails.

F. Allowable Leakage Determination

$$L = (N*D*P^{1/2})/7400$$

L = Allowable Leakage (gph)
N = Total Length Tested Divided by
The Standard Pipe Length
D = Nominal Diameter of Pipe (inches)
P = Test Pressure (psi)

Example Allowable Leakage Chart Using Formula Above
PVC Pipe with 20-foot sections

	Allowable Leakage/ 1000 feet (gph)			
Pipe Diameter, D	P = 100 psi	P = 150 psi	P = 200 psi	P = 250 psi
4 inch	0.27	0.33	0.38	0.43
6 inch	0.41	0.50	0.57	0.64
8 inch	0.54	0.66	0.76	0.85
10 inch	0.68	0.83	0.96	1.07
12 inch	0.81	0.99	1.15	1.28

G. Repair, at no cost to owner, any section of the line that fails this test.

1. Retest all repaired sections of line, at no cost to owner, until pressure test is successfully completed.

3.07 PRESSURE AND LEAKAGE TESTING – Polyethylene (PE)

A. Refer to Section 3.06, "Pressure and Leakage Testing – PVC" for PE sections 200 ft. or less in length when the majority of the pipe is PVC (e.g. 300 ft. of PVC water main installed with 100 ft. of PE utilized for direction drilling; conduct PVC pressure test for entire length).

B. Whenever practical, before backfill is fully placed or joints fully covered, test pipe for leaks in the presence of an IHS representative.

C. Furnish necessary material, equipment, and labor for testing including, but not limited to: water, pump, water storage vessel, piping, pressure gauge, valve, hydrant and corporation stop.

1. Pressure gauge shall be liquid filled with 5 psi or less increments.

D. Test duration: 1 hour minimum.

E. Testing procedure – test in accordance to the recommendations from the Plastic Pipe Institute.

1. Slowly fill test section with water and expel air from mains.

2. Install corporation stops at high points to facilitate removal of air, if necessary.

    a. Remove corporation stops and plug once test completed.

3. Verify all hydrant lead valves and main valves within the test section are open.

4. Place test section under constant pressure.

    a. 1.5 times working pressure or 150 psi, whichever is greater.
    b. Do not exceed 115% of pipe pressure rating at the lowest point in the test section.

5. To allow for pipe expansion, add water as required to maintain pressure for four (4) hours.

6. To test, reduce pressure by ten (10) psi.

    a. If pressure remains within 5% of target test value, test passes.

3.08 PRESSURE AND LEAKAGE TESTING – DUCTILE IRON

A. Whenever practical, before backfill is fully placed or joints fully covered, test pipe for leaks in the presence of an IHS representative.

B. Furnish necessary material, equipment, and labor for testing including, but not limited to: water, pump, water storage vessel, piping, pressure gauge, valve, hydrant, and corporation stop.

1. Pressure gauge shall be liquid filled with 5 psi or less increments.

C. Test duration: 2 hours minimum.

D. Maximum length of test section: ½ mile.

E. Testing Procedure – Test in accordance to the Hydrostatic Testing Method outlined in ANSI/AWWA C600.

1. Slowly fill test section with water and expel air from mains.

2. Install corporation stops at high points to facilitate removal of air, if necessary.

    a. Remove corporation stops and plug once test completed.

3. Verify all hydrant lead valves and main valves within the test section are open.

4. Place test section under constant pressure.

    a. 1.5 times working pressure or 150 psi, whichever is greater.
    b. Do not exceed 115% of pipe pressure rating at the lowest point in the test section.

5. If pressure drops more than 5 psi during the test, immediately re-pressurize the line to the original test pressure and continue test.

    a. Record amount of water required to re-pressurize the line.

6. At the end of the test, re-pressurize the line to the original test pressure.

    a. Record amount of water required to re-pressurize the line.

7. Add total amount of water required to re-pressurize the line during and at the end of the test and compare with the allowable leakage as calculated below.

    a. If leakage is greater than allowable leakage, test fails.

F. Allowable Leakage Determination

$$L = (S*D*P^{1/2})/133{,}200$$

L = Allowable Leakage (gph)
S = Total Length of Pipe Tested (feet)
D = Nominal Diameter of Pipe (inches)
P = Test Pressure (psi)

Example Allowable Leakage Chart Using Formula Above
PE and Ductile Iron Pipe per 1,000 feet of pipe

	Allowable Leakage/ 1000 feet (gph)			
Pipe Diameter, D	P = 100 psi	P = 150 psi	P = 200 psi	P = 250 psi
4 inch	0.30	0.37	0.43	0.47
6 inch	0.45	0.55	0.64	0.71
8 inch	0.60	0.74	0.85	0.95
10 inch	0.75	0.92	1.06	1.19
12 inch	0.90	1.10	1.28	1.42

G. Repair, at no cost to owner, any section of the line that fails this test.

1. Retest all repaired sections of line, at no cost to owner, until pressure test is successfully completed.

3.09 TESTING OF TRACING WIRE

A. Test tracing wire for proper functioning using a conductive/inductive type locator in the presence of the Engineer.

B. Repair and retest, at no extra cost to the owner, any section of tracing wire that does not function properly.

3.10 DISINFECTION OF WATER MAIN AND FITTINGS

A. Disinfection shall conform to AWWA C651.

B. Obtain water at the site for disinfection.

C. Flushing chlorinated water in accordance to AWWA C651.

1. Waste flushed disinfection water in an environmentally safe manner. The method used is subject to the approval of the Engineer.

D. After disinfecting and flushing but before the water main is placed in service, collect and test water samples for bacteriological quality.

1. Sample in accordance to the Standard Methods for Examination of Water and Wastewater.

2. Take two consecutive tests, 24 hours apart.

3. Collect one sample from the new water main and one from each branch line near the end.

a. Additional samples may be required on extremely long mains.

4. Take samples to a state certified testing lab.

5. Permanent sampling taps may be required at the direction of the Engineer.

E. If initial disinfection fails to produce satisfactory bacteriological results, rechlorinate the mains and branch lines, flush and take new samples until satisfactory results are obtained.

1. Do not place main in service until the Engineer has received safe bacteriological results.

3.11 CONNECTIONS TO EXISTING DISTRIBUTION SYSTEMS

A. Shutoff of mains will not be permitted overnight, over weekends, or on federal holidays.

B. Coordinate system tie-in with the owner and/or operator of the existing utility a minimum of three working days before any connection is made.

C. Notify residents affected by the water shutoff of the time and day of shutoff a minimum of two working days in advance.

D. Start work when all the materials, equipment and labor are on site.

E. Clean all connection components with a chlorine solution prior to installation.

F. Once work on the connection has commenced, it shall proceed continuously without interruption, and as rapidly as possible until completed.

G. Visually inspect any joints not pressure tested for leakage.

1. Test under system pressure prior to backfilling

2. Test in the presence of the IHS representative.

3. Repair and retest any joint with leakage until no leakage is visible at no cost to the owner.

END OF SECTION

63. Section 02511 - Water Service Lines

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes the installation of water service lines complete with corporation stops, curb stops, curb boxes, freezeless risers and other appurtenances for community water systems.

1.02 RELATED WORK

A. Section 01780 – Closeout Submittals
B. Section 02315 – Excavation, Trenching and Backfill
C. Section 02401 – Directional Drilling
D. Section 02510 – Water Distribution

1.03 REFERENCES

A. AWWA C901 – Polyethylene (PE) Pressure Pipe and Tubing, 1/2 Inch through 3 Inch, For Water Service.

B. ASTM B 88 – Standard Specification for Seamless Copper Water Tube.

1.04 SUBMITTALS

A. Water Service Line
B. Fittings
C. Corporation Stops
D. Saddles, Tees or Tapped Couplings
E. Curb Stops and Boxes with Stationary Rod
F. Tracing Wire, Box, and Splice Materials

1.05 ACCEPTANCE

A. Work covered by this section will not be accepted until satisfactory backfilling and testing is complete.

PART 2 - PRODUCTS

2.01 WATER SERVICE LINE AND APPURTENANCES

A. Polyethylene Pipe

1. CTS size pipe with a minimum pressure rating of 160 psi. Pipe shall conform to AWWA C901.

2. CTS size pipe: DR 9 or DR 7.

3. High density, ultra high molecular weight polyethylene pipe compound PE-3406, 3408, 3608, or 4710, suitable for use with potable water.

4. Stainless steel stiffeners on compression couplings made for DR 9 pipe.

5. Equal to Performance Pipe Driscoplex 5100 Ultra-Line water service pipe or Excel.

B. Copper Pipe

1. Type “K” soft annealed seamless copper tubing conforming to ASTM B 88, and suitable for installation in public water systems.

C. Saddles

1. PVC ASTM D2241 Pipe: Stainless steel double bolt saddle clamps equal to Cascade style CSC2 or Ford style FS202.

2. PVC C900 Pipe: Stainless steel single bolt saddle clamps equal to Ford style FS101 or Smith-Blair 315 or 371.

D. Corporation Stops

1. Brass, meeting NSF-61, with pack joint connection, unless otherwise specified.

2. Connections shall be nonflare for all pipe types.

3. CTS plastic pipe and copper service line: A.Y. McDonald 4704 – 22, Ford FB1000-4, or Mueller P-15028.

4. PE Service line: A.Y. McDonald 4704 – 22, Ford FB1001-4, Mueller P– 15028, or equal.

E. Curb Stops

1. Brass, meeting NSF-61, with pack joint connections, unless otherwise specified.

2. Connections shall be nonflare for all pipe types.

3. Minneapolis pattern curb stops.

4. CTS polyethylene service line and copper service line: Mueller No. P – 15155, Ford B44 – 444M, A.Y. McDonald 6104 – 22, or equal.

F. Curb Boxes with Stationary Rod

1. Cast iron Minneapolis pattern, 8 feet in length with stationary rod.

2. 1-inch service line: Mueller H – 10302, Ford EM2 style or equal.

3. Curb box lids: Mueller No. 89376, A.Y. McDonald 5607L or equal.

2.02 TRACER WIRE AND BOX

A. Wire: Provide #10 AWG jacketed solid copper wire, with 30 mil HDPE coating rated for direct bury.

B. Box: Tracer wire access box with ABS stand and cast iron top and lockable lid. Valvco Tracer Wire Access Box, SnakePit Roadway Box, or equal.

C. Splice Kit: Provide underground waterproof splice materials.

2.03 PIPE HANGERS

A. Shall be made of a material compatible with piping material.

B. Shall be of sufficient strength to support the pipe at full capacity.

C. Shall not affect pipe integrity by abrading, cutting or bending of pipe.

PART 3 - EXECUTION

3.01 WATER SERVICE LINE AND APPURTENANCES

A. Install water service line of the size and material indicated on the Bid Schedule.

B. Install at the locations shown on the drawings or as directed by the Engineer.

C. Refer to Section 02315 for excavation, trenching, backfilling, compaction, separation distance, and insulation requirements.

D. Install service line:

1. From the main to a location into or near each home.

a. Connect to the homes existing water stub out if provided outside the home.

b. If sleeve provided, run water line through the sleeve and leave a minimum of 12-inches of piping in the home. Seal space between piping and sleeve to prevent groundwater from entering the home.

c. If no stub-out is provided, cap service line and mark with stake.

d. For connecting beneath the home, install pipe hangers at a maximum spacing of 6 feet apart for all horizontal copper tubing and 2 feet apart for all horizontal PE pipe inside the home.

e. Additional project specific requirements will be identified in Section 01119 – Revisions to Standard Specifications.

2. With a minimum bury depth of 8 feet.

3. Splices are not allowed in the service line without the written permission of the Engineer.

4. Use compression couplings for all connections.

E. Install saddle at each corporation stop tapping location.

1. All connections shall be live tapped through the corporation stop with an approved tapping machine, unless specified below.

2. Dry taps are allowed only during new water main installation, before main disinfection.

F. Curb stops and boxes with stationary rod

1. Set curb stops on a solid concrete block 4 inches thick by 8 inches wide by 16 inches long placed on undisturbed earth.

2. Install stationary rod on curb stop.

3. Set the top of curb boxes flush with finished grade elevation.

4. Support curb box during the backfilling operation to prevent movement and maintain a vertical position.

G. Install tracing wire with all pipe.

1. Wrap or tape tracing wire to pipe a minimum of every 20 feet.

2. Make any splices with an underground, waterproof splice kit.

3. Bring tracing wire up along outside of curb stop box.

a. Tape wire to stem of the curb box just below cap.
b. Fold wire back down over tape leaving approximately 12” of extra wire.

4. Termination of the tracing wire:

a. Near home: Terminate in tracing wire box within 3 feet of the home.
b. At service line corp stop: Terminate and wrap around corp stop.

3.02 UTILITY CONFLICTS

A. Refer to Section 02315.

3.03 TESTING

A. Turn on each corporation stop and apply main pressure to the service line in the presence of the IHS representative before backfilling.

1. Option: If a new water main is pressure tested, test the water service lines at the same time and pressure as the water main. Provisions shall be made to prevent pressurizing of interior plumbing.

B. Repair all visible leaks and retest the line until test is successfully completed at no cost to the owner.

3.04 AS-BUILTS

A. Provide as-built information on each system in accordance to Section 01780. Use standard forms (if supplied) by the Engineer.

END OF SECTION

64. Section 02531 - Sanitary Sewer Service Lines

PART 1 - GENERAL

1.01 SUMMARY

A. This section includes sewer service lines, connection to sewer mains (wyes) and re-routing existing sewer service lines under the proposed storm sewer in locations where conflicts exist.

1.02 RELATED WORK

A. Section 01780 – Closeout Submittals
B. Section 02315 – Excavation, Trenching and Backfill

1.03 REFERENCES

A. ASTM D 3034 – Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings

B. ASTM D 3212 – Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals

C. ASTM F 477 – Elastomeric Seals (Gaskets) for Joining Plastic Pipe

D. ASTM F1336 – PVC Gasketed Sewer Fittings

1.04 SUBMITTALS

A. Sewer Service Line Pipe and Fittings

B. Sewer Wyes and Saddles

C. Tracing Wire, Box, and Splice Materials

1.05 ACCEPTANCE

A. The work will not be accepted until satisfactory pipe backfilling and clean up is complete.

B. If the work does not meet the specified requirements of this section and related sections, remove, and replace at no additional cost.

PART 2 - PRODUCTS

2.01 POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

A. Conform to ASTM D 3034

B. Pipe Class: SDR 35

C. Bell ended joints conforming to ASTM D 3212

D. Elastomeric gaskets conforming to ASTM F 477

E. 4-inch nominal diameter unless otherwise indicated.

F. Each length of pipe shall be clearly marked with the following:

1. Manufacturer
2. Nominal Pipe Size
3. The PVC Cell Classification
4. Type PSM PVC Sewer Pipe
5. ASTM Designation
6. Pipe Class

2.02 SEWER WYES

A. Connection to New Sewers:

1. In-line fittings conforming to ASTM F1336.

B. Connection to Existing Sewers:

1. PVC Sewer Mains:

a. PVC conforming to ASTM 3034, watertight with gasket.
b. Two stainless steel bands and connectors for securing to the main.
c. GPK Products, Fargo, ND, or approved equal.

2. Asbestos-Cement, Concrete, or Vitrified Clay Sewers: Neoprene rubber boot with stainless steel bands for concrete, asbestos-cement or vitrified clay sewer main.

a. Submit other saddle wyes to the Engineer for review and approval.

2.03 Tracer Wire and Box

A. Wire: Provide #10 AWG jacketed solid copper wire, with 30 mil HDPE coating rated for direct bury.

B. Box: Tracer wire access box with ABS stand and cast iron top and lockable lid. Valvco Tracer Wire Access Box, SnakePit Roadway Box, or equal.

C. Splice Kit: Provide underground waterproof splice materials.

PART 3 - EXECUTION

3.01 RE-ROUTING EXISTING SERVICE LINES UNDER STORM SEWER

A. In locations where existing sewer service lines are in conflict with the proposed storm sewer to be installed along Hwy 47, the sewer service lines are to be re-routed so that they cross under the storm sewer.

1. The locations and depths of the existing sewer service lines in this area are not known. It is expected that the conflicts will be identified during the installation of the storm sewer. The re-routing of the sewer service lines should be completed as the conflicts are identified.

B. Remove or abandon the existing service line from the upstream side of the storm sewer to the sewer main.

C. Install fittings as necessary to route the service line under the storm sewer leaving a minimum of 6-inches between the top of the service line and the bottom of the storm sewer.

D. Install new sewer service line to the existing sewer main and connect to the existing wye or saddle fitting to re-establish service for the home. For general service line installation requirements, refer to Paragraph 3.03 of this section.

E. Use crushed stone for bedding and initial backfill for the new service line for a minimum of 5-ft on either side of the storm sewer crossing.

3.02 EXAMINATION

A. Verify that dimensions and elevations are as indicated on the Drawings.

B. Verify that all products are in new condition.

C. Inspect pipe and fittings for defects.

D. Remove materials from the site that are defective, damaged, used, unsound, or that otherwise do not meet the specifications.

3.03 UTILITY CONFLICTS

A. Refer to Section 02315.

3.04 SEWER SERVICE LINE INSTALLATION

A. Sewer Wyes and Saddles:

1. Connection to New PVC: Furnish and install wyes at the locations indicated by the plans or by the Engineer.
2. Install a solvent weld cap or a plug and leave in place until service line construction begins.
3. Properly reference, record and stake wye locations to permit ready relocation, in accordance to Section 01780, and provide information to the Engineer.
4. Connection to Existing PVC:
    a. Install saddle wyes at the locations indicated by the plans or by the Engineer.
    b. Repair damage caused during the tapping process at no additional cost.
5. Rotate the branch or wye of the saddle no more than 45 degrees from horizontal.

B. Risers:

1. Extend riser from sanitary wye to an elevation that will allow for a service line to be laid at specified grades.
2. Install riser at an angle equal to or less than 45 degrees measured from horizontal.
3. Risers in Rock Trenches:
    a. Install riser pipe in the sewer trench.
    b. Install riser pipe approximately vertical.
    c. Encase the bottom of riser, wye and 1/8 bend in crushed rock or sand.
    d. Extend bedding the full width of the trench as excavated and not less than 18 inches in length from either side of the center of the riser.
    e. Place bedding material to a point 12 inches above centerline of the sewer main at the location of the wye.
4. No separate payment will be made for risers.

C. Service Lines:

1. Furnish and install sewer service lines at the locations on the plans or as directed by the Engineer.
    a. Connect to the existing home sewer stub out if present underground outside the home.
    b. For connecting beneath the home, place pipe hangers at a maximum distance of 4 feet apart for horizontal PVC pipe.
    c. Cap sewer service, and stake if no connection is made.

d. Install a frost sleeve for the vertical service line connection beneath the home from 2" above grade to within 6" of the top of the below ground horizontal sewer service line for a mobile home connection.

2. Follow general pipe installations requirements of Section 02315 – Excavation, Trenching and Backfill.
3. Minimum slope for sewer service lines is 1/8-inch per foot (1%).
4. Maximum slope for sewer service lines is ½-inch per foot (4 %), unless otherwise specified in Section 01119.
5. Ninety-degree bends are not allowed between the house and the sewer main.
6. Install tracing wire with all pipe.
   a. Wrap or tape tracing wire to pipe a minimum of every 20 feet.
   b. Make all splices with an underground, waterproof splice kit.
   c. Run tracing wire from connection at main and bring tracing wire up along outside of the cleanout, and tape wire to stem of the cleanout just below cap. Fold wire back down over tape leaving approximately 12" of extra wire.
   d. Terminate the tracing wire in tracing wire box within 3 feet of the home or at the cleanout, as specified by the Engineer.
7. Connection of Sewer Service Lines to Manholes:
   a. Connect to manholes only where permitted and approved by the Engineer.
   b. Conform to Section 02531 – Sanitary Sewer Manholes, concerning channel shape and radius.

D. Sewer Service Line Cleanouts:

1. Two-Way Cleanouts: Install at the locations indicated on the drawings or as directed by the Engineer.
2. One-Way Cleanouts:
   a. Install one-way cleanouts at a spacing not to exceed 100 feet.
   b. Install one-way cleanouts so that the service can be rodded or snaked in the direction of flow.
3. Construct as shown on the standard details.
4. Install a 4-inch sewer wye in the sewer service line and connect risers of the same material from the wye to the ground surface.
   a. Attach a schedule 40 PVC adapter and threaded plug to the end of the riser.
   b. Install vertically a piece of No. 3 rebar, 1-foot in length, next to each cleanout riser. Bury rebar 6 inches below ground surface.
5. The Engineer may specify that cleanouts be buried 3 to 6 inches below grade and be fit with a threaded cast iron plug.

3.05 AS-BUILTS

A. Provide as-built information on each service line in accordance to Section 01780. Use standard forms (if supplied) by the Engineer.

END OF SECTION

65. Section 02532 - Sanitary Sewer Manholes

PART 1 - GENERAL

1.01 SUMMARY

A. Work covered by this section includes standard manholes, barrel extensions, adjustment rings, frames and covers for community wastewater collection systems.

1.02 RELATED WORK

A. Section 02310 – Grading
B. Section 02315 – Excavation, Trenching and Backfill

1.03 REFERENCES

A. ASTM C 443 – Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets

B. ASTM C 478 – Precast Reinforced Concrete Manhole Sections

C. ASTM C 923 – Resilient Connectors Between Reinforced Concrete Manhole Structures and Pipes

D. ASTM C 990 – Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants

E. ASTM C 1244 – Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test

1.04 SUBMITTALS

A. Precast manhole barrel extension sections

B. Joint sealing material

C. Chimney seals w/manufacturer's instructions (if applicable)

PART 2 - PRODUCTS

2.01 MANHOLES

A. Barrel Sections:

1. 48-Inch inside diameter.

B. Cone Sections:

1. Re-use existing.

C. Manhole Steps:

1. Cast and anchor steps in concrete sections, aligned to form a continuous ladder.

2. Install steps so they are horizontal, protruding 5-inches, minimum.

3. Material: 1/2-inch steel steps encased in neoprene or polypropylene.

4. Width: 12-inches, minimum.

5. Space rungs 16-inches apart.

6. Maximum spacing from the top of the cone to the first rung shall be 6-inches.

7. Center steps over the manhole outlet.

D. Manhole Adjustment Rings:

1. Concrete rings.

E. Joints:

1. Conform to ASTM C 443.

2. Joint Sealant:

a. Conform to ASTM C 990.
b. Rub-R-Nek (Henry Group, Houston, Texas) or approved equal.
c. Con-Seal (Concrete Sealants, Incorporated, New Carlisle, Ohio) or approved equal.

F. Chimney Seals

1. Rubber material with stainless steel expansion bands

2. Minimum tensile strength: 1500 psi

3. Equal to Cretex Internal Manhole Chimney Seal

2.02 FRAMES AND COVERS

A. Re-use existing.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Refer to section 02315 – Excavation, Trenching and Backfill for excavation and backfill requirements.

B. Barrel Extension Installation (MH 12-B-1)

1. Remove existing frame, cover, adjustment rings and conical section and salvage for re-installation.

2. Install 20" high x 48" inside diameter barrel section on top of existing barrel section. Utilize joint sealant as described below.

3. Re-install existing conical section after the new barrel extension is installed.

a. Install with the opening over the outlet of the manhole.

4. Install new adjustment rings as described below. Adjustment ring height should allow for the final cover elevation to match the proposed grade.

5. Install external chimney seal as described below.

6. Reinstall manhole frame and cover.

C. Adjust Manhole Rim Elevations

1. Remove existing frame and cover and salvage for re-installation.

2. Install additional adjustment rings or remove existing adjustment rings as necessary so that the rim elevation matches the proposed grade.

3. Install external chimney seal as described below.

4. Re-install manhole frame and cover.

D. Joint Sealants:

1. Install joint sealants around entire circumference of each manhole joint.

2. Place sealant on the lower horizontal surface of the joint.

3. Ensure that a watertight seal is provided at the joint.

E. Adjustment Rings:

1. Group adjustment rings in place when the manhole is constructed.

2. Install at least one adjustment ring, and no more than 12-inches of adjustment rings.

3. Discard all cracked adjustment rings.

4. Grout manhole rings on outside and inside.

F. Frame and Cover:

1. If a road finish grade exists, set manhole frames and covers to the finish grade of the road.

2. If plans indicate rim elevations, set manhole frames and covers to the elevation indicated on the plans and adjust the elevation of the frame and cover to meet field requirements as determined by the Engineer.

G. Chimney Seals:

1. Install only if item is listed on the bid schedule and/or in the price and payment section as an individual line item or incidental to the cost of the manhole.

2. Install in accordance to manufacturer's recommendations in the locations specified by the Engineer.

H. Refer to Section 02310 – Grading for finish grading requirements.

END OF SECTION

66. Appendix B

LDF THPO – Treatment of Human Remains

Approved Cultural Committee 4/20/00

"TREATMENT OF HUMAN REMAINS AND ASSOCIATED FUNERARY OBJECTS"

Section 1. Human remains discovered on the reservation:

All work stops
Contact law enforcement
Contact Tribal Historic Preservation Office
Contact Tribal Cultural Committee

Section 2. If law enforcement officials determine this an issue of foul play this will move determination of the action taken to that department

Section 3. If human remains have been completely disturbed and moved away from original burial area or disturbances resulting in human remains being partially exposed:

Immediate action to be taken:

Do not touch the remains
Cover with cloth and cedar bows (if a woman is collecting cedar bows she should not be on her moon).
Apologize for disturbance and put down tobacco.
No photographs.
Human Remains should be left in place.

If there is concern of looting or other disturbance, contact Cultural Committee

Moving the remains should be done carefully (using cloth) and should be moved to the closest safe area possible

If human remains are brought into the Tribal Historic Preservation Office or other tribal departments:

Contact all person(s) and committees listed in Section 1
Staff should wrap remains in cloth
Area where remains were discovered should be identified
(move on the #6 of this section)

Within 24 hours of discovery or disturbance a Cultural Committee meeting will be called.

The Cultural Committee will then determine what to do with human remains and associated funerary objects until the time of reburial through the following consultation process:

Contact person (s) appointed to be the "Spiritual Advisor(s)" in such cases.
If determination of relatives of the remains can be made, those people will be contacted.
The Cultural Committee will determine if any scientific analysis is necessary.
Only non-invasive analysis will be allowed if determined necessary.

Section 4. Reburial procedures for human remains discovered during a project or natural causes on the reservation:

The remains and all associated funerary objects should be reburied in the same location or the closest possible location from the original burial.

Approved Cultural Committee 4/20/00

(Tribal cemetery for this purpose will be designated by the Cultural Committee within 12 *months after approval of the policy)*

Ceremonies for reburial will be determined by the Spiritual Advisors, possible relatives and the Cultural Committee

-feasting
-prayer
-other

Specific procedures for reburial
To be developed by the Cultural Committee within 12 month after approval of the policy.

Section 5. Repatriation reburial procedures:

All request to federal agencies and other organization for repatriations will be prepared by the Tribal Historic Preservation Office and submitted by Tribal Government.
Cultural committee will appoint person(s) to pick up human remains and all associated funerary objects
Contact person(s) appointed as "Spiritual Advisor(s)"
Request for funding travel expenses will be made

Specific procedure for reburial
To be developed by the Cultural Committee within 12 months after approval of the policy.

Section 6. If Human remains are discovered and required to be moved:

Excavation procedures will be determined by the Cultural Committee and the Tribal Archaeologist.
If the individual conducting the excavation does not have a Tribal/ARPA permit to conduct archaeology that individual should obtain a permit before beginning any related activities.
(General Rules)
Human remains and all associated funerary objects are not to be separated
Human remains and all associated funerary objects are to be placed in cloth and not to be washed, marked or altered in any way.
Human remains are not to be photographed.

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 6 *(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 __3__ *(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		DBE Contractor Contact Person	
Phone:		Phone	
Fax:		Fax	
Email:		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 PROVISIONS 5

Fuel Cost Adjustment

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.0100	Backfill Granular	CY	0.23
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is $2.90 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

(1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.

(2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.

(3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.

(4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \left(\frac{CFI}{BFI} - 1 \right) x\ Q\ x\ BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

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

Make the following revisions to the 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

501.2.1 Portland Cement

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

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

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

501.2.5.5 Sampling and Testing

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

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

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

[1] As modified in CMM 8-60.

501.2.6 Fly Ash

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

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

501.3.1.1.1 Air-Entrained Concrete

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

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

503.2.2 Concrete

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

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

506.3.22 Shop Inspection

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

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

506.5 Payment

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

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

507.2.2.1 General

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

(4) Ensure that there are no unsound knots or knot holes. Also ensure that there are no tight knots of a diameter exceeding one-quarter of the greater dimension at the point where they occur. Measure a knot by taking its diameter at right angles to the length of the timber. Ensure that the sum of sizes of all knots in any one-foot length does not exceed 2 times the size of the largest allowed single knot. The engineer will treat cluster knots as if they were a single knot. A cluster knot is 2 or more knots grouped together, with the fibers of the wood deflected around the entire unit.

512.3.1 Driving and Cutting Off

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

512.3.1.1 General

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

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

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

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

512.3.1.2 Driving System

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

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

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

512.3.1.3 Cut-Offs

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

518.2.1 General

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

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

526.3.3 Temporary Structures

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

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

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

614.2.5 Wood Posts and Offset Blocks

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

614.2.5 Posts and Offset Blocks

614.2.5.1 Wood Posts and Offset Blocks

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

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

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

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

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

TABLE 614-1 PROPERTIES FOR WOOD POSTS AND BLOCKS

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

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

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

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

614.2.5.2 Steel Posts

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

614.2.5.3 Plastic Offset Blocks

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

614.3.1 General

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

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

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

614.3.2.1 Installing Posts

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

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

628.2.13 Rock Bags

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

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

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

639.2.1 General

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

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

649.3.1 General

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

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

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

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

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

701.4.2 Verification Testing

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

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

715.2.3.1 Pavements

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

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

715.3.1.3 Department Verification Testing

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

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

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

Errata

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

102.12 Public Opening of Proposals

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

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

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

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

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

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

204.3.2.2 Removing Items

Correct errata by changing the reference from 490.3.2 to 490.3.

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

501.2.9 Concrete Curing Materials.

Correct errata by changing AASHTO M171 to ASTM C171.

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

506.2.6.5.2 Pad Construction

Correct errata by changing ASTM A570 to ASTM A1011.

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

512.3.3 Painting

Correct errata by changing 511.3.5 to 550.3.11.3.

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

513.2.2.8 Toggle Bolts

Correct errata by changing ASTM A570 to ASTM A1011.

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

Toggle bolt and pin ..... Cold finished steel heat-treated Brinell 311-363 ASTM A354.

Toggle washer ..... Hot rolled steel ASTM A1011. Manufacturer's standard washer.

Spacer nut ..... Grade 1213, ASTM A108. Cold finished steel heat-treated ASTM A325.

660.2.1 General

Correct errata by changing section 511 to 550.

(1) Furnish materials conforming to the following:

Concrete ..... section 501

Concrete bridges ..... section 502

Luminaires ..... section 659

Steel piling ..... section 550

Steel reinforcement ..... section 505

660.3.2.3 Pile Type Foundations

Correct errata by changing section 511 to 550.

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

701.3 Contractor Testing

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

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

TABLE 701-2 TESTING STANDARDS

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

[1] As modified in CMM 8-60.

[2] As modified in CMM 8-70.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

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

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

ADDITIONAL SPECIAL PROVISION 9
Electronic Certified Payroll Submittal

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

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

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

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

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

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

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 contacting 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:

County	%	County	%	County	%
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

Goals for female participation for each trade: 6.9%

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of $10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

   As referred to in this section, the Director means:

   Director
   Office of Federal Contract Compliance Programs
   Ruess Federal Plaza
   310 W. Wisconsin Ave., Suite 1115
   Milwaukee, WI 53202

   The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

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

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

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

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

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

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

II. PAYROLL REQUIREMENTS

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

III. POSTINGS AT THE SITE OF THE WORK

In addition to the required postings furnished by the Department, the contractor shall post the following in at least one conspicuous place at the site of work:

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

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

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

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

IV. WAGE RATE REDISTRIBUTION

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

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

V. ADDITIONAL CLASSIFICATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Bricklayer, Blocklayer or Stonemason	35.58	19.20	54.78
Carpenter	30.16	15.31	45.47
Cement Finisher	30.52	15.85	46.37
Electrician	28.61	16.60	45.21
Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.			
Fence Erector	28.00	4.50	32.50
Ironworker	30.90	19.11	50.01
Line Constructor (Electrical)	31.29	15.34	46.63
Painter	28.00	13.48	41.48
Pavement Marking Operator	26.04	15.89	41.93
Piledriver	30.66	15.31	45.97
Roofer or Waterproofer	19.20	6.38	25.58
Teledata Technician or Installer	21.26	11.75	33.01
Tuckpointer, Caulker or Cleaner	30.76	15.10	45.86
Underwater Diver (Except on Great Lakes)	37.45	19.45	56.90
Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	33.35	14.21	47.56
Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	35.50	13.75	49.25
Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	25.94	13.57	39.51
Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.08	12.96	37.04
Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.75	11.90	33.65

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
TRUCK DRIVERS			
Single Axle or Two Axle	33.22	18.90	52.12
Three or More Axle	23.60	16.27	39.87
Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add $1.85/hr on 6/1/2013. Premium Pay: DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	23.31	17.13	40.44
Pavement Marking Vehicle	23.84	14.86	38.70
Shadow or Pilot Vehicle	33.22	18.90	52.12
Truck Mechanic	23.60	16.27	39.87
LABORERS			
General Laborer Future Increase(s): Add $1.70/hr on 6/1/2013; Add $1.60/hr on 6/1/2014. Premium Pay: Add $.10/hr for topman, air tool operator, vibrator or tamper operator (mechanical hand operated), chain saw operator and demolition burning torch laborer; Add $.15/hr for bituminous worker (raker and luteman), formsetter (curb, sidewalk and pavement) and strike off man; Add $.20/hr for blaster and powderman; Add $.25/hr for bottomman; Add $.35/hr for line and grade specialist; Add $.45/hr for pipelayer. DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	28.07	13.90	41.97
Asbestos Abatement Worker	24.51	15.16	39.67
Landscaper Future Increase(s): Add $1.70/hr on 6/1/13; Add $1.60/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	28.07	13.90	41.97
Flagperson or Traffic Control Person Future Increase(s): Add $1.70/hr on 6/1/2013; Add $1.60/hr on 6/1/2014. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	24.70	13.90	38.60
Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.81	12.22	30.03
Railroad Track Laborer	23.41	15.14	38.55
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.,	35.22	19.90	55.12

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY $	HOURLY FRINGE BENEFITS $	TOTAL $
Crane With Boom Dollies; Traveling Crane (Bridge Type). Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.			
Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs., & Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.	34.72	19.90	54.62
Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boatmen (NOT Performing Work on the Great Lakes); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, VIbratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane WIth a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A- Frames. Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.	34.22	19.90	54.12
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	33.96	19.90	53.86

TRADE OR OCCUPATION	HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
	$	$	$
Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or WIthout Attachments); Telehandler; Tining or Curing Machine. Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.			
Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add $2/hr on 6/1/13; Add $1.75/hr on 6/1/14. Premium Pay: DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add $1.25/hr night work premium. See DOT's website for details about the applicability of this night work premium at: http://roadwaystandards.dot.wi.gov/hcci/labor- wages- eeo/ index. shtm.	33.67	19.90	53.57
Fiber Optic Cable Equipment.	25.74	10.66	36.40

SUPERSEDES DECISION WI20070010
U. S. DEPARTMENT OF LABOR
(DAVIS-BACON ACT, MINIMUM WAGE RATES)

STATE: Wisconsin
DECISION NUMBER: W1080010
DATE: February 1, 2013
DESCRIPTION OF WORK: Highways and Airport Runway and Taxiway Construction

LABORERS CLASSIFICATION:	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	$26.92	13.45
Group 2: Air Tool Operator; Joint Sawer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);	27.02	13.45
Group 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off man	27.07	13.45
Group 4: Line and Grade Specialist	27.27	13.45
Group 5: Blaster and Powderman	27.12	13.45
Group 6: Flagperson; Traffic Control	23.55	13.45

CLASSES OF LABORER AND MECHANICS

	Basic Hourly Rates	Fringe Benefits
Bricklayer	31.34	16.05
Carpenter	30.48	15.80
Millwright	32.11	15.80
Piledriverman	30.98	15.80
Ironworker	29.24	21.20
Cement Mason/Concrete Finisher	31.52	16.30
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
Painters	23.37	11.52
Well Drilling:		
Well Driller	16.52	3.70

Truck Drivers:	Basic Hourly Rates	Fringe Benefits
1 & 2 Axles	23.16	17.13
Three or More Axles; Euclids, Dumptor & Articulated, Truck Mechanic	23.31	17.13

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 January 4, 2013; Modification #1 dated February 1, 2013.

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: February 1, 2013

POWER EQUIPMENT OPERATORS CLASSIFICATION:	Basic Hourly Rates	Fringe Benefits
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
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 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 (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader hydraulic backhoe (tractor-type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller (over 5 tons); percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches and A-frames; post driver; material hoist operator.	$34.22	$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, endloader (rubber tired) - light; jeep digger; fork lift; mulcher; launch operator; fireman; environmental burner.	$33.96	$19.65
Group 5: Air compressor; power pack; vibratory hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; concrete pro-portioning 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: February 1, 2013

LABORERS CLASSIFICATION:	Rates	Benefits
Electricians		
Area 1	$27.80	16.52
Area 2:		
Electricians	29.13	17.92
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 8		
Electricians	30.00	17.76
Area 9:		
Electricians	32.94	18.71
Area 10	28.97	19.55
Area 11	31.27	23.12
Area 12	32.87	19.23
Area 13	32.20	21.64
Teledata System Installer		
Area 14		
Installer/Technician	21.89	11.83
Sound & Communications		
Area 15		
Installer	16.47	14.84
Technician	24.75	16.04

Area 1 - 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, TREMPEALEAU, VERNON and WASHBURN COUNTIES

Area 3 - FLORENCE (townships of Aurora, Commonwealth, Fern, Florence and Homestead), MARINETTE (Niagara township)

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.

Area 5 - ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman, Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON, MARINETTE (Area North of the town of Wausaukee), 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 6 - KENOSHA COUNTY

Area 8 - DODGE, (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington township), ROCK and WALWORTH COUNTIES

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 - CALUMET (Township of New Holstein), DODGE (East of Hwy. 26 including Chester Township), FOND DU LAC, MANITOWOC (Schleswig), and SHEBOYGAN COUNTIES

Area 11 - DOUGLAS COUNTY

Area 12 - RACINE (except Burlington township) COUNTY

Area 13 - MILWAUKEE, OZAUKEE, WASHINGTON and WAUKESHA COUNTIES

Area 14 - Statewide.

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.

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 omision 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: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SECTION 0001 ROADWAY ITEMS					
0010	201.0105 CLEARING	68.000 STA		.		.
0020	201.0205 GRUBBING	68.000 STA		.		.
0030	203.0100 REMOVING SMALL PIPE CULVERTS	1.000 EACH		.		.
0040	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS	850.000 SY		.		.
0050	204.0150 REMOVING CURB & GUTTER	770.000 LF		.		.
0060	204.0155 REMOVING CONCRETE SIDEWALK	400.000 SY		.		.
0070	204.0165 REMOVING GUARDRAIL	1,037.000 LF		.		.
0080	204.0205 REMOVING UTILITY POLES	5.000 EACH		.		.
0090	204.9060.S REMOVING (ITEM DESCRIPTION) 01. APRON ENDWALLS	7.000 EACH		.		.
0100	205.0100 EXCAVATION COMMON	48,400.000 CY		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0110	205.0400 EXCAVATION MARSH	20,300.000 CY		.		.
0120	209.0100 BACKFILL GRANULAR	44,000.000 CY		.		.
0130	213.0100 FINISHING ROADWAY (PROJECT) 01. 9231-07-70	1.000 EACH		.		.
0140	305.0110 BASE AGGREGATE DENSE 3/4-INCH	6,450.000 TON		.		.
0150	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH	19,200.000 TON		.		.
0160	325.0100 PULVERIZE AND RELAY	67,080.000 SY		.		.
0170	350.0125 SUBBASE 8-INCH	7,350.000 SY		.		.
0180	350.0145 SUBBASE 12-INCH	3,150.000 SY		.		.
0190	440.4410.S INCENTIVE IRI RIDE	17,880.000 DOL	1.00000		17880.00	
0200	455.0105 ASPHALTIC MATERIAL PG58-28	1,250.000 TON		.		.
0210	455.0605 TACK COAT	2,300.000 GAL		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0220	460.1101 HMA PAVEMENT TYPE E-1	20,450.000 TON		.		.
0230	460.2000 INCENTIVE DENSITY HMA PAVEMENT	13,090.000 DOL	1.00000		13090.00	
0240	465.0110 ASPHALTIC SURFACE PATCHING	500.000 TON		.		.
0250	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	380.000 TON		.		.
0260	465.0125 ASPHALTIC SURFACE TEMPORARY	1,130.000 TON		.		.
0270	520.0118 CULVERT PIPE CLASS III 18-INCH	86.000 LF		.		.
0280	520.0124 CULVERT PIPE CLASS III 24-INCH	16.000 LF		.		.
0290	520.8000 CONCRETE COLLARS FOR PIPE	7.000 EACH		.		.
0300	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH	6.000 EACH		.		.
0310	521.1024 APRON ENDWALLS FOR CULVERT PIPE STEEL 24-INCH	2.000 EACH		.		.
0320	522.0124 CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	96.000 LF		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0330	522.1015 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 15-INCH	5.000 EACH		.		.
0340	522.1021 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 21-INCH	1.000 EACH		.		.
0350	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	2.000 EACH		.		.
0360	522.1027 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 27-INCH	1.000 EACH		.		.
0370	524.0624 APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH	3.000 EACH		.		.
0380	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D	9,780.000 LF		.		.
0390	601.0557 CONCRETE CURB AND GUTTER 6-INCH SLOPED 36-INCH TYPE D	130.000 LF		.		.
0400	602.0405 CONCRETE SIDEWALK 4-INCH	59,300.000 SF		.		.
0410	602.0415 CONCRETE SIDEWALK 6-INCH	4,500.000 SF		.		.
0420	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW	176.000 SF		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0430	606.0200 RIPRAP MEDIUM	130.000 CY		.		.
0440	607.0308 STORM SEWER PIPE NONREINFORCED CONCRETE CLASS 3 8-INCH	6.000 LF		.		.
0450	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	58.000 LF		.		.
0460	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	59.000 LF		.		.
0470	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	265.000 LF		.		.
0480	608.0321 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 21-INCH	20.000 LF		.		.
0490	608.0415 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 15-INCH	1,023.000 LF		.		.
0500	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	707.000 LF		.		.
0510	608.0421 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH	366.000 LF		.		.
0520	608.0427 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 27-INCH	765.000 LF		.		.
0530	611.0530 MANHOLE COVERS TYPE J	4.000 EACH		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0540	611.0612 INLET COVERS TYPE C	1.000 EACH		.		.
0550	611.0624 INLET COVERS TYPE H	10.000 EACH		.		.
0560	611.0636 INLET COVERS TYPE HM-S	4.000 EACH		.		.
0570	611.0639 INLET COVERS TYPE H-S	9.000 EACH		.		.
0580	611.1003 CATCH BASINS 3-FT DIAMETER	1.000 EACH		.		.
0590	611.2004 MANHOLES 4-FT DIAMETER	1.000 EACH		.		.
0600	611.2005 MANHOLES 5-FT DIAMETER	4.000 EACH		.		.
0610	611.2006 MANHOLES 6-FT DIAMETER	1.000 EACH		.		.
0620	611.3004 INLETS 4-FT DIAMETER	1.000 EACH		.		.
0630	611.3230 INLETS 2X3-FT	16.000 EACH		.		.
0640	611.8110 ADJUSTING MANHOLE COVERS	8.000 EACH		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0650	611.8120.S COVER PLATES TEMPORARY	8.000 EACH		.		.
0660	612.0902.S INSULATION BOARD POLYSTYRENE (INCH) 01. 4-INCH	40.000 SY		.		.
0670	614.0920 SALVAGED RAIL	363.000 LF		.		.
0680	614.0925 SALVAGED GUARDRAIL END TREATMENTS	4.000 EACH		.		.
0690	614.2300 MGS GUARDRAIL 3	1,577.000 LF		.		.
0700	614.2610 MGS GUARDRAIL TERMINAL EAT	12.000 EACH		.		.
0710	616.0700.S FENCE SAFETY	1,000.000 LF		.		.
0720	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01. 9231-07-70	1.000 EACH		.		.
0730	619.1000 MOBILIZATION	1.000 EACH		.		.
0740	624.0100 WATER	150.000 MGAL		.		.
0750	625.0100 TOPSOIL	53,500.000 SY		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0760	627.0200 MULCHING	80,000.000 SY		.		.
0770	628.1504 SILT FENCE	6,480.000 LF		.		.
0780	628.1520 SILT FENCE MAINTENANCE	6,480.000 LF		.		.
0790	628.1905 MOBILIZATIONS EROSION CONTROL	3.000 EACH		.		.
0800	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL	2.000 EACH		.		.
0810	628.2004 EROSION MAT CLASS I TYPE B	85.000 SY		.		.
0820	628.2008 EROSION MAT URBAN CLASS I TYPE B	500.000 SY		.		.
0830	628.2023 EROSION MAT CLASS II TYPE B	1,300.000 SY		.		.
0840	628.7005 INLET PROTECTION TYPE A	22.000 EACH		.		.
0850	628.7015 INLET PROTECTION TYPE C	22.000 EACH		.		.
0860	628.7504 TEMPORARY DITCH CHECKS	528.000 LF		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0870	628.7555 CULVERT PIPE CHECKS	21.000 EACH		.		.
0880	628.7560 TRACKING PADS	1.000 EACH		.		.
0890	629.0210 FERTILIZER TYPE B	52.000 CWT		.		.
0900	630.0120 SEEDING MIXTURE NO. 20	2,100.000 LB		.		.
0910	630.0140 SEEDING MIXTURE NO. 40	200.000 LB		.		.
0920	630.0160 SEEDING MIXTURE NO. 60	25.000 LB		.		.
0930	630.0171 SEEDING MIXTURE NO. 70A	10.000 LB		.		.
0940	633.5200 MARKERS CULVERT END	18.000 EACH		.		.
0950	634.0614 POSTS WOOD 4X6-INCH X 14-FT	47.000 EACH		.		.
0960	634.0616 POSTS WOOD 4X6-INCH X 16-FT	12.000 EACH		.		.
0970	634.0811 POSTS TUBULAR STEEL 2X2-INCH X 11-FT	12.000 EACH		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
0980	634.0812 POSTS TUBULAR STEEL 2X2-INCH X 12-FT	26.000 EACH		.		.
0990	637.0202 SIGNS REFLECTIVE TYPE II	742.430 SF		.		.
1000	637.0620 SIGN FLAGS PERMANENT TYPE II	8.000 EACH		.		.
1010	638.2602 REMOVING SIGNS TYPE II	125.000 EACH		.		.
1020	638.3000 REMOVING SMALL SIGN SUPPORTS	90.000 EACH		.		.
1030	642.5001 FIELD OFFICE TYPE B	1.000 EACH		.		.
1040	643.0100 TRAFFIC CONTROL (PROJECT) 01. 9231-07-70	1.000 EACH		.		.
1050	643.0300 TRAFFIC CONTROL DRUMS	25,925.000 DAY		.		.
1060	643.0420 TRAFFIC CONTROL BARRICADES TYPE III	2,550.000 DAY		.		.
1070	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS	95.000 EACH		.		.
1080	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES	95.000 EACH		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1090	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A	5,100.000 DAY		.		.
1100	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C	1,700.000 DAY		.		.
1110	643.0900 TRAFFIC CONTROL SIGNS	5,695.000 DAY		.		.
1120	643.3000 TRAFFIC CONTROL DETOUR SIGNS	8,075.000 DAY		.		.
1130	645.0120 GEOTEXTILE FABRIC TYPE HR	260.000 SY		.		.
1140	646.0106 PAVEMENT MARKING EPOXY 4-INCH	38,450.000 LF		.		.
1150	646.0126 PAVEMENT MARKING EPOXY 8-INCH	345.000 LF		.		.
1160	646.0406 PAVEMENT MARKING SAME DAY EPOXY 4-INCH	68,400.000 LF		.		.
1170	646.0600 REMOVING PAVEMENT MARKINGS	2,750.000 LF		.		.
1180	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2	5.000 EACH		.		.
1190	647.0356 PAVEMENT MARKING WORDS EPOXY	2.000 EACH		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1200	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH	260.000 LF		.		.
1210	647.0746 PAVEMENT MARKING DIAGONAL EPOXY 24-INCH	220.000 LF		.		.
1220	647.0766 PAVEMENT MARKING CROSSWALK EPOXY 6-INCH	1,180.000 LF		.		.
1230	647.0796 PAVEMENT MARKING CROSSWALK EPOXY 24-INCH	160.000 LF		.		.
1240	648.0100 LOCATING NO-PASSING ZONES	4.530 MI		.		.
1250	649.0200 TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	51,700.000 LF		.		.
1260	649.0300 TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH	850.000 LF		.		.
1270	649.1000 TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 12-INCH	52.000 LF		.		.
1280	650.4000 CONSTRUCTION STAKING STORM SEWER	31.000 EACH		.		.
1290	650.4500 CONSTRUCTION STAKING SUBGRADE	650.000 LF		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1300	650.5000 CONSTRUCTION STAKING BASE	9,050.000 LF		.		.
1310	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	9,910.000 LF		.		.
1320	650.6000 CONSTRUCTION STAKING PIPE CULVERTS	7.000 EACH		.		.
1330	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE	17,340.000 LF		.		.
1340	650.8500 CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS (PROJECT) 01. 9231-07-70	LUMP	LUMP			.
1350	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 9231-07-70	LUMP	LUMP			.
1360	650.9920 CONSTRUCTION STAKING SLOPE STAKES	23,590.000 LF		.		.
1370	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	6,675.000 LF		.		.
1380	653.0135 PULL BOXES STEEL 24X36-INCH	5.000 EACH		.		.
1390	654.0101 CONCRETE BASES TYPE 1	2.000 EACH		.		.

CONTRACT: 20130514045 PROJECT(S): 9231-07-70 FEDERAL ID(S): WISC 2013286

CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1400	654.0106 CONCRETE BASES TYPE 6	31.000 EACH		.		.
1410	654.0200 CONCRETE CONTROL CABINET BASES TYPE 6	3.000 EACH		.		.
1420	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	8,400.000 LF		.		.
1430	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG	10,000.000 LF		.		.
1440	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG	19,550.000 LF		.		.
1450	655.0635 ELECTRICAL WIRE LIGHTING 2 AWG	2,720.000 LF		.		.
1460	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 01. STA 588+78	LUMP	LUMP			.
1470	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 02. STA 614+50	LUMP	LUMP			.
1480	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 03. STA 639+00	LUMP	LUMP			.
1490	657.0100 PEDESTAL BASES	2.000 EACH		.		.

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CONTRACTOR :_____

LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1500	657.0327 POLES TYPE 6-ALUMINUM	31.000 EACH		.		.
1510	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	2.000 EACH		.		.
1520	657.0705 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 10-FT	31.000 EACH		.		.
1530	658.0101 TRAFFIC SIGNAL FACE 1-8 INCH VERTICAL	2.000 EACH		.		.
1540	658.0205 BACKPLATES SIGNAL FACE 1 SECTION 8-INCH	2.000 EACH		.		.
1550	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 01. STA 613+05	LUMP	LUMP			.
1560	658.5069 SIGNAL MOUNTING HARDWARE (LOCATION) 02. STA 613+30	LUMP	LUMP			.
1570	661.0400.S LIGHTING CONTROL CABINET (TYPE) 01. 3060	3.000 EACH		.		.
1580	690.0150 SAWING ASPHALT	1,520.000 LF		.		.
1590	ASP.1T0A ON-THE-JOB TRAINING APPRENTICE AT $5.00/HR	2,400.000 HRS	5.00000		12000.00	
1600	ASP.1T0G ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	1,980.000 HRS	5.00000		9900.00	

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
	SPV.0060 SPECIAL 01.					
1610	STORM SEWER TAP	1.000 EACH		.		.
	SPV.0060 SPECIAL 02.					
1620	SALVAGE FLASHER ASSEMBLY	1.000 EACH		.		.
	SPV.0060 SPECIAL 03.					
1630	CONCRETE SIDEWALK BENCH	7.000 EACH		.		.
	SPV.0060 SPECIAL 04.					
1640	SIGN LIGHTING, ENTRANCE SIGN	1.000 EACH		.		.
	SPV.0060 SPECIAL 05.					
1650	POLE TYPE 6 ENHANCEMENT FESTOON & CIRCUITRY	31.000 EACH		.		.
	SPV.0060 SPECIAL 06.					
1660	GATE VALVE 10 INCH	5.000 EACH		.		.
	SPV.0060 SPECIAL 07.					
1670	GATE VALVE 8 INCH	2.000 EACH		.		.
	SPV.0060 SPECIAL 08.					
1680	FIRE HYDRANT PACKAGE	5.000 EACH		.		.
	SPV.0060 SPECIAL 09.					
1690	CONNECT TO EXISTING WATER SYSTEM	4.000 EACH		.		.
	SPV.0060 SPECIAL 10.					
1700	CORPORATION STOP	6.000 EACH		.		.
	SPV.0060 SPECIAL 11.					
1710	CURB STOP	6.000 EACH		.		.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1720	SPV.0060 SPECIAL 12. REROUTE SANITARY SEWER LATERALS	5.000 EACH		.		.
1730	SPV.0060 SPECIAL 13. ADJUST SANITARY MANHOLE RIMS	12.000 EACH		.		.
1740	SPV.0060 SPECIAL 14. GATE VALVE 6 INCH	1.000 EACH		.		.
1750	SPV.0060 SPECIAL 15. LUMNINAIRES UTILITY LED 160 WATT	31.000 EACH		.		.
1760	SPV.0090 SPECIAL 01. WATERMAIN 10 INCH PVC OPEN TRENCH	1,466.000 LF		.		.
1770	SPV.0090 SPECIAL 02. WATERMAIN 10 INCH PE DIRECTIONAL DRILLED	513.000 LF		.		.
1780	SPV.0090 SPECIAL 03. WATERMAIN 8 INCH PVC OPEN TRENCH	30.000 LF		.		.
1790	SPV.0090 SPECIAL 04. WATERMAIN 8 INCH PE DIRECTIONAL DRILLED	60.000 LF		.		.
1800	SPV.0090 SPECIAL 05. WATER SERVICE LINE OPEN TRENCH	185.000 LF		.		.
1810	SPV.0090 SPECIAL 06. WATER SERVICE LINE DIRECTIONAL DRILLED	208.000 LF		.		.
1820	SPV.0105 SPECIAL 01. CONSTRUCTION STAKING WETLAND SITE	LUMP	LUMP			.

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LINE NO	ITEM DESCRIPTION	APPROX. QUANTITY AND UNITS	UNIT PRICE DOLLARS	UNIT PRICE CTS	BID AMOUNT DOLLARS	BID AMOUNT CTS
1830	SPV.0105 SPECIAL 02. RESEARCH AND LOCATE EXISTING PROPERTY MONUMENTS	LUMP	LUMP			.
1840	SPV.0105 SPECIAL 03. VERIFY AND REPLACE EXISTING PROPERTY MONUMNETS	LUMP	LUMP			.
1850	SPV.0105 SPECIAL 04. ABANDON EXISTING FACILITIES	LUMP	LUMP			.
1860	SPV.0105 SPECIAL 05. INSTALL SANITARY MANHOLE BARREL	LUMP	LUMP			.
1870	SPV.0180 SPECIAL 01. SALVAGED TOPSOIL 9-INCH	18,500.000 SY		.		.
1880	SPV.0180 SPECIAL 02. PROTECTIVE THERMOPLASTIC COATING AT SNOWMOBILE TRAIL CROSSINGS	35.000 SY		.		.
	SECTION 0001 TOTAL					.
	TOTAL BID					.

PLEASE ATTACH SCHEDULE OF ITEMS HERE