



WATER and SEWER UTILITY

A COMMITMENT TO WATER QUALITY

PROJECT NO. 16103

**CONTRACT SPECIFICATIONS
FOR WATER MAIN AND APPURTENANCES
FOR**

**S. 5TH AVENUE
WATER MAIN EXTENSION PROJECT**

FOR

OAK CREEK WATER AND SEWER UTILITY

February 4, 2016

**170 W. Drexel Avenue
Oak Creek, WI 53154**



**Telephone: (414) 570 - 8200
www.water.oak-creek.wi.us**

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FOR

S. 5TH AVENUE
WATER MAIN EXTENSION PROJECT

OAK CREEK WATER & SEWER UTILITY

February 4, 2016

Project Design & Construction Coordination (OWNER)

Ron J. Pritzlaff, P.E.

Utility Engineer

Phone: (414) 570-8210

Design Engineer (ENGINEER)

Ben W. Wood, P.E.

Strand Associates, Inc.

126 N. Jefferson Street, Suite 350

Milwaukee, WI 53202

Phone: (414) 271-0771

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NOTICE TO BIDDERS

OWNER The Oak Creek Water & Sewer Utility hereby gives notice that sealed proposals will be received in the Utility's office at 170 W. Drexel Avenue, Oak Creek, Wisconsin, 53154.

PROJECT The work, officially known as Project No. 16103, S. 5TH AVENUE WATER MAIN EXTENSION, consists of constructing the following approximate quantities:

ITEM DESCRIPTION	QUANTITY
12" Diameter PVCO, 3/4" T.B.B.F., Pavement Restoration	312 LF
12" Diameter PVCO, 3/4" T.B.B.F., Turf Restoration	67 LF
Connect to Existing Water Main	2 EA
Hydrant, Lead, and 6" Aux. Valve	3 EA
12" Gate Valve	2 EA
Remove and Salvage Existing Hydrant	1 EA
Erosion Control	1 LS
Traffic Control	1 LS

TIME Proposals must be received by the office of the Utility, 170 W. Drexel Avenue, no later than 9:00 a.m., Friday, February 19, 2016, at which time and place the proposals will be publicly opened and read aloud.

CONTRACT DOCUMENTS Bid documents may be obtained at the Utility's website: www.water.oak-creek.wi.us under the public contracts section after February 4, 2016.

STATUTORY PROVISIONS The Contract letting shall be subject to the provisions of Section 62.15, 66.0901, 66.0903, 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 Oak Creek Water & Sewer Utility, 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 Utility, the check or bid bond shall be forfeited to the Utility as liquidated damages pursuant to SS.62.15(3).

**EQUAL
OPPORTUNITY**

The Oak Creek Water & Sewer Utility 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 Oak Creek Water & Sewer Utility Commission 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 Utility.

**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 Oak Creek Water & Sewer Utility Commission.

INSTRUCTIONS TO BIDDERS

1. Proposal Forms

No bid will be considered which is not submitted on forms furnished by the Utility 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 Utility 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 Utility 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 himself of prior to bidding.

4. Inadequacies and Omissions

Any verbal information obtained from or statement made by representatives of the Utility 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 Oak Creek Water and Sewer Utility will not be responsible for such verbal information or statements.

Bidders shall bring any inadequacies, omissions, or conflicts to the Utility 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.

This list of subcontractors shall not be added to nor altered without the written consent of the Utility Engineer. The Utility Engineer may reject proposals if the list of subcontractors and the class of work to be performed is omitted. The omission shall be considered inadvertent or a representation that the bidder will perform the work himself. If such an omission is inadvertent, the bidder shall provide the list of subcontractors within two working days from the date and time of the bid opening.

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 Oak Creek Water and Sewer Utility 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 Utility before the time specified in the Notice to Bidders for opening bids.

10. Withdrawal of Proposal

A bidder may withdraw a proposal, provided the Utility Engineer 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 or branch, in compliance with the bidding units specified for the quantities listed in the proposal. Bid prices must be written out in words and also entered in figures. In case of variation, the written prices will prevail.

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 Utility 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 Utility Engineer has determined that the contractor or bidder has unbalanced his bid and unit prices. The Utility 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 Utility. The Utility 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 Utility Commission. The contract shall be awarded by Utility Commission 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 ten days from the date of receipt of the contract forms from the Utility 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 office of the Utility. The contract, when signed by the Utility, 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 Utility will refund the proposal deposit to the successful bidder.

In case of failure to have delivered such properly executed copies of the contract within ten days, or such extension as the Utility Commission only may deem reasonable, bidder will be considered as having abandoned his proposal. Bidder will be considered in default to the Utility 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 Utility 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 Utility 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 Utility Commission has determined the lowest responsible bidder. The remaining bid deposit will be refunded upon execution of the contract.

February 19, 2016

To: The Oak Creek Water & Sewer Utility Commission

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 Schedule One.

The undersigned bidder deposits herewith a certified check payable to the order of the Oak Creek Water and Sewer Utility, 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 Utility within ten calendar days after transmittal by the Utility, then said certified check shall be retained by and become the property of the Oak Creek Water & Sewer Utility 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.

This proposal submitted by:

Bidder

Address

Phone

State, Zip Code

City,

Operating as: Sole Trader _____ Partnership _____ Corporation _____

Under the laws of the State of _____

By: _____ (Signature)

(Title)

ADDENDUM RECEIPT: We acknowledge the receipt of Addenda _____ inclusive.

SWORN STATEMENT OF BIDDER

PURSUANT TO SECTION 66.0901 (7) 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 _____, 2009.

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 ON 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. A bid shall not be invalid if the list of subcontractors and the class of work to be performed has been omitted. The omission shall be considered inadvertent or a representation that the bidder will perform the work himself. If such an omission is inadvertent, the bidder shall provide the list of subcontractors within two working days from the date and time of the bid opening.

<u>NAME</u>	<u>ADDRESS</u>	<u>CLASS OF WORK</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

LIST OF DRAWINGS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
16103-1C-2300	Title Sheet and Location Map
16103-2C-2301	Standard Symbols, General Notes and Details
16103-3C-2302	Erosion Control Notes and Details
16103-4C-2303	Details
16103-5C-2304	South 5th Avenue Plan and Profile
16103-6C-2305	East Ryan Road Plan and Profile

Schedule Two

Item No.	Item Description	Bid Quantity	Units	Unit Price	Total Price
1	12" Diameter PVCO, 3/4" T.B.B.F., Pavement Restoration _____dollars & _____cents.	312	LF		
2	12" Diameter PVCO, 3/4" T.B.B.F., Turf Restoration _____dollars & _____cents.	67	LF		
3	Connect to Existing Water Main _____dollars & _____cents.	2	EA		
4	Hydrant, Lead, and 6" Aux. Valve _____dollars & _____cents.	4	EA		
5	12" Gate Valve _____dollars & _____cents.	2	EA		
6	Remove and Salvage Existing Hydrant _____dollars & _____cents.	1	EA		
7	Erosion Control _____dollars & _____cents.	1	LS		
8	Traffic Control _____dollars & _____cents.	1	LS		

BASE BID TOTAL ITEMS 1 - 8 INCLUSIVE \$_____

DETAILED SPECIFICATIONS

I. GENERAL

A. INTRODUCTION

These specifications govern the construction of water main, in the City of Oak Creek in the locations as shown on the plans.

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, hereinafter referred to as the General Specifications in these Detailed Specifications.
2. Standard Specifications for Sewer and Water Construction in Wisconsin, current Edition, with addendums hereinafter referred to as the Standard Specifications in these Detailed Specifications.
3. Highway and Structure Construction - Std. Specs. Dept. of Trans., Division of Highways, State of Wis., current edition and supplemental specifications hereinafter referred to as the State Specifications in these Detailed Specifications.
4. These Detailed Specifications.
5. The Construction Plans.
6. Manual on Uniform Traffic Control Devices, current edition.
7. City of Oak Creek Engineering Design Manual, current edition.

Copies of the aforementioned General, Standard and State Specifications are on file at the Engineering Department of the City of Oak Creek 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 applicable contract specifications and take precedence over those other parts of these 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 Utility Engineer by the bidders and/or the Contractor.

Where such conflict may exist, the Utility 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

The Contractor will not be permitted to start new phases of the project until previously started phases are fully completed or continuous work, in the opinion of the Utility Engineer, is being done to fully complete the previously started phases. However, the Contractor may with the approval of the Utility 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 (Pages 1-10 and 1-21, respectively) of the Standard Specifications).

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

2. Maintenance of Public Safety and Convenience

The Contractor shall provide for the placing of necessary detour signs, 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 per the State Manual on Uniform Traffic Control Devices. Adjustment to the traffic control devices shall be included and performed by the contractor as called for by the progression of work. Necessary traffic control adjustments shall be in place prior to proceeding with work that could impact the safety of the general public as determined by the Utility Engineer. The Utility has obtained a WisDOT Utility Permit, No. 40U-300-16, for this project applicable to the work planned at the intersection of STH 100 and STH 32. The Contractor will be responsible for meeting all permit conditions.

All such devices shall comply with the Federal Manual on Uniform Traffic Control Devices.

3. Access to Properties

The Contractor shall provide for access to the properties abutting the work site area in accordance with Section 1.7.7 (Page 1-33) of the Standard Specifications. In addition, the operations shall be conducted in such a manner that 1) all streets at all times shall be maintained with at least one lane of roadway open for vehicular access with a flagger, 2) two lanes of traffic shall be restored at the end of each working day, and 3) all abutting

properties shall be provided with vehicular access overnight, on weekends and on holidays.

4. 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 Utility Engineer. Any subsequent proposed changes to the approved plan shall be submitted to the Utility Engineer for approval prior to implementation of the change. Construction traffic shall be permitted on pre-approved areas. 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.

5. Supervision and Superintendence

Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction.

At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6. Safety and Protection

Contractor shall be solely responsible for initiation, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- a. all persons on the Site or who may be affected by the Work;
- b. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
- c. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course or construction.

Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary

safeguards for such safety and protection. Contractor shall notify owners of adjacent property and the Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.

Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply which at the Site.

All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).

Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed.

Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7. Hazard Communication Programs

Contractor shall be responsible for coordinating and exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws and Regulations.

II. NOTICES AND PERMITS

A. GENERAL UTILITY NOTIFICATION

Please note: Section 66.0831 of Wisconsin Statutes makes it mandatory that:

"66.0831 Interference with public service structure. A contractor with a contract for work upon, over, along or under a public street or highway may not interfere with, destroy or disturb the structures of a public utility, including a telecommunications carrier as defined in s. 196.01 (8m), encountered in the performance of the work in a manner that interrupts, impairs or affects the public service for which the structures may be used,

without first obtaining written authority from the commissioner of public works or other appropriate authority. A public utility, if given reasonable notice by the contractor of the need for temporary protection of, or a temporary change in, the utility's structures, determined by the commissioner of public works or other appropriate authority to be reasonably necessary to enable the work, shall temporarily protect or change its structures located upon, over, along or under the surface of a public street or highway. The contractor shall pay or assure to the public utility the reasonable cost of the temporary structure or change, unless the public utility is otherwise liable. If work is done by or for the state or by or for any county, city, village, town sanitary district, metropolitan sewerage district created under ss. 200.01 to 200.15 or 200.21 to 200.65 or town, the cost of the temporary protection or temporary change shall be borne by the public utility."

The Contractor shall refer to Chapter 1.2.0 (Pages 1-9) 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 and Gas Utility)

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 electric or gas facilities. Such notice shall be directed to:

We Energies – Electric Operations
4800 W. Rawson Avenue
Franklin, Wisconsin 53132
Phone: (414) 423-6112

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

We Energies – Gas Operations
4800 West Rawson Avenue
Franklin, WI 53132
Phone: (414) 423-5062

C. NOTIFICATION TO AT&T

The Contractor shall notify the communication utilities that have facilities located within the project limits of his construction schedule as it affects said each company as prescribed by the Wisconsin State Statutes.

Such notice shall be directed to the following Utilities:

AT&T
Cable Location Plant
435 S. 95th Street
Milwaukee, WI 53214
Phone: (262) 896-7434

D. NOTIFICATION TO TIME WARNER CABLE

The Contractor shall notify Time Warner Cable of his construction schedule as it affects said cable communications company as prescribed by the Wisconsin State Statutes. Notice shall be directed to:

Time Warner Cable
5475 West Abbott Avenue
Greenfield, WI 53220

Additional notification, if any is required during construction, shall be done by contacting their office by phone at 414/277-4280.

E. NOTIFICATION TO CITY'S STREET, FIRE, & POLICE DEPARTMENTS, & OAK CREEK WATER & SEWER UTILITY

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

1. Street Division, 800 W. Puetz Road, (414) 570-5682
2. Fire Department, 7000 S. 6th Street, (414) 570-5630
3. Police Department, 301 W Ryan Road, (414) 762-8200
4. Oak Creek Public Schools, 7630 South Tenth Street (414) 768-5880
5. Oak Creek Water & Sewer Utility, 170 W. Drexel Avenue, (414) 570-8210

F. OAK CREEK WATER & SEWER UTILITY WATER USE PERMIT

The Contractor will be permitted to use the Utility water supply where available for incidental uses providing a permit is first obtained from the Oak Creek Water and Sewer Utility, 170 West Drexel Avenue, Oak Creek, Wisconsin. There will be no charge for this water use unless the amount is determined to be excessive as defined by the Utility Engineer. The included water will include water needed for filling, testing, and flushing of new water mains. If an invoice is issued and said bill is not paid by completion of the project, the amount of said bill will be deducted from the final contract payment. Record of water used by the contractor shall be turned into the Utility Engineer prior to final payment.

G. WISCONSIN DEPARTMENT OF TRANSPORTATION – DOT PERMIT CONTACT

Rodrigo Martinez
SE Region Utility Permit Coordinator
Office: 262-548-6891
E-Mail: dotdtsdseutilitypermits@dot.wi.gov

WisDOT Southeast Region
141 NW Barstow Street
Waukesha, WI 53187

H. WORK IN EASEMENTS

The work will be performed in an easement or by right-of-entry upon private lands. The requirements of Sections 1.7.13 and 1.7.14 (Pages 1-35 and 1-36) of the Standard Specifications and these detailed specifications, if any, shall be adhered to.

The requirements of Section 1.7.14 of such Standard Specifications shall also apply to the public right-of-way between the pavement and the property line where the installation is in the public right-of-way or in an easement abutting public right-of-way.

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 Utility and insurance certificates have been filed with the Utility, 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 Detailed 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 for 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. ADDITIONAL INSURED ENDORSEMENTS

Contractor shall purchase and maintain liability insurance, as described above, specifically naming as additional insureds OWNER, DESIGN ENGINEER, and RESIDENT PROJECT REPRESENTATIVE as well as other individuals or entities so identified, using Additional Insurance Endorsement Form CG 20 26 07 04, CG 81 11 05 06, CG 20 10 07 04, or equivalent form. General liability policies shall also be endorsed with Form CG 20 37 07 04 to include the “products completed operations coverage.”

Endorsements or General Liability policy shall not exclude supervisory or inspection services.

Contractor shall also provide Additional Insured Endorsement for each additional insured listed above for the automobile policy. Endorsement form shall be CA 20 48, or equal.

E. 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 circumstance creating or tending to create the particular special hazard:

<u>Kind</u>	<u>Amount</u>
Operating of elevators or hoists.....	\$25,000.00
Use and operation of automobiles and truck.....	\$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

IV. PERFORMANCE BOND AND GUARANTEE

Where the contract is over \$10,000.00, 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. A performance bond shall not be required for public works contracts below \$10,000.00 regardless of bond requirement.

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.

V. METHOD OF PAYMENTS

Payments will normally be made monthly throughout the progress of the work, provided the work completed is substantial enough in the opinion of the Utility Engineer.

Substantial completion of water main construction shall be considered to include all flushing and testing of the mains including pressure tests and safe water samples. Partial and final payments will not be made until such time that all work is substantially completed including testing and accepted by the approving agencies.

Such payments shall be in accord with Section 66.0901 (9) b, of the State Statutes which states that the City,

“(b) Retained percentages. As the work progresses under a contract involving \$1,000 or more for the construction, execution, repair, remodeling or improvement of a public work or building or for the furnishing of supplies or materials, regardless of whether proposals for the contract are required to be advertised by law, the municipality, 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. 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 noncompletion, 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 - GENERAL

In accordance with Utility purchasing policy, the Contractor is requested to use American products in the performance of the contract whenever the quality and the price are comparable with other goods.

VII. MATERIALS FOR WATER MAINS

A. SPECIFICATIONS FOR PVCO WATER MAIN AND FITTINGS

1. All molecularly oriented polyvinyl chloride (PVCO) water pipe shall be BIONAX as manufactured by IPEX, Inc., 2441 Royal Windsor Drive, Mississauga, ON L5J 4C7. Polyvinyl chloride (PVC) fittings shall be Blue Brute as manufactured by IPEX, Inc. and as recommended by the manufacture for use with BIONAX PVCO pipe.
2. All PVCO water pipe shall conform to the requirements of Chapter 8.10.0 of the Standard Specifications except for pipe dimensions and wall thickness which may be different for PVCO than for PVC.

PVCO 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.

3. PVCO pipe shall be manufactured with cast-iron-pipe outside diameters (CIOD). Pipe walls shall meet the minimum thickness requirements for AWWA C909. Pipe shall be joined by means of integral-bell elastomeric-gasket joints conforming to ASTM D3139 and shall be supplied by the PVCO pipe manufacturer unless specifically allowed by manufacturer and Utility Engineer.
4. Blue Brute Polyvinyl chloride (PVC) fittings shall be used on all PVCO pipe. PVC fittings 4"-12" in diameter shall be injection molded and comply with the requirements of AWWA C907. 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). PVC fittings shall be pressure rated for 235 psi.

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. Where ductile iron fittings are approved by Utility Engineer, anode protection shall be installed per paragraph H below.

B. GATE VALVES

All gate valves (3" through 12" diameter valves are to be gate valves) are to be the resilient wedge-type valve conforming with AWWA C509.

All resilient wedge-gate valves furnished shall be one of the following:

1. Clow - R.W.
2. Kennedy - R.W.
3. M & H - R.S.C.V.
4. Mueller - R.W.
5. Waterous – 500
6. American Flow Control (3" to 12" only)

All valves shall open counterclockwise.

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 installed as directed by Utility Engineer.

C. CAST IRON VALVE BOXES

All valve boxes shall be 5 1/4" diameter (minimum) shaft, round base, three (3) piece box; 5 1/4" 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

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 either ductile iron or polyvinyl chloride in accordance with these Detailed Specifications. All hydrant extension and hydrant valve materials shall be furnished by the Contractor.

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:

1. Clow Medallion
2. Kennedy Guardian K81A
3. Mueller Centurian

Hydrants shall have a 6" push connection to the hydrant lead or approved equal.

Hydrant Valves shall be a resilient wedge-gate valve meeting the requirements outlined above in Section B – Gate valves.

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.

Hydrant leads shall be fully restrained back to the water main using mega-lugs or approved equal.

All hydrant barrels shall be 6' 6" in length, or longer if required by field conditions and approved by Utility Engineer.

G. 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. Test stations shall be plain-capped valve box top section with hardwood blocking installed as noted on the plans. 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.

H. 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 32 lb. magnesium anodes. The weld shall be coated using REBOUND Aerosol Rubberized Coating or approved equal.

VIII. MATERIALS - GENERAL

A. BEDDING AND COVER, ALL WATER MAIN

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

B. 3/4" T.B. BACKFILL

Where shown on the plans, the contractor shall use mechanically compacted 3/4" dense graded aggregate (T.B.) placed up to the bottom of pavement grade.

C. COMPOUNDS FOR ASPHALT PAVEMENT

1. One 3" course shall be placed and conform to Section 460 of the State Specifications and consist of depths identified on Drawings, 19.0 mm Binder Course Mix E-1.
2. Asphalt delivered to the site shall arrive at a temperature of 275 degrees plus or minus 25 degrees. Any trucks not meeting this requirement shall be rejected.
3. Compounds for asphaltic pavement shall be provided in conformance with the following section of the State Specifications.

Materials for Asphaltic Mixtures and Surface Treatments.....	Section 455
Tack Coat	Section 455
Plant Mixed Asphaltic Surfaces and Pavements	
General Requirements.....	Section 460

IX. CONSTRUCTION DETAILS

A. COMPLYING WITH SPECIFICATIONS

The Contractor shall comply with the specifications and ably perform all operations to the extent that the first-class work will be obtained. A representative of the Oak Creek Water & Sewer Utility will inspect the work as it progresses to determine full compliance with the specifications. The Resident Project Representative shall notify the Utility Engineer of any noncompliance and have authority to stop any work not being performed in accordance with the specifications, in order that the Utility Engineer may investigate such noncompliance.

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

The "Standard Specifications for Sewer and Water Construction in Wisconsin", (herein referred to as The Standard Specifications), shall apply for all sewer and water main construction unless otherwise noted in these Detail Specifications or on the construction plans. The Highway and Structure Construction-Standard Specifications Department of Transportation, Division of Highways, State of Wisconsin and Supplemental Specifications (herein referred to as the State Specifications), shall apply for pavement restoration. The MUTCD and State Specifications shall apply to all traffic control.

B. LOCATION - STAKING

The line for each facility will be located as shown on the plan and will be staked out once by the Oak Creek Water and Sewer Utility. If necessary to pass an existing obstruction, Contractor shall consult the Utility Engineer and Design Engineer.

The Contractor must protect all stakes and benchmarks 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

No variation from the price named in the proposal will be made or allowed whether the material through which excavations must be made are hard or soft, and wet or dry. 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 studies of all conditions and provided for all such conditions in his proposal.

Any and all necessary dewatering shall be in accordance with Chapter 2.2.13 of the Standard Specifications.

Contractor is responsible to reconnect existing field tiles that may be encountered during excavation. Existing tiles must be repaired and connected to a storm sewer or have positive outfall provided.

