



**CONTRACT SPECIFICATIONS  
FOR  
S. NICHOLSON ROAD CULVERT REPLACEMENT**

**CITY OF OAK CREEK, WISCONSIN**

**OFFICE OF THE CITY ENGINEER**

**May 8, 2019**

**BY: DANIEL J. BUKIEWICZ, MAYOR  
CATHERINE A. ROESKE, CITY CLERK  
MICHAEL C. SIMMONS, P.E., CITY ENGINEER**

Project Design  
Phil Beiermeister, P.E.  
Environmental Design Engineer  
Phone No.: (414) 766-7035  
[pbeiermeister@oakcreekwi.org](mailto:pbeiermeister@oakcreekwi.org)

## TABLE OF CONTENTS

Notice to Bidders.....	A – B
Instructions to Bidders.....	IB-1 – IB-4
Bid Proposal .....	P-1 – P-5
Bid Bond .....	Not Included
Contract.....	Not Included
Performance Bond .....	Not Included
Detail Specifications.....	D-1 – D-33
Wisconsin Department of Natural Resources Permit GP-SE-2019-41-T00009.....	After D-33
General Specifications .....	Eng. Dept. File
Standard Specifications for Sewer and Water Construction in Wisconsin, Sixth Edition, December 22, 2003 .....	Eng. Dept. File
State of Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction, 2019 Edition .....	Eng. Dept. File
Manual on Uniform Traffic Control Devices, 2009 Edition .....	Eng. Dept. File

Note: Any addenda and plans are a part of this contract volume.

**NOTICE TO BIDDERS**

**OWNER**                   The Common Council of the City of Oak Creek hereby gives notice that sealed proposals will be received in the City Clerk’s office at 8040 S. 6<sup>th</sup> Street, Oak Creek, Wisconsin, 53154.

**PROJECT**                 The work, officially known as Project No. 14017, S. Nicholson Road Culvert Replacement Improvements, consists of constructing the following approximate quantities:

ITEM DESCRIPTION	UNIT
4' x 8' CONCRETE BOX CULVERT WITH END SECTIONS	64 LF
EXCAVATION FOR STRUCTURES, CULVERTS	1 LS
STRUCTURAL BACKFILL	200 CY
REMOVE STEEL SHEET PILING DROP STRUCTURE	1 LS
REMOVE CULVERT	2 EA
SAWCUT ASPHALT PAVEMENT	48 LF
WATERMAIN OFFSET	1 LS
RAILING	52 LF
CRUSHED AGGREGATE BASE COURSE	40 TON
4" ASPHALT PAVEMENT	100 SY
HEAVY RIPRAP WITH GEOTEXTILE FABRIC	54 TON
SILT FENCE	100 LF
COFFERDAM WITH PUMPING	2 EA
EROSION MAT URBAN CLASS I TYPE A	600 SY
TOPSOIL AND SEED RESTORATION	500 SY
TOPSOIL AND WETLAND RESTORATION	100 SY
PAVEMENT MARKING	200 LF
TRAFFIC CONTROL	1 LS

**TIME**                     Proposals must be received by the City Clerk no later than 10 a.m., May 24, 2019, at which time and place the proposals will be publicly opened and read aloud.

**CONTRACT DOCUMENTS**       Plans, specifications, and bidding documents are on City’s website ([www.oakcreekwi.org](http://www.oakcreekwi.org)) under the Public Contract link in the drop down menu “I WANT TO...”. Any interested party desiring these documents may download them at no charge. All bidders shall bid in accordance with, and shall bid upon, the forms obtained from the City Engineer.

STATUTORY PROVISIONS	The Contract letting shall be subject to the provisions of Section 62.15, 66.0901, and 779.16 Wisconsin Statutes. The minimum wage scale to be paid on this project shall be in accordance with the prevailing minimum wage as determined by federal or state law, whichever applies, and such wage is incorporated by reference, as it may be amended from time to time. If the United States Department of Housing and Urban Development or State of Wisconsin, Department of Workforce Development has issued a wage rate determination, then it shall apply.
BID GUARANTEE	A certified check or bank draft payable to the City of Oak Creek, or a satisfactory bid bond, in an amount not less than 5% of the bid shall accompany each bid as a guarantee that if the bid is accepted, the bidder will execute and file the proposed contract and bond within 10 days after the award of the contract. In case the bidder fails to file such contract and bond within the time set by the City, the check or bid bond shall be forfeited to the City as liquidated damages pursuant to SS.62.15(3).
EQUAL OPPORTUNITY	The City of Oak Creek hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the ground of race, color, sex, or national origin in consideration for an award.
BID REJECTION	The Common Council reserves the right to reject any and all bids, waive any informalities in bidding, or to accept the bid or bids, which best serves the interest of the City of Oak Creek.
BID WITHDRAWAL	No bid shall be withdrawn for a period of 30 days after the scheduled opening of the bids without the consent of the Common Council.
BIDDING DOCUMENTS AVAILABILITY	Plans, specifications and bidding documents shall be available on the City's website on May 8, 2019.

Published by the authority of the Common Council this 8<sup>th</sup> day of May, 2019.

## **INSTRUCTIONS TO BIDDERS**

### **1. Proposal Forms**

No bid will be considered which is not submitted on forms furnished by the City Engineer.

### **2. Quantities**

The estimated quantities of the work are the result of careful calculations but are considered approximate. The quantity shown will be used as a basis for determining the lowest bidder. After the contract is awarded, the quantity of work listed under any item, or all items, may be increased or decreased according to the specifications at the discretion of the City Engineer, without invalidating the bid price.

The general description of bid items is provided to give bidders a brief description of the work covered under this contract, but is not meant to be all inclusive of the work and materials required to complete each item. All miscellaneous items required by the plans and specifications, although not expressly listed on the bid form, are assumed to be included on the unit prices of each general bid item. Bids will be compared on the basis of the quantities listed in the Bidding Schedule. Payment on the contract will be based on the actual, field-measured units installed.

### **3. Prior Examination of Contract Documents and Worksite**

Bidders shall inform themselves of the conditions under which work is to be performed by examining the contract documents, site, ground conditions and obstacles to be encountered in the field, and by such other means necessary. After proposal submittal, the City will not accept a claim that there was any misunderstanding as to the quantities, conditions, nature of the work, or extra compensation for items the Contractor failed to inform themselves of prior to bidding.

### **4. Inadequacies and Omissions**

Any verbal information obtained from or statement made by representatives of the engineering department at the time of the examination of the contract documents or the site for the purpose of bidding, which apparently corrects or in any way amends the contract documents shall be invalid. The City of Oak Creek will not be responsible for such verbal information or statements.

Bidders shall bring any inadequacies, omissions, or conflicts to the City Engineer's attention at least seven days before the due date of bids. Prompt clarification will be immediately supplied to all bidders by addenda, and each addendum shall be acknowledged on the proposal form. Failure to so request clarification of any inadequacy, omission or conflict will not relieve the contractor of responsibility. The signing of the contract will be considered as implicitly denoting that the contractor has a thorough comprehension of the full intent and scope of the specifications and drawings.

**5. Subcontractors**

Bidders shall be required to submit a list of subcontractors with their proposal in accordance with Section 66.0901(7), Wisconsin Statutes, 1979-1980 and subsequent amendments.

This list of subcontractors shall not be added to nor altered without the written consent of the City Engineer.

**6. Time of Performance**

When not otherwise specified, the bidder must state in the proposal the least number of calendar days (including Saturdays, Sundays and holidays) after the date to commence work given in the Notice to Proceed, in which he will start construction, and the number of calendar days (including Saturdays, Sundays and holidays) after date to commence work given in the Notice to Proceed in which he will fully complete the work as specified.

In stating time, the bidder should make due allowance for all probable difficulties which may be encountered.

In the event of failure to complete the work within the time stated or otherwise specified, liquidated damages will be assessed as provided in the specifications.

**7. Proposal Guaranty**

The City of Oak Creek requires either a bid bond or a certified check of at least 5% of the bid.

**8. Requirements for Signing Proposals**

- A. The full name and business address of each bidder must be entered on the proposal submitted. The proposal shall be signed in the space provided by written signature of the person or persons properly authorized to sign it.
- B. A proposal submitted by an individual shall be signed by the bidder or by an authorized agent.
- C. A proposal submitted by a firm or partnership shall be signed by a member or by an authorized agent; if by joint adventurers, the proposal shall be signed by each of their authorized agent(s).
- D. Proposals which are signed by an attorney-in-fact for individuals, firms, partnerships or joint adventurers shall have attached a power-of-attorney evidencing authority to sign the bid.
- E. A proposal submitted by a corporation shall be signed by an authorized officer or agent of such corporation. Such corporation must be licensed to do business in the State of Wisconsin before a proposal to do the work can be

received. If a foreign corporation, the state under which it is incorporated must be named.

**9. Submission of Proposal**

The proposal and the proposal guaranty shall be placed in an envelope or in separate envelopes and shall be sealed. On the envelope or envelopes shall be plainly written the PROJECT NUMBER, DATE OF OPENING BIDS, NAME OF BIDDER, AND THE TYPE AND LOCATION OF THE WORK. Such envelope(s) shall be addressed and delivered to the office of the City Clerk, City Hall, before the time specified in the Notice to Bidders for opening bids.

**10. Withdrawal of Proposal**

A bidder may withdraw a proposal, provided the Clerk receives a written request prior to the deadline for accepting proposals. The proposal will be returned to the bidder unopened.

**11. Bid Prices**

Bidders must submit a bid price, in accordance with the specifications, for each item of the job, branch or alternative, in compliance with the bidding units specified for the quantities listed in the proposal.

**12. Double Bidding**

Two proposals under different names will not be accepted from one firm or association.

**13. Disqualifying of Bid Proposal**

A bid proposal will be disqualified because of gross errors in computation which cannot be resolved by mathematical correction without resorting to information not contained in the bid.

Errors in extension may be corrected providing that the unit cost is legible and can be definitely identified as complying with item specifications. The total bid shall be adjusted in accordance with approved extension corrections. An extension may not be divided by number of units specified to determine a unit cost if such is omitted by the bidder. It is the responsibility of the bidder to submit a neat, accurate and complete proposal if his bid is to be accepted.

**14. Right to Accept or Reject Bids**

The City reserves the unqualified right to reject any or all bids at its sole and absolute discretion, or to reject any or all bids where the City Engineer has determined that the contractor or bidder has unbalanced his bid and unit prices. The City further reserves the unqualified right to waive any irregularities in any bid, or to accept any bid which will best serve the interests of the City. The City also reserves the unrestricted privilege to reject any unit prices for additions to or deductions from the

scheduled amount of work as given in the bid, if the same are considered excessive or unreasonable, or to accept any or all such unit prices which may be considered fair and reasonable.

The bid openings are open to the public, and no awards will be made immediately upon opening bids, nor until the bids opened can be compared, scheduled, and reviewed by the Common Council. The contract shall be awarded by Common Council action, and the bidder to whom the award is made will be notified at the earliest possible date.

**15. Performance Guaranty**

The performance of the contract must be assured by a surety bond executed by the successful bidder in the full amount of the contract. Such bond must also be executed by a surety company.

**16. Contract Execution**

Within 10 days from the date of receipt of the contract forms from the City Attorney, the successful bidder shall sign four copies of the contract form, attach the performance guarantee of the approved licensed surety, and deliver to the City Clerk at Oak Creek City Hall. The contract, when signed by the Mayor, countersigned by the City Clerk and Comptroller of the City of Oak Creek, and approved as to form and execution by the City Attorney, shall be a part of the contract documents. When all parties have signed the contract, the City Clerk will refund the proposal deposit to the successful bidder.

In case of failure to have delivered such properly executed copies of the contract within 10 days, or such extension as the Common Council only may deem reasonable, bidder will be considered as having abandoned his proposal. Bidder will be considered in default to the City to the full amount of the bid deposit. It will be understood and agreed by the party submitting the proposal that such bid deposit represents the damages to which the City will be subjected by reason of the bidder's default in acceptance of contract, or failure to either properly execute the contract forms or deliver within the specified time of such extension.

**17. Starting Work Before Notification**

No work shall be performed under the contract and no materials or equipment shall be delivered to the site of the work prior to the date in the City Engineer's written Notice to Proceed.

**18. Refund of Bid Deposit to Unsuccessful Bidders**

The bid deposit of all except the two lowest bidders will be refunded after the Common Council has determined the lowest responsible bidder. The remaining bid deposit will be refunded upon execution of the contract.



May 24, 2019

To: The Common Council of the City of Oak Creek, Wisconsin

Re: Bid Proposal

In conformity with the notice to bidders, the undersigned bidder, having examined the site of the work and the contract, submits the following proposal for furnishing the material, equipment, labor and everything necessary for the completion of the work listed hereunder, and agrees to execute the proposed contract and furnish the required bond for the completion of said work, at the locations and for the prices set forth in the attached Schedules One and Two.

The undersigned bidder deposits herewith a certified check payable to the order of the City Treasurer, or an approved bid bond, in the sum designated in said notice, and hereby agrees that in the event the undersigned bidder shall fail to execute the contract with surety bond thereto and return the same to the City Clerk within 10 calendar days after transmittal by the City, then said certified check shall be retained by and become the property of the City of Oak Creek as fixed and liquidated damages or the penalty as provided by said bond shall be recovered as liquidated damages.

It is further understood that construction on this contract shall commence and be completed as specified in the Detail Specifications. The undersigned bidder also understands that this is a unit price contract and the City may add or reduce quantities and street locations at their discretion. The quantities listed in the bid proposal are approximate, and for low bidder evaluation only.

This proposal submitted by:

\_\_\_\_\_  
Bidder Address

\_\_\_\_\_  
Phone City, State, Zip Code

Operating as: Sole Trader \_\_\_\_\_ Partnership \_\_\_\_\_ Corporation \_\_\_\_\_

Under the laws of the State of \_\_\_\_\_

By: \_\_\_\_\_ (Signature)

\_\_\_\_\_ (Title)

**ADDENDUM RECEIPT:**

We acknowledge the receipt of Addendum No(s). \_\_\_\_\_ inclusive.

**SWORN STATEMENT OF BIDDER**

**PURSUANT TO SECTION 66.0901 WISCONSIN STATUTES**

I, being duly sworn at \_\_\_\_\_ (City),  
\_\_\_\_\_ (State), on oath, do hereby state on behalf of said  
bidder that I have examined and carefully prepared this proposal from the plans,  
specifications, the work site including surface and underground conditions, and other  
contract documents and have checked the same in detail before submitting this proposal;  
and that this sworn statement is hereby made an integral part of this proposal.

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Title)

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2019.

\_\_\_\_\_

Notary Public, \_\_\_\_\_ County

State of \_\_\_\_\_

My commission expires: \_\_\_\_\_

Affix corporate seal below.

**INFORMATION ON SURETY *(Please fill out completely)***

Firm \_\_\_\_\_

Address, City, State, Zip Code\_\_\_\_\_

Attorney-in-fact \_\_\_\_\_

Address, City, State, Zip Code\_\_\_\_\_

---

**INFORMATION OF SUBCONTRACTORS**

The undersigned bidder will employ, subject to the approval of the said owner, the following subcontractors. This list shall not be added to nor altered without the written consent of the owner.

NAME

ADDRESS

CLASS OF WORK

---

---

---

---

---

---

---

---

**Schedule One**

**LIST OF DRAWINGS**

<u>SHEET NO.</u>	<u>FILE NO.</u>	<u>DESCRIPTION</u>
1	14017-1B-2546	Cover Sheet
2	14017-2B-2547	Proposed Box Culvert in S. Nicholson Road 125' North of E. Meadowview Drive
3	14017-3B-2548	Erosion Control and Traffic Control

**Schedule Two**

**BID PRICES**

Item No.	Item Description	Bid Quantity	Units	Unit Price	Bid Price
1	4' x 8' CONCRETE BOX CULVERT WITH END SECTIONS	64	LF		
2	EXCAVATION FOR STRUCTURES, CULVERTS	1	LS		
3	STRUCTURAL BACKFILL	200	CY		
4	REMOVE STEEL SHEET PILING DROP STRUCTURE	1	LS		
5	REMOVE CULVERT	2	EA		
6	SAWCUT ASPHALT PAVEMENT	48	LF		
7	WATERMAIN OFFSET	1	LS		
8	RAILING	52	LF		
9	CRUSHED AGGREGATE BASE COURSE	40	TON		
10	4" ASPHALT PAVEMENT	100	SY		
11	HEAVY RIPRAP WITH GEITEXTILE FABRIC	54	TON		
12	SILT FENCE	100	LF		
13	COFFERDAM WITH PUMPING	2	EA		
14	EROSION MAT URBAN CLASS I TYPE A	600	SY		
15	TOPSOIL AND SEED RESTORATION	500	SY		
16	TOPSOIL AND WETLAND RESTORATION	100	SY		
17	PAVEMENT MARKING	200	LF		
18	TRAFFIC CONTROL	1	LS		

TOTAL BID: \$ \_\_\_\_\_

City reserves the right to award the contract based upon the total bid. This contract is a unit price contract. The above bid quantities are an approximation of need based on the plans. The basis of award shall be the summation of the bid quantities multiplied by the bidder's unit prices. The City of Oak Creek reserves the right to add or decrease quantities based on its needs and budget.

## DETAIL SPECIFICATIONS

### I. GENERAL

#### A. INTRODUCTION

These specifications govern the 14017 – S. Nicholson Road Culvert Replacement Improvements in the cities of Oak Creek and South Milwaukee.

All work performed and all materials supplied under this contract shall conform to the Contract Documents and to all specifications, codes and ordinances either referred to or established by law.

#### B. APPLICABLE SPECIFICATIONS

The following specifications shall be applicable to all construction under this project:

1. General Specifications of the Department of Engineering, City of Oak Creek, dated 1959, hereinafter referred to as the General Specifications in these Detail Specifications.
2. Oak Creek Engineering Design Manual, dated October, 1997, hereinafter referred to as the Design Manual in these Detail Specifications.
3. Standard Specifications for Sewer and Water Construction in Wisconsin, Sixth Edition (December 22, 2003), with the latest addendum, hereinafter referred to as the Standard Specifications in these Detail Specifications.
4. State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2019 Edition, the latest Supplemental Specifications, and Additional Special Provisions 6 (ASP 6), hereinafter referred to as the State Specifications in these Detail Specifications.
5. Manual on Uniform Traffic Control Devices, 2009 Edition, and the latest Supplemental Specifications, hereinafter referred to as the MUTCD.
6. These Detail Specifications.
7. The Construction Plans.

Copies of the General, Standard, State Specifications, and Design Manual are on file at the City of Oak Creek Engineering Department for use and reference on the premises by prospective bidders and by the Contractor.

The Detail Specifications and the Construction Plans cover items, corrections, deletions or additions to the above-listed specifications and take precedence over all portions those specifications that may be in conflict herewith.

Any conflict between the various specifications and the Construction Plans shall be brought to the attention of the Engineer by the bidders and/or the Contractor. Where such conflict may exist, the Engineer shall have the sole authority to exercise a decision as to the meaning of the bidding and contract documents.

Reference shall also be made to the Instructions to Bidders of the Bid and Contract Documents.

## C. CONTROL OF CONSTRUCTION OPERATIONS

### 1. Scheduling Work

Contractor is responsible for establishing a schedule, to be approved by the Owner, for the sequence and progress of the Work that is designed to meet the completion date. Contractor shall be solely responsible for coordination of all Work to ensure completion of the Work within the time limits specified in these Contract Documents.

Time Restrictions for Performing Work: Contractor shall not start or operate motorized equipment between hours of 8:00 P.M. and 7:00 A.M. unless otherwise authorized by the City of Oak Creek City Engineer or his designee.

The Contractor will not be permitted to start other parts of the project until previously started parts are fully completed or continuous work, in the opinion of the Engineer, is being done to fully complete the previously started parts. However, the Contractor may, with the approval of the Engineer, start a second crew with a second foreman on other portions of the project. (Refer also to Sections 1.2.2 and 1.3.21 of the Standard Specifications.)

Also, at any time during the execution of the contract that the Contractor either suspends or returns to work, he must notify the City Engineer of his intentions at least three working days in advance of said suspension or return to work.

### 4. Maintenance of Public Safety and Convenience

The Contractor shall provide for the placing of necessary detour signs, flagmen, barricades, warning lights and warning and informational signs to provide for the safety and convenience of the public prior to starting of any of the work.

All such devices shall comply with the federal Manual on Uniform Traffic Control Devices. The cost for installation and maintenance of the traffic control devices shall be paid under Traffic Control - Project.

5. Access to Properties

The Contractor shall provide for access to the properties abutting the work site area in accordance with Section 1.7.7 of the Standard Specifications. In addition, the operations shall be conducted in such a manner that the street at all times shall be maintained so that at least one-half of roadway remains open for vehicular access, and all abutting properties shall be provided with vehicular access at all times.

6. Haul Roads and Storage Areas

The Contractor shall be required to submit a plan indicating his intended location of haul roads and storage areas for equipment and materials. Such plan shall be presented at the pre-construction meeting and shall be subject to the approval of the Engineer. Any subsequent proposed changes to the approved plan shall be submitted to the Engineer for approval prior to implementation of the change. Construction traffic shall be permitted only on areas as approved. All areas used for haul roads and storage shall be subject to restoration by the Contractor to the condition prior to the start of work under this contract, with no additional cost to the City.

7. Street Closure

Contractor shall sequence proposed work so duration of street closure is minimized.

**II. NOTICES AND PERMITS**

A. GENERAL UTILITY NOTIFICATION

Please Note: Section 66.047 of Wisconsin Statutes makes it mandatory that:

"It shall be the duty of every public service corporation, whenever a temporary protection of, or temporary change in its structures, located upon, over, along or under the surface of any public street or highway is deemed by the commissioner of public works, or other such duly constituted authority, to be reasonably necessary to enable the accomplishment of such work, to so temporarily protect or change its said structures; provided that such Contractor shall give at least 2 days notice of such required temporary protection or temporary change to such corporation."

The Contractor shall refer to Chapter 1.2.0 of the Standard Specifications, in regard to necessary notices and permits required. These provisions shall be strictly adhered to at the start of any part of the project. In particular, the following requirements shall apply.



B. NOTIFICATION TO WE ENERGIES – ELECTRIC OPERATIONS

In accordance with the provisions of the Wisconsin State Statutes, with regard to the maintenance of a certain clearance from energized conductors and with regard to notification where work might affect public utility facilities, it is the requirement herein that the Contractor shall be responsible for and duty-bound to notify the We Energies in writing in advance of work to be done near power facilities. Such notice shall be directed to:

Supervisor of Budget Engineering  
We Energies  
4800 W. Rawson Avenue  
Franklin, WI 53132  
Phone: (414) 423-5000

Emergency or additional notification, if any is required during construction, shall be done by contacting their office at (414) 221-3700.

C. NOTIFICATION TO WE ENERGIES - GAS OPERATIONS

The Contractor shall notify We Energies - Gas Operations of the construction schedule as it affects said gas company as prescribed by the Wisconsin State Statutes. Written notice shall be directed to:

We Energies - Gas Operations  
4800 W. Rawson Avenue  
Franklin, WI 53132  
Phone: (414) 423-5050

D. NOTIFICATION TO AT&T

The Contractor shall notify AT&T of his construction schedule as it affects said telephone company as prescribed by the Wisconsin State Statutes. Written notice shall be directed to:

AT&T  
Cable Location Plant  
435 S. 95th Street  
Milwaukee, WI 53214

Additional notification, if any is required during construction, shall be done by contacting their office by phone at (414) 344-5111.

E. NOTIFICATION TO CHARTER COMMUNICATIONS

The Contractor shall notify Charter Communications of his construction schedule as it affects said cable communications company as prescribed by the Wisconsin State Statutes. Written notice shall be directed to:

Charter Communications  
5475 W. Abbott Avenue  
Greenfield, WI 53220

Additional notification, if any is required during construction, shall be done by contacting their office by phone at (414) 282-6300.

F. NOTIFICATION TO OAK CREEK STREET, FIRE, AND POLICE DEPARTMENTS AND OAK CREEK WATER AND SEWER UTILITY

Prior to starting construction within any street, three days' written notice shall be given to the following departments:

1. Street Department, 800 W. Puetz Road, (414) 570-5682
2. Fire Department, 7000 S. 6<sup>th</sup> Street, (414) 570-5630
3. Police Department, 301 W. Ryan Road, (414) 762-8200
4. Oak Creek Public Schools, 7630 S. 10<sup>th</sup> Street, (414) 768-6236
5. Oak Creek Water & Sewer Utility, 170 W. Drexel Avenue, (414) 570-8210

G. NOTIFICATION TO SOUTH MILWAUKEE STREET, FIRE, AND POLICE DEPARTMENTS AND SOUTH MILWAUKEE WATER AND SEWER UTILITY

Prior to starting construction within any street, three days' written notice shall be given to the following departments:

1. Street Department, 910 Marshall Avenue, (414) 768-8075
2. Fire Department, 929 Marshall Court, (414) 768-8191
3. Police Department, 2424 15<sup>th</sup> Avenue, (414) 768-8060
4. South Milwaukee Public Schools, 901 15<sup>th</sup> Avenue, (414) 766-5000
5. South Milwaukee Water Utility, 100 Marshall Avenue, (414) 768-8070
6. South Milwaukee Waste Water Utility, 3003 5<sup>th</sup> Avenue, (414) 768-8180

H. CITY OF OAK CREEK WATER USE PERMIT

The Contractor will be permitted to use the City water supply where available for incidental use, providing a permit is first obtained from the Oak Creek Water and Sewer Utility, Utility Manager, 170 W. Drexel Avenue, Oak Creek, Wisconsin. An appropriate charge for water usage, as determined by the Utility Manager, shall be charged to the Contractor, the cost of which shall be considered incidental to the contracted work. If the charges are not paid by

project closeout, the amount of said charges shall be deducted from the final contract payment.

I. WISCONSIN DEPARTMENT OF NATURAL RESOURCES PERMIT

The Contractor shall post the WDNR permit at the construction site and comply with all conditions of Permit GP-SE-2019-41-T00009.

Culvert replacement work should not take place between March 1 and June 15, inclusive, to minimize impacts to aquatic organisms. By-pass pumping of stream flow is allowed for a maximum of three consecutive days.

J. WORK IN EASEMENTS

A portion of the work may be performed in an easement or by right-of-entry upon private lands. The requirements of Sections 1.7.13 and 1.7.14 of the Standard Specifications and the special provisions of these specifications, if any, shall be adhered to.

**III. CONTRACTOR'S INSURANCE**

A. GENERAL

The Contractor shall not commence work under this contract until he has obtained all insurance required under this paragraph and such insurance has been approved by the city and insurance certificates have been filed with the City, nor shall the Contractor allow any Subcontractor to commence work on his subcontract until all similar insurance required of the Subcontractor has been so obtained and approved in accordance with Section 1.8.4 of the Standard Specifications and these Detail Specification provisions.

B. COMPENSATION INSURANCE

The Contractor shall take out and maintain during the life of this contract, Worker's Compensation Insurance for all of his employees at the site of the project and in case any work is sublet, the Contractor shall require the Subcontractor similarly to provide Worker's Compensation Insurance of all of the latter's employees, unless such employees are covered by the protection afforded by the Contractor. In case any class of employees engaged in hazardous work under this contract at the site of the project is not protected under the Worker's Compensation Statute, the Contractor shall provide and shall cause each Subcontractor to provide adequate insurance coverage for the protection of his employees not otherwise protected.

C. PUBLIC LIABILITY, PROPERTY DAMAGE AND CONTRACTUAL LIABILITY INSURANCE

The Contractor shall take out and maintain during the life of this contract, public liability, property damage, and contractual liability insurance in the following minimum amounts:

Bodily Injury	\$1,000,000 per occurrence \$1,000,000 aggregate
Property Damage	\$500,000 per occurrence \$500,000 aggregate

These policies shall protect the Contractor and any Subcontractor performing work covered by this contract from the claims and damages for personal injury, including accidental death, as well as claims for property damage, which may arise from the performance of the work or under the hold-harmless and indemnifying clauses which are a part of this contract. The said policies are to cover not only the Contractor or Subcontractor but also any other directly or indirectly employed by either of them.

**D. INSURANCE AGAINST THE FOLLOWING SPECIAL HAZARDS**

The following respective amounts shall be procured by the Contractor or Subcontractor before the commencement of any operation by the Contractor, or the happening of any circumstances creating or tending to create the particular special hazard:

<u>Type</u>	<u>Amount</u>
Operating of elevators or hoists.....	\$25,000.00
Use and operation of automobiles and trucks.....	\$25,000.00
Structural alterations or demolitions .....	\$25,000.00
Undermining adjacent structures.....	\$10,000.00
Blasting operations.....	\$10,000.00
Operation of excavating machinery in streets and highways .....	\$10,000.00
Operation within other public or private right-of-way (including railroad right-of-way) .....	As Required

Contractor shall carry the minimum coverage per Section 107.17.3, Paragraph 2 of the State Specifications for railroad protective liability insurance coverage.

**IV. PERFORMANCE BOND AND GUARANTEE**

The contractor will be required to furnish a satisfactory performance bond in the amount of 100% of the contract. The Contractor shall pay the total cost of this bond. Such bond shall be executed by an authorized surety company and shall remain in full force and effect for a period of one year after the final payment for the work to guarantee workmanship and materials.

The Contractor shall agree and guarantee that the material and workmanship supplied by him shall be free from all defects, and strictly in accordance with the plans and specifications, at the time of its completion and acceptance by the municipality, and for a time of one year thereafter, the Contractor agrees to forthwith repair the same upon notification by the municipality using the same material

required by these specifications. In case the Contractor shall fail to make such repairs or cause the same to be made, the Contractor agrees and guarantees to pay on demand the cost thereof, to said municipality upon the completion of such repairs, and the Contractor further agrees and guarantees to pay for all labor and material used in or about the construction of said work in his contract, which may become a lien or a claim against the municipality. Such agreement and guarantee shall be made a part of the contract, and the fulfillment thereof shall be secured by the bond of the Contractor.

## **V. METHOD OF PAYMENTS**

Payments will be made monthly throughout the progress of the work, provided the work completed is substantial enough in the opinion of the City Engineer. Such payments shall be in accordance with Section 66.0901 (9) (b) of the State Statutes which states that the City,

"from time to time, shall grant to the contractor an estimate of the amount and proportionate value of the work done, which entitles the contractor to receive the amount of the estimate, less the retainage, from the proper fund. The retainage shall be an amount equal to not more than 5% of the estimate until 50% of the work has been completed. At 50% completion, further partial payments shall be made in full to the contractor and no additional amounts may be retained unless the architect or engineer certifies that the job is not proceeding satisfactorily, but amounts previously retained shall not be paid to the contractor. At 50% completion or any time after 50% completion when the progress of the work is not satisfactory, additional amounts may be retained but the total retainage may not be more than 10% of the value of the work completed."

Final payment, including the balance of the retainage, shall be made at the final acceptance of the work.

Compliance with the following portion of Section 66.0901 (9) (b) of the State Statutes shall be provided at the discretion of the City Engineer.

"Upon substantial completion of the work, an amount retained may be paid to the contractor. When the work has been substantially completed except for work which cannot be completed because of weather conditions, lack of materials or other reasons which in the judgment of the municipality are valid reasons for non-completion, the municipality may make additional payments, retaining at all times an amount sufficient to cover the estimated cost of the work still to be completed or may pay out the entire amount retained and receive from the contractor guarantees in the form of a bond or other collateral sufficient to ensure completion of the job. For the purposes of this section, estimates may include any fabricated or manufactured materials and components specified, previously paid for by the contractor and delivered to the work or properly stored and suitable for incorporation in the work embraced in the contract."

## VI. MATERIALS

### A. PRECAST REINFORCED CONCRETE BOX CULVERT

Precast reinforced concrete box sections shall meet the requirements of Chapter 8.8.0 of the Standard Specifications.

### B. CRUSHED AGGREGATE

#### 1. Crushed Aggregate Base Course

The crushed aggregate base course shall be crushed stone or City-approved crushed concrete. All material, construction, and compaction for crushed aggregate, Base Aggregate Dense 3/4" and 1-1/4" shall be per Section 305 of the State Specifications.

This crushed aggregate shall be utilized in the construction of compacted aggregate subbase for all sidewalk, asphalt pavement and curb & gutter, and for backfill of base repair excavations where, in the opinion of the Engineer, there is not sufficient quantity of pulverized asphalt material on the job site to fill the void.

#### 2. 3" Crushed Aggregate

The stone used as granular subbase where over-excavation of the subgrade has been directed by the Engineer (*Undercut* item). The stone shall be crushed stone or City-approved crushed concrete, Base Aggregate Dense 3", per Subsection 305.2.2.1 of the State Specifications.

### C. CONCRETE MATERIALS

The materials provided under this contract shall conform to Section 501 of the State Specifications. The concrete shall be made with six (6) sacks of Portland cement per cubic yard of concrete, meeting the mix formula for Grade A, A2, or A3, with a slump of 2"-3". *Grade A-FA concrete may be used between May 15 and October 15.*

1. Air Entrainment - Air entrainment shall be between 5 and 7 percent.

2. Air Entraining Cements and Admixtures - Type IA, IIA cements may be used in Grades A2 and A3 concrete and Type IIIA cement may be used in the Grade A concrete to provide the required air entrainment. When authorized by the City Engineer, an approved air-entraining agent may be added to the mix to provide the specified air content.

3. Concrete Strength Requirements and Tests - The compressive strength of the concrete shall be not less than 3,500 pounds per square inch (psi) when tested 28 days after placing.

City inspection personnel shall perform continuous concrete quality testing at no cost to the Contractor. Such tests shall include slump test, air content and casting of test cylinders for strength verification. Contractor shall cooperate fully to provide the representative concrete required for the tests.

Cylinders for strength tests shall be made in accordance with ASTM Method C31. Three cylinders shall be made for each test and one test shall be made for each 100 cubic yards of concrete or fraction thereof placed on any day and at least two tests shall be made for each strip of pavement constructed on a day on each street.

Cylinder strength shall be determined in accordance with ASTM Method C39. One cylinder of each set shall be tested at seven days and the other two cylinders of each set shall be tested at 28 days.

To conform to the requirements of this specification, the average of all 28-day strength tests, as well as the average of any two consecutive 28-day strength tests shall be equal to or greater than the specified strength and no 28-day test shall have a value of less than 90% of the specified strength.

Where it has been determined by laboratory testing that the concrete does not meet requirements, additional tests shall be taken to substantiate the lab tests by removing and testing cores taken from the concrete pavement in place. These tests shall be performed at full cost to the Contractor.

If results of the cylinder and core tests disclose compressive strength or thickness not in compliance with the contract requirements, the Contractor shall, at no cost to the City, promptly replace such concrete as directed by the City Engineer even though the final payment on the contract may have been paid to the Contractor.

2. Felt Expansion Joint - All felt expansion joint material shall be full-depth and conform to Subsection 415.2.3 of the State Specifications.
3. Dowel bars – Dowel bars shall conform to Section 505.2.6.2 of the State Specifications
4. Pavement tie bars – Tie bars for curb & gutter repairs shall be 12” in length, No. 4 deformed, epoxy-coated, steel reinforcement bars in conformance with Subsection 505.2.6.3 of the State Specifications.
5. Concrete Curing – Liquid curing compound per Subsection 415.2.4 (1) of the State Specifications.

#### D. ASPHALTIC CONCRETE PAVEMENT

##### 1. Materials

All materials shall be provided in conformance with the following sections of the State Specifications.

Asphaltic Base.....	Section 315
General Requirements for Asphaltic Pavements....	Section 450
Asphaltic Materials.....	Section 455
Hot Mix Asphalt (HMA) Pavement.....	Section 460
Asphaltic Surfaces.....	Section 465

The asphalt pavement shall be in accordance with the WDOT combined bid item encoding.

Section 460.2.5 of the State Specifications regarding use of reclaimed asphaltic pavement materials shall apply.

2. Contractor Testing for Asphaltic Concrete Pavement

- a. At the preconstruction meeting, Contractor shall submit to the City a proposed HMA mix design for the project. The mix design shall be based on parameters outlined in these Detail Specifications. The mix design shall be signed by a certified WDOT HTCP mix design technician.
- b. The Contractor shall be required to maintain an in-house HMA Quality Control Program. For each mix produced, one HMA sample shall be tested once per paving day. Each sample shall be tested for gradation and air voids. The average of all tests shall comply with the following specifications when compared to the HMA mix design:

19.0 mm	± 5.5%
12.5 mm	± 5.5%
9.5 mm	± 5.5%
Air Voids	± 1.3%

- c. For each mix produced, the Contractor shall submit to the City an asphalt binder ticket to verify binder grade, and allow City's representative to retrieve one asphalt binder sample for independent testing by the City. Costs of these tests shall be the responsibility of the City. Contractor to provide the one-quart can and label.
- d. The Contractor shall be required to furnish a nuclear density machine with a qualified operator to verify field compactor. Testing shall be performed the day of placement. There shall be a minimum of five density tests for every 200 ton placed. The five tests shall be taken across the width of the mat at a location determined by the Engineer. The average of those five tests shall meet minimum required density conforming to Table 460-3 of the State Specifications.

The City shall administer paving density disincentives in conformance with Section 460.5.2.2 of the State Specifications.



E. PAVEMENT MARKING

All pavement marking materials shall be in conformance with Sections 646 and 647 of the State Specifications for Epoxy pavement markings.

F. TOPSOIL

The screened topsoil shall be imported to the site and shall meet the requirements of Section 625 of the State Specifications.

G. FERTILIZER

Fertilizer shall be "Type B" meeting the requirements of Section 629 of the State Specifications.

H. TURF SEED

The turf seed shall conform to Section 630, Seed Mixture 40, of the State Specifications.

I. WETLAND RESTORATION SEED

The wetland seed mix shall conform to Section 630 of the State Specifications and consist of a cover crop and native seed mix. The cover crop shall be annual oats (*avena sativa*) for spring plantings or winter wheat (*triticum aestivum*) for dormant fall plantings, at 25 pounds per acre. The native seed mix applied at 12 pounds per acre will be composed of a minimum of three species from the following list, with no individual species comprising more than 35% of the total grass seed mix.

SCIENTIFIC NAME	COMMON NAME
<i>Elymus canadensis</i>	Canada wild rye (REQUIRED SPECIES)
<i>Calamagrostis Canadensis</i>	Canada blue joint
<i>Leersia oryzoides</i>	rice cut grass
<i>Elymus virginicus</i>	virginia wild rye

J. EROSION MAT

Erosion Mat shall be Urban Class I Type A meeting requirements of Section 628 of the State Specifications.

K. RIPRAP

Heavy riprap and geotextile fabric shall be in conformance with Sections 606 and 645.3.7, respectively of the State Specifications.

L. TRAFFIC CONTROL

All temporary traffic control items shall be in accordance with Section 643 of the State Specifications.

## VII. MATERIALS FOR WATER MAINS

### A. PVC WATER MAIN

1. All polyvinyl chloride (PVC) water pipe shall conform to the requirements of Chapter 8.10.0 of the Standard Specifications. Polyvinyl chloride pipe shall be used only on water mains of 12" or smaller in size unless otherwise specified on the construction plans or herein the Detailed Specifications.
2. All pipe 8" and larger (if specifically allowed), shall be Class 150 with a standard dimension ratio of 18; all pipe 6" and smaller shall be Class 200 with a standard dimension ratio of 14.
3. PVC fittings shall be used on all PVC pipe. PVC fittings 4"-12" in diameter shall be injection molded and comply with the requirements of AWWA C907 and be certified to CSA B137.2. Molded fittings will be made of PVC compound with a minimum hydrostatic design basis of 4000 psi. Molded fittings must be Factory Mutual approved and listed by the Underwriter's Laboratories International (ULI).

If a particular type of PVC fitting is not manufactured, or unavailable, the contractor may use ductile iron fittings on a case by case basis with the approval of the Utility Engineer.

4. All polyvinyl chloride (PVC) water pipe supplied shall be manufactured by one of the following companies:
  - a. Cantex Industries (Division of Harsco Corp.)
  - b. H & W Industries, Inc.
  - c. J.M. Corporation
  - d. CAPCO
  - e. North Star
  - f. Sceptor

### B. GATE VALVES

1. All gate valves (3" through 12" diameter valves are to be gate valves) are to be the resilient wedge-type valve.
2. All resilient wedge-gate valves furnished shall be one of the following:
  - a. Clow - R.W.
  - b. Kennedy - R.W.
  - c. M & H - R.S.C.V.
  - d. Mueller - R.W.
  - e. Waterous – 500
3. All valves shall open counterclockwise.

4. All valves shall be epoxy coated interior and exterior with Type 316 stainless steel bolts, washers, and nuts and receive triple layer 6-mil poly-wrap.
5. Valves shall have a push-on connection to the new main or hydrant lead.

#### C. CAST IRON VALVE BOXES

All valve boxes shall be 5-1/4 inch diameter (minimum) shaft, round base, three (3) piece box; 5-1/4 inch drop lid marked "WATER"; length of assembly sized to span top of main to finished grade with a minimum remaining adjustment of three (3) inches. Contractor shall furnish Cast Iron Valve Boxes Series 8560 for the valve box and Series 6800 Lid as manufactured by East Jordan Iron Works or approved equal. Cast iron valve boxes shall receive double layer 6-mil poly-wrapping.

#### D. VALVE BOX ADAPTORS

All valve boxes shall be set upon the valve with the use of an adaptor, as manufactured by Adaptor, Incorporated, or an approved equal. The adaptor shall be installed in lieu of hardwood blocking and shall be incidental to the valve and box installation.

#### E. MECHANICAL JOINTS

Wherever mechanical joints are to be installed, as specified, the bolts and nuts shall be T316 stainless steel or an approved equal and all fittings shall be triple polyethylene wrapped in accordance with the Standard Specifications.

#### F. HYDRANT ASSEMBLY

1. Hydrant and hydrant leads shall be installed in accordance with Section 4.8.5 of the Standard Specifications and WD-13 or WD-15, whichever applies. The pipe materials shall be polyvinyl chloride in accordance with these Detailed Specifications. All hydrant extension and hydrant valve materials shall be furnished by the Contractor.
2. All hydrants shall be furnished with a 5-1/4" main valve, a 1-1/2" pentagon-shaped operating nut with two each of 2-1/2" and one each of a 4-1/2" National Standard Thread nozzles. All hydrants furnished and installed shall be one of the following:
  - a. Clow Medallion
  - b. Kennedy Guardian K81A
  - c. Mueller Centurian
3. Hydrants shall have a 6-inch push connection to the hydrant lead or approved equal.
4. Hydrant Valves shall be a resilient wedge-gate valve meeting the requirements outlined above in Section B – Gate valves.

5. All hydrants shall be epoxy coated red body and yellow top with Type 316 stainless steel bolts, washers, and nuts and shall receive triple layer 6-mil plastic wrapping. Hydrants shall have stainless steel stems.
6. Hydrant leads shall be fully restrained back to the water main using mega-lugs or approved equal.
7. All hydrant barrels shall be 6'6" in length.
8. All hydrant nozzle threads shall receive a food grade grease coating. The coating shall be MANTEK Elite FG Heavy Duty NLGI #2 food grade grease, or equal.

#### G. SERVICE CONNECTIONS TO 12-INCH WATER MAIN

The following materials shall be used for the Corporation stop:

Corporation Stops: Mueller H-15000

All water main taps for services 1-1/4" and smaller shall be direct tap with 1" x 1-1/4" corporation stop. For service taps greater than 1-1/4", the contractor shall provide a full-circle stainless steel tapping saddle as manufactured by Smith-Blair Model 372 or approved equal. Provide and install single layer 6-mil plastic wrapping.

#### H. WATER SERVICE TUBING

The following materials shall be used for water service tubing:

HDPE, 200 psi, SDR 9, complying with ASTM D2737

#### I. TRACER WIRE

All water main shall include a 10 gauge solid, blue coated copper tracer wire to be taped to each pipe. Tape shall be securely fastened to main, hydrant leads and hydrants. Splices shall be soldered and water proofed using shrink wrap or underground splice kit. Test station shall be an adjustable height tracer wire access box manufactured by VALVCO, Inc. Tracer wire ends at existing main shall be bonded to 5/8" diameter, 3' copper ground rod driven next to the pipe utilizing a ground rod clamp with UL listed cast copper alloy hex-head bolt.

Tracer wire shall be tested via locating equipment for the entire length of the new main prior to asphalt restoration.

#### J. GALVANIC ANODE PROTECTION

Where connecting to an existing ductile iron water main, the contractor shall install galvanic anode protection in accordance with the galvanic anode installation detail. For ductile iron water mains 12" in diameter and less, the contractor shall provide and install one 32 lb. magnesium anode. For ductile iron water mains greater than 12" in diameter, the contractor shall provide and install two-32lb. magnesium

anodes. The weld shall be coated using REBOUND Aerosol Rubberized Coating or approved equal.

**K. BEDDING AND COVER, ALL WATER MAIN**

All water main shall consist of 4 inches of torpedo sand bedding and cover to 6" above the pipe. Torpedo sand backfill shall also be used to a minimum of 6" on either side of the pipe.

**VIII. CONSTRUCTION DETAILS**

**A. COMPLYING WITH SPECIFICATIONS**

The Contractor shall comply fully with the specifications and perform all operations to the extent that satisfactory work will result. A representative of the City of Oak Creek will provide ongoing inspection of the work as it progresses to ensure full compliance with the specifications. The Inspector shall notify the City Engineer of any noncompliance and have authority to stop any work that is not in conformance with the specifications so that an Engineer may investigate such noncompliance.

Any work performed after the work has been ordered stopped by the Inspector shall not be considered as work performed under the contract, and consequently will not be accepted by the City nor allowed in any monthly or final payment until corrected to the satisfaction of the City Engineer.

**B. LOCATION - STAKING**

The line for each facility will be located as shown on the plan and will be staked out once by the City Engineering Department. If necessary to pass an existing obstruction, the Engineer may shift the line to avoid such obstruction.

The Contractor must protect all stakes and bench marks from disturbances until permission is given to remove them. A width of not less than 2' on each side of the line on which stakes are located shall be kept free from obstruction. Additional staking required due to damage or removal shall be at the Contractor's expense.

**C. MATERIAL ENCOUNTERED**

It is the Contractor's responsibility to determine for himself the character, nature, type and condition of materials likely to be encountered in the proposed work. The submission of a proposal for the work herein shall in itself be accepted as evidence that the Contractor has examined the site of all work, made borings, investigations and/or studies of all conditions and provided for all such conditions in his proposal.

No variation from the price named in the proposal will be made or allowed whether the material through which excavations are to be made are hard, soft, wet, or dry.

Any and all necessary dewatering shall be in accordance with Chapter 2.2.13 of the Standard Specifications, and shall be done at the Contractor's expense.

#### D. EROSION CONTROL AND GROUND COVER

Pursuant to City Code, construction activities are required to comply with erosion control and ground cover requirements. For public works construction, specifically, the following construction activity requirements are applicable:

1. Those involving grading, removal of protective ground cover or vegetation, excavation, landfilling or other land disturbing activity affecting a surface area of 4,000 square feet or more;
2. Those involving excavation or filling or a combination of excavation and filling affecting 400 cubic yards or more of dirt, sand or other excavation or fill material;
3. Those involving street, highway, road or bridge construction, enlargement, relocation or reconstruction;
4. Those involving the laying, repairing, replacing or enlarging of an underground pipe facility for a distance of 300' > or more.

To address the requirements, the Contractor shall provide for the implementation of the control measures as may be specified on the Construction Plans and in these Detail Specifications.

#### E. DISTRIBUTION OF EXCESS EXCAVATED MATERIAL

The disposal of all surplus excavated and removed materials shall be the responsibility of the Contractor, shall be at the Contractor's expense and if disposed of within the limits of the City of Oak Creek, shall comply with the following regulations. Prior to the start of construction, the Contractor shall indicate the location at which the surplus excavated material will be disposed of.

The placement of fill on private lands located in the City of Oak Creek is under City regulation, in accordance with the Municipal Code. The disposal of surplus excavated materials, including that derived from public works construction, is subject to compliance with this Code. The Code generally provides for only the following forms of landfilling:

- When the fill comprises less than 1,000 cubic yards and is to be placed on a parcel of land of one acre or less in size. An application shall be made to the City Engineer for a permit, on a one-time-only basis. An erosion control permit and the accompanying fee are required.
- Shoreline erosion control, whereby a license must be applied for and granted prior to landfilling activity being undertaken.

- On a site, where fill may be needed in conjunction with building construction and where a building permit is in effect.
- On City-owned property, subject to plans approved by the Common Council.
- On a site where a landfill license is in effect.

F. WATER MAIN DETAIL DRAWINGS

The Detail Drawings included at the rear of the Detailed Specifications, cover corrections, deletions or additions to the Standard Specifications and take precedence over such Standard Specifications and supplement these Detail Specifications.

G. POLYVINYL CHLORIDE WATER PIPE

The laying of PVC pipe shall be laid with a torpedo sand bedding and cover and comply with Part IV of the Standard Specifications and the following requirements:

1. Acceptable Procedure on Anchoring of Vertical Water Main Offsets where Polyvinyl Chloride Pipe is used shall comply with Chapter 4.9.0 and 4.10.0 and File No. 47A of the Standard Specifications.
2. Elimination of Vertical Offsets by the Use of Deflected Pipe - In lieu of the procedures outlined under subsection 1 above, the Contractor may elect to deflect the polyvinyl chloride pipe to provide the vertical location or alignment concept indicated on the construction plans. The use of this alternate must be approved by the Utility Engineer prior to installation, in particular as to clearance with other utilities, both existing and anticipated and as to compliance with maximum pipe deflection.

<u>Pipe Diameter Maximum Deflection per 20' Length</u>	
6"	8"
8"	6"
12"	4"

H. THRUST RESTRAINT

Thrust restraint shall be as shown on the plans using mega lugs, bell joint restraint clamps, or approved equal. The contractor shall pour a concrete buttress using Class D concrete as specified in the Standard Specifications at all horizontal fittings.

I. WATER MAIN - HYDROSTATIC TESTING

The Contractor shall provide for the testing of all new mains under the supervision of the Utility in accordance with Chapter 4.15.0 of the Standard Specifications and the following requirements:

1. Separate leakage tests on the entire length of new main and on valved sections thereof, may be required as determined by the Utility. The Utility's requirements on all new mains are a 150 psi pressure test for a duration of one hour and a 100 psi leakage test for a duration of two hours.
2. Where a new main will be connected to an existing main, it may be necessary for the Contractor to install a temporary plug in the new main for testing purposes. After the specified pressure and leakage tests have been completed on the new main, actual connection to the existing main shall be made. The section of new connecting main between the removed test plug and the existing main, shall be subject to line pressure prior to backfilling. Any visible defects observed in the connecting main shall immediately be repaired by the Contractor at his expense, prior to backfilling.
3. Costs of all testing including the installation and removal of temporary test plugs, shall be at the Contractor's expense.

#### J. WATER MAIN – PIPE DISINFECTING AND FLUSHING

Disinfection shall be in accordance with the Standard Specifications Chapter 4.3.12. Chlorinated water shall remain in the pipe for a minimum of 24hrs. If the water temperature is less than 41°F (5°C) it shall remain in the pipe for a minimum of 48 hours. A minimum 25 ppm chlorine residual should be found at each sampling point after the 24 hr. or 48 hr. period. If the residual is less than 25 ppm, the system shall be re-disinfected using 50 ppm available chlorine in accordance with AWWA standards.

After disinfection the water main shall be dechlorinated while it is being flushed. After completing final flushing of the main, samples shall be taken 15 minutes apart after a 16 hour rest period. After the Contractor sets up the tests and the Utility will collect samples for testing.

#### K. NOTICE TO UTILITY

Contractor shall give a 48 hour written notice to the Water Utility before requesting a shut down of any existing water mains in order to make the connections.

#### L. SAW CUTTING

1. Saw cutting shall be completed through the use of a machine specifically designed to cut pavements. No portable hand-held saws will be allowed. All cuts shall be straight and unbroken for their entire length and shall be made to the full depth of the existing pavement.
2. Over saw cutting more than 1" into driveways shall be repaired by the Contractor with an epoxy or approved method at the Contractor's expense.
3. Vacuum-sweeping cleanup of pavement sawing debris or shavings/slurry within 24 hours of the sawing shall be required. This requirement shall be



waived for pavements that will have removals commencing within 24 hours of the sawing.

#### M. ASPHALTIC CONCRETE PAVEMENT

1. Roads receiving 4" thickness asphalt pavement are to be constructed in one lift as follows:

2.25" lower lift of 3 MT 58-28 S (12.50 mm)

1.75" upper lift of 4 MT 58-28 S (12.50 mm)

2. Driveways receiving 3" thickness asphalt pavement are to be constructed in one lift as follows:

3" upper lift of 4 MT 58-28 S (12.50 mm)

3. Asphaltic materials may only be placed when the air temperature approximately 3' above ground at the site of work, in the shade and away from the effects of artificial heat, is a minimum 35° F and rising.
4. All work shall be performed in conformance with the appropriate sections of the State Specifications and these Detail Specifications.
5. All water valve boxes and manhole frames shall be set to ¼" below the finished pavement grade by the Contractor.
6. Construction of all middle and upper lifts shall include the removal of loose material and the sweeping or cleaning of dust, dirt, debris and other foreign matter from the road prior to application of the tack coat.
7. Tack coat shall be applied at a rate of 0.05 to 0.070 gallons per square yard after dilution in conformance with Section 455.3.2 of the State Specifications.
8. Contact surfaces of curbs, gutters, underground appurtenances, and other structures shall be painted with a thin, uniform coating of hot asphalt cement, or asphalt cement dissolved in naphtha before the surface mixture is placed against them. The surface material shall be placed uniformly high so that after compaction, it will be approximately ¼" higher than adjacent gutter flanges and all other structures.
9. All exposed surfaces not to be covered with asphaltic concrete shall be protected during priming so that asphalt cement will not adhere to or discolor the surface. The cost of all asphalt painting shall be included in the unit price bid for Asphalt Surface. No pockets shall remain in the finished surface to prevent lateral drainage of water. The Contractor shall replace any low spots at no cost to the City.

#### N. DAMAGE TO EXISTING FACILITIES

The Contractor shall be responsible for protection of all existing facilities. Any

damage to a facility due to Contractor's negligence shall be repaired or replaced by the Contractor at the direction of the Engineer without cost to the City.

Prior to work beginning on any road the City and Contractor shall jointly inspect all existing utility structures within the work zone to agree on preconstruction conditions. Any damage to utility structures thereafter shall be the responsibility of the Contractor to repair.

#### O. TRAFFIC CONTROL AND WARNING DEVICES

The work under this section shall include furnishing, placing, maintaining, and removal of all traffic control and warning devices in accordance with Section 643 of the State Specifications and with the Manual of Uniform Traffic Control Devices, except as amended by the plans and these Detail Specifications.

Refer to the plans for details regarding the traffic control and warning devices for each location.

#### P. SUBGRADE PREPARATION

It is the responsibility of the Contractor to maintain a drained subgrade. In areas where the excavation collects or ponds water, the excavation shall be pumped dry immediately at the Contractor's expense. Any unsuitable material which results from standing water shall be replaced or undercut at the direction of the City and at the Contractor's expense.

#### Q. PAVEMENT MARKING

All equipment and marking methods shall be in conformance with Sections 646 and 647, for Epoxy pavement markings of the State Specifications.

### IX. RESTORATION IN THE WORK AREA

#### A. GENERAL

Upon completion, the Contractor shall remove all debris, surplus materials, and return the surface of the street or right-of-way and all other places disturbed or affected by the work to a condition at least comparable to that existing before starting the work and shall maintain it in such condition until its final completion and acceptance. The restoration shall include placement of topsoil, seed, fertilizer and mulch on grass areas and incidental pavement repair of adjacent streets and driveways. Final payment for any installation will not be made until this restoration has been completed and accepted.

Acceptance or approval of any work by the City Engineer shall not prevent the City from asserting a claim against the Contractor and his surety under the surety bond required hereunder for incomplete or defective work if discovered within 12 months from the acceptance of the completed work. The City Engineer's presence during the performance of any excavation work shall not relieve the Contractor of his responsibilities hereunder.

Included in the restoration shall be any damage to drainage ways and culverts. The Contractor is required to implement erosion control techniques where necessary.

#### B. RESTORATION OF PAVED ROADWAY SURFACES

The Contractor shall commence street resurfacing within 10 days of completion and backfilling of the concrete box culvert.

#### C. SEEDING RESTORATION

The contractor shall repair and reseed all established lawns damaged during the course of construction to a condition equal to or better than the condition at the commencement of his work

The installation of the 3" minimum tamped depth screened topsoil shall comply with Section 625 of the State Specifications. This shall not be topsoil salvaged from the site.

The composition and placement of the turf seed, fertilizer (Type B), and erosion mat shall be in accordance with Sections 630, 629, and 628, respectively of the State Specifications.

The placement of wetland restoration seed (WITHOUT FERTILIZER), and erosion mat shall be in accordance with Section 630 and 628, respectively of the State Specifications.

Seed restoration shall follow within 3 calendar days of completion of the surface course or concrete construction, whichever the case may be.

#### D. RESTORATION OF GRAVELED SURFACES

The Contractor shall be required to restore all graveled surfaces, which were disturbed during construction, with traffic bond granular materials. Materials and installation shall conform to Section 305 of the State Specifications.

#### E. CITY'S RIGHT TO RESTORE SURFACE

If the Contractor shall have failed to restore the surface to its specified condition upon the expiration of the time fixed by such contract or shall otherwise have failed to complete the work covered by the contract, the City Engineer shall have the right to use city forces to do all the work necessary to restore the work area. The Contractor shall be liable for the actual cost thereof, plus 25% for general overhead and administrative expenses. Compensation for the amount of such costs shall become due to the City and credit for such amount shall be applied against any funds that may be due to the Contractor. If final payment under the contract has already been made, the Contractor shall be directly billed for the amount due. As a last resort, the City will enforce compensation for costs it has incurred through collection from the Contractor's surety.

## **X. CLEAN-UP AND FINAL INSPECTION**

The Contractor shall have thorough and systematic clean-up operations follow closely behind the construction work. He shall, at his own expense, remove and properly dispose of all water, dirt, rubbish or any other foreign substances. Any defects of any nature whatsoever shall be promptly corrected at his own expense. Notice to begin final cleaning and repairs, if such is needed, will be given by the Engineer and the Contractor must comply.

The Engineer will make an inspection of the work during the progress of final cleaning and repairing and the Contractor shall keep any work so inspected clean until the final inspection by the Engineer and the acceptance of the entire work. When the Contractor has finally cleaned and repaired the work, he shall notify the Engineer that he is ready for final inspection and the Engineer will thereupon inspect the work.

If the work is not found satisfactory, the Engineer may require further cleaning and repairing and when these are completed will again inspect the work. In no case will the final payment be made until the Contractor has complied with all the requirements set forth and the Engineer has made his final inspection of the entire work and is satisfied that the entire work is properly and satisfactorily constructed in accordance with the plans and specifications and contract, and that such work is ready for his final inspection and acceptance by the City (see Section 1.5.2 of the Standard Specifications).

The routing of all "punch lists" on remaining items that require attention shall be between the City Engineer and the Contractor or his authorized project coordinator.

## **XI. PROTECTION AND RESTORATION OF PROPERTY**

### **A. UNDERGROUND**

The Contractor shall protect, repair and restore any underground drain lines, conduit, culverts, etc., encountered in the progress of the work and shall be responsible for the protection and replacing of any utilities encountered or damaged during construction, at no cost to the City.

### **B. SURVEY CORNERS AND ABOVE SURFACE OBSTRUCTIONS**

The Contractor, while on this job, will be solely responsible for the protection and/or replacement of all survey corners that exist throughout the area. These corners will be located and marked by the City upon request by the Contractor prior to commencing his work. The City shall replace any such damaged corners and the amount deducted from the contract payment.

The Contractor shall protect, repair and replace any mailboxes, fences, signs or other structures damaged or displaced in the progress of the work.

## **XII. TIME OF COMPLETION**

The starting date for work under this contract shall be at the discretion of the

Contractor. Commencement of the work shall be subject to a pre-construction meeting with the City Construction Engineer and his subsequent Notice to Proceed.

- A. Construction shall **NOT** commence prior to June 11, 2019.
- B. Contractor shall **NOT** perform any work from July 3, 2019 at noon to July 4, 2019. Contractor may continue construction activities on July 5, 2019.
- C. All work shall be **COMPLETED** within 4 calendar weeks once detour is in place and the construction activities have commenced. Construction activities **MUST** start within 1 calendar day after traffic has been detoured.
- D. Final completion of all work, including pavement marking, seeding restoration and final cleaning shall be completed no later than August 31, 2019.
- E. Seeding restoration shall be completed within 3 calendar days from final pavement installation of the project.
- F. No work will be allowed on Sundays or City holidays.

Substantial completion is defined as all proposed sidewalk, curb, shoulder and travel lane pavements being in place and open to regular vehicular traffic. Final completion is defined as all other work under the contract being done, specifically sod restoration.

It shall be understood by the Contractor that the date of starting construction and the date of completion of the work to be done hereunder are essential conditions of this contract, and it is further understood and agreed that the work shall be commenced as aforementioned.

The Contractor agrees that the work shall be pursued regularly, diligently, and uninterruptedly at such rate of progress as will assure completion of the work on the dates stated in this section of these Detail Specifications.

### **XIII. EXTENSIONS OF TIME**

Extensions of time may be allowed by the City for reasonable delays due exclusively to causes beyond the control and without the fault of the Contractor including but not restricted to extra work or supplemental contract work added to the original contract, fires, strikes, floods, accidents and unreasonable delays in receiving ordered materials and equipment.

All requests for extensions of time shall be presented in writing to the City Engineer within ten calendar days after the occurrence of the claimed delay, accompanied by all necessary supporting data, and, if based on valid grounds will be considered by the City and such extensions of time shall be granted as may seem to be fair and reasonable. However, no claims will be considered when based on delays caused by conditions existing at the time bids were received and of which the Contractor might be reasonably expected to have knowledge at the time of bidding, or upon delays caused by failure on the part of the Contractor to anticipate properly the

requirements of the work contracted for as to the securing of needed materials, labor and equipment.

**XIV. LIQUIDATED DAMAGES**

When the work embraced in the contract is not completed within the times specified in the “Time of Completion” section of the Detail Specifications including restoration, as stated, and within such extra time as may be allowed by extensions, the City of Oak Creek will assess liquidated damages. The city will deduct the following specified sum from payments due the Contractor for every calendar day on calendar day contracts and completion date contracts, or for every working day on working day contracts, that the work remains uncompleted.

Original Contract Amount		Daily Charge	
From More Than	To and Including	Calendar Day	Working Day
\$0	\$250,000	\$570.00	\$1,140.00
\$250,000	\$500,000	\$730.00	\$1,460.00
\$500,000	\$1,000,000	\$1,010.00	\$2,020.00
\$1,000,000	\$2,000,000	\$1,235.00	\$2,470.00
\$2,000,000	---	\$1,605.00	\$3,210.00

This deducted sum is not a penalty but is a fixed, agreed, liquidated damage due the City of Oak Creek from the Contractor by reason of inconvenience to the public, the added cost of engineering and supervision, maintenance of detours, and other items that have caused an expenditure of public funds resulting from the Contractor’s failure to complete the work within the contract time.

If the engineer allows the contractor to continue and finish the work or any part of it after the contract time expires, the City of Oak Creek waives no rights under the contract.

**XV. EXTRA WORK**

Any work that is determined to be necessary by the City that is not covered under the construction contract shall be arranged for through a City-initiated contract change order and shall be administered in accordance with Section 109.4 of the State Specifications.

**XVI. UTILITIES COORDINATION**

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

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

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

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

### **WE Energies – Gas Operations**

WE Energies Gas has underground facilities within the project limits. WE Energies Gas plans to relocate their facilities to cross beneath the east end of the proposed culvert.

Contact: Spenser Dooner, (262) 763-1083, [spenser.dooner@we-energies.com](mailto:spenser.dooner@we-energies.com)

### **WE Energies – Electric Operations**

WE Energies Electric has aerial and underground facilities throughout the project limits. WE Energies Electric will de-energizing and drop the lines above the culvert prior to construction. The primary pole on the east side of Nicholson Road will be relocated further south. The secondary pole on the west side of Nicholson Road and the service line crossing the road will be temporarily relocated.

Field Contact: Leonard Wilson, (414) 944-5690, [Leonard.wilson@we-energies.com](mailto:Leonard.wilson@we-energies.com)

### **Milwaukee Metropolitan Sewerage District (MMSD)**

MMSD has no known facilities located within the project vicinity.

Field Contact: Anthony Jackson, (414) 747-3867 (office), (414) 841 9553 (cell)

### **Charter/Spectrum Communications**

Charter/Spectrum Communications has aerial facilities on WE Energies poles located throughout the project. Charter/Spectrum Communications will temporarily relocate their facilities to the west side of Nicholson Road.

Field Contact: Neal Long, (414) 430-7189, [Neal.Long@charter.com](mailto:Neal.Long@charter.com)

### **AT&T**

AT&T has underground facilities located in the project area. AT&T has an 1800 pair copper cable, a 100 pair copper cable and a 48 fiber optic cable at this location. AT&T potholed their cables on the east side of Nicholson Road and found them to be at least

80" below grade near the culvert. Contractor shall use caution when working near the communication cables.

Field Contact: Matthew K. Dinnauer, (262) 896-7690, [md9542@att.com](mailto:md9542@att.com)

### **Oak Creek Water & Sewer Utility**

Oak Creek Water & Sewer has underground facilities on the west side of S. Nicholson Avenue.

Contractor shall coordinate with Oak Creek Water & Sewer Utility regarding construction of the proposed water main offset.

Contractor shall field verify elevation of sanitary sewer crossing before initiating culvert construction.

Field Contact: Seth Richer, (414) 570-8210, [sricker@water.oak-creek.wi.us](mailto:sricker@water.oak-creek.wi.us)

## **XVII. PROPOSAL ITEMS**

Contractor will be allowed to work only while there is an inspector at the site. Contractor must notify the City Engineer (Mike Simmons at 414-768-5859) at least one day prior to beginning any of the work under this contract. A construction inspector will be provided by the City at no cost to the Contractor; except that inspection time shall be charged to the Contractor in addition to the specified liquidated damages after he has exceeded his contractual time of completion (see Instructions to Bidders).

The bid price for each bid item shall include providing all materials, tools, labor, and equipment to complete the item ready for use. Unless otherwise provided for in the contract, it shall include all equipment and crew mobilizations, traffic control, erosion control, personal site safety devices (i.e. barricades, caution tape, etc.), site restoration to conditions equal to or better than pre-construction conditions, and general site clean up.

For all contract items that are to be paid based on ticketed tonnages, it shall be the Contractor's responsibility to confirm that the Inspector has received a copy of every delivery ticket. Tickets submitted to the City beyond 30 days from the material being placed shall not be considered for payment.

Contractor shall refer to the item listings below for additional details of the work included.

### **Item 1 – 4'x8' Concrete Box Culvert with End Sections**

The unit bid and contract price for this item shall include all labor, materials and equipment necessary for the installation of the 8'x4' precast reinforced concrete box culverts including end sections. All cofferdams, dewatering and bypass pumping necessary to install the box culvert shall be paid under the cofferdam item.



This item shall be paid based on the contract unit price per lineal foot measured along the pipe invert.

#### Item 2 Excavation for Structures, Culverts

The unit bid and contract price for this item shall include the excavation necessary to remove the existing culverts and headwalls as shown on the plan, and all necessary appurtenances in accordance with Section 206 of the State Specifications. This item shall include all necessary excavation to uncover and remove the culverts, and disposal of the removed culvert headwalls and excavated material. The excavated material shall include sections of the asphalt road pavement. Any over-excavation shall be backfilled with stone chips complying to Section 8.43.0 and 8.43.2(a)2 and Table 33 of the Standard Specifications; the cost of which is considered incidental to this item.

This item shall be paid based on the contract lump sum.

#### Item 3 – Structure Backfill

The unit bid and contract price for this item shall include all labor, materials, and equipment necessary to deliver and place structure backfill per Section 210 of the State Specifications in the locations shown on the construction plans and/or as directed by the Engineer, all in accordance with these Detail Specifications and the pertinent state specifications. The structure backfill shall include a minimum of 12" for the bedding and 16" for the side of the box culvert as shown on the plan. The stone for the top of the box culvert shall be paid for under the crushed aggregate base coarse item.

This item shall be paid based on the contract unit price per cubic yard installed as measured and documented by the Inspector.

#### Item 4 – Remove Steel Sheet Piling Drop Structure

The unit bid and contract price for this item shall include all labor, materials, and equipment necessary to remove, backfill, haul offsite and proper off-site disposal of the steel sheet piling drop structure.

This item shall be paid based on the contract unit price per lump sum.

#### Item 5 – Remove Culvert

The unit bid and contract price for this item shall include all labor, materials, and equipment for removal of the existing culverts. This item shall include but may not be limited by the following:

Removal, backfilling, hauling and proper off-site disposal of existing culvert as shown on the plan and marked in the field by the Inspector.

This item shall be paid based on the contract unit price per each as measured and documented in the field by the Inspector

#### Item 6 – Sawcut Asphalt Pavement

The unit bid and contract price for this item shall include all labor, materials, and equipment for full-depth saw cutting of asphalt pavement where matching existing pavement as shown on the plan and marked in the field by the Inspector.

This item shall be paid based on the contract unit price per lineal foot as measured and documented in the field by the Inspector.

#### Item No. 7 – Watermain Offset

The unit bid and contract price for this item shall include the furnishing and installing of all fittings and pipe required to make a water main offset, including all coordination with the Oak Creek Water and Sewer Utility and residents affected, cutting or tapping the existing main, delays or downtime, galvanic anode protection, bedding and granular backfill. Water main shall be PVC as specified herein and in Chapter 8.10.0 of the Standard Specifications. The pipe shall be Class 150 with a standard dimension ratio of 18. PVC fittings shall be used on all PVC pipe. PVC fittings shall be injection molded and comply with the requirements of AWWA C907 and be certified to CSA B137.2. Molded fittings will be made of PVC compound with a minimum hydrostatic design basis of 4000 psi. Molded fittings must be Factory Mutual approved and listed by the Underwriter's Laboratories International (ULI). All bends to be restrained. All restraining rods, clamping bolts and hardware are 316 stainless steel. Bedding shall be torpedo sand.

Payment shall be made based on the lump sum price.

#### Item 8 – Railing

The unit bid and contract price for these items shall include all labor, materials, and equipment required to install the railing. The work for this item shall include but may not be limited by the following:

- Railings on box culvert end sections shall be Westbury Rivera Series Style C30 aluminum railing, satin black color, manufactured by Digger Specialties, Inc., or equal
- Shop drawings including plans, elevations, sections, and details, indicating dimensions, tolerances, materials, components, fabrication, fasteners, hardware, mounting, finish, options, and accessories shall be submitted for approval before railings are fabricated
- Railing shall be 42" high and 8' width
- Posts shall be 6063-T6 aluminum, 2-1/2" by 2-1/2" "Power Post"
- Railings shall be installed in accordance with manufacturer's instructions
- Aluminum post shall be fastened to concrete using 3/8"x 3" or longer concrete anchors

This item shall be paid based on the contract unit price per lineal foot as measured and documented in the field by the Inspector.

#### Item 9 – Crushed Aggregate Base Course

The unit bid and contract price for this item shall include all labor, materials, and equipment to construct the crushed aggregate base course for the proposed asphalt pavement. The work for this item shall include but not be limited by the following:

- Materials, construction, and compaction for crushed stone or City-approved crushed concrete, Base Aggregate Dense 1¼", per Section 305 of the State Specifications
- 6" crushed aggregate base course for the asphalt pavement.
- 10" crushed aggregate base course for gravel shoulder

This item shall be paid based on the contract unit price per ton of crushed aggregate base course installed, as verified and documented by delivery tickets submitted to the Inspector.

#### Item 10 – 4" Asphalt Pavement

The unit bid and contract price for this item shall include all labor, materials, and equipment to construct the asphalt pavement. The work for this item shall include but not be limited by the following:

- Asphalt, 4 LT 58-28 S (12.5mm)
- All asphaltic materials
- Tack coat, materials and application
- Materials and nuclear density testing by Contractor as outlined in these Detail Specifications
- Construction of the 2 ¼" lower lift for the asphalt roadway
- Construction of the 1 ¾" surface lift for the asphalt roadway

This item shall be paid based on the contract unit price per square yard of asphalt placed as measured and documented by the Inspector.

#### Item 11 – Heavy Riprap with Geotextile Fabric

The unit bid and contract price for this item shall include all labor, materials, and equipment required to install the riprap upon fabric as indicated on the plans. The work for this item shall include but may not be limited by the following:

- Excavation of pad area to a depth of 24"
- Heavy riprap per Section 606 of the State Specifications
- Type HR geotextile fabric per Section 645.3.7
- Refer to the detail on the plan

This item shall be paid based on the contract unit price per ton as measured and documented in the field by the Inspector.

#### Item 12 – Silt Fence

The unit bid and contract price for this item shall include all labor, materials, and equipment necessary to furnish, install, maintain, and to remove when no longer necessary, the silt fence in the locations shown on the plan and/or as directed in the field by the Engineer.

Silt fence shall be paid based on the contract unit price per lineal foot installed as measured and documented by the Inspector.

#### Item 13 – Cofferdam with Pumping

This work consists of designing, constructing, maintaining, dewatering, bypass pumping, removing, and disposing of cofferdams, which are necessary for removing existing culverts and constructing substructures and for protecting personnel and adjacent structures, roadbeds, channels, slopes, or other property (public or private) whether on or off the rights-of-way from water, caving soil, and other dangers.

The Contractor shall submit drawings of proposed cofferdams for review. The review will not relieve the Contractor of the responsibility for providing an adequate and safe cofferdam.

Materials used in cofferdam construction may be of any type suitable for the design requirements and for the particular dam being constructed, subject to the Engineer's approval. Earth dams or dams constructed using excavated materials are not considered cofferdam construction.

Supply sufficient pumping capacity to dewater the cofferdam and bypass pump streamflow.

This item shall be paid based on the contract unit price per each as field verified by the Inspector.

#### Item 14 – Erosion Mat Urban Class I Type A

The unit bid and contract price for this item shall include all labor, materials, and equipment necessary to furnish and install the erosion mat in the locations shown on the construction plans and/or as directed in the field by the Engineer, all in accordance with these Detail Specifications and Section 628 of the State Specifications.

Class I, Urban Type A erosion mat listed in the Wisconsin Department of Transportation Erosion Control Product Acceptability List (PAL) shall be used. Mat netting shall be 100% organic biodegradable.

This item shall be paid based on the contract unit price per square yard installed as measured and documented by the Inspector.

Items 15 –Topsoil and Seed Restoration

The unit bid and contract price for this item shall include all labor, materials, and equipment to prepare the topsoil seed bed, fertilize and seed. The work for this item shall include but may not be limited by the following:

- Fine grading and raking of screened topsoil to provide a 3” thick topsoil seed bed in strict conformance with Section 625.3.3 of the State Specifications
- Fertilizing – applied at a rate of 7 pounds per 1000 square feet, in accordance with Section 629 of the State Specifications
- State Mixture No. 40 sown at a rate of 4 pounds per 1000 square feet, in accordance with Method B of Section 630.3.3.2. of the State Specifications

This item shall be paid based on the contract unit price per square yard, as measured and documented by the Inspector.

Items 16 –Topsoil and Wetland Restoration

The unit bid and contract price for this item shall include all labor, materials, and equipment to prepare the topsoil seed bed and seed the disturbed wetland areas. The work for this item shall include but may not be limited by the following:

- Fine grading and raking of screened topsoil to provide a 3” thick topsoil seed bed in strict conformance with Section 625.3.3 of the State Specifications
- The wetland seed mix shall conform to Section 630 of the State Specifications and consist of a cover crop and native seed mix. The cover crop shall be annual oats (avena sativa) for spring plantings or winter wheat (triticum aestivum) for dormant fall plantings, at 25 pounds per acre. The native seed mix applied at 12 pounds per acre will be composed of a minimum of three species from the following list, with no individual species comprising more than 35% of the total grass seed mix.

SCIENTIFIC NAME	COMMON NAME
Elymus canadensis	Canada wild rye (REQUIRED SPECIES)
Calamagrostis Canadensis	Canada blue joint
Leersia oryzoides	rice cut grass
Elymus virginicus	virginia wild rye

This item shall be paid based on the contract unit price per square yard, as measured and documented by the Inspector.

Item 17 - Pavement Marking

The unit bid and contract price for this item shall include all surface preparation, furnishing all equipment, materials and labor to install 4-inch, epoxy pavement markings as shown on the Contract Documents or as directed in the field by the Engineer.

This item shall be paid based on the contract unit price per lineal foot installed, as measured and documented by the Inspector.

Item 18 – Traffic Control

The lump sum price for this item shall include all labor, materials, and equipment necessary to furnish, install and remove all components required to maintain traffic control within the work zone as shown on the contract drawings and in accordance with the current Manual on Uniform Traffic Control Devices. The work for this item shall include but not limited to the following:

- Portable changeable message signs, barricades, drums, temporary signs and lights per Section 643 of the State Specifications

Payment shall be at contract lump sum price as verified in the field by the Inspector.



January 4, 2019

GP-SE-2019-41-T00009

City of Oak Creek  
Phil Beiermeister  
8040 South 6th Street  
Oak Creek, WI 53154

RE: Coverage under the wetland and waterway statewide general permit for municipalities to construct, reconstruct or maintain highways, bridges, arches and culverts, located in the City of Oak Creek, Milwaukee County.

Dear Mr. Beiermeister:

Thank you for submitting an application for coverage under the wetland and waterway statewide general permit for municipalities to construct, reconstruct or maintain highways, bridges, arches and culverts, 30.206. Please note, additional permitting information can be found by following the hyperlinks throughout the electronic version of this document.

### **Project Description**

Two existing culverts on Nicholson Road over Crawfish Creek will be replaced with one 8 foot by 4 foot pre-cast box culvert. Minor stream restoration upstream and downstream of culvert to place the structure and scour protection rip rap will occur. By pass pumping of Crawfish Creek is allowed for a maximum of three consecutive days.

You have certified that your project meets the eligibility criteria and conditions for this activity. Based upon your signed certification you may proceed with your project. **Please take this time to re-read the permit eligibility standards and conditions.** The eligibility standards can be found on your application checklist or in the statewide general permit, [WDNR-GP2-2017](#). The permit conditions are attached to this letter. You are responsible for meeting all general permit eligibility standards and permit conditions. This includes notifying the Department before starting the project, and submitting photographs within one week of project completion. Please note your coverage is valid for 5 years from the date of the department's determination or until the activity is completed, whichever occurs first.

### **Wetlands**

According to the project information submitted, 190 square feet of permanent wetland impact will occur, and 450 square feet of temporary impact will occur. Temporary wetland impacts will be restored with native seeding. This permit coverage constitutes the state of Wisconsin's wetland water quality certification under USCS s. 1341 (Clean Water Act s. 401).

### **Waterway BMPs**

- This reach of Root River is a warm water stream. Therefore, culvert replacement work should not take place between **March 1 and June 15**, both dates inclusive. This construction BMP minimizes impacts to fish and other aquatic organisms during sensitive time periods such as spawning, winter dormancy, and migration.
- This project is in a mapped flood plain area. The County Zoning office should be contacted with any questions about local zoning ordinances or NR116 requirements.

### **Inspections**

The Department conducts routine inspections and may follow up to inspect your project to verify compliance with state statutes and codes. If you decide to modify your project, please contact your local Department Transportation Liaison to discuss any proposed modifications.

### **Federal & Local Permitting**

The municipality is responsible for obtaining any local, state or federal permits that may be required before starting your project.

If you have any questions regarding the contents of this letter, please call me at (414) 263-8517 or email [Kristina.Betzold@wisconsin.gov](mailto:Kristina.Betzold@wisconsin.gov).

Sincerely,



Kristina Betzold  
Environmental Analysis and Review Specialist

cc: U.S. Army Corps of Engineers

Attachments: Permit conditions



## WDNR-GP2-2017 Permit Conditions – Local Roads, Bridges, Arches, Culverts

You agree to comply with the following conditions:

1. **Application.** You shall submit a complete application package to the Department as outlined in Section 2 of this permit. If requested, you shall furnish the Department, within a reasonable timeframe, any information the department needs to verify compliance with the terms and conditions of this permit.
2. **Certification.** Acceptance of general permit WDNR-GP2-2017 and efforts to begin work on the activities authorized by this general permit signifies that you have certified the project meets all eligibility standards outlined in Section 1 of this permit and that you have read, understood and have agreed to follow all terms and conditions of this general permit.
3. **Project Plans.** This permit does not authorize any work other than what is specifically described in the notification package and plans submitted to the Department and you certified is in compliance with the terms and conditions of WDNR-GP2-2017.
4. **Reliance on Applicant's Data.** The determination by this office that a confirmation of authorization is not contrary to wetland water quality standards will be based upon the information provided by the applicant and any other information required by the DNR.
5. **Expiration.** This WDNR-GP2-2017 is valid for a period of 5 years from the date of issuance. Any activity that the department determines is authorized by WDNR-GP2-2017 remains authorized under WDNR-GP2-2017 for a period of 5 years from the date of the department's determination or until the activity is completed, whichever occurs first, regardless of whether WDNR-GP2-2017 expired before the activity is completed.
6. **Project Start.** You must notify the department using the information provided on the confirmation of coverage letter you receive before starting any activity and again not more than 5 days after each activity is completed.
7. **Permit Posting.** You must post a copy of this permit at a conspicuous location on the project site for at least 5 days prior to the project starting, and the copy must remain posted on the project site at least five days after the project is complete. You must also have a copy of the permit and approved plan available at the project site at all times until the project is complete.
8. **Permit Compliance.** The department may modify or revoke coverage of this permit if it is not constructed in compliance with the terms and conditions of this permit, or if the department determines the project will be detrimental to the public interest or water quality standards. Any act of noncompliance with this permit constitutes a permit violation and is grounds for enforcement action. Additionally, if any conditions of this permit are found to be invalid or unenforceable, authorization for all activities to which that condition applies is denied.

9. **Construction Timing.** Once waterway work below the OHWM commences, all construction activities in those waterways must be continuous until the work is completed and the site is stabilized. Once wetland work commences, all construction activities in those wetlands must be continuous to the extent practicable. During periods of inactivity in wetlands, the site must be made stable until the work is resumed and completed.
10. **Construction.** No other portion of the wetland or waterway may be disturbed beyond the area designated in the submitted plans.
11. **Project Completion.** Within one week of project completion you shall submit to the DNR Transportation Liaison a statement certifying project is in compliance with all the terms and conditions of this permit and photographs of the activities authorized by this permit.
12. **Proper Maintenance.** You must maintain the activity authorized by WDNR-GP2-2017 in good condition and in conformance with the terms and conditions of this permit, and must avoid additional impacts to waterways and wetlands. Remove accumulated brush, debris or other obstructions that are trapped in or underneath the structure regularly.
13. **Site Access.** Upon reasonable notice, you shall allow access to privately owned area of the site to any department employee who is investigating the project's construction, operation, maintenance or permit compliance the terms and conditions of WDNR-GP2-2017 and applicable laws.
14. **Erosion and Sediment Control Practices.** The project site must implement erosion and sediment control measures that adequately control or prevent erosion, and prevent damage to waterways and wetlands as outlined in Wis. Admin. Code s. NR 151.11(6m). These standards can be found at the following website: [http://dnr.wi.gov/topic/Stormwater/standards/const\\_standards.html](http://dnr.wi.gov/topic/Stormwater/standards/const_standards.html). Any area where topsoil is exposed during the project should be immediately seeded and mulched to stabilize disturbed areas and prevent soils from being eroded and washed into the waterway.  
  
*Note: If the project includes any grading, excavation or land-disturbance activity in excess of one acre, you may also need to receive coverage under a [Construction Site Stormwater Permit](#) in addition to this permit. Contact the [DNR Transportation Liaison](#) to determine the need for additional review.*
15. **Bats.** There are four species of bats listed as Threatened in Wisconsin including one species that is Federally Threatened. As a result, bridge work shall follow the protocols listed in the [Broad Incidental Take Permit and Authorization for Wisconsin Cave Bats](#).
16. **Swallows.** Swallows may nest under bridges. Nesting swallows are protected under the Migratory Bird Treaty Act. The nesting season for swallows has been established as April 20 through August 30. The need for a US Fish and Wildlife Service depredation permit may be avoided by removing the existing bridge superstructure prior to nest occupation by swallows, and clearing the nests from and installing a suitable netting device on the remaining existing superstructure prior to nesting activity to prevent the swallows from nesting.

17. **Contaminated Sites.** The department provides an on-line database of contaminated sites, called the [Contaminated Lands Environmental Action Network \(CLEAN\)](#). You must check the site to see if a hazardous substance release has been reported in your project area, and if there has been a release, contact DNR before submitting your application for WDNR-GP2-2017.
18. **Asbestos.** Any bridge or culvert that is not wood, metal, glass or fiberglass may contain asbestos. DNR must be notified by the [Asbestos removal and notification forms](#) 10 days before the demolition of any existing structure, which may contain asbestos.
19. **Hazardous Sites.** You must determine if there are any Environmental Repair and Solid Waste disposal sites may be within the project boundaries by checking the [Historic Registry of Waste Disposal Sites](#). You must check the site to see if a hazardous substance release has been reported in your project area, and if there has been a release, contact DNR before submitting your application for WDNR-GP2-2017.
20. **Invasive Species.** To stop the spread of invasive species and viruses from one navigable waterway to another navigable waterway, all equipment or portions of equipment used for constructing, operating, or maintaining the project, including tracked vehicles, barges, boats, silt or turbidity curtains, hoses, sheet piles, and pumps, must be decontaminated for invasive species and viruses before and after use **or** prior to use within another navigable waterway. Follow the most recent department approved washing and disinfection protocols and Department approved best management practices to avoid the spread of invasive species as outlined in Wis. Admin. Code NR 40. These protocols and practices can be found on the department website at <http://dnr.wi.gov/topic/Invasives/bmp.html> Keyword: "equipment operator" or "invasive bmp" and at <http://dnr.wi.gov/topic/Invasives/documents/EquipOper.pdf>
21. **Wetland protection.** You shall not store any vegetation, material, or equipment in wetlands. The project will be constructed in a manner that will maintain wetland hydrology in the remaining wetland complex.
22. **Temporary fills.** Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation and vegetated.
23. **Federal and State Threatened and Endangered Species.** WDNR-GP2-2017 does not affect the DNR's responsibility to insure that all authorizations comply with Wisconsin's Endangered Species Law (s. 29.604 Wis. Stats) and Section 7 of the Federal Endangered Species Act. No DNR authorization under this permit will be granted for projects found not to comply with these laws/Acts. In order to be in compliance, documentation is required showing [Endangered Resources \(ER\)](#) concerns have been addressed. Please note: Documents associated with Endangered Resources are valid one year from the date they are prepared. Documentation options include:
  - a. An [ER Review Verification Form](#) showing that the project is covered by the [Broad Incidental Take Permit for no/low impact activities](#) and therefore does not require a review.
  - b. An ER Preliminary Assessment from the NHI Public Portal stating that no further actions are necessary or that further actions are recommended. The NHI Public Portal is located here: <http://dnr.wi.gov/topic/ERReview/PublicPortal.html>.

- c. If the ER Preliminary Assessment from the NHI Public Portal shows that “Further actions are required” then submit one of the following:
    - a. A DNR ER Review letter. The request form for an ER Review letter is located here: <http://dnr.wi.gov/files/PDF/forms/1700/1700-047fillable.pdf>.
    - b. A Certified ER Review letter. The list of Certified Reviewers is available here: <http://dnr.wi.gov/topic/ERReview/Documents/CertifiedReviewers.pdf>.
24. **Special Concern Species.** If the Wisconsin National Heritage Inventory lists a known special concern species to be present in the project area you will take reasonable activities to prevent significant adverse impacts and/or to enhance the habitat for the species of concern.
25. **Historic Properties and Cultural Resources.** WDNR-GP2-2017 does not affect the DNR’s responsibility to ensure that all authorizations comply with Section 106 of the National Historic Preservation Act and Wis. Stats. s. 44.40. No department authorization under this permit will be granted for projects found not to comply with these laws. The project must avoid impacts to archaeological sites or historic structures and is subject to departmental and Wisconsin Historical Society review and approval before authorization under this general permit is valid. Information on the location and existence of historic resources can be obtained from the State Historic Preservation Office and the National Register of Historic Places. If cultural, archaeological, or historical resources are unearthed *during* activities authorized under this permit, work must be stopped immediately and the State Historic Preservation Officer must be contacted for further instruction.
26. **Preventive Measures.** Measures must be adopted to prevent potential pollutants from entering a wetland or waterbody. Construction materials and debris, including fuels, oil, and other liquid substances, may not be stored in the construction work area in a manner that would allow them to enter a wetland or waterbody as a result of spillage, natural runoff, or flooding. In addition, if feasible, biodegradable hydraulic fluid should be used in equipment that is operated below the Ordinary High Water Mark. If a spill of any potential hazardous substance should occur, it is the responsibility of the permittee to remove such material, minimize any contamination resulting from this spill, and immediately notify the State Duty Officer at **1-800-943-0003**.
27. **Suitable Fill Material.** All fill authorized under this permit shall be free from hazardous substances as defined by Wis. Stats. §. 289.01(11), free from solid waste as defined by Wis. Stats § 289.01(11) and (33), and must consist of clean, suitable soil as defined by Wis. Admin. Code NR 500.03(214). Fill to create public road bed may consist of rock, gravel and sand, where appropriate.
28. **Standards for Coverage.** Wetland impacts from the project will cause only minimal adverse environmental impacts as determined by the department.
29. **Transfers.** Coverage under this permit is not transferable to any person or entity unless the project has already been completed at the time of transfer.