D. EROSION CONTROL AND GROUND COVER

Pursuant to City of Oak Creek 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 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. The Contractor prior to the start of construction 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. Basically, the Code provides for only the following forms of landfilling:

1. When the fill comprises of 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. A \$300.00 fee, plus an applicable erosion control permit and fee, is required.
2. Shoreline erosion control, whereby a license must be applied for and granted prior to landfilling activity being undertaken.
3. On a site, where fill may be needed in conjunction with building construction and where a building permit is in effect.
4. On City-owned property, subject to plans approved by the Common Council.
5. 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. PVCO WATER PIPE

The laying of PVCO 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 PVCO Pipe is used shall comply with Chapter 4.9.0 and 4.10.0 and File No. 47A of the Standard Specifications, except that joint restraint shall be used instead of concrete buttresses
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 PVCO 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</u>	<u>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 and shall be in addition to concrete buttresses. Required length of restrained pipe beyond fittings shall be as follows and as shown on the drawings.

Fitting	Length (feet)
90° Bend	30' minimum
45 Bend	25' minimum
22 1/2 Bend	15' minimum
11 1/4 Bend	10' minimum
End of Line Tees *	36' minimum
In Line Tees	18' minimum each side
Fire Hydrant Leads	All Joints

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

Contractor shall be responsible for all disinfection and testing. Disinfection and testing shall be in accordance with standard AWWA C651 method B.

After disinfection the water main shall be dechlorinated while it is being flushed. After the Contractor sets up the tests and the Utility will collect samples for testing. Coordinate with Utility Engineer.

K. NOTICE TO UTILITY

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

L. SALVAGING OF MATERIALS

OWNER maintains the first right to the salvaged material as determined by the Utility Engineer. Salvaged materials shall be delivered to the Utility headquarters located at 170 West Drexel Avenue, Oak Creek, WI 53154. If the OWNER does not wish to salvage these materials, they shall be properly disposed of by the Contractor.

X. RESTORATION IN THE WORK AREA

A. GENERAL

Upon completion of the utility installation, 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 seeding or sodding grass areas and graveling or pavement repair of 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 excavation work by the Utility 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 Utility Engineer's presence during the performance of any excavation work shall not relieve the Contractor of his responsibilities hereunder.

It shall be the duty of the Contractor to guarantee and maintain the site of the excavation for one year after restoring it to its original condition.

Included in the restoration shall be any damage to drainage ways due to discharge of trench waters. The Contractor is required to implement erosion control techniques.

B. ARTERIAL AND COLLECTOR STREETS

The Contractor shall provide at least a temporary bituminous resurfacing of all arterial or collector street pavement within two weeks of completion and backfill of sewer and/or water main that required the removal of all or part of such arterial or collector street pavement. The replacement of the pavement referred to above shall not be delayed due to any service lateral construction on the segment of sewer and/or water main in the arterial or collector street pavement area that the Contractor may have remaining after the two-week period elapses.

C. RESTORATION OF PAVED ROADWAY SURFACES

1. The Contractor shall restore the surface of all streets, broken into or damaged as a result of the excavation work, to its original condition in accordance with the specifications. The asphalt which is used shall be in accordance with the specifications. If in the judgment of the Utility Engineer, it is not expedient to replace the pavement over any cut or excavation made in the street upon completion of the work under contract by reason of the looseness of the earth or weather conditions he may direct the Contractor to lay a temporary pavement of suitable material designated by him over such cut or excavation and maintain it until such time as the repair of the original pavement may be properly made.
2. Permanent restoration of the street shall be made by the Contractor in strict accordance with the specifications to restore the street to its proper condition, or as near as may be.
3. The trench consolidation and the pavement subgrade preparation shall be completed prior to the replacement of the permanent pavement in accordance with Chapter 2.7.3(a) and 2.7.3(b) (Page 61) of the Standard Specifications.
4. All asphalt pavement restoration shall be in accordance with Section VIII paragraph D and as shown on the drawings.

D. RESTORATION OF GRAVELED SURFACES

The Contractor shall be required to restore all graveled surfaces to a drivable condition, which were removed for the underground installation with traffic bound granular materials. Materials and installation shall conform to Section 304 of the State Specifications.

E. RESTORATION OF TURF OR LAWNS

The contractor shall repair, reseed, and/or replant all established turf and lawns damaged during the course of construction to a condition equal to or better than the condition at the commencement of his work in accordance with salt tolerant Type "C", Lawn Replacement of Chapter 2.7.4 of the Standard Specifications, as

indicated on the construction plans or as directed by the Engineer. Mulching under Type "C" Replacement shall be in accordance with Section 627 of the State Specifications.

Replace cover by means of seeding with salt-tolerant grass seed mix at the rate of not less than six pounds per thousand square feet on leveled topsoil. Provide a minimum of 3" of topsoil and mulch all areas. Areas that exceed the minimum slope (as determined by the Slope Erosion Control Matrix FDM 10-5 Attachment 35.2) and swales shall be provided with erosion control mat.

F. UTILITY'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 excavation work covered by the contract, the Utility Engineer, if he deems it advisable, shall have the right to use Utility 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 Utility 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 Utility will enforce compensation for costs it has incurred through collection from the Contractor's surety.

XI. 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 Utility Engineer and shall be complied with by the Contractor. The Utility Engineer will make an inspection of the work during the progress of final cleaning and repairing and any work so inspected shall be kept clean by the Contractor until the final inspection by the Utility Engineer and the acceptance of the entire work. When the Contractor has finally cleaned and repaired the work, he shall notify the Utility Engineer that he is ready for a final inspection and the Utility Engineer will thereupon inspect the work. If the work is not found satisfactory, the Utility 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 Utility 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 Utility (see Section 1.5.2 - of the Standard Specifications).

Note: The routing of all punch lists on items that remain needing attention shall be between the Utility Engineer and the Contractor or his authorized project coordinator.

XII. 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 Utility. The Contractor shall also restore any septic system drain lines or field tiles encountered in the progress of the work and shall use watertight joints on the replaced drain lines when directed to do so by the Utility Engineer. The cost of this work shall be included in the unit bid and contract price for water main, and no extra payment will be made therefore.

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 which exist throughout the area. These corners will be located and marked by the Engineering Department of the City of Oak Creek upon request by the Contractor prior to commencing his work. Any such damaged corners shall be replaced by the City 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.

XIII. TIME OF COMPLETION

The starting date for work under this contract shall be at the discretion of the Contractor, subject to the following:

- A. Preconstruction meeting as arranged by the Utility Engineer.
- B. Issuance of the Notice to Proceed by the Utility Engineer.
- C. Completion of the water main and ready to use by April 29, 2016.
- D. The entire project, including surface restoration shall be completed no later than May 6, 2016.

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 as stated in the proposal.

XIV. EXTENSIONS OF TIME

Extensions of time may be allowed by the Utility for reasonable delays due exclusively to causes beyond the control and without the fault of the Contractor including but not restricted to owner purchased material delivery delays, extra work or supplemental contract work added to the original contract, fires, strikes, unusual floods, accidents and unreasonable delays in receiving ordered materials and equipment. It should be understood by the Contractor that rain events occur and fluctuate from year to year and shall not be considered cause for a time extensions.

All requests for extensions of time shall be presented in writing to the Utility 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 Utility 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.

XV. LIQUIDATED DAMAGES

When the work embraced in the contract is not completed within the time stated in the Detail Specifications for the water main construction, and/or for the entire work, including testing, flushing, and surface restoration, as stated, and within such extra time as may be allowed by extensions, the Contractor shall pay to the Oak Creek Water & Sewer Utility the following sum for each and every calendar day that the time consumed in final completion exceeds the time allowed therefore, plus the engineering and inspection costs incurred during the time used beyond the allowed time:

Original Contract Amount		Daily Charge
From More Than	To and Including	Calendar Day
\$0	\$50,000	\$200.00
\$50,000	\$100,000	\$250.00
\$100,000	\$300,000	\$350.00
\$300,000	\$500,000	\$500.00
\$500,000	\$1,000,000	\$700.00
\$1,000,000	\$1,500,000	\$1,000.00
\$1,500,000	\$2,000,000	\$1,350.00
\$2,000,000	\$2,500,000	\$1,400.00
\$2,500,000	---	\$1,550.00

Completion of the work under this contract on the specified time schedules is necessary and vital to the Utility. Failure to complete the project on or before specified working days or calendar dates will result in loss of revenues, loss of timely use of the proposed facilities, delays, and possibly inflated costs for related or subsequent improvement installations, detrimental to the economic development of the City and Utility, as well as the additional cost of engineering expenses which will be required to be paid by the Utility.

Said sum in view of the difficulty of accurately ascertaining the loss which the Utility will suffer by reason of delay in completion is hereby fixed and agreed by the parties hereto as the liquidated damages that will be suffered by reason of such delay, and not as a penalty. The Utility will deduct and retain out of the monies which may become due hereunder, the amount of any such liquidated damages and in case the amount which may become due hereunder shall be less than the amount of liquidated damages suffered, the Contractor shall be liable to pay the difference upon demand by the Utility.

XVI. PROPOSAL ITEMS

Special note to the bidder and successful contractor:

Contractor will be allowed to work only while there is an Resident Project Representative at the site at any or all times and the Contractor must notify the Utility Engineer prior to commencing with any of the work specified for this project (i.e., excavation, shoring, sheathing, bedding, laying pipe, backfilling, clean-up, etc.) Resident Project Representative will be provided to the Contractor by the Utility at no cost to the Contractor, except that Resident Project Representative's time shall be charged to the Contractor in addition to the specified liquidated damages after he has exceeded his time of completion (see Instructions to Bidders). If the Contractor requests to work on Sundays or declared Utility holidays, a Resident Project Representative will be provided but the Contractor must pay for the Resident Project Representative's wages for such work. A list of official holidays can be obtained from the City of Oak Creek Engineering Department.

The bid price for each bid item shall include the furnishings of all materials, tools, labor, etc. It shall include saw cutting pavement full depth, execution disposition of surplus material, pipe laying, backfilling, sheeting, shoring, tunneling, auguring, dewatering, furnishing and installing of fittings, connecting to existing water mains disturbed or damaged by the Contractor's operation and clean-up, all as specified. Sales taxes for materials purchased for this project will not be paid by the Utility due to recent changes in Wisconsin State Law. The item numbers referred to below correspond to the item number in the proposal. Contractor shall refer to the items below for details of the work included.

Items 1 - 12" Diameter PVC Water Main, 3/4" T.B.B.F., Pavement Restoration

The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to install 12" Water Main, sawcutting and pavement removal, 3/4" T.B.B.F., and HMA pavement restoration complete in place and ready to use. This item shall include but not be limited to:

- Sawcut existing pavement full depth including layout

- Remove existing pavement
 - for pavement removal outside of the trench width, the contractor shall remove all pavement taking care to preserve the existing pavement base
- trench excavation
- remove existing pipe and appurtenances as necessary
- placement of torpedo sand bedding aggregate
- provide and install 12" PVC piping
- provide and install water main insulation
- provide and install mechanical restraints at required locations
- provide and install tracer wire
- provide and install a triple layer of 6-mil plastic wrapping for any appurtenance requiring stainless steel bolts
- provide and install all 12" PVC bends and fittings at locations indicated on Drawings
- provide and install 12" ductile iron end cap with restraint as shown on Drawings
- placement and compaction of torpedo sand cover aggregate
- placement and compaction of 3/4" traffic bond gravel backfill to bottom of pavement grade
- disinfection of installed 12" piping
- pressure testing of installed 12" piping
- assisting Utility staff with GPS point collection
- provide temporary support of power and light poles near excavations
- 3" HMA Pavement restoration
 - preparation of base to bottom of pavement grade.
 - placement and removal of aggregate ramps for access at driveways and intersections
 - water dispersion
 - finish grading for pavement
 - compaction
 - proof-rolling
 - existing manhole frame and valve box adjustment
 - furnishing, hauling, placement and compaction of HMA Pavement, 19mm, 3" course Type E-1
- Restoration of disturbed turf areas when disturbed
- Restoration of 2' Gravel shoulder when disturbed

The water main shall be placed in the manner indicated in these Detail Specifications and shall conform to the Detail Drawings included with these specifications. Type of backfill shall be as specified. Contractor is responsible for the actual extent of pavement removal and restoration. Restoration of pavement shall be against clean sawcut edges and Contractor shall be responsible for all edges damaged during work.

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

Item 2 - 12" Diameter PVCO Water Main, 3/4" T.B.B.F., Turf Restoration

The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to install 12" Water Main, 3/4" T.B.B.F, and turf restoration complete in place and ready to use. This item shall include but not be limited to:

- trench excavation
- remove existing pipe and appurtenances as necessary
- placement of torpedo sand bedding aggregate
- provide and install 12" PVCO piping
- provide and install water main insulation
- provide and install mechanical restraints at required locations
- provide and install tracer wire
- provide and install a triple layer of 6-mil plastic wrapping for any appurtenance requiring stainless steel bolts
- provide and install all 12" PVC bends and fittings at locations indicated on Drawings
- placement and compaction of torpedo sand cover aggregate
- placement and compaction of 3/4" traffic bond gravel backfill to bottom of topsoil grade
- disinfection of installed 12" piping
- pressure testing of installed 12" piping
- assisting Utility staff with GPS point collection
- provide temporary support of power and light poles near excavations
- Restoration of disturbed turf and lawn areas as specified
- Restoration of 2' Gravel shoulder when disturbed
- Restoration of paved areas when disturbed

The water main shall be placed in the manner indicated in these Detail Specifications and shall conform to the Detail Drawings included with these specifications. Type of backfill shall be as specified.

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

Item 3 - Connect to Existing 12" Water Main

The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to connect to existing 12" water main complete in place and ready to use. These items shall include but not be limited to:

- exposing existing water main to verify location and depth prior to scheduling connections
- provide and install fittings
- provide and install mechanical restraints at required locations
- provide and install 32 lb. magnesium galvanic anode protection on existing ductile iron pipe in accordance with the detail at the end of these Detailed Specifications
- provide and install a triple layer of 6-mil plastic wrapping for fittings and appurtenances requiring stainless steel bolts

- backfill in accordance with the plans with specified materials up to bottom of pavement grade

This item shall be paid based on the contract unit price per each installed as documented by the Resident Project Representative.

Item 4 - Hydrant, Lead, and 6-Inch Gate Valve

The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to furnish and set a hydrant with 6' 6" barrel, required extensions, with associated hydrant lead and auxiliary valve, together with all work and proper backfilling, complete in place and ready to use, in accordance with the construction plans and these Detailed Specifications and Drawings. This shall include installation of tracer wire test stations.

This item shall include the hydrant, hydrant lead (of various lengths), insulation, aux. valve, and 6" PVC bends and fittings at locations, as shown on the plans. The hydrant, lead, and valve shall be restrained back the water main. Install hydrant extensions as necessary to meet bury line elevation in accordance with the construction plans.

Restoration of disturbed areas, sod lawn or topsoil where applicable.

This item shall be paid based on the contract unit price per each as documented by the Resident Project Representative.

Item 5- 12" Gate Valve

The unit bid and contract price for this item shall include but not be limited to all equipment, materials, and labor necessary to install the 12" resilient wedge gate valve complete, in place, and ready to use in accordance with Section VII of these Detailed Specifications.

This item shall be paid based on the contract unit price per each installed as documented by the Resident Project Representative.

Item 6 - Remove and Salvage Existing Hydrant

The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to remove and salvage existing hydrant, lead, fittings, extensions and valves. OWNER maintains the first right to the salvaged material as determined by the Utility Engineer. Salvaged materials shall be delivered to the Utility headquarters located at 170 West Drexel Avenue, Oak Creek, WI 53154. If the OWNER does not wish to salvage these materials, they shall be properly disposed of by the Contractor. These items shall include but not be limited to:

- trench excavation
- sawcut existing pavement and remove asphalt
- remove lead, valve, and hydrant back to existing mainline tee
- placement of torpedo sand bedding aggregate
- provide and install 32 lb. magnesium galvanic anode protection on existing ductile iron

- pipe in accordance with the detail at the end of these Detailed Specifications
- provide and install 6" cap or plug as appropriate at existing mainline tee
- provide and install water main insulation if encountered
- provide and install a triple layer of 6-mil plastic wrapping for any appurtenance requiring stainless steel bolts
- placement and compaction of torpedo sand cover aggregate
- placement and compaction of 3/4" traffic bond gravel backfill to bottom of restoration grade
- disinfection of installed piping and fittings
- visually inspect joints under system head pressure prior to backfilling
- assisting Utility staff with GPS point collection
- provide temporary support of power and light poles near excavations
- remove existing retaining wall around hydrant to be abandoned
- Restoration of disturbed turf and lawn areas as specified
- Restoration of 2' Gravel shoulder as specified
- 3" HMA Pavement restoration
 - preparation of base to bottom of pavement grade.
 - placement and removal of aggregate ramps for access at driveways and intersections
 - water dispersion
 - finish grading for pavement
 - compaction
 - proof-rolling
 - existing manhole frame and valve box adjustment
 - furnishing, hauling, placement and compaction of HMA Pavement, 19mm, 3" course Type E-1

This item shall be paid based on the contract unit price per each removed as measured and documented by the Resident Project Representative.

Item 7– Erosion Control

The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to install Erosion Control items complete in place and ready to use. This item shall include but not be limited to:

- furnishing, hauling, and placement of silt fence, erosion bales, and other applicable materials.
- all incidental work related to erosion control required by local, state, and federal ordinances, statutes, permits, and regulations
- maintaining and removal of all temporary erosion control devices

This item shall be paid based on the contract unit price per lump sum as documented by the Resident Project Representative.

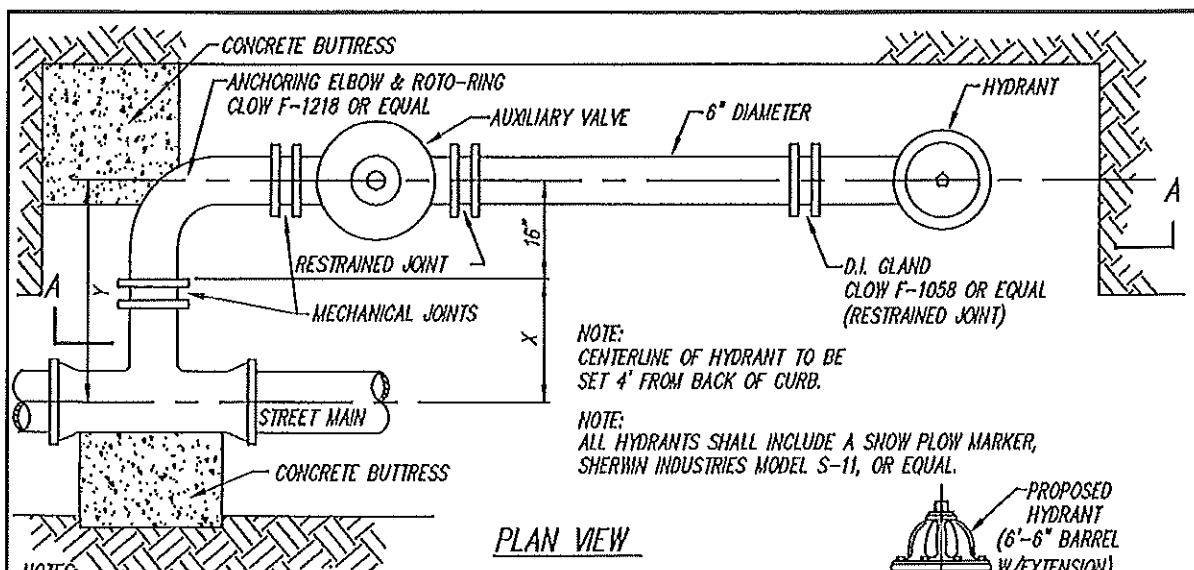
Item 8- Traffic Control

The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to install all Traffic Control as shown on the construction drawings. This item shall include but not be limited to:

- setting, maintaining, and removal of traffic control devices in accordance with the plans and specifications including flagging operations
- coordinating with and completing the requirements under Wisconsin Department of Transportation Permit
- daily checks and maintenance
- adherence to the Manual on Uniform Traffic Control Devices, latest edition

This item shall be paid based on the contract unit price per lump sum as documented by the Resident Project Representative.

WATER DETAILS



NOTES:

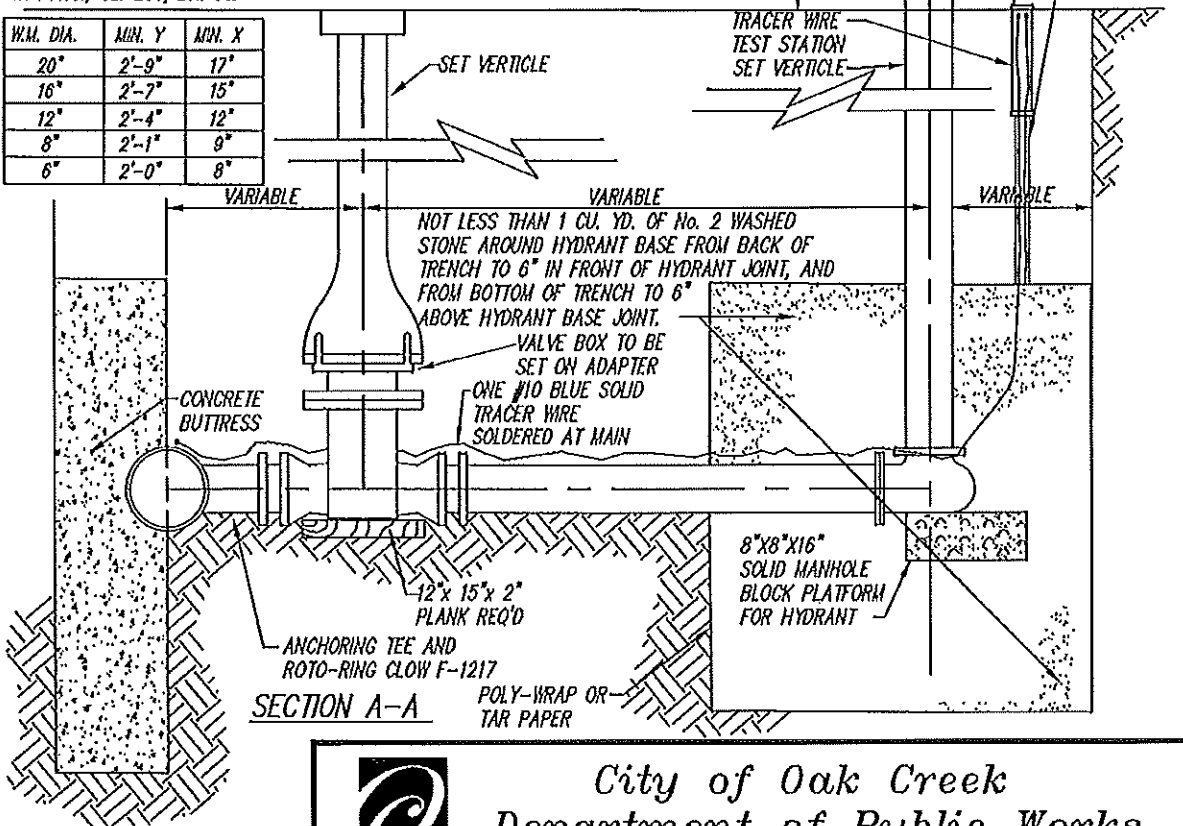
WHERE SPACING BETWEEN WATERMAIN AND HYDRANT REQUIRE, A CLOW F-1215 ANCHORING COUPLING OR F-1216 ANCHORING PIPE SHALL BE INSTALLED BETWEEN THE TEE AND ANCHORING ELBOW.

HYDRANT LEAD SHALL BE LAID ON NATURAL UNDISTURBED SOIL. COVER AND BACKFILL MATERIAL SHALL COMPLY WITH WATERMAIN SPECIFICATIONS. ALL JOINTS BETWEEN TEE AND VALVE SHALL BE RESTRAINED. POLYETHYLENE WRAPPED THROUGHOUT.

MATERIAL SPECIFICATIONS:

PIPE SHALL BE MADE OF D.I.P., CL. 52
OR P.V.C., CL. 200, DR. 14.

W.M. DIA.	MIN. Y	MIN. X
20"	2'-9"	17"
16"	2'-7"	15"
12"	2'-4"	12"
8"	2'-1"	9"
6"	2'-0"	8"



**City of Oak Creek
Department of Public Works**

Drawn By: K.C. Seufzer

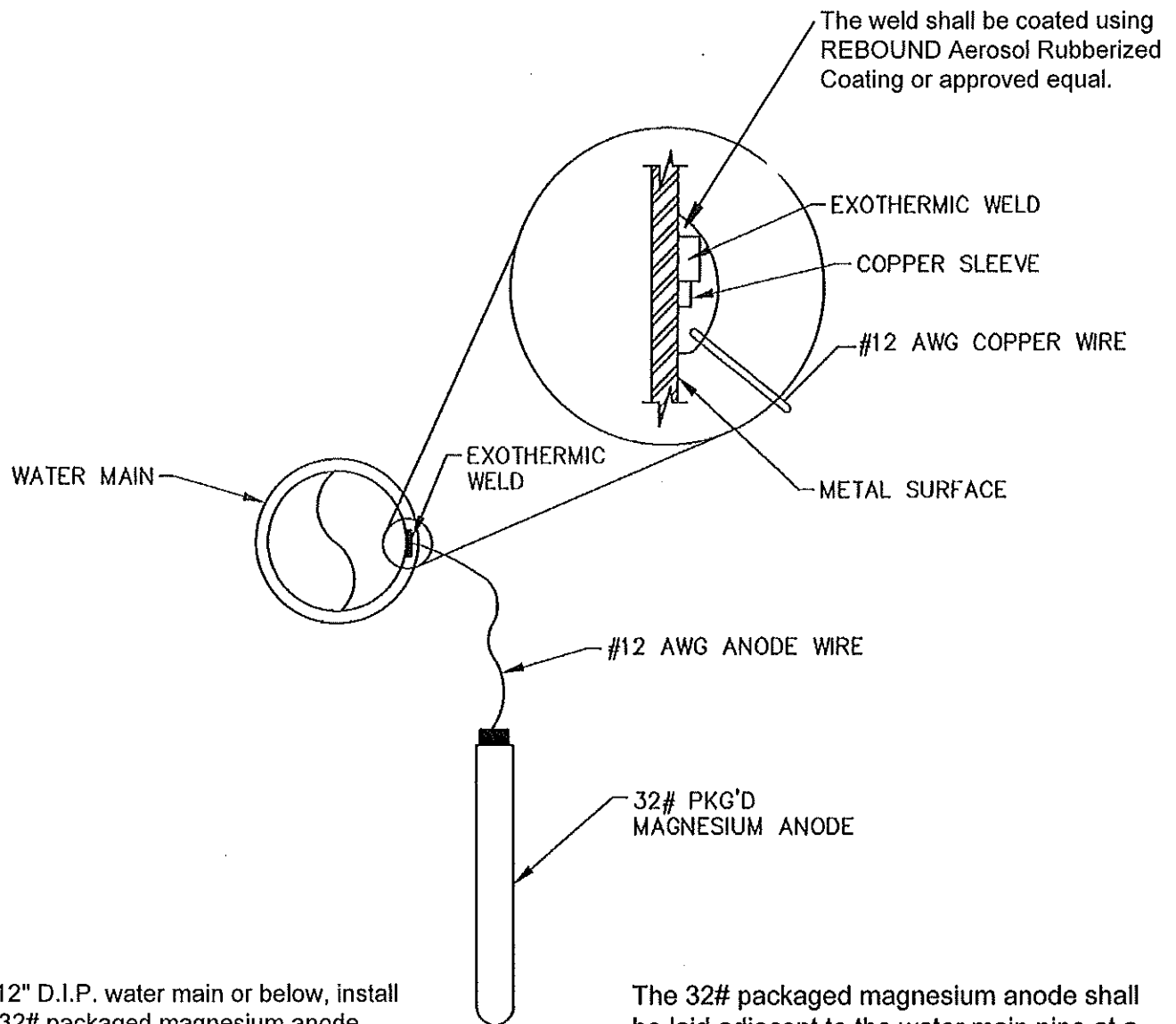
Scale: Not to Scale

Appv. By: M.J. Sullivan

Date: January 19, 2004

TYPE "B" HYDRANT SETTING DETAIL

WD-15



For 12" D.I.P. water main or below, install one 32# packaged magnesium anode.
For 16" D.I.P. water main or above, install two 32# packaged magnesium anodes.

The 32# packaged magnesium anode shall be laid adjacent to the water main pipe at a point that allows for the greatest separation between anode and water main.

GALVANIC ANODE INSTALLATION

N.T.S.

OAK CREEK WATER & SEWER UTILITY
DATE: 2/11/2014
SCALE: N.T.S.

WAGE RATES

State of Wisconsin Department of Workforce Development Equal Rights Division	DEPARTMENTAL ORDER	
ISSUE DATE: 2/1/2016		
PROJECT:		
S. 5TH AVENUE WATER MAIN EXTENSION PROJECT NO. 16103 OAK CREEK CITY, MILWAUKEE COUNTY, WI Determination No. 201600335 [Owner Project No. 16103]		
PROJECT OWNER:	REQUESTER:	
RON PRITZLAFF, UTILITY ENGINEER OAK CREEK WATER AND SEWER UTILITY 170 WEST DREXEL AVENUE OAK CREEK, WI 53154	BEN WOOD, MR. STRAND ASSOCIATES, INC. 126 N. JEFFERSON ST. SUITE 350 MILWAUKEE, WI 53202	
ADDITIONAL CONTACT:	NOTE: The Requester must provide a copy of this Project Determination and enclosures to the Project Owner and Additional Contact.	
<p>The department received an application for prevailing wage rate determination for the above-captioned project. The department conducted a survey to determine the prevailing wage rate for the trade(s) or occupation(s) needed to complete the project. The survey's findings appear in the attached project determination.</p> <p>If you believe that the wage rate for any trade or occupation does not accurately reflect the prevailing wage rate in the city, village or town where the project is located, you may ask the department to conduct an administrative review of such wage rate. You must submit this request in writing within 30 days from the date indicated above. Additionally, your request must include wage rate information from at least three similar projects in the city, village or town where the proposed project is located and on which some work has been performed by the contested trade(s) during the current survey period and was previously considered by the department in issuing the attached determination. See DWD 290.10 of the Wisconsin Administrative Code and either s. 66.0903(3)(br), Stats., or s. 103.49(3)(c), Stats., for a complete explanation of the administrative review process.</p> <p>Enclosures</p>		
<p>It is hereby ordered that the prevailing wage rates set forth in the attached project determination shall only be applicable to the above referenced project. This order is a FINAL ORDER of the department unless a timely request for an administrative review is filed with the department.</p> <p>ISSUED BY:</p> <p style="text-align: center;"> Equal Rights Division Labor Standards Bureau Construction Wage Standards Section P.O. Box 8928, Madison, WI 53708-8928 (608)266-6861 </p> <p style="text-align: center;"> Web Site: http://dwd.wisconsin.gov/er/ </p>		

PREVAILING WAGE RATE DETERMINATION

Issued by the State of Wisconsin
Department of Workforce Development
Pursuant to s. 66.0903, Wis. Stats.
Issued On: 2/1/2016

DETERMINATION NUMBER: 201600335

EXPIRATION DATE: Prime Contracts MUST Be Awarded or Negotiated On Or Before 12/31/2016. If NOT, You MUST Reapply.

PROJECT NAME: S. 5TH AVENUE WATER MAIN EXTENSION PROJECT NO. 16103
PROJECT NO: 16103

PROJECT LOCATION: OAK CREEK CITY, MILWAUKEE COUNTY, WI

CONTRACTING AGENCY: OAK CREEK WATER AND SEWER UTILITY

CLASSIFICATION:	Contractors are responsible for correctly classifying their workers. Either call the Department of Workforce Development (DWD) with trade or classification questions or consult DWD's Dictionary of Occupational Classifications & Work Descriptions on the DWD website at: dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm .
OVERTIME:	<p>Time and one-half must be paid for all hours worked:</p> <ul style="list-style-type: none">- over 10 hours per day on prevailing wage projects- over 40 hours per calendar week- Saturday and Sunday- on all of the following holidays: January 1; the last Monday in May; July 4; the 1st Monday in September; the 4th Thursday in November; December 25;- The day before if January 1, July 4 or December 25 falls on a Saturday;- The day following if January 1, July 4 or December 25 falls on a Sunday. <p>Apply the time and one-half overtime calculation to whichever is higher between the Hourly Basic Rate listed on this project determination or the employee's regular hourly rate of pay. Add any applicable Premium or DOT Premium to the Hourly Basic Rate before calculating overtime.</p> <p>A DOT Premium (discussed below) may supersede this time and one-half requirement.</p>
FUTURE INCREASE:	When a specific trade or occupation requires a future increase, you MUST add the full hourly increase to the "TOTAL" on the effective date(s) indicated for the specific trade or occupation.
PREMIUM PAY:	If indicated for a specific trade or occupation, the full amount of such pay MUST be added to the "HOURLY BASIC RATE OF PAY" indicated for such trade or occupation, whenever such pay is applicable.
DOT PREMIUM:	This premium only applies to highway and bridge projects owned by the Wisconsin Department of Transportation and to the project type heading "Airport Pavement or State Highway Construction." DO NOT apply the premium calculation under any other project type on this determination.
APPRENTICES:	Pay apprentices a percentage of the applicable journey person's hourly basic rate of pay and hourly fringe benefit contributions specified in this determination. Obtain the appropriate percentage from each apprentice's contract or indenture.
SUBJOURNEY:	Subjourney wage rates may be available for some of the trades or occupations indicated below with the exception of laborers, truck drivers and heavy equipment operators. Any employer interested in using a subjourney classification on this project MUST complete Form ERD-10880 and request the applicable wage rate from the Department of Workforce Development PRIOR to using the subjourney worker on this project.

This document **MUST BE POSTED** by the **CONTRACTING AGENCY** in at least one conspicuous and easily accessible place **on the site of the project**. A local governmental unit may post this document at the place normally used to post public notices if there is no common site on the project. This document **MUST** remain posted during the entire time any worker is employed on the project and **MUST** be physically incorporated into the specifications and all contracts and subcontracts. If you have any questions, please write to the Equal Rights Division, Labor Standards Bureau, P.O. Box 8928, Madison, Wisconsin 53708 or call (608) 266-6861.

The following statutory provisions apply to local governmental unit projects of public works and are set forth below pursuant to the requirements of s. 66.0903(8), Stats.

s. 66.0903 (1) (f) & s. 103.49 (1) (c) "PREVAILING HOURS OF LABOR" for any trade or occupation in any area means 10 hours per day and 40 hours per week and may not include any hours worked on a Saturday or Sunday or on any of the following holidays:

1. January 1.
2. The last Monday in May.
3. July 4.
4. The first Monday in September.
5. The 4th Thursday in November.
6. December 25.
7. The day before if January 1, July 4 or December 25 falls on a Saturday.
8. The day following if January 1, July 4 or December 25 falls on a Sunday.

s. 66.0903 (10) RECORDS; INSPECTION; ENFORCEMENT.

(a) Each contractor, subcontractor, or contractor's or subcontractor's agent performing work on a project of public works that is subject to this section shall keep full and accurate records clearly indicating the name and trade or occupation of every person performing the work described in sub. (4) and an accurate record of the number of hours worked by each of those persons and the actual wages paid for the hours worked.

s. 66.0903 (11) LIABILITY AND PENALTIES.

(a) 1. Any contractor, subcontractor, or contractor's or subcontractor's agent who fails to pay the prevailing wage rate determined by the department under sub. (3) or who pays less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor is liable to any affected employee in the amount of his or her unpaid wages or his or her unpaid overtime compensation and in an additional amount as liquidated damages as provided under subd. 2., 3., whichever is applicable.

2. If the department determines upon inspection under sub. (10) (b) or (c) that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the department shall order the contractor to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages within a period specified by the department in the order.

3. In addition to or in lieu of recovering the liability specified in subd. 1. as provided in subd. 2., any employee for and in behalf of that employee and other employees similarly situated may commence an action to recover that liability in any court of competent jurisdiction. If the court finds that a contractor, subcontractor, or contractor's or subcontractor's agent has failed to pay the prevailing wage rate determined by the department under sub. (3) or has paid less than 1.5 times the hourly basic rate of pay for all hours worked in excess of the prevailing hours of labor, the court shall order the contractor, subcontractor, or agent to pay to any affected employee the amount of his or her unpaid wages or his or her unpaid overtime compensation and an additional amount equal to 100 percent of the amount of those unpaid wages or that unpaid overtime compensation as liquidated damages.

5. No employee may be a party plaintiff to an action under subd. 3. unless the employee consents in writing to become a party and the consent is filed in the court in which the action is brought. Notwithstanding s. 814.04 (1), the court shall, in addition to any judgment awarded to the plaintiff, allow reasonable attorney fees and costs to be paid by the defendant.

BUILDING OR HEAVY CONSTRUCTION

Includes sheltered enclosures with walk-in access for the purpose of housing persons, employees, machinery, equipment or supplies and non-sheltered work such as canals, dams, dikes, reservoirs, storage tanks, etc. A sheltered enclosure need not be "habitable" in order to be considered a building. The installation of machinery and/or equipment, both above and below grade level, does not change a project's character as a building. On-site grading, utility work and landscaping are included within this definition. Residential buildings of four (4) stories or less, agricultural buildings, parking lots and driveways are NOT included within this definition.

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
101	Acoustic Ceiling Tile Installer Future Increase(s): Add \$1.65/hr on 6/1/2016.	35.28	20.96	56.24
102	Boilermaker	30.21	21.97	52.18
103	Bricklayer, Blocklayer or Stonemason Future Increase(s): Add \$1.45 on 06/06/2016 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	36.74	19.26	56.00
104	Cabinet Installer Future Increase(s): Add \$1.65/hr on 6/1/2016.	35.28	20.96	56.24
105	Carpenter Future Increase(s): Add \$1.65/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.28	20.96	56.24
106	Carpet Layer or Soft Floor Coverer Future Increase(s): Add \$1.65/hr on 6/1/2016.	35.28	20.96	56.24
107	Cement Finisher Future Increase(s): Add \$1.45 on 05/31/2016	32.88	19.88	52.76
108	Drywall Taper or Finisher Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.05/hr eff. 06/01/2017	30.42	21.19	51.61
109	Electrician Future Increase(s): Add \$1.60 on 6/1/16; Add \$1.70 on 6/1/17 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.13	23.19	58.32

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
110	Elevator Constructor	43.84	27.09	70.93
111	Fence Erector	24.73	19.69	44.42
112	Fire Sprinkler Fitter	39.66	21.11	60.77
113	Glazier Future Increase(s): Add \$.90/hr eff. 06/01/2016	34.45	18.99	53.44
114	Heat or Frost Insulator	33.53	27.31	60.84
115	Insulator (Batt or Blown)	23.62	11.55	35.17
116	Ironworker	30.77	23.72	54.49
117	Lather	34.13	20.61	54.74
118	Line Constructor (Electrical)	40.81	18.06	58.87
119	Marble Finisher	25.72	18.54	44.26
120	Marble Mason	35.89	18.77	54.66
121	Metal Building Erector	19.00	2.00	21.00
122	Millwright Future Increase(s): Add \$1.35/hr on 6/1/2016.	29.78	26.38	56.16
123	Overhead Door Installer	28.73	0.00	28.73
124	Painter Future Increase(s): Add \$1.00/hr on 06/01/2016; Add \$1.05/hr on 06/01/2017 Premium Increase(s): Add \$.20/hr for paperhanging; Add \$.35/hr for bridge, iron and drywall; Add \$.75/hr for spraying and sandblasting; Add \$.60/hr for EIFS work; Add \$1.00/hr for lead based paint removal.	30.07	21.19	51.26
125	Pavement Marking Operator	30.00	19.61	49.61
126	Piledriver Future Increase(s): Add \$1.60/hr on 6/1/2016. Premium Increase(s): Add \$.65/hr for Piledriver Loftsmen; Add \$.75/hr for Sheet Piling Loftsmen. DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	30.58	27.54	58.12
127	Pipeline Fuser or Welder (Gas or Utility)	41.01	21.54	62.55
129	Plasterer	30.22	20.53	50.75

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
130	Plumber Future Increase(s): Add \$2/hr on 6/1/16; Add \$2/hr on 6/1/17.	39.62	20.12	59.74
132	Refrigeration Mechanic Future Increase(s): Add \$2.00 on 6/1/16; Add \$2.00 on 6/1/17	42.36	21.99	64.35
133	Roofer or Waterproofer	29.65	18.61	48.26
134	Sheet Metal Worker	37.91	21.05	58.96
135	Steamfitter Future Increase(s): Add \$2.00 on 6/1/16; Add \$2.00 on 6/1/17	42.36	21.99	64.35
137	Teledata Technician or Installer Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	26.00	17.74	43.74
138	Temperature Control Installer	41.01	21.54	62.55
139	Terrazzo Finisher	25.72	18.54	44.26
140	Terrazzo Mechanic Future Increase(s): Add \$1.45 on 06/06/2016	31.59	19.60	51.19
141	Tile Finisher	30.00	0.00	30.00
142	Tile Setter	30.18	17.34	47.52
143	Tuckpointer, Caulker or Cleaner	34.28	18.60	52.88
144	Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
146	Well Driller or Pump Installer Future Increase(s): Add \$1/hr on 6/1/2016; Add \$1/hr on 6/1/2017.	25.32	16.40	41.72
147	Siding Installer	17.00	6.71	23.71
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	20.41	57.14
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	14.96	47.61
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.55	40.08
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	25.00	12.55	37.55

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
201	Single Axle or Two Axle	34.47	18.70	53.17
203	Three or More Axle	20.00	18.19	38.19
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.60/hr on 5/30/2016.	33.02	19.15	52.17
205	Pavement Marking Vehicle	20.00	18.19	38.19
207	Truck Mechanic	20.00	18.19	38.19

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
301	General Laborer	29.01	17.39	46.40
302	Asbestos Abatement Worker	19.00	0.00	19.00
303	Landscaper	14.00	11.63	25.63
310	Gas or Utility Pipeline Laborer (Other Than Sewer and Water)	20.83	18.39	39.22
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.53	0.00	18.53
314	Railroad Track Laborer	17.00	5.43	22.43
315	Final Construction Clean-Up Worker	29.01	17.39	46.40

**HEAVY EQUIPMENT OPERATORS
SITE PREPARATION, UTILITY OR LANDSCAPING WORK ONLY**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
501	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Milling Machine; Boring Machine (Directional, Horizontal or Vertical); Backhoe (Track Type) Having a Mfg'r's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfg'r's Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Crane, Shovel, Dragline, Clamshells; Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Grader or Motor Patrol; Master Mechanic; Mechanic or Welder; Robotic Tool Carrier (With or Without Attachments); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Tractor (Scraper, Dozer, Pusher, Loader); Trencher (Wheel Type or Chain Type Having Over 8 Inch Bucket). Future Increase(s): Add \$1.60/hr on 5/30/2016.	35.52	19.15	54.67
502	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Environmental Burner; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Jeep Digger; Screed (Milling Machine); Skid Rig; Straddle Carrier or Travel Lift; Stump Chipper; Trencher (Wheel Type or Chain Type Having 8 Inch Bucket & Under). Future Increase(s): Add \$1.60/hr on 5/30/2016.	35.52	19.15	54.67
503	Air Compressor (&/or 400 CFM or Over); Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Forklift; Generator (&/or 150 KW or Over); Greaser; High Pressure Utility Locating Machine (Daylighting Machine); Mulcher; Oiler; Post Hole Digger or Driver; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 5/30/2016.	35.22	19.15	54.37
504	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
505	Work Performed on the Great Lakes Including Crane or Backhoe Operator; Assistant Hydraulic Dredge Engineer; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder; 70 Ton & Over Tug Operator. Future Increase(s): Add \$1.25/hr on 1/1/2017. Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	44.05	23.24	67.29

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
506	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery. Future Increase(s): Add \$1.25/hr on 1/1/2017.	39.20	23.09	62.29
507	Work Performed on the Great Lakes Including Deck Equipment Operator, Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	36.72	21.15	57.87

**HEAVY EQUIPMENT OPERATORS
EXCLUDING SITE PREPARATION, UTILITY, PAVING LANDSCAPING WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
508	Boring Machine (Directional); Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Premium Increase(s): Crane Operators with CCO certification add \$.50/hr. Cranes with boom length over 200 ft. not exceeding 300 ft. OR lifting capacity over 200 ton not exceeding 300 ton add \$.50/hr. Over 300 ton OR 300 ft. add \$.01/hr. per foot OR ton whichever is greater.	41.66	20.65	62.31
509	Backhoe (Track Type) Having a Mfgr's Rated Capacity of 130,000 Lbs. or Over; Boring Machine (Horizontal or Vertical); Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With A Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Pile Driver; Versi Lifts, Tri-Lifts & Gantrys (20,000 Lbs. & Over). Premium Increase(s): Crane Operators with CCO certification add \$.50/hr.	41.16	20.65	61.81
510	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Dredge (NOT Performing Work on the Great Lakes); Forklift (Machinery Moving or Steel Erection, 25 Ft & Over); Gradall (Cruz-Aire Type); Hydro-Blaster (10,000 PSI or Over); Milling Machine; Skid Rig; Traveling Crane (Bridge Type). Premium Increase(s): Crane Operators with CCO certification add \$.50/hr.	40.66	20.65	61.31

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
511	Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Bulldozer or Endloader (Over 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Environmental Burner; Gantrys (Under 20,000 Lbs.); Grader or Motor Patrol; High Pressure Utility Locating Machine (Daylighting Machine); Manhoist; Material or Stack Hoist; Mechanic or Welder; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tining or Curing Machine; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket).	39.97	20.65	60.62
512	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Grout Pump; Hoist (Tugger, Automatic); Industrial Locomotives; Jeep Digger; Lift Slab Machine; Mulcher; Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames.	38.09	20.65	58.74
513	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Boatmen (NOT Performing Work on the Great Lakes); Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Elevator; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Forklift; Generator (&/or 150 KW or Over); Greaser; Heaters (Mechanical); Loading Machine (Conveyor); Oiler; Post Hole Digger or Driver; Prestress Machine; Pump (3 Inch or Over) or Well Points; Refrigeration Plant or Freeze Machine; Robotic Tool Carrier (With or Without Attachments); Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack.	32.94	20.65	53.59
514	Gas or Utility Pipeline, Except Sewer & Water (Primary Equipment). Future Increase(s): Add \$1/hr on 5/30/2016.	37.04	22.44	59.48
515	Gas or Utility Pipeline, Except Sewer & Water (Secondary Equipment).	34.76	20.30	55.06
516	Fiber Optic Cable Equipment	21.00	0.00	21.00

SEWER, WATER OR TUNNEL CONSTRUCTION
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Includes those projects that primarily involve public sewer or water distribution, transmission or collection systems and related tunnel work (excluding buildings).

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason	35.89	18.77	54.66
105	Carpenter	34.13	20.61	54.74
107	Cement Finisher Future Increase(s): Add \$1.75 on 6/1/16. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.40/hr when the Wisconsin Department of Transportation or responsible governing agency requires that work be performed at night under artificial illumination with traffic control and the work is completed after sunset and before sunrise.	31.44	22.39	53.83
109	Electrician Future Increase(s): Add \$1.60 on 6/1/16; Add \$1.70 on 6/1/17 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.13	23.19	58.32
111	Fence Erector	24.73	19.69	44.42
116	Ironworker	32.50	20.58	53.08
118	Line Constructor (Electrical)	40.81	18.06	58.87
125	Pavement Marking Operator	30.00	19.61	49.61
126	Piledriver	30.11	26.51	56.62
130	Plumber Future Increase(s): Add \$1.50 on 6/1/16	39.95	19.45	59.40
135	Steamfitter	41.01	21.54	62.55
137	Teledata Technician or Installer	25.63	17.25	42.88
143	Tuckpointer, Caulker or Cleaner	34.28	18.60	52.88
144	Underwater Diver (Except on Great Lakes)	31.00	20.43	51.43
146	Well Driller or Pump Installer Future Increase(s): Add \$1/hr on 6/1/2016; Add \$1/hr on 6/1/2017.	25.32	16.40	41.72

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	14.96	47.61
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.55	40.08
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	22.45	11.84	34.29

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
201	Single Axle or Two Axle	19.00	0.00	19.00
203	Three or More Axle	19.00	0.00	19.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	33.69	19.78	53.47
205	Pavement Marking Vehicle	19.00	0.00	19.00
207	Truck Mechanic	19.00	0.00	19.00

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
301	General Laborer Future Increase(s): Add \$1.25/hr eff. 06/06/2016 Premium Increase(s): Add \$2.29 for bottomman; Add \$2.15 for concrete manhole builder, bracer, jointman, or pipelayer; Add \$5.44 for blaster. Add \$2.00 for all tunnel work under 15 lbs. compressed air; Add \$2.00 for 0-30 lbs. compressed air; Add \$3.00 for over 30 lbs. compressed air.	29.73	18.32	48.05
303	Landscaper	41.00	0.00	41.00
304	Flagperson or Traffic Control Person	19.31	15.21	34.52
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.53	0.00	18.53
314	Railroad Track Laborer	17.00	5.43	22.43

**HEAVY EQUIPMENT OPERATORS
SEWER, WATER OR TUNNEL WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
521	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Master Mechanic; Pile Driver. Premium Increase(s): Add \$.25/hr for operating tower crane.	38.09	20.80	58.89
522	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump (Over 46 Meter), Concrete Conveyor (Rotec or Bidwell Type); Concrete Spreader & Distributor; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Dredge (NOT Performing Work on the Great Lakes); Milling Machine; Skid Rig; Telehandler; Traveling Crane (Bridge Type). Premium Increase(s): Add \$.25/hr for operating tower crane.	37.31	20.80	58.11
523	Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Boring Machine (Horizontal or Vertical); Bulldozer or Endloader (Over 40 hp); Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Concrete Pump (46 Meter & Under), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Manhoist; Material or Stack Hoist; Mechanic or Welder; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yd or More Capacity; Screed (Milling Machine); Sideboom; Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Tractor or Truck Mounted Hydraulic Crane (10 Tons or Under); Trencher (Wheel Type or Chain Type Having Over 8-Inch Bucket). Premium Increase(s): Add \$.25/hr for operating tower crane.	36.36	20.80	57.16

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
524	Backfiller; Broom or Sweeper; Bulldozer or Endloader (Under 40 hp); Compactor (Self-Propelled 85 Ft Total Drum Width & Over, or Tractor Mounted, Towed & Light Equipment); Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Finishing Machine (Road Type); Environmental Burner; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Hoist (Tugger, Automatic); Grout Pump; Jeep Digger; Lift Slab Machine; Mulcher; Power Subgrader; Pump (3 Inch or Over) or Well Points; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Screw or Gypsum Pumps; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Stump Chipper; Tining or Curing Machine; Trencher (Wheel Type or Chain Type Having 8-Inch Bucket & Under); Winches & A-Frames.	33.69	21.75	55.44
525	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Compactor (Self-Propelled 84 Ft Total Drum Width & Under, or Tractor Mounted, Towed & Light Equipment); Crusher, Screening or Wash Plant; Farm or Industrial Type Tractor; Fireman (Asphalt Plant NOT Performing Work on the Great Lakes); Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Loading Machine (Conveyor); Post Hole Digger or Driver; Refrigeration Plant or Freeze Machine; Rock, Stone Breaker; Skid Steer Loader (With or Without Attachments); Vibratory Hammer or Extractor, Power Pack. Premium Increase(s): Add \$.25/hr for operating tower crane.	33.91	20.80	54.71
526	Boiler (Temporary Heat); Forklift; Greaser; Oiler.	31.89	20.15	52.04
527	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
528	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder.	41.65	21.71	63.36
529	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or More); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	36.72	21.15	57.87
530	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under), Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	36.72	21.15	57.87

LOCAL STREET OR MISCELLANEOUS PAVING CONSTRUCTION
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Includes roads, streets, alleys, trails, bridges, paths, racetracks, parking lots and driveways (except residential or agricultural), public sidewalks or other similar projects (excluding projects awarded by the Wisconsin Department of Transportation).

SKILLED TRADES

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason	35.89	18.77	54.66
105	Carpenter Future Increase(s): Add \$1.42/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.02	17.12	50.14
107	Cement Finisher	34.95	19.38	54.33
109	Electrician Future Increase(s): Add \$1.60 on 6/1/16; Add \$1.70 on 6/1/17 Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	35.13	23.19	58.32
111	Fence Erector	24.73	19.69	44.42
116	Ironworker	30.77	23.72	54.49
118	Line Constructor (Electrical)	40.81	18.06	58.87
124	Painter	29.62	20.74	50.36
125	Pavement Marking Operator	30.00	19.61	49.61
126	Piledriver Future Increase(s): Add \$1.44/hr on 6/1/2016. Premium Increase(s): DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	33.56	17.12	50.68
133	Roofer or Waterproofor	29.65	18.61	48.26
137	Teledata Technician or Installer	25.63	17.25	42.88
143	Tuckpointer, Caulker or Cleaner	34.28	18.60	52.88
144	Underwater Diver (Except on Great Lakes)	36.74	16.00	52.74
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	36.73	15.92	52.65

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	32.65	14.96	47.61
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	28.57	13.71	42.28
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.53	13.55	40.08
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	22.45	11.84	34.29

TRUCK DRIVERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
201	Single Axle or Two Axle	19.00	0.00	19.00
203	Three or More Axle	19.00	0.00	19.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.60/hr on 6/3/2016.	34.69	20.38	55.07
205	Pavement Marking Vehicle	19.00	0.00	19.00
206	Shadow or Pilot Vehicle	19.00	0.00	19.00
207	Truck Mechanic	19.00	0.00	19.00

LABORERS

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
301	General Laborer	29.01	17.39	46.40
303	Landscaper Future Increase(s): Add \$1.00/hr eff. 06/01/2016; Add \$1.00/hr eff. 06/01/2017 Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.25/hr for work on projects involving temporary traffic control setup, for lane and shoulder closures, when work under artificial illumination conditions is necessary as required by the project provisions (including prep time prior to and/or cleanup after such time period).	27.51	20.63	48.14
304	Flagperson or Traffic Control Person	19.31	15.21	34.52
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	18.53	0.00	18.53

314	Railroad Track Laborer	17.00	5.43	22.43
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**HEAVY EQUIPMENT OPERATORS
CONCRETE PAVEMENT OR BRIDGE WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
541	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self-Erecting Tower Crane With a Lifting Capacity Of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic. Future Increase(s): Add \$1.60/hr on 6/3/2016. Premium Increase(s): Add \$.50/hr for >200 Ton; Add \$1/hr at 300 Ton; Add \$1.50/hr at 400 Ton; Add \$2/hr at 500 Ton & Over.	37.67	20.38	58.05
542	Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity of 4,000 Lbs. & Under; Crane, Tower Crane Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx .	37.77	21.85	59.62

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
543	<p>Air Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Automatic Subgrader (Concrete); Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Boring Machine (Directional, Horizontal or Vertical); Bridge (Bidwell) Paver; Bulldozer or Endloader; Concrete Batch Plant, Batch Hopper; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Bump Cutter, Grinder, Planing or Grooving Machine; Concrete Conveyor System; Concrete Laser/Screed; Concrete Paver (Slipform); Concrete Pump, Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb & Gutter Machine; Concrete Spreader & Distributor; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Grout Pump; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Straddle Carrier or Travel Lift; Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx.</p>	37.27	21.85	59.12
544	<p>Backfiller; Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Self Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler; Tining or Curing Machine.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Pages/doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx.</p>	37.27	21.85	59.12

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
545	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack.	31.62	19.78	51.40
546	Fiber Optic Cable Equipment.	21.00	0.00	21.00
547	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	41.65	21.71	63.36
548	Work Performed on the Great Lakes Including 70 Ton & Over Tug Operator; Assistant Hydraulic Dredge Engineer; Crane or Backhoe Operator; Hydraulic Dredge Leverman or Diver's Tender; Mechanic or Welder. Future Increase(s): Add \$1.25/hr on 1/1/2017. Premium Increase(s): Add \$.50/hr for Friction Crane, Lattice Boom or Crane Certification (CCO).	44.05	23.24	67.29
549	Work Performed on the Great Lakes Including Deck Equipment Operator or Machineryman (Maintains Cranes Over 50 Tons or Backhoes 115,000 Lbs. or more); Tug, Launch or Loader, Dozer or Like Equipment When Operated on a Barge, Breakwater Wall, Slip, Dock or Scow, Deck Machinery.	36.72	21.15	57.87
550	Work Performed on the Great Lakes Including Deck Equipment Operator; Machineryman or Fireman (Operates 4 Units or More or Maintains Cranes 50 Tons or Under or Backhoes 115,000 Lbs. or Under); Deck Hand, Deck Engineer or Assistant Tug Operator; Off Road Trucks - Great Lakes ONLY.	36.72	21.15	57.87

**HEAVY EQUIPMENT OPERATORS
ASPHALT PAVEMENT OR OTHER WORK**

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
551	Crane, Tower Crane, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of Over 100 Tons, Self Erecting Tower Crane With a Lifting Capacity of Over 4,000 Lbs., Crane With Boom Dollies; Crane, Tower Crane, Pedestal Tower or Derrick, With Boom, Leads and/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.	36.67	19.78	56.45

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
552	<p>Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of 130,000 Lbs. or Over; Caisson Rig; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With or Without Attachments, With a Lifting Capacity of 100 Tons or Under, Self-Erecting Tower Crane With a Lifting Capacity Of 4,000 Lbs. & Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &/or Jib Lengths Measuring 175 Ft or Under; Dredge (NOT Performing Work on the Great Lakes); Licensed Boat Pilot (NOT Performing Work on the Great Lakes); Pile Driver.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p> <p>Premium Increase(s): DOT PREMIUMS: 1) Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day. 2) Add \$1.50/hr night work premium. See DOT'S website for details about the applicability of this night work premium at: http://wisconsin.gov/Page doing-bus/civil-rights/labornwage/prevaling-wage-compliance.aspx.</p>	37.77	21.85	59.62
553	<p>Air, Track, Rotary or Percussion Drilling Machine &/or Hammers, Blaster; Asphalt Heater, Planer & Scarifier; Asphalt Milling Machine; Asphalt Screed; Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. & Under); Bituminous (Asphalt) Plant & Paver, Screed; Boring Machine (Directional, Horizontal or Vertical); Bulldozer or Endloader; Concrete Breaker (Large, Auto, Vibratory/Sonic, Manual or Remote); Concrete Conveyor System; Concrete Laser/Screed; Concrete Slipform Placer Curb & Gutter Machine; Crane (Carry Deck, Mini) or Truck Mounted Hydraulic Crane (10 Tons or Under); Crane With a Lifting Capacity of 25 Tons or Under; Forestry Equipment, Timbco, Tree Shear, Tub Grinder, Processor; Gradall (Cruz-Aire Type); Grader or Motor Patrol; Hydro-Blaster (10,000 PSI or Over); Loading Machine (Conveyor); Manhoist; Material or Stack Hoist; Mechanic or Welder; Milling Machine; Post Hole Digger or Driver; Railroad Track Rail Leveling Machine, Tie Placer, Extractor, Tamper, Stone Leveler or Rehabilitation Equipment; Roller (Over 5 Ton); Scraper (Self Propelled or Tractor Drawn) 5 cu yds or More Capacity; Shoulder Widener; Sideboom; Skid Rig; Stabilizing or Concrete Mixer (Self-Propelled or 14S or Over); Tractor (Scraper, Dozer, Pusher, Loader); Tractor or Truck Mounted Hydraulic Backhoe; Trencher (Wheel Type or Chain Type); Tube Finisher; Tugger (NOT Performing Work on the Great Lakes); Winches & A-Frames.</p> <p>Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p>	36.72	21.50	58.22

Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
CODE	TRADE OR OCCUPATION	\$	\$	\$
554	Backfiller; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed & Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver & Derrick NOT Performing Work on the Great Lakes); Forklift; Greaser; Hoist (Tugger, Automatic); Jeep Digger; Joint Sawyer (Multiple Blade); Launch (NOT Performing Work on the Great Lakes); Lift Slab Machine; Mechanical Float; Mulcher; Power Subgrader; Robotic Tool Carrier (With or Without Attachments); Roller (Rubber Tire, 5 Ton or Under); Self-Propelled Chip Spreader; Shouldering Machine; Skid Steer Loader (With or Without Attachments); Telehandler. Future Increase(s): Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.	36.72	21.50	58.22
555	Air Compressor (&/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Augers (Vertical & Horizontal); Automatic Belt Conveyor & Surge Bin; Boiler (Temporary Heat); Crusher, Screening or Wash Plant; Generator (&/or 150 KW or Over); Heaters (Mechanical); High Pressure Utility Locating Machine (Daylighting Machine); Mudjack; Oiler; Prestress Machine; Pug Mill; Pump (3 Inch or Over) or Well Points; Rock, Stone Breaker; Screed (Milling Machine); Stump Chipper; Tank Car Heaters; Vibratory Hammer or Extractor, Power Pack. Future Increase(s): Add \$1.60/hr on 6/3/2016.	32.62	20.38	53.00
556	Fiber Optic Cable Equipment.	21.00	0.00	21.00

***** END OF RATES *****

The documents following the Prevailing Wage Rate Determination consist of twenty pages (including this one) of various forms/documents that will be used throughout the completion of the project. This prevailing wage rate determination and its underlying legal requirements outlined in the attached documents apply for the life of this project even though work on the project continues into 2017 or beyond. The chart below lists the form number, form/document name, the party who uses the document, and the document's number of pages. If you have any questions regarding these forms please call the Prevailing Wage Office at (608)266-6861.

ERD Form Number	Form Name	Party Who Uses the Form	Pages
	July 2015 description of recent changes to Wisconsin's prevailing wage laws resulting from enactment of the 2015-17 State Budget Bill.		1
	Prevailing Wage - Public Entity Project Owners	Explanation of project owner responsibilities	2
16056	Post the White Sheet	Contracting agency	1
10908	Consolidated List of Debarred Contractors	Any party contracting someone to complete work on a prevailing wage project	4
	Prevailing Wage – Contractors	Explanation of contractor responsibilities	2
7777	Disclosure of Ownership	Contractors that meet the criteria set out in (3)(A)&(B) of the form	1
5724	Prime Contractor Affidavit of Compliance	Prime contractor files with contracting agency upon completion of the work before receiving final payment	2
10584	Agent or Subcontractor Affidavit of Compliance	Subcontractors file with their awarding contractor upon completion of their work on the project before receiving final payment	2
10880	Request to Employ Subjourneyperson	Contractors wishing to employ a subjourneyperson(s)	1
	Additional General Prevailing Wage Law Information	General information for public entity or any other interested party	3

12/22/2015

THE 2015-17 BUDGET BILL MADE SIGNIFICANT CHANGES TO WISCONSIN'S PREVAILING WAGE LAWS. HOWEVER, THOSE CHANGES DO NOT GO INTO EFFECT UNTIL JANUARY 1, 2017.

During calendar year 2016, DWD will continue to enforce prevailing wage laws for local governmental unit and state agency public works projects under current prevailing wage laws.

2015 Wisconsin Act 55 (the budget bill) repealed the state prevailing wage law for **local governmental units** such as villages, towns, cities, school districts, or sewerage districts effective January 1, 2017. However, if a local governmental unit:

- issues a Request for Bids before January 1, 2017, for a project of public works that is subject to bidding or,
- enters into a contract before January 1, 2017, for a project of public works that is not subject to bidding,

then those public works projects are subject to the current prevailing wage law (§66.0903, Wis. Stats.) through the life of the project. Projects of public works with prevailing wage project determinations issued prior to 2017 continue to be subject to the current prevailing wage law through the life of the project even though the project may have work going on in 2017 or subsequent years.

Contractors working on local governmental unit projects with prevailing wage rate determinations must continue to pay employees the appropriate prevailing wage and maintain required prevailing wage payroll records. For instance, if a contractor is working in 2018 on a public works project with a project determination issued prior to 2017, then the contractor is required to comply with the "old" prevailing wage rate law (§66.0903, Wis. Stats.). After January 1, 2017, DWD will continue to enforce prevailing wage requirements for projects with DWD prevailing wage determinations issued under the "old" prevailing wage laws (§§ 66.0903 & 103.49, Wis. Stats.).

For new public works projects starting on January 1, 2017, state prevailing wage law will only apply to **state agency** and **state highway** projects. Prevailing wage rates applicable to state agencies will be those issued by the U.S. Department of Labor under the Davis-Bacon Act, 40 U.S.C. 3142. The Wisconsin Department of Administration will enforce the new state agency prevailing wage law (§16.856, Wis. Stats.) and the Wisconsin Department of Transportation will continue to enforce prevailing wage on state highway projects (under a law renumbered as §84.062, Wis. Stats.).

PREVAILING WAGE – Public Entity Project Owners

Any public works project that has a total estimated project cost that equals or exceeds single-trade or multiple-trade project thresholds requires a prevailing wage rate determination issued by the Department of Workforce Development (DWD). Public works include erecting, constructing, remodeling, repairing, demolishing, alterations, painting and decorating projects for a local governmental unit or state agency. State law excludes minor service or maintenance work, warranty work, or work under a supply-and-installation contract. There is a statutory definition for most of these exclusions. The prevailing wage law that applies to local governmental units is §66.0903, Wis. Stats. The prevailing wage law that applies to state agencies is §103.49, Wis. Stats. The applicable administrative rules for all public entities are DWD 290 and DWD 294, Wis. Adm. Code.

Thresholds

- A "single-trade project of public works" means a project in which a single trade accounts for 85% or more of the total labor cost of the project. The single trade threshold is \$48,000.
- A "multiple-trade project of public works" means a project in which no single trade accounts for 85% or more of the total labor cost of the project.
- (a) The multiple-trade threshold is \$100,000, unless a municipality falls under the description in (b).
 - (b) The multiple-trade threshold of \$234,000 applies to public works projects erected, constructed, repaired, remodeled, or demolished by a private contractor for •a city or village with a population less than 2500 or •a town.

A local governmental unit or state agency that has a public works project that equals or exceeds the prevailing wage thresholds must do all of the following:

- Request a prevailing wage rate determination for the project from DWD at least 30 days before soliciting bids or negotiating contracts. An Application for Prevailing Wage Rate Determination is available on the DWD website: http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm
To avoid waiting for a project determination use the on-line application system that permits the user to generate a determination immediately and save all documents in PDF form to the user's computer. Use this project determination on line application at the following address:

- Tell potential contractors the project is subject to state prevailing wage law when soliciting bids.
- Include the prevailing wage rate determination in the construction contract, or if there is no written contract, provide a copy of the project determination to each prime contractor.
- Award contracts to contractors who do *not* appear on the "Consolidated List of Debarred Contractors."
- Notify contractors that they are required to have a written substance abuse testing program in place that fulfills the requirements of §103.503, Wis. Stats., before commencing work on the prevailing wage project.
- Post the prevailing wage rate determination on the project site. (This document is often referred to as "the white sheet.")
- Notify project contractors that if DWD finds that a contractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.
- Obtain an Affidavit of Compliance from each prime contractor before making final payment for the project.

If the total estimated cost of the project exceeds the prevailing wage thresholds, a local governmental unit or state agency also must obtain a prevailing wage rate determination under the following circumstances:

- when a completed facility is leased, purchased, lease-purchased or otherwise acquired by or dedicated to a public entity in lieu of the public entity contracting for the project,
- when one public entity does work for another public entity,
- when a *private* entity will construct a road, street, bridge, sanitary sewer or water main project and dedicate it to a local governmental unit or the state for its ownership or maintenance (except for some residential subdivisions).

For more information, visit the prevailing wage website: http://dwd.wisconsin.gov/er/prevaling_wage_rate/default.htm. For further assistance, call the Equal Rights Division at 608-266-6861 and ask for prevailing wage.

POST THE WHITE SHEET

As the public entity receiving this prevailing wage rate determination, YOU ARE REQUIRED by law to post the prevailing wage rate determination (i.e., white sheet) in at least one conspicuous and easily accessible place on the project site that is available to all construction workers. The white sheet must remain posted from the onset of the project until all construction labor on the project has been completed.

[See, Wis. Admin. Code §DWD 290.12(1)]

Posting the white sheet inside the general contractor's trailer does not meet this requirement. That placement is not available/accessible to all workers and is not a location over which you have control.

If you have questions about posting, please call (608)266-6861 and ask for prevailing wage intake.

Consolidated List of Debarred Contractors
Prepared and Issued By

January 1, 2016

State of Wisconsin - Department of Workforce Development

This list has been prepared in accordance with the provisions of §§66.0903(12) and 103.49(7), Wis. Stats., and Chapter DWD 294 of the Wisconsin Administrative Code. All contractors on this list were found to have committed a "debarable offense" related to certain labor standard provisions determined or established for a state or local public works project. No state agency, local governmental unit or owner or developer may knowingly solicit bids from, negotiate with or award any contracts to or approve or allow any subcontracts with a debarred contractor, including all divisions, affiliates or other organizational elements of such contractor that are engaged in construction business activities, until the debarment is terminated. The name of each debarred contractor must remain on this list for a period of three (3) years from the termination date indicated below. The contractor is, however, only "debarred" from the "effective date" through the "termination date" indicated for that contractor. Questions regarding this list should be addressed to Jim Chiolino, Equal Rights Division, P. O. Box 8928, Madison, WI 53708 or call (608) 266-3345. Deaf, hearing or speech-impaired callers may contact the department by calling its TDD number (608) 264-8752.

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/Deviations</u>
A-1 Duran Roofing & Insulation Services, Inc.	3700 N Fratney St Milwaukee, WI 53212	11/1/14	10/31/17	1, 2 and 4	2011- 2012	None
	or 8095 NW 64 th St Miami, FL 33166					
Abel, Mike	See, Abel Electric, Inc					
Abel Electric, Inc	3385 Belmar Rd Green Bay, WI 54313	9/1/12	8/31/15	1	2011	None
Alpha Electric, LLC	350 Business Park Dr Sun Prairie, WI 53590	8/1/15	7/31/18	4	2014	None
Arnie Christiansen Mason Contractors, LLC	2304 65 th Dr Franksville, WI 53126	9/1/14	8/31/16	1, 2 and 4	2011	None
Atkins, Scott	See, Freedom Insulation, Inc					
Boecker, Roger	See, R-Way Pumping, Inc					
Brechtel, Mark G	See, Ecodec, Inc					
Cargill Heating and Air Conditioning Company, Inc	3049 Edgewater La La Crosse, WI 54603	3/1/14	2/28/17	1 and 2	2011	None

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/ Deviations</u>
Castlerock Commercial Construction, Inc	PO Box 11699 Milwaukee, WI 53211-0699	2/1/12	1/31/15	1, 2 and 4	2009 & 2010	None
Christiansen, Andy	See, Amie Christiansen Mason Contractors, LLC					
Christiansen, Arnold	See, Amie Christiansen Mason Contractors, LLC					
Darnick, Gregory L	See, Darnick Trucking, LLC					
Darnick Trucking, LLC	W914 County Rd V Berlin, WI 54923	11/1/14	10/31/15	1, 2 and 4	2012 & 2013	None
Dem/Ex Group, Inc	805 S Adams St Manito, IL 61546	12/1/11	11/30/14	1 and 2	2010	None
Duran, Bernardo	See, A-1 Duran Roofing & Insulation Services and RRS2 Inc					
Ecodec, Inc	5106 Wintergreen Dr Madison, WI 53704	10/1/14	9/30/17	1	2011 & 2012	None
Fisher, Ed &/or Fisher, Rhonda	See, Dem/Ex Group, Inc					
Freedom Insulation, Inc	117925 219th Ave Chippewa Falls, WI 54729	9/1/11	8/31/14	1	2008- 2010	None
Froode, Kathleen M	See, Masonry Specialists II, LLC					
Galstad, Michael E (aka Michael Earl Galstad)	See, Cargill Heating and Air Conditioning Company, Inc					
Gjolaj, Ded	See, Horizon Bros Painting Corp					

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/ Deviations</u>
Grade A Construction, Inc	157 Enterprise Rd Delafield, WI 53018	1/1/16	12/31/19	1, 2 and 4	2014	None
Horizon Bros Painting Corp	1053 Kendra La Howell, MI 48843	10/1/14	9/30/16	4	2012	None
JT Roofing, Inc	350 Tower Dr Saukville, WI 53080	6/1/12	5/31/15	1, 2 and 4	2007 & 2008	None
Jinkins, Richard	See, Castlerock Commercial Construction, Inc					
John's Concrete	See, Wagner Companies, Inc, dba John's Concrete					
Kott, Joseph J	See, Alpha Electric, LLC					
Masonry Specialists II, LLC	5109 Briarwood Ct Racine, WI 53402	8/1/15	7/31/18	4	2014	None
Mid-W Enterprises, Inc	1730 22 nd Avenue Kenosha, WI 53140	6/1/15	5/31/17	1, 2 and 4	2013	None
Midwest Construction Co, Inc	See, Mid-W Enterprises, Inc					
Oden, Cassie	See, A-1 Duran Roofing & Insulation Services and RRS2 Inc					
Ofstie, Darin	See, Precision Excavating and Grading, LLC					
Peret, Robert	See, A-1 Duran Roofing & Insulation Services and RRS2 Inc					

<u>Name of Contractor</u>	<u>Address</u>	<u>Effective Date</u>	<u>Termination Date</u>	<u>Cause Code</u>	<u>Date of Violation(s)</u>	<u>Limitations/ Deviations</u>
Precision Excavating and Grading, LLC or Precision Excavating Enterprises, LLC	2104 Pierce Saint Croix Rd Baldwin, WI 54002	5/1/11	4/30/14	1, 2 and 4	2006- 2008	None
R-Way Pumping, Inc	3023 Lake Maria Rd Freeport, MN 56331	3/1/12	2/28/15	1, 2 and 4	2008	None
RRS2 Inc.	133 N Jackson St, #427 Milwaukee, WI 53202 or 1313 N Franklin Pl, #805 Milwaukee, WI 53202	11/1/14	10/31/17	1, 2 and 4	2011- 2012	None
Thull, Gerald T	See, JT Roofing, Inc					
Ventura, Robert	See, Mid-W Enterprises, Inc					
Wagner, Cory L	See, Wagner Companies, Inc					
Wagner Companies, Inc, dba John's Concrete	2063 Georgia Ave Racine, WI 53404	8/1/15	7/31/18	1	2013	None
Yaresh, Kathleen R	See, Grade A Construction, Inc					

Cause Code: 1 = Failure to Pay Straight Time 2 = Failure to Pay Overtime 3 = Kickback 4 = Payroll Records.

PREVAILING WAGE – Contractors

Any public works project that has a total estimated project cost that equals or exceeds prevailing wage project thresholds requires a prevailing wage rate determination issued by the Department of Workforce Development (DWD). Public works include erecting, constructing, remodeling, repairing, demolishing, alterations, painting and decorating projects for a local governmental unit or state agency. State law excludes minor service or maintenance work, warranty work, or work under a supply-and-installation contract. There is a statutory definition for most of these exclusions. The prevailing wage laws that apply to local governmental units and their contractors are §§66.0903 and 103.503, Wis. Stats. The prevailing wage laws that apply to state agencies and their contractors are §§103.49 and 103.503, Wis. Stats. The applicable administrative rules for all prevailing wage projects are DWD 290 and DWD 294, Wis. Adm. Code. These laws include provisions that apply to all contractors and subcontractors working on prevailing wage projects.

Any contractor or subcontractor working on a local governmental unit or state agency's public works project that equals or exceeds current prevailing wage project thresholds must do all of the following:

- Receive and review the project's prevailing wage rate determination (i.e., white sheet).
- Tell subcontractors the project is subject to state prevailing wage law and include the prevailing wage rate determination in the construction contract, or if there is no written contract, provide a copy of the project determination to each subcontractor.
- Hire subcontractors who do *not* appear on the "Consolidated List of Debarred Contractors."
- Have a written substance abuse testing program in place that fulfills the requirements of §103.503, Wis. Stats., before commencing work on the project.

- Notify subcontractors that if DWD finds that a contractor or subcontractor violated the prevailing wage law, DWD will assess liquidated damages of 100% of the wages owed to employees.
- Apply to DWD for subjourney wage rates prior to employing these individuals on the project.
- Receive and retain a completed Affidavit of Compliance from each subcontractor brought on to the project before providing final payment to those subcontractors.
- Submit a completed Affidavit of Compliance to the contractor who brought the subcontractor on to the project before receiving final payment for the project.
- Maintain payroll records for 3 years that comply with §§66.0903(10)(a) or 103.49(5)(a), Stats. and DWD 274.06.
- Respond to requests from DWD or the project owner to provide payroll records and/or respond to prevailing wage complaints filed by employees or third parties.

For more information, visit the prevailing wage website: http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm. For further assistance, call the Equal Rights Division at 608-266-6861 and ask for prevailing wage.

Disclosure of Ownership

The statutory authority for the use of this form is prescribed in Sections 66.0903(12)(d), 66.0904(10)(d) and 103.49(7)(d), Wisconsin Statutes.

The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes.

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1) (m), Wisconsin Statutes].

- (1) On the date a contractor submits a bid to or completes negotiations with a state agency, local governmental unit, or developer, investor or owner on a project subject to Section 66.0903, 66.0904 or 103.49, Wisconsin Statutes, the contractor shall disclose to such state agency, local governmental unit, or developer, investor or owner, the name of any "other construction business," which the contractor, or a shareholder, officer or partner of the contractor, owns or has owned within the preceding three (3) years.
- (2) The term "other construction business" means any business engaged in the erection, construction, remodeling, repairing, demolition, altering or painting and decorating of buildings, structures or facilities. It also means any business engaged in supplying mineral aggregate, or hauling excavated material or spoil as provided by Sections 66.0903(3), 66.0904(2), 103.49(2) and 103.50(2), Wisconsin Statutes.
- (3) This form must **ONLY** be filed, with the state agency project owner, local governmental unit project owner, or developer, investor or owner of a publicly funded private construction project that will be awarding the contract, if **both (A) and (B) are met**.
 - (A) The contractor, or a shareholder, officer or partner of the contractor:
 - (1) Owns at least a 25% interest in the "other construction business," indicated below, on the date the contractor submits a bid or completes negotiations; or
 - (2) Has owned at least a 25% interest in the "other construction business" at any time within the preceding three (3) years.
 - (B) The Wisconsin Department of Workforce Development (DWD) has determined that the "other construction business" has failed to pay the prevailing wage rate or time and one-half the required hourly basic rate of pay, for hours worked in excess of the prevailing hours of labor, to any employee at any time within the preceding three (3) years.

Other Construction Business

Business Name			
Street Address or P O Box	City	State	Zip Code
Business Name			
Street Address or P O Box	City	State	Zip Code
Business Name			
Street Address or P O Box	City	State	Zip Code
Business Name			
Street Address or P O Box	City	State	Zip Code

I hereby state under penalty of perjury that the information, contained in this document, is true and accurate according to my knowledge and belief.

Print the Name of Authorized Officer			
Authorized Officer Signature		Date Signed	
Corporation, Partnership or Sole Proprietorship Name			
Street Address or P O Box	City	State	Zip Code

If you have any questions call (608) 266-6861

Prime Contractor Affidavit of Compliance With Prevailing Wage Rate Determination

Authorization for this form is provided under Sections 66.0903(9)(c), 66.0904(7)(c) and 103.49(4r)(c) Wisconsin Statutes.

The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes.

Personal information you provide may be used for secondary purposes [Privacy Law, s. 15.04(1)(m), Wisconsin Statutes].

This form must **ONLY** be filed with the **Awarding Agency** indicated below.

State Of))SS County Of)	Project Name	
	DWD Determination Number	Project Number (if applicable)
	Date Determination Issued	Date of Contract
	Awarding Agency	
	Date Work Completed	

After being duly sworn, the person whose name and signature appears below hereby states under penalty of perjury that

- **I am** the duly authorized officer of the corporation, partnership, sole proprietorship or business indicated below and have recently completed all of the work required under the terms and conditions of a contract with the above-named awarding agency and make this affidavit in accordance with the requirements set forth in Section 66.0903(9)(c), 66.0904(7)(c) or 103.49(4r)(c), Wisconsin Statutes and Chapter DWD 290 of the Wisconsin Administrative Code in order to obtain FINAL PAYMENT from such awarding agency.
- **I have** fully complied with all the wage and hour requirements applicable to this project, including all of the requirements set forth in the prevailing wage rate determination indicated above which was issued for such project by the Department of Workforce Development on the date indicated above.
- **I have** received the required affidavit of compliance from each of my agents and subcontractors that performed work on this project and have listed each of their names and addresses on page 2 of this affidavit.
- **I have** full and accurate records that clearly indicate the name and trade or occupation of every worker(s) that I employed on this project, including an accurate record of the hours worked and actual wages paid to such worker(s).
- **I will** retain the records and affidavit(s) described above and make them available for inspection for a period of at least three (3) years from the completion date indicated above at the address indicated below and shall not remove such records or affidavit(s) without prior notification to the awarding agency indicated above.

Name of Corporation, Partnership, Sole Proprietorship, Business, State Agency or Local Governmental Unit				
Street Address	City	State	Zip Code	Telephone Number
Print Name of Authorized Officer			Date Signed	
Signature of Authorized Officer				

List of Agents and Subcontractors

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number			Telephone Number		

If you have any questions call (608) 266-6861

Agent or Subcontractor Affidavit of Compliance With Prevailing Wage Rate Determination

Authorization for this form is provided under Sections 66.0903(9)(b), 66.0904(7)(b) and 103.49(4r)(9b), Wisconsin Statutes. The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes.

Personal information you provide may be used for secondary purposes [Privacy Law, Section 15.04(1)(m), Wisconsin Statutes].

This form must **ONLY** be filed with the **Awarding Contractor** indicated below.

State Of _____))SS County Of _____)	Project Name	
	DWD Determination Number	Project Number (if applicable)
	Date Determination Issued	Date of Subcontract
	Awarding Contractor	
	Date Work Completed	

After being duly sworn, the person whose name and signature appears below hereby states under penalty of perjury that

- **I am** the duly authorized officer of the corporation, partnership, sole proprietorship or business indicated below. We have recently completed all of the work required under the terms and conditions of a subcontract with the above-named awarding contractor. We make this affidavit in accordance with the requirements set forth in Section 66.0903(9)(b), 66.0904(7)(b) or 103.49(4r)(b), Wisconsin Statutes and Chapter DWD 290 of the Wisconsin Administrative Code in order to obtain FINAL PAYMENT from such awarding contractor.
- **I have** fully complied with the entire wage and hour requirements applicable to this project, including all of the requirements set forth in the prevailing wage rate determination indicated above which was issued for such project by the Department of Workforce Development on the date indicated above.
- **I have** received the required affidavit of compliance from each of my agents and subcontractors that performed work on this project and have listed each of their names and addresses on page 2 of this affidavit.
- **I have** full and accurate records that clearly indicate the name and trade or occupation of every worker(s) that I employed on this project, including an accurate record of the hours worked and actual wages paid to such worker(s).
- **I will** retain the records and affidavit(s) described above and make them available for inspection for a period of at least three (3) years from the completion date indicated above at the address indicated below and shall not remove such records or affidavit(s) without prior notification to the awarding contractor.

Name of Corporation, Partnership, Sole Proprietorship, Business, State Agency or Local Governmental Unit				
Street Address or PO Box	City	State	Zip Code	Telephone Number ()
Print Name of Authorized Officer			Date Signed	
Authorized Officer Signature				

List of Agents and Subcontractors

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number ()			Telephone Number ()		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number ()			Telephone Number ()		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number ()			Telephone Number ()		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number ()			Telephone Number ()		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number ()			Telephone Number ()		

Name			Name		
Street Address			Street Address		
City	State	Zip Code	City	State	Zip Code
Telephone Number ()			Telephone Number ()		

If you have any questions call (608) 266-6861

Request to Employ Subjourneyperson

The use of this form is mandatory. The penalty for failing to complete this form is prescribed in Section 103.005(12), Wisconsin Statutes. Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04(1)(m), Wisconsin Statutes).

The employer indicated below requests that the Department of Workforce Development (DWD) determine the prevailing wage rate(s) and related qualifications to enable such employer to use a subjourneyperson(s) on the following prevailing wage project, in accordance with the provisions of Section DWD 290.025, Wisconsin Administrative Code.

1. Name of Project Appearing on the Project Determination			
County	City, Village or Town		
DWD Project Determination Number	Project Number (if applicable)		
2. Job Classification(s) for which you request a subjourney rate (i.e., carpenter, electrician, plumber, etc.)			
a.	b.		
c.	d.		
3. Employer Name (Print)			
Address		City	State
Telephone Number ()		Zip Code	
Requester Title			
Email address (if you prefer to receive your response via email)		Fax Number (if you prefer to receive your response via fax) ()	

READ CAREFULLY: I understand that this request is ONLY applicable to the project and job classification(s) listed above and that subjourney employees primarily work under the direction of and assist a skilled trade employee by frequently using the tools of a skilled trade and will NOT regularly perform the duties of a general laborer, heavy equipment operator or truck driver. If the subjourney employee regularly performs the work of a different trade or occupation, he/she will be compensated for such work at the applicable journeyperson prevailing wage rate. I agree to compensate subjourney employees in strict accordance with the directions received from the DWD.

Requester Signature	Date Signed
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MAIL the completed request to:
EQUAL RIGHTS DIVISION, LABOR STANDARDS BUREAU
PO BOX 8928, MADISON WI 53708
OR
FAX the completed request to: (608) 267-4592 / **DO NOT e-mail your request.**
Call (608) 266-6861 for assistance in completing this form.

ADDITIONAL GENERAL PREVAILING WAGE LAW INFORMATION

(This document updated July 2015)

NOTE: Recent prevailing wage law changes enacted by the 2015-17 Budget Bill (2015 Wisconsin Act 55) do not go into effect until calendar year 2017.

For prevailing wage laws and frequently asked questions, refer to the prevailing wage website at:
http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm

Topic	Who's affected?	Brief description of requirement under §66.0903 or §103.49
Non-applicability	All public entities	Prevailing wage rates do not apply to minor service or maintenance work, warranty work, or work under a supply and installation contract.
Non-applicability: Minor service or maintenance work	Local governmental units & Contractors	Minor service or maintenance work means a project of public works that is limited to <ul style="list-style-type: none"> • minor crack filling, chip or slurry sealing, or other minor pavement patching, not including overlays, that has a projected life span of no longer than 5 years or that is performed for a TOWN and is not funded under §86.31, regardless of projected life span; • the depositing of gravel on an existing gravel road applied solely to maintain the road; • road shoulder maintenance; • cleaning of drainage or sewer ditches or structures; or • any other limited, minor work on public facilities or equipment that is routinely performed to prevent breakdown or deterioration.
Non-applicability: Minor service or maintenance work	State agencies	Minor service or maintenance work means a project of public works that is limited to <ul style="list-style-type: none"> • minor crack filling, chip or slurry sealing, or other minor pavement patching, not including overlays, that has a projected life span of no longer than 5 years; • cleaning of drainage or sewer ditches or structures; or • any other limited, minor work on public facilities or equipment that is routinely performed to prevent breakdown or deterioration.
Non-applicability: Supply & installation contract	All public entities	Supply and installation contract means a contract under which the material is installed by means of simple fasteners or connectors such as screws or nuts and bolts and no other work is performed on the site of the project of public works, and the total labor cost to install the material does not exceed 20 percent of the total cost of the contract.
Non-applicability: Work which a contractor or individual donates to a public entity	All public entities	Prevailing wage laws §§66.0903 & 103.49, Stats., do not apply to work performed on a project of public works for which the local governmental unit or the state or the state agency contracting for the project is not required to compensate any contractor, subcontractor, contractor's or subcontractor's agent, or individual for performing the work.

Topic	Who's affected?	Brief description of requirement under §66.0903 or §103.49
Non-applicability: Residential	All public entities	A prevailing wage rate determination is not required for the erection, construction, repair, remodeling, or demolition of a residential property containing 2 dwelling units or less.
Non-applicability: Residential subdivision infrastructure	All public entities	A prevailing wage rate determination is not required for a road, street, bridge, sanitary sewer, or water main project that is a part of a development in which at least 90 percent of the lots contain or will contain 2 dwelling units or less, as determined by the local governmental unit at the time of approval of the development, and that, on completion, is acquired by, or dedicated to, a local governmental unit (including under §236.13(2), Stats.), or the state, for ownership or maintenance by the local governmental unit or the state.
Electronic certified payroll record	Contractors	The requirement that every contractor on a prevailing wage project submit to DWD monthly a certified record of employees who worked on the project and that DWD post these certified records on its Internet website was discontinued effective July 1, 2011. Contractors are still required to maintain payroll records and provide them upon request from DWD &/or the project owner.
Payroll record inspection request by any person	Contractors & Complainants	Any person may request DWD to inspect the payroll records of any contractor working on a prevailing wage project. On receipt of such a request, the contractor must submit to DWD a certified record of its payroll records, other than personally identifiable information relating to an employee of the contractor, for no longer than a 4-week period. DWD may request records from a contractor under this provision no more than once per calendar quarter for each project of public works on which the contractor is performing work. The department may not charge a requester a fee for obtaining that information. DWD must make these certified records available for public inspection.
Statewide uniformity	Local governmental units	A local governmental unit may not enact & administer a prevailing wage ordinance/provision for public works or publicly funded private construction projects. Any extant laws to that effect are void.
Substance Abuse Testing	Contractors & Workers	Before commencing work on a prevailing wage project, a contractor must have a written substance abuse testing program in place that complies with §103.503, Wis. Stats. No employee may use, possess, attempt to possess, distribute, deliver, or be under the influence of a drug or under the influence of alcohol while performing work on a prevailing wage project.

Topic	Who's affected	Brief description of requirement under §66.0903 or §103.49
Covered employees	Truck drivers & Other workers & Contractors	<p>A laborer, worker, mechanic, or truck driver who is employed to process, manufacture, pick up, or deliver materials or products from a commercial establishment that has a fixed place of business from which the establishment supplies processed or manufactured materials or products or from a facility that is not dedicated exclusively, or nearly so, to a project of public works is NOT entitled to receive the prevailing wage rate UNLESS any of the following applies:</p> <ul style="list-style-type: none">1) the laborer, worker, mechanic, or truck driver is employed to go to the source of mineral aggregate such as sand, gravel, or stone and deliver that mineral aggregate to the site of a project of public works by depositing the material directly in final place, from the transporting vehicle or through spreaders from the transporting vehicle.2) the laborer, worker, mechanic, or truck driver is employed to go to the site of a project of public works, pick up excavated material or spoil from the site of the project, and transport that excavated material or spoil away from the site of the project.

WISDOT PERMIT

Attachment 1: Start and Work Completion Notice



Utility Permit Start Work Notice

Provide all information and e-mail or fax to the utility permit coordinator or other region contact listed on the approved permit form **a minimum three working** days prior to the start of the work. When restoration is complete and ready for inspection, e-mail or fax to the same contact.

WisDOT Utility Permit
Number:

40U-300-16

SOUTHWEST REGION

Mark Goggin

mark.goggin@dot.wi.gov

Fax: 608-243-3380 Madison office
608-789-7896 La Crosse office

Utility Company:

OAK CREEK WATER

Utility Job Number:

1960,010

SOUTHEAST REGION

Rodrigo Martinez

rodrigo.martinez@dot.wi.gov

Fax: 262-548-6891

SE Utility Permit Unit General Email:

dotdtsdseutilitypermits@dot.wi.gov

WisDOT Project Number:

2375-08-70

Project Location:

STH 32

NORTHEAST REGION

Ray Drake

ray.drake@dot.wi.gov

Fax: 920-492-0144

NE Utility Unit General E-Mail:

dotdtsdneutilitycoordination@dot.wi.gov

Utility Contractor Contact
Name and 24-Hour Number:

Traffic Control Provider and
24-Hour Number

NORTH CENTRAL REGION

Keith Rutkowski – Wis Rapids office

keith.rutkowski@dot.wi.gov

Fax: 715-423-0334

Terry Catlin – Rhinelander office

terry.catlin@dot.wi.gov

Fax: 715-365-5780

Construction Start Date:

NORTHWEST REGION

Vicki Riepl vicki.riepl@dot.wi.gov

Fax: 715-635-2309

NW Utility Permit Unit General Email:

dotdtsdnwecpermitcoordination@dot.wi.gov

Construction Completion
Date:

Completion Notice

Restoration is complete and ready for inspection. File notices within **10 calendar days** of restoration completion. Restore within **two weeks** from completion of utility construction.

Restoration Completion Date:

APPLICATION / PERMIT

TO CONSTRUCT, OPERATE and MAINTAIN UTILITY FACILITIES ON HIGHWAY RIGHT-OF-WAY

s.66.0831, 84.08, 85.15, 86.07(2), 86.16, 182.017 and such other applicable Wis. Stats.

1. Applicant (Utility facility owner) Name and Address Oak Creek Water and Sewer Utility 170 W Drexel Ave. Oak Creek, WI 53154		2. Work Start Date 3/14/16	3. Work Finish Date* 5/15/2016	6. Location Description (¼ section, section, town, range; provide plat map or location sketch) NE1/4 OF S26, T4N, R22E	
4. Is the work due to a WisDOT highway project? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		5. Applicant Work Order (If any)		7. Work Location (Check/list all that apply) <input type="checkbox"/> Town: _____ <input type="checkbox"/> Village: _____ <input checked="" type="checkbox"/> City: Oak Creek <input checked="" type="checkbox"/> County: Milwaukee	
9. Facility Type (Check all that apply): Size (Diameter, kV, pressure, # fibers, etc.) <input type="checkbox"/> Telecom: _____ <input type="checkbox"/> Electric: _____ <input type="checkbox"/> Gas/Oil: _____ <input checked="" type="checkbox"/> Water: 12" <input type="checkbox"/> San Sewer: _____ <input type="checkbox"/> _____: _____ <input checked="" type="checkbox"/> Transmission <input checked="" type="checkbox"/> Service: Std <input checked="" type="checkbox"/> Distribution <input type="checkbox"/> Service: Exp		12. Proposed Work Methods (Check all that apply) <input checked="" type="checkbox"/> Trench <input type="checkbox"/> Plow <input type="checkbox"/> Casing <input type="checkbox"/> Rock blasting <input type="checkbox"/> Open cut pavement Bore: <input type="checkbox"/> Hydraulic (Auger/Jack) <input type="checkbox"/> Pneumatic (Mole) <input type="checkbox"/> Directional 1 (Manually tracked) <input type="checkbox"/> Directional 2 (Computer tracked) <input type="checkbox"/> Unknown (At this time) Attach to poles/towers: <input type="checkbox"/> New <input type="checkbox"/> Existing <input type="checkbox"/> Guys** (Diameter) (Name of existing owner) (** Provide details for all guy wires on plan sheets) Subsurface utility excavation: <input type="checkbox"/> Water jetting <input type="checkbox"/> Vacuum Tree/vegetation control: <input type="checkbox"/> Cut and/or trim <input type="checkbox"/> Mow <input type="checkbox"/> Chemically treat		8. Highway (Check all that apply) <input checked="" type="checkbox"/> WIS 32, 100 <input type="checkbox"/> US _____ <input type="checkbox"/> Interstate _____ <input type="checkbox"/> _____	
10. Facility Orientation (Check all that apply) <input checked="" type="checkbox"/> Crossing R/W <input type="checkbox"/> Parallel R/W <input checked="" type="checkbox"/> Underground <input type="checkbox"/> Overhead <input type="checkbox"/> Structure attachment		11. Work Types (Check all that apply) <input checked="" type="checkbox"/> New construction <input type="checkbox"/> Improve/repair existing <input type="checkbox"/> Removal <input type="checkbox"/> Maintenance <input type="checkbox"/> Discontinued, left in place <input type="checkbox"/> Joint installation		13. Work Zone Description (Check all that apply) <input type="checkbox"/> Full road closure: detour <input type="checkbox"/> Full road closure: temporary <input type="checkbox"/> Lane closure: without flagging <input type="checkbox"/> Lane closure: with flagging <input type="checkbox"/> Lane encroachment (2 feet or less) <input type="checkbox"/> Intersection/roundabout <input checked="" type="checkbox"/> Shoulder/parking lane closure <input checked="" type="checkbox"/> Off shoulder: within clear zone <input type="checkbox"/> In R/W: outside clear zone <input type="checkbox"/> Near R/W line: within clear zone <input checked="" type="checkbox"/> Near R/W line: outside clear zone <input type="checkbox"/> Not applicable	
14. Is the proposed facility near a survey monument? (See HMM 09-15-35) <input type="checkbox"/> Yes (Call: 1-866-568-2852 or e-mail: geodetic@dot.wi.gov) <input checked="" type="checkbox"/> No		15. Will any appurtenances be installed with the facility? (If yes, provide a description and/or specification of each item with this application.) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		16. Trans 401 project designation? (For all Major projects, provide a formal erosion control plan with this application. See HMM 09-15-55) <input type="checkbox"/> Minor <input checked="" type="checkbox"/> Major	
17. Are any environmental permits, certifications or approvals required from other regulatory agencies? (If yes, provide a copy of each item or proof of agency coordination with this application.) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

* NOTE: If the work described is not completed by the "Work Finish Date" specified, this permit is null and void, and the work shall not be completed unless authorized through a subsequent permit or an approved time extension. **ANY PERMIT ISSUED IS REVOCABLE.**

18. Utility Person Responsible for Construction Seth Ricker	(Area Code) Telephone Number 414-570-8200	19. Utility or Project 24/7 Emergency Contact Ron Pritzlaff	(Area Code) Telephone Number 414-852-3910
20. Is the utility a member of Diggers Hotline? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, provide line-locate number _____		It is understood and agreed that approval is subject to applicant's full compliance with the pertinent statutes, as well as any rules and regulations of other jurisdictional agencies, which may be more restrictive, and with the Wisconsin Department of Transportation's Utility Accommodation Policy (UAP) , current edition. http://wisconsindot.gov/Pages/doing-bus/real-estate/permits/utility-uap.aspx	
21. Provide additional project work details, if needed (Continue on back or include separate page) Application was filled out only for the part of the project in highway Right-of-Way. 30' of 12" bionax water main will be install in the Wisconsin Department of Transportation's Right-of-Way. Appurtenance includes a 6" water main valve.		Ben W. Wood, P.E. 12/22/2015	
22. If not employed by applicant, authorized representative's company name and address Strand Associates, Inc. 126 N Jefferson St. Suite 350 Milwaukee, WI 53202		(Signature of Authorized Representative – If filled via computer, Brush Script font) (Date) Ben Wood, P.E. (Title and/or print name) 414-271-0771 ben.wood@strand.com (Authorized Representative Telephone Number) (Authorized Representative E-mail Address)	



This permit does not transfer any land; nor give, grant or convey any land right, right in land, nor easement in WisDOT right-of-way. It is not assignable or transferrable. If ownership in a utility facility changes, WisDOT may void and supersede a permit and reissue it to the new owner upon request and with sufficient proof of ownership.

↓ For Wisconsin DOT Use Only ↓

<input checked="" type="checkbox"/> THE UTILITY SHALL NOTIFY WisDOT 3 DAYS BEFORE STARTING WORK AT: Region contact, title, office address, telephone number, and e-mail address CRAIG HARDY UTILITY CONSTRUCTION ENGINEER WISCONSIN DEPT. OF TRANSPORTATION 141 NW BARSTOW WAUKESHA, WI 53188 414-750-1469 CRAIG.HARDY@DOT.WI.GOV	<input checked="" type="checkbox"/> REVIEW ALL SUPPLEMENTAL PERMIT PROVISIONS <input checked="" type="checkbox"/> REVISIONS MADE to DRAWINGS or OTHER PAGES	Date Application Received 12/22/2015
	<input type="checkbox"/> Lane Closure System notification required: HMM 09-15-60 <input type="checkbox"/> Insurance or performance bond required <input type="checkbox"/> Joint installation: See permit(s) # _____ <input type="checkbox"/> Private utility (Non-public ownership and/or use) <input type="checkbox"/> Expedited Service Connection Permit <input type="checkbox"/> This permit voids & supersedes # _____ issued: _____ <input type="checkbox"/>	Date Application Completed 1/7/2016 Date Application Denied _____ Permit Issuance Date 1/7/2016 Permit Extension Date _____ Permit Number 40U-300-16
2375-08-70	Craig Hardy	

6" valve is not in the WisDOT's Right-of-Way. The proposed facility is near a survey monument but not the part of the project located in the WisDOT's Right-of-Way

INDEMNIFICATION

This Applicant shall save and hold the State, its officers, employees, agents, and all private and governmental contractors and subcontractors with the State under Chapter 84 Wisconsin Statutes, harmless from actions of any nature whatsoever (including any by Applicant itself) which arise out of, or are connected with, or are claimed to arise out of or be connected with any of the work done by the Applicant, or the construction or maintenance of facilities by the Applicant, pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way; (1) while the Applicant is performing its work, or (2) while any of the Applicant's property, equipment, or personnel, are in or about such place or the vicinity thereof, or (3) while any property constructed, placed or operated by or on behalf of Applicant remains on the State's property or right-of-way pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way; including without limiting the generality of the foregoing, all liability, damages, loss expense, claims, demands and actions on account of personal injury, death or property loss to the State, its officers, employees, agents, contractors, subcontractors or frequenters; to the Applicant, its employees, agents, contractors, subcontractors, or frequenters; or to any other persons, whether based upon, or claimed to be based upon, statutory (including, without limiting the generality of the foregoing, worker's compensation), contractual, tort, or whether or not caused or claimed to have been caused by active or inactive negligence or other breach of duty by the State, its officers, employees, agents, contractors, subcontractors or frequenters; Applicant, its employees, agents, contractors, subcontractors or frequenters; or any other person. Without limiting the generality of the foregoing, the liability, damage, loss, expense, claims, demands and actions indemnified against shall include all liability, damage, loss, expense, claims, demands and actions for damage to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way in the past or present, or that are located on any highway or State property or right-of-way with or without a permit issued by the State, for any loss of data, information, or material; for trademark, copyright or patent infringement; for unfair competition or infringement of personal or property rights of any kind whatever. The Applicant shall at its own expense investigate all such claims and demands, attend to their settlement or other disposition, defend all actions based thereon and pay all charges of attorneys and all other costs and expenses of any kind arising from any such liability, damage, loss, claims, demands and actions.

Any transfer, whether voluntary or involuntary, of ownership or control of any property constructed, placed or operated by or on behalf of the

Applicant that remains on the State's property or right-of-way pursuant to this permit shall not release Applicant from any of the indemnification requirements of this permit, unless the State is notified of such transfer in writing. Any acceptance by any other person or entity, whether voluntary or involuntary, of ownership or control of any property constructed, placed or operated by or on behalf of the Applicant that remains on the State's property or right-of-way pursuant to this permit, shall include acceptance of all of the indemnification requirements of this permit by the other person or entity receiving ownership or control.

Notwithstanding the foregoing, a private contractor or subcontractor with the State under Chapter 84 Wisconsin Statutes, that fails to comply with sections 66.0831 and 182.0175 Wisconsin Statutes (2007-2008), remains subject to the payment to the Applicant of the actual cost of repair of intentional or negligent damage by the contractor or subcontractor to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, and remains subject to payment to the Applicant for losses due to personal injury or death resulting from negligence by the contractor or subcontractor.

Notwithstanding the foregoing, if the State, or its officers, employees and agents, fail to comply with sections 66.0831 and 182.0175 Wisconsin Statutes (2007-2008), the State or its officers, employees and agents, remain subject to the payment to the Applicant of the actual cost of repair of willful and intentional damage by the State, or its officers, employees and agents, to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, and remain subject to payment to the Applicant for losses due to personal injury or death resulting from negligence by the State, its officers, employees and agents.

No indemnification of private contractors or subcontractors with the State under Chapter 84 Wisconsin Statutes, shall apply in the event of willful and intentional damage by such private contractors or subcontractors to the property, lines and facilities of the Applicant located on the highway right-of-way pursuant to this permit or any other permit issued by the State for the location of property, lines or facilities on highway right-of-way.



WISDOT SUPPLEMENTAL UTILITY PERMIT PROVISIONS

Page 1 of 6



Start Work Notice:

1) Prior to the start of utility construction, the utility operator **MUST** forward a copy of the attached utility start work notice to the Wisconsin Department of Transportation (WisDOT) regional utility permit coordinator. Failure to do so will result in revocation of this permit.



Permit Requirements:

2) There shall be no deviations from the approved construction plans covered under this permit without additional written authorization from the WisDOT utility permit coordinator.

3) A complete copy of the permit WisDOT issues a utility for its proposed work shall be in the possession of the utility's work force, consultant, contractor or subcontractor at all times when work is being performed within the right-of-way (R/W). This includes a copy of WisDOT's approval for a service connection under an Expedited Service Connection Permit (ESCP). Electronic copies are acceptable.

4) Failure to maintain a permit on the work site shall cause this permit to become null and void. A subsequent permit will be required to complete the previously permitted work.

5) This permit is valid only for utility construction on WisDOT controlled highway right-of-way. Permits from other federal, state, county and local agencies may be required.

6) Utility construction shall not interfere with any WisDOT construction project or maintenance operation.

7) Underground facility locates shall be done prior to construction.



Work Time Restrictions:

8) Work on any state trunk highway shall only occur on weekdays between the hours of XXX and XXX.



Work Zone Traffic Control:

9) Work Zone Traffic Control (WZTC) shall be in accordance with the Wisconsin Manual of Uniform Traffic Control Devices (WMUTCD) chapter VI.

10) Traffic control shall be maintained throughout construction and shall be altered at anytime upon the request of WisDOT, the county or local highway department or any law enforcement agency.

11) Flaggers shall be used whenever conditions warrant.

12) At the end of each work day, construction signage shall be knocked down or removed. Turning sign faces away from traffic is no longer allowed.

13) Signage in place longer than 7 continuous calendar days shall be post mounted per the attached detail.



Wisconsin Lane Closure System (LCS) Notification:

14) Lane, shoulder, ramp closures or encroachments on XXX XX require lane closure notification to the southeast region traffic engineer. The LCS request shall be sent to WisDOT for review and approval **14 calendar days** prior to the need for a freeway closure, or **3 business days** prior to the need for a non-freeway closure.

15) The utility or their contractor shall set up an account and request lane closures at the following link: <http://transportal.cee.wisc.edu/closures/>



I-94 North/South Freeway and ZOO Interchange Projects Lane Closures and Restrictions:

16) Prior to the start of construction all lane closures and restrictions shall also be coordinated with WisDOT Traffic Coordinator Stephanie Skowronski at 414-750-1397 or Stephanie.Skowronski@dot.wi.gov

☒ **WisDOT Holiday Shutdowns:**

17) No utility work with the exception of emergency work shall be performed during the following holidays. All work shall stop prior to and resume after the holidays on the following dates and times. All unnecessary traffic control shall be knocked down or moved outside the clear zone:

Christmas: From noon Tuesday, December 23, 2014 to 6:00 AM Monday, December 29, 2014;
New Years: From noon Tuesday, December 30, 2014 to 6:00 AM Monday, January 5, 2014
Memorial Day: From noon Friday, May 22, 2015 to 6:00 AM Tuesday, May 26, 2015;
Independence Day: From noon Friday, July 3, 2015 to 6:00 AM Monday, July 6, 2015;
Labor Day: From noon Friday, September 4, 2015 to 6:00 AM Tuesday, September 8, 2015;
Thanksgiving: From noon Wednesday, November 25, 2015 to 6:00 AM Monday, November 30, 2015;
Christmas: From noon Wednesday, December 23, 2015 to 6:00 AM Monday, December 28, 2015;
New Years: From noon Wednesday, December 30, 2015 to 6:00 AM Monday, January 4, 2016
Memorial Day: From noon Friday, May 20, 2016 to 6:00 AM Tuesday, May 24, 2016;
Independence Day: From noon Friday, July 1, 2016 to 6:00 AM Tuesday, July 5, 2016;
Labor Day: From noon Friday, September 2, 2016 to 6:00 AM Tuesday, September 6, 2016;
Thanksgiving: From noon Wednesday, November 23, 2016 to 6:00 AM Monday, November 28, 2016

☐ **Wisconsin State Fair:**

18) No utility work shall take place on XXX XX during Wisconsin State Fair from August 1, 2013 through August 11, 2013.

☒ **Survey Monuments:**

19) **NOTE:** The proposed utility work is at or near a WisDOT survey monument. Prior to any construction activity the utility operator shall contact WisDOT at 1-888-568-2852 or geodetic@dot.wi.gov

☐ **Freeway System Entry Restrictions:**

20) There shall be no entry to the freeway system right-of-way inside the security fences towards the surface of the traveled way for any reason.

☒ **Utility Installation at Risk:**

21) The proposed facility is being installed at the risk & expense of the facility owner/operator. The work authorized in this permit is within the limits of a future WisDOT improvement project. If the proposed facility will require future relocation and/or adjustment, it will be at the facility owners' expense.

☒ **Erosion Control:**

22) Prior to the start of construction, all applicable erosion control devices including inlet protection shall be placed, inspected, monitored and maintained on a daily basis by the utility operator or their contractor.

23) Spoil removed from excavations shall be placed in an upland area. The perimeter of each spoil pile shall be wrapped with silt fence or other devices to prevent soil loss or soil run off.

24) Whenever construction operations require dewatering, the displaced water shall be pumped through filter fabric bags or temporary settling basins constructed prior to discharge from the work site.

25) Inlet protection shall be removed once construction operations are complete and the work area is stabilized.

26) Silt fence or other erosion control devices shall be removed after substantial vegetative growth has occurred.

☐ **Tree Trimming & Removal Operations Ash Species:**



27) Prior to the cutting, pruning or trimming of any ash trees, the utility shall consult the State of Wisconsin's Emerald Ash Borer (EAB) website: <http://www.emeraldashborer.wi.gov/>

28) The utility and their contractor shall follow the rules and regulations as established by the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP).

29) The utility shall contact DATCP directly with any specific questions regarding their work and disposition of ash species while working on WISDOT right of ways.

☐ **Tree Trimming & Removal Operations Non- Ash Species:**

30) Brush, logs & debris from tree trimming & removal from non-ash species shall be hauled off the work site during and at the end of each work day or chipped.

31) Wood chips from non-ash species shall not be stockpiled. Any non-ash wood chips shall be spread out and dispersed accordingly to match the existing grade.

32) Stumps from non-ash species shall be cut flush to the existing grade.

☒ **Existing Pavements & Right-of-Way:**

33) Existing inlets, drainage structures, drain tiles or other drainage facilities damaged during construction shall be repaired or replaced in kind. The contractor shall notify WisDOT of any damaged facilities.

34) Equipment and material shall be moved outside the clear zone at the end of each work day.

35) Open excavations shall be plated or protected by other means during and at the end of each work day to ensure public safety. Energy absorbing terminals (EATS) or other crash protection devices shall be used with concrete barrier walls.

36) Existing highway pavements shall be kept and swept clean of mud and debris from construction and trucking operations during and at the end of each work day.

☒ **Directional Drill, Bore & Jack, Plow & Trenching Operations:**

37) All road crossings shall be bored or directionally drilled. Open cutting of any pavements is strictly prohibited and not authorized under this permit.

38) Manual tracking or guiding of directional drill heads from the pavement surface of the highway for utility crossings is strictly prohibited.

☐ **Subsurface Utility Exploration (S.U.E.) Operations:**

39) If water jetting is permitted, the utility or their contractor shall furnish to WisDOT digital pictures taken before and after the S.U.E. excavating from the same camera angle of the roadway section. Vacuum excavations need not pictures.

40) The pavement area for removal shall be cored. Saw cutting is prohibited. The core hole over the existing utility in pavement areas shall be no larger than 12" diameter inside the wheel paths and no larger than 16" outside the wheel paths.

41) The areas specified on the construction plan where potential conflicts exists with other existing utilities, shall be the only areas where S.U.E. excavating will be allowed to be completed.

42) Flowable fill or slurry backfill per the attached detail shall be used in zones 1 & 2 to restore the voids left behind from the S.U.E. excavating.



WISDOT SUPPLEMENTAL UTILITY PERMIT PROVISIONS

Page 4 of 6

43) The pavement core shall be fastened back in place with utilibond or an equivalent epoxy type adhesive. The pavement core shall be placed flush with the existing pavements.

44) The utility operator shall inspect and monitor the areas where S.U.E was performed on a routine basis.

45) WisDOT will require pavement removal and replacement at the utility operator's expense in areas where S.U.E. was performed and subsequent pavement failure occurs. WisDOT will determine final limits of pavement removal and replacement.

☐ **Aerial Construction Operations:**

46) A minimum of three work days in advance, the contractor shall coordinate rolling closures for aerial crossings with the respective county sheriff's office and local law enforcement agencies.

47) The rolling closures for the purpose of detaching or attaching an overhead cable crossing the highway shall be completed during off peak traffic hours. The rolling closure shall be completed under dry pavement conditions.

48) The utility or their contractor shall be responsible for all costs associated with the protection of traffic.

49) Anchors and guy cables shall be installed in accordance with clear zone requirements outlined in the WisDOT facilities development manual (FDM) chapter 11-15-1

50) Anchors and guy cables shall be installed in accordance with clear zone requirements outlined in the WisDOT facilities development manual (FDM) chapter 11-45-10 bicycle facilities.

Further details can be viewed in the WisDOT bicycle facilities design handbook at:

<http://www.dot.wisconsin.gov/projects/state/docs/bike-facility.pdf>

☒ **WisDOT Improvement Projects Coordination:**

51) The utility work is within the limits of a WisDOT construction project. Coordination must be done with WisDOT Utility Construction Engineer (Craig Hardy) to ensure closure conflicts do not arise. Contact info: 262-212-5744 or Craig.Hardy@dot.wi.gov

52) The utility work is within the limits of a WisDOT construction project. The utility shall attend the WisDOT weekly construction meeting. Contact Craig Hardy for time and location.

☒ **Soft Surface Restoration:**

53) Temporary soft restoration to stabilize the work site shall be completed in a timely manner during and immediately following utility construction. Excess spoil shall be hauled off the work site.

54) Final soft restoration shall consist of placing a minimum 4 " of topsoil, WisDOT spec seed, and fertilizer and erosion mat.

55) The contractor shall notify WisDOT as soon as final restoration has been completed and the work site is ready for inspection.

56) The utility operator or their contractor shall coordinate temporary and final soft restoration and restoration limits with the WisDOT project manager or the WisDOT project leader on the work site.

☒ **Soft Surface Restoration- Late Season :**

57) For late season seeding and restoration after October 1st. See the attached document.

☐ **Sidewalk Removal/ Replacement:**



58) Sidewalk removal, backfill requirements and sidewalk replacement shall be coordinated in advance with the respective local municipality (owner).

☐ **Open Cut Pavement:**

59) Existing pavements specifically authorized for removal to accommodate placement of utility facilities shall be **SAW CUT** full depth prior to the use of pavement breaking equipment.

60) Pavement cuts shall not be completed from November 1st through April 1st. Pavement restoration shall occur before November 1st or before materials become unavailable, whichever occurs 1st.

61) Pavement removed, shall be hauled off the work site during and at the end of each work day.

62) Temporary sheeting and shoring shall be used as necessary to prevent cave-ins.

☒ **Slurry Backfill:**

63) Slurry backfill per the attached detail shall be the required backfill for excavations in zones 1 & 2.

☐ **Granular Backfill:**

64) The use of granular backfill in lieu of slurry backfill for excavations within highway pavement areas and shoulder shall be pre-approved or authorized in advance by the WisDOT regional utility permit coordinator.

65) Granular material, shall be placed in lifts or layers 12" or less each in depth, and mechanically compacted to the density of the adjacent and undisturbed material.

66) Water jetting and use of excess water to facilitate mechanical compaction is strictly prohibited.

☐ **Concrete Pavement Restoration:**

67) Concrete pavement restoration shall consist of replacing in kind the concrete removed with high early strength concrete mix reinforced per the attached details.

68) Pavement restoration shall occur before November 1st or before materials become unavailable, whichever occurs 1st.

69) Concrete pavement shall be replaced from joint to joint. The minimum longitudinal length is 6 feet.

70) Concrete pavement without a bituminous asphalt overlay shall have a tine or heavily broomed finish.

71) Curb and gutter damaged or removed during construction operations shall be replaced in kind per the attached detail.

☐ **Bituminous Asphalt Pavement Restoration:**

72) Bituminous asphalt pavement restoration shall consist of replacing in kind the bituminous asphalt overlay removed to match the existing bituminous asphalt thickness.

73) Pavement restoration shall occur before November 1st or before materials become unavailable, whichever occurs 1st.

74) Bituminous asphalt shall be replaced from seam to seam and overlay the longitudinal length of the concrete patch. The minimum longitudinal length is 6 feet.

☒ **Gravel Shoulders:**



WISDOT SUPPLEMENTAL UTILITY PERMIT PROVISIONS

Page 6 of 6

75) Gravel shoulder material removed or disturbed due to construction operations shall be replaced in kind, graded and shaped to match the existing gravel shoulders.

☐ **Epoxy Pavement Markings:**

76) Epoxy pavement markings removed shall be replaced in kind with an epoxy based pavement marking paint along with reflective bead materials.

☐ **Temporary Pavement Markings:**

77) Temporary pavement markings when authorized by the WisDOT regional utility permit coordinator in lieu of epoxy pavement markings that are removed shall be replaced in kind with a latex based or equivalent pavement marking paint along with reflective beads.

78) Temporary pavement markings shall have a 2 year minimum service life.

☒ **Signal Equipment or Operation to be Impacted:**

79) Coordination with WisDOT Electrical Field Unit (EFU) is required due to traffic signal impacts. Contact EFU at 414-266-1170 a minimum of 5 working days prior to beginning work.

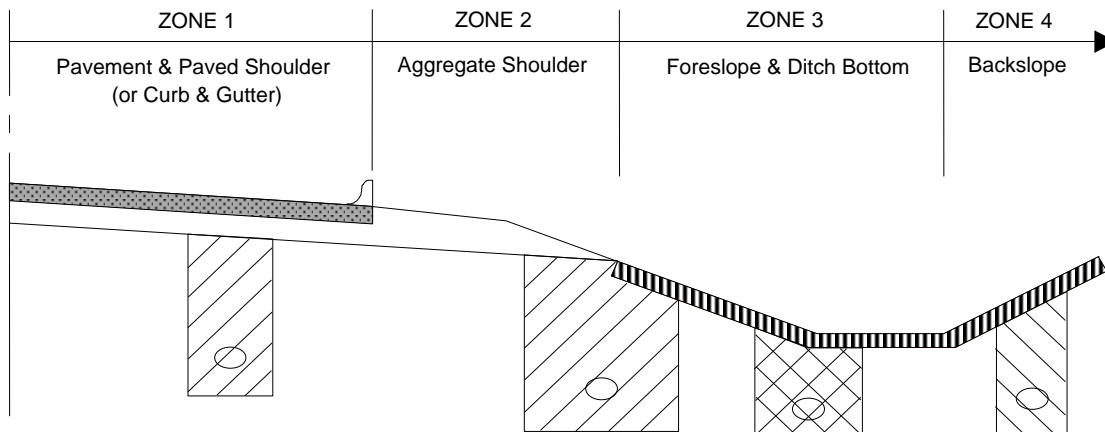
80) WisDOT Signal Operations staff can be reached at 414-750-2605. For emergencies, WisDOT State Traffic Operations Center can be reached at 1-800-375-7302.

81) Any unplanned disruption of State-owned facilities shall be repaired or relocated, as needed under the direction and approval of EFU, at the applicant's expense.

Attachment 2: Backfilling Excavation Detail Drawings

CL

LONGITUDINAL EXCAVATION

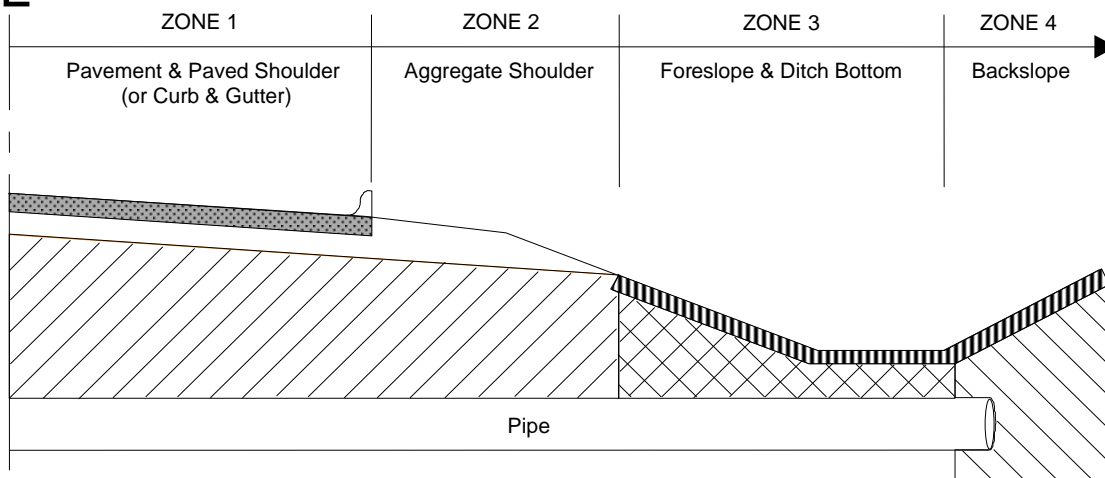


KEY

	Slurry Backfill
	Granular Backfill
	4" Topsoil
	Spoil backfill

CL

TRANSVERSE EXCAVATION



NOTES

- 1) Use slurry backfill to replace the excavated material in ZONES 1 and 2.
- 2) If the work area covers BOTH ZONES 2 & 3, use slurry backfill to replace the excavated material.
- 3) Use granular backfill to replace the excavated material in ZONE 3. Granular backfill placement and gradation shall conform to WisDOT's Standard Specifications for Road and Bridge Construction, current edition.
- 4) Place backfill in ZONES 3 & 4 to within 4" of the finished grade to allow for topsoil placement.
- 5) Suitable spoil backfill may be used in ZONE 4 at the discretion of WisDOT.

SLURRY BACKFILL

The materials shall be placed in a clean concrete mixer truck and thoroughly mixed in the following quantities FOR EACH CUBIC YARD REQUIRED:

- SAND 1,350 lbs
- #1 STONE 750 lbs
- #2 STONE 1,150 lbs
- WATER 25 gals (0 to -0.5 gal variance)

No additional water will be allowed. The above weights are damp weights. Just prior to placing the slurry backfill, the mixer shall be run at mixing speed for one full minute to assure an even mixture.



LATE SEASON SEEDING & RESTORATION

1. Place finish topsoil and seeding or sod as much of the project as possible. Pay particular attention near sensitive areas (streams, farms, wetlands, etc.). Protect now for next year's spring thaw and rains.
2. Seeding to get germination in northern* Wisconsin should be completed by September 1, in southeastern** Wisconsin by October 1, the remainder of the state by September 15. Seed placed after this time will not germinate on the average because soil temperatures below 53 degrees will not break the seed coat. Seeding after this time should follow a dormant seeding approach.
3. The dormant seeding method prepares the seed for germination in the spring. The seed must be kept in contact with the soil until that time.
 - a. Soil must not be frozen to allow the seed to work into the soil. If the soil temperature is too warm the seeds may start to germinate then get killed off by frost.
 - b. Dormant seeding should occur between first frost and snowfall. No erosion control cover is gained in this approach. Include other erosion control methods even if they are not included in the ECIP.
 - c. Properly entrenched erosion mat is recommended although there are other BMPs that may be effective. Ditches should not be dormant seeded.
 - d. Review your ECIP for the project. Additional erosion control items may be necessary to protect your projects from spring rains (especially true for carry over projects). If this is the case request an amendment to the ECIP with plans for inspection over winter and as the snow begins to melt and the soils thaw.
 - e. Contact your regional Storm water Erosion Control Engineer or Central Office Erosion and Sediment Control Specialist if you have any questions.

*Northern counties:

Ashland, Bayfield, Burnett, Douglas, Florence, Forest, Iron, Langlade, Marinette, Oneida, Sawyer, Vilas, Washburn

**Southeastern counties:

Kenosha, Manitowoc, Milwaukee, Ozaukee, Racine, Sheboygan, Walworth



Division of Transportation System Development
Southeast Regional Office
141 N.W. Barstow Street
P.O. Box 798
Waukesha, WI 53187-0798

Scott Walker, Governor
Mark Gottlieb, P.E., Secretary
Internet: www.dot.wisconsin.gov

Telephone: (262) 548-5903
Facsimile (FAX): (262) 548-6891
E-Mail: waukesha.dtd@dot.state.wi.us

October 7, 2015

MR. RON PRITZLAFF
OAK CREEK SEWER & WATER UTILITY
170 WEST DREXEL AVENUE
OAK CREEK, WI 53154

SUBJECT: *PROJECT I.D.: 2375-08-70*
CHICAGO ROAD
INTERSECT WITH STH 100
STH-032
MILWAUKEE COUNTY

Dear Mr. Pritzlaff:

This letter is to inform you that I have received your proposed work plan for the subject project and have found it to be in conformance with Trans 220.

Your work plan indicates that no utility adjustments and/or relocation work is anticipated. This information will be entered in the utility portion of the Special Provisions of the DOT highway contract. If however utility conflicts are discovered or if your work plan changes, please notify this office immediately at (262) 548-5924 so that I can correct our contract documents.

As stated in State Statute Trans 220.06 (7)(c), if the owner fails to provide a work plan as provided in §Trans 220.05, or fails to complete the alteration or relocation of its facilities in accordance with the work plan approved by the department as provided in § Trans 220.05, the owner shall be liable to the contractor for all delay costs and liquidated damages incurred by the contractor which are caused by or which grow out of failure of the owner to carry out and complete its work in accordance with the approved work plan.

If you have any questions, please contact me at (262) 548-5924.

Sincerely,

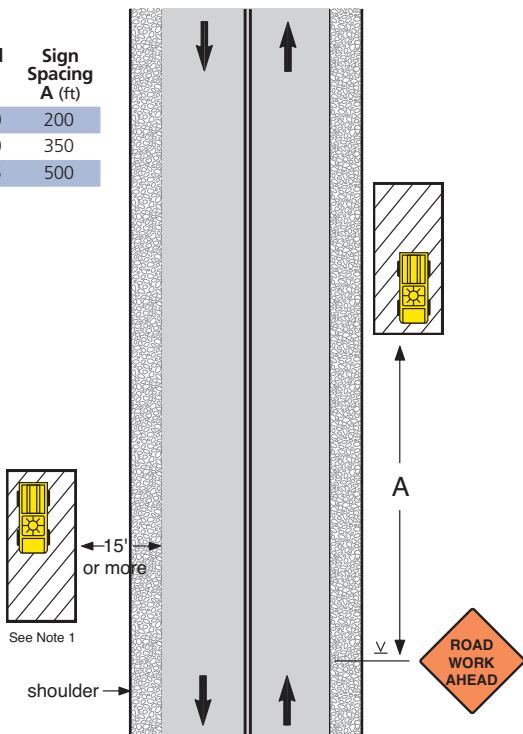
Andrew Beyer

Andrew Beyer
Southeast Region Utility Engineer
andrew.beyer@dot.wi.gov

Enclosure

Work Beyond the Shoulder

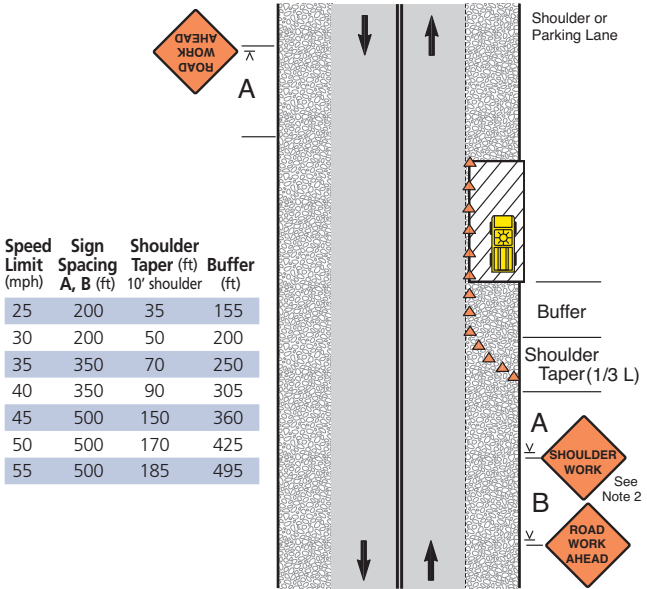
Speed Limit (mph)	Sign Spacing A (ft)
25-30	200
35-40	350
45-55	500



Notes

1. The warning sign may be omitted where the work area is behind a guard rail, more than 2' behind a curb, 30' or more from the edge of a freeway/expressway, or 15' or more from the edge of any other roadway.
2. For short-term, short-duration, or mobile operations, the warning sign may be omitted if a vehicle with activated high intensity light is used. On state trunk highways, the warning sign can be omitted if the duration of work is less than 60 minutes and activated high intensity lights are used.
3. The ROAD WORK AHEAD sign may be replaced with other appropriate signs such as SHOULDER WORK, UTILITY WORK AHEAD, SURVEY CREW or Workers.

Work on Shoulder or Parking Lane



Notes

1. Encroachment into the traffic lane is allowable, but a 10-foot minimum travel lane width should be maintained. A lane closure should be considered if there is encroachment on roads with speeds greater than 35 mph, or for other conditions where workers, equipment, or the work activity would benefit from the lateral buffer (see pages 22 and 23).
2. If there is encroachment into the traffic lane, a ROAD NARROWS sign may be used instead of SHOULDER WORK. For roads with low volume, the SHOULDER WORK or ROAD NARROWS sign can be omitted.
3. For short duration work (60 minutes or less), the channelizing devices may be omitted if a vehicle with activated high intensity lights is used. For short duration work with no lane encroachment, the signs may also be omitted.
4. Workers, UTILITY WORK AHEAD, SHOULDER WORK AHEAD, or SURVEY CREW signs may be used instead of SHOULDER WORK or ROAD WORK AHEAD.
5. When work area is at least 2' from traffic lane on roads with low volume and speeds of 35 mph or less, the sign on opposite side can be omitted.

GEOTECHNICAL REPORT

GEOTECHNICAL ENGINEERING
SERVICES REPORT

For the

Proposed South 5th Avenue Extension
South Chicago Road to E. Ryan Road
Oak Creek, Wisconsin
State Project No. 2987-00-14

Prepared for:

Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53175

Prepared by:

Professional Service Industries, Inc.
W237 N2878 Woodgate Road
Suite 2
Pewaukee, Wisconsin 53072
Phone (262) 347-0898
Fax (262) 347-2256

PSI Report Number: 0052589

March 29, 2013



A handwritten signature in black ink, appearing to read 'Ken Wojtanowski', written over a horizontal line.

Ken Wojtanowski, E.I.T.
Staff Engineer

A handwritten signature in black ink, appearing to read 'Paul J. Koszarek', written over a horizontal line.

Paul J. Koszarek, P.E.
Department Manager

The above Professional Engineering Seal and signature is an electronic reproduction of the original seal and signature. An original hard copy was sent to the client listed on this document. This electronic reproduction shall not be construed as an original or certified document.

March 29, 2013

Strand Associates, Inc.
910 West Wingra Drive
Madison, WI 53175

Attn: Mr. Patrick J. Rank, P.E.
Project Manager

Re: Geotechnical Engineering Services Report
Proposed South 5th Avenue Extension
South Chicago Road to E. Ryan Road
Oak Creek, Wisconsin
State Project No. 2987-00-14
PSI Report No. 0052589

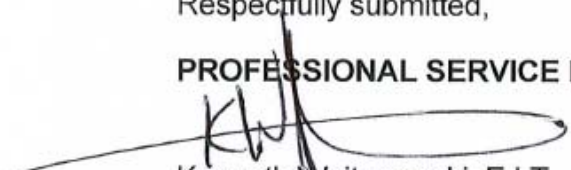
Dear Mr. Rank:

Professional Service Industries, Inc. (PSI) is pleased to transmit our Geotechnical Engineering Services Report for the proposed South 5th Avenue Extension from South Chicago Road to East Ryan Road in Oak Creek, Wisconsin. This report includes the results of field and laboratory testing, recommendations for the roadway as well as general site development.

PSI appreciates the opportunity to perform this Geotechnical Study and looks forward to continuing our participation during the design and construction phases of this project. If you have questions pertaining to this report, or if PSI may be of further service, please contact us at your convenience.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.


Kenneth Wojtanowski, E.I.T.
Staff Engineer


Paul J. Koszarek, P.E.
Department Manager
Geotechnical Services



The above Professional Engineering Seal and signature is an electronic reproduction of the original seal and signature. An original hard copy was sent to the client listed on this document. This electronic reproduction shall not be construed as an original or certified document.

3-Client

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PROJECT INFORMATION

Project Authorization

The following Table summarizes the project authorization history for the services performed and represented in this report by Professional Service Industries, Inc. (PSI):

DOCUMENT AND REFERENCE NUMBER	DATE	SOURCE OF REQUEST	AUTHOR OR AGENT & TITLE
PSI Proposal Number: PO-052-69759R4	8/2/2012	PSI	Mr. David Barndt, P.E. Mr. Paul Koszarek, P.E.
Notice to Proceed (via agreement)	9/11/2012	Strand Associates, Inc.	Mr. Matthew Richards

Project Description

PSI understands that the project includes the extension of South 5th Avenue from its intersection with West Ryan Road south and west to the intersection of South Chicago Avenue and STH 100. The proposed intersection of South 5th Avenue and West Ryan Road will become a roundabout having three legs. One leg of the roundabout will proceed northbound on South 5th Avenue, one leg will proceed eastbound on West Ryan Road and the last leg will proceed onto the newly constructed extension of South 5th Avenue in the southbound direction. The new South 5th Avenue extension will intersect perpendicular to South Chicago Avenue at its intersection with State Highway 100. This new intersection will be a conventional 4-way signalized intersection with right and left turn lanes.

Within the proposed South 5th Avenue and South Chicago Road intersection area, the existing grades will mostly remain as they are (1± foot cut/fill). Within the remainder of the project area (South 5th Avenue Extension and proposed roundabout, up to 7± feet of fill and 10± feet of cut are anticipated. The deepest cut area is planned along the proposed South 5th Avenue alignment from the western edge of the Union Pacific Railroad to the south of the proposed roundabout. The largest amounts of fill are anticipated for the northern portion of the roundabout as well as the South 5th Avenue alignment from the eastern edge of South Chicago Road and the west edge of the Union Pacific Railroad.

Additional site work will reportedly include storm sewers to the east and west of the existing railroad tracks and within the vicinity of the proposed roundabout. The depths of the storm sewers will vary from approximately 5 to 9 feet below the existing grades. The size of the storm sewer will be 24 inches in diameter.

The geotechnical recommendations presented in this report are based on the available project information and the subsurface materials described in this report. If the noted information is incorrect, please inform PSI in writing so that we may amend the recommendations presented in this report if appropriate and if desired by the client. PSI will not be responsible for the implementation of its recommendations when it is not notified of changes in the project.

Purpose and Scope of Services

The purpose of the geotechnical exploration was to evaluate the subsurface soil conditions along the proposed alignment and evaluate if there is a need for special treatment of the underlying soils in order to adequately support the embankment or subgrade, and the suitability of the subsoils for roadway embankment or base course construction. In addition pavement design parameters are also provided. The scope of PSI's services included a total of 15 soil borings, photoiniozation testing of the soil samples, laboratory testing of the soils and generation of this report.

The scope of services did not include an environmental assessment for determining the presence or absence of wetlands, or hazardous or toxic materials in the soil, bedrock, surface water, groundwater, or air on or below, or around this site. Any statements in this report or on the boring logs regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes.

SITE AND SUBSURFACE CONDITIONS

Site Location and Description

The proposed roadway project consists of reconfiguration and reconstruction of the intersection of South Chicago Road and STH 100, extending South 5th Avenue, as well as constructing a roundabout at the East Ryan Road and South 5th Avenue intersection. The sections of the roadway included in this project are located primarily within agricultural areas, with the exception of two residential properties which are located within the southern portion of the proposed roundabout and the railroad tracks which cross the proposed alignment near station 30+00.

The existing grades along the proposed alignment of the South 5th Avenue extension are at about 705 feet (MSL) near South Chicago Road and increase to the east and north. The highest point of the existing grade is near the existing residential properties, where the existing elevation is at approximately 718 feet (MSL). To the north and east of the residential properties, the existing grade slopes back down to about 710 feet (MSL) where it meets up with East Ryan Road.

Subsurface Conditions

The subsurface conditions beneath the proposed roadway alignment were explored with 15 soil borings (i.e. B-01 through B-15). The borings performed by PSI were completed to depths ranging from 10 to 25 feet below grade. Drilling was performed using hollow stem auger methods and soil samples were obtained in accordance with ASTM D-1586. The borings were located in the field by PSI based on the station markings that were located by Strand Associates, Inc. Upon completion, the borings were backfilled in accordance with the State Code. The following Table indicates the stationing of the borings performed by PSI, as well of the general locations within the proposed roadway alignment. The approximate boring locations can also be found in the form of a site plan within the Appendix of this report.

BORING NO.	NAME OF STREET	STATION (FT)
B-01	STH 100 Left Turn Lane (To South Chicago Rd NB)	15+00
B-02	STH 100 Left Turn Lane (To South Chicago Rd NB)	18+00
B-03	South Chicago Rd Right Turn Lane (To STH 100 WB)	22+00 SB
B-04	S. 5 th Avenue Extension	21+00
B-05	S. 5 th Avenue Extension	23+00
B-06	S. 5 th Avenue Extension	25+00
B-07	S. 5 th Avenue Extension	27+00
B-08	S. 5 th Avenue Extension	29+00
B-09	S. 5 th Avenue Extension	30+95
B-10	S. 5 th Avenue Extension	31+69
B-11	S. 5 th Avenue Extension	35+68
B-12	S. 5 th Avenue Extension	34+50
B-13	East Ryan Road Widening	11+00 R
B-14	North Side of Roundabout	38+00
B-15	S. 5 th Avenue Widening	39+50

Representative soil samples were obtained from the soil borings and were returned to PSI's laboratory where they were visually classified using the Unified Soil Classification System (USCS) as a guideline. Further, PSI conducted limited laboratory testing on select soil samples to aid in identifying and describing the physical characteristics of the soils and to aid in defining the site soil stratigraphy. The results of the field exploration and laboratory tests were used in PSI's engineering analysis and in the formulation of our engineering recommendations.

STH 100 and South Chicago Road Turn Lanes

Within the proposed turn lanes from eastbound STH 100 to northbound South Chicago Road and from southbound Chicago Road to westbound STH 100, approximately 1 to 6 inches of surficial topsoil was observed. The following Table shows the boring location, existing topsoil thicknesses, and soil type observed at the elevation of the proposed roadway alignment:

BORING NO.	Name of Street	PROPOSED GRADE CHANGE (FT)	EXISTING TOPSOIL THICKNESS (IN)	SOIL TYPE OBSERVED IMMEDIATELY BELOW PAVEMENT SECTION (AASHTO CLASSIFICATION)
B-01	STH 100 Left Turn Lane (To South Chicago Rd NB)	<1 foot fill	5	Sandy Clay (A-6)
B-02	STH 100 Left Turn Lane (To South Chicago Rd NB)	<1 foot fill	6	Silty Sandy Gravel(A-1-a)
B-03	South Chicago Rd Right Turn Lane (To STH 100 WB)	<1 foot fill	1	Sandy Clay (A-6)

Below the surficial topsoil material, old undocumented fill materials were generally observed to extend to about 1½ to 3 feet below grade. The old undocumented fill materials were classified as either sandy clay or silty, sandy gravel in a moist condition, with moisture contents in the range of 18% to 19%. The “N-Values” within the old undocumented fill materials were observed in the range of 9 to 14 blows per foot (bpf).

Native lean clay soils were observed beneath the old undocumented fill materials to the terminal depths of the borings, with the exception of a layer of moist silt from 4½ to 7 feet within Boring B-02. The native lean clay soils were observed in a moist to **very moist** condition, with moisture contents in the range of 17% to 26%. The pocket penetrometer values within the native lean clay soils were observed in the range of 1 to 3½ tons per square foot (tsf), indicating a stiff to very stiff soil consistency. The layer of silt within Boring B-2 was observed in a moist condition, with a moisture content of 14%. The “N-Value” within the silt layer was observed to be 14 bpf, indicating a medium relative soil density.

South 5th Avenue Extension

Along the proposed alignment of the South 5th Avenue Extension, approximately 1 to 30 inches of surficial topsoil was observed. The following Table shows the boring location, existing topsoil thicknesses, and underlying soil type observed at the elevation of the proposed roadway alignment:

BORING NO.	Name of Street	PROPOSED GRADE CHANGE (FT)	EXISTING TOPSOIL THICKNESS (IN)	SOIL TYPE OBSERVED IMMEDIATELY BELOW PAVEMENT SECTION (AASHTO CLASSIFICATION)
B-04	S. 5 th Avenue Extension	7 feet fill	1	New Clay Fill (A-6)
B-05	S. 5 th Avenue Extension	3 feet fill	4	New Clay Fill (A-6)
B-06	S. 5 th Avenue Extension	1 foot fill	6	New Clay Fill (A-6)
B-07	S. 5 th Avenue Extension	5 feet fill	10	New Clay Fill (A-6)
B-08	S. 5 th Avenue Extension	6 feet fill	4	New Clay Fill (A-6)
B-09	S. 5 th Avenue Extension	3 feet cut	30	Lean Clay (A-6)
B-10	S. 5 th Avenue Extension	5 feet cut	4	Lean Clay (A-6)
B-11	S. 5 th Avenue Extension	7 feet cut	30	Lean Clay (A-6)
B-12	S. 5 th Avenue Extension	9 feet cut	3	Lean Clay (A-6)

Below the surficial topsoil material, native lean clay soils were generally observed to extend to the terminal depths of the borings, with the exception of sandy clay fill material at borings B-6 and B-12 to about 5½ feet below grade as well as some sporadic silt layers. The old undocumented fill materials were classified as sandy clay in a moist to **very moist** condition, with moisture contents in the range of 22% to 33%. The “N-Values” within the old undocumented fill materials were observed in the range of 6 to 11 blows per foot (bpf).

Native lean clay soils were observed beneath the old undocumented fill materials to the terminal depths of the borings, with the exception of a few sporadic silt layers. The native lean clay soils were observed in a moist to **very moist** condition, with moisture contents in the range of 10% to 24%. The pocket penetrometer values within the native lean clay soils were observed in the range of 1½ to 4½ tons per square foot (tsf), indicating a stiff to hard soil consistency.

The layers of silt observed within the upper 12 feet were generally observed in a moist condition, with moisture contents in the range of 16%. The layers of silt below about 12 feet beneath the existing grade were generally observed in a **wet** condition, with moisture contents in the range of 19% to 21%. The “N-Values” within the native silt soils were observed in the range of 9 to 24 bpf, indicating a loose to medium relative soil density.

Roundabout Area

Along the proposed alignment of the roundabout to be constructed at the intersection of East Ryan Road and South 5th Avenue, approximately 8 to 30 inches of surficial topsoil was observed. The following Table shows the boring location, existing topsoil thicknesses, and underlying soil type observed at the elevation of the proposed roadway alignment:

BORING NO.	Name of Street	PROPOSED GRADE CHANGE (FT)	EXISTING TOPSOIL THICKNESS (IN)	SOIL TYPE OBSERVED IMMEDIATELY BELOW PAVEMENT SECTION (AASHTO CLASSIFICATION)
B-13	E. Ryan Road Widening	6 feet cut	4	Lean Clay (A-6)
B-14	North Side of Roundabout	4 feet fill	30	New Clay Fill (A-6)
B-15	S. 5 th Avenue Widening	1 foot fill	3	New Clay Fill (A-6)

Below the surficial topsoil material, native lean clay soils were generally observed to extend to the terminal depths of the borings, with the exception of a silt layer observed from 13 to 15 feet below grade at boring B-14. The native lean clay soils were observed in a moist to **very moist** condition, with moisture contents in the range of 14% to 24%. The pocket penetrometer values within the native lean clay soils were observed in the range of 1½ to 4½ tons per square foot (tsf), indicating a stiff to hard soil consistency.

The layer of silt observed from 13 to 15 feet at Boring B-14 was observed in a wet condition with moisture content of 19%. The "N-Value" within silt layer was observed to be 18 bpf, indicating a medium relative soil density.

The above subsurface description is of a generalized nature to highlight the major subsurface stratification features and material characteristics. The boring logs included in the Appendix should be reviewed for specific information at individual boring locations. These records include soil descriptions, stratifications, penetration resistances, locations of the samples and laboratory test data. The stratification shown on the boring logs represents the conditions only at the actual boring locations. Variations may occur and should be expected between boring locations. The stratification represents the approximate boundary between subsurface materials and the actual transition may be gradual. Water level information obtained during field operations is also shown on the boring logs. The samples that were not discarded during classification or altered by laboratory testing will be retained for 60 days from the date of this report and then will be discarded.

Contaminant Screening

PSI field screened soil samples generated during drilling for volatile organic vapors. The headspace above each soil sample was screened with a Thermo Instruments 580B photoionization detector (PID) equipped with a 10.6 electron volt lamp. The PID was calibrated prior to use through the introduction of zero gas and subsequently a known concentration of isobutylene gas into the instrument. The manufacturer indicates that the sensitivity of the device is 1 part per million (ppm) for volatile organic compounds (VOCs) that have an ionization potential equal to or less than the lamp energy. The calibrated PID is used to detect total organic vapors in comparison to the isobutylene standard. Due to the inexact volume of the headspace and varying soil conditions, PID readings should only be considered a relative indication of volatile organic compound concentrations. The moisture contents of soil and humid atmospheric conditions have been found to produce inaccurate organic vapor readings due to condensation on the lamp.

To perform the field screening, each soil sample was sealed in a re-sealable plastic bag and equilibrated to approximately 70°F. Reported PID results were obtained by sampling the headspace above each soil sample and recording the maximum instrument reading.

During drilling and sampling, no PID readings greater than 1 ppm were detected. In addition, no unusual odors were detected in any of the soil borings.

Groundwater Information

Groundwater was observed at each of the borings during drilling and at completion of drilling operations. Groundwater measurements were also attempted 24 hours after drilling operations, however due to snowfall and collapsing boreholes, these measurements were not possible without the installation of monitoring wells. However in clay soils, the long term groundwater level can also be approximated by a change in color from brown to gray. A separate column has been added to the Table below that depicts that depth where gray clay soils were observed. The approximate depth where groundwater was observed is contained in the following Table:

BORING No.	ELEVATION (FEET MSL)	APPROXIMATE DEPTH OF HIGHEST OBSERVED GROUNDWATER LEVEL (FT)	APPROXIMATE DEPTH TO GRAY SOILS (FT)	OBSERVED GROUNDWATER LEVEL (FEET MSL)
B-01	702	N/O	8	N/O
B-02	704	N/O	7	N/O
B-03	702	N/O	8	N/O
B-04	702	N/O	N/O	N/A
B-05	703	N/O	N/O	N/A
B-06	701	N/O	N/O	N/A
B-07	697	6	10	691
B-08	699	N/O	N/O	N/A
B-09	707	13	12	694
B-10	709	N/O	12	N/O
B-11	717	19	13	698
B-12	719	19	12	700
B-13	716	N/O	17	N/O
B-14	703	14	13	689
B-15	703	N/O	12	N/O

Fluctuations in the groundwater level should be anticipated throughout the year depending on variations in climatological conditions and other factors not apparent at the time the borings were performed. Additionally, discontinuous zones of perched water may exist within the overburden materials.

EVALUATION AND RECOMMENDATIONS

Site Preparation

PSI recommends that all surficial vegetation, topsoil, organic and soft soils as well as the existing pavement be stripped from and a minimum of 5 feet beyond the proposed roadway alignment prior to the placement of new fill or preparation of subgrades. Depending on the time of the year, sporadic instability of the upper clays may be observed to due to excessive moisture, **particularly within the area to the east of the railroad tracks where the deepest cuts are planned**. If excessively wet or unstable clays are observed at the time of construction, they should either be stabilized or stripped from that area until more stable soils are observed. It is possible that wet non-organic clays could be reused as engineered fill, if allowed to dry. Where organic soils are present at subgrade elevation, PSI recommends they be removed in their entirety and backfilled with an approved material as outlined below. A representative of a qualified geotechnical engineer should determine the need for and depth of removal or stabilization at the time of construction.

After stripping and excavating the topsoils and organic soils, or before placement of new fill to raise site grades, the pavement area should be proofrolled with a fully-loaded tandem axle dump truck or rubber tired vehicle of similar size and weight, typically a 9 tons/axle truck where cohesive soils are present and a large vibratory steel drummed roller where granular soils are present. Soils that are observed to rut or deflect excessively under the moving load (typically > 1"), should be undercut and replaced with properly compacted fill. The proofrolling is important to identify the location and depth of buried organic topsoil material. The extent of the excavation below subgrade will depend on the proofrolling activities. The proofrolling and undercutting activities should be documented by a representative of a qualified geotechnical engineer and should be performed during a period of dry weather.

If instability is observed, surface stabilization could consist of a placing a BX1200 geogrid and 18 inches of 1 ¼" dense graded base, placed in two 9 inch lifts (lower static rolled, upper layer vibratorily compacted). Undercut areas that are filled with granular soils adjacent and within clay soils should have the bottom of the excavation sloped to drain to a daintile that is sloped to gravity drain to the nearest storm sewer. This will lessen the effects of creating a "bath tub" effect within the subgrade that would lead to subgrade softening and heave over time.

After subgrade preparation and observation have been completed, placement of new fills required to obtain proposed grades may begin. The first layer of fill should be placed in a relatively uniform horizontal lift and be adequately keyed (where needed) into the stripped and scarified subgrade soils. New fills should consist of a granular backfill meeting the requirements of Section 209 of the State of Wisconsin Standard Specifications for Highway and Structure Construction (Standard Specifications), or a suitable borrow material. Suitable borrow fill should be free of organic, frozen, or other deleterious materials, have a maximum particle less than 3 inches. Clayey fills should have a liquid limit less than 45

and plasticity index less than 20 and greater than 11. Other soils with Atterberg Limits outside those recommended should be reviewed by the geotechnical consultant for their intended use. If a fine-grained soil is used for fill, close moisture content control will be required to achieve the recommended degree of compaction. The project is located on an urban area and subject to high traffic. Therefore, PSI recommends that all fills be placed and compacted in accordance with the special compaction requirements in the Standard Specifications. Engineered fill should be compacted to at least 95 percent of the maximum dry density as determined by the Standard Proctor ASTM Designation D 698. Also, PSI recommends that a qualified geotechnical engineer test and document the structural fill materials prior to placement.

Engineered fill should be placed in maximum lifts of 8 inches of loose material and should be compacted within +/- 3 percentage points of the optimum moisture content value as determined by the Proctor test. If water must be added, it should be uniformly applied and thoroughly mixed into the soil by disk or scarifying. Each lift of compacted structural fill must be tested and approved by a representative of PSI prior to placement of subsequent lifts.

Pavement Recommendations

After grading operations have been completed, the subgrade soils are anticipated to consist of native stiff to hard clay soils, or newly placed engineered fill. The natural lean clay soils are considered “poor to medium” subgrade materials according to the Wisconsin Asphalt Pavement Association Design Guide. The subgrade should be prepared as outlined in the Site Preparation Section of this report. Provided the roadway sections are prepared as outlined above, the following subgrade parameters are recommended for reconstruction design considerations:

AASHTO Soil Classification	Material	SSV	DGI	Subgrade Reaction Modulus, k (pci)	Resilient Modulus, M_R (psi)	CBR	Frost Index
A-6	II-Poorly Sorted	3.9	14	125	2,800	3	F-4

Note: The above parameters were estimated based upon the soil classification and boring information and were not measured in the laboratory. These values are also based on the undercutting and backfilling procedures being followed as described above.

Engineered fill added to raise grades must have design values at least equal to or greater than listed above. The CBR value given above has been estimated. For less conservative CBR values, PSI recommends that actual CBR tests be performed on each type of material, including the proposed base rock material. Preparation of the existing ground surface and construction of the new subgrade and pavements should be in accordance with the Wisconsin Department of Transportation Standard Specifications (Standard Specifications).

The new granular base course is used for the new road way section and replacement of existing base course should consist of well-graded crushed stone meeting the requirements from Section 305 of the Standard Specifications for a 1¼" dense graded base. The granular base course material should be placed and compacted to a minimum of 95% of maximum density as determined by standard Proctor (ASTM D 698) according to Section 301.3.4.3 of the Standard Specifications. Also, a representative of a qualified geotechnical engineer must test the base course material prior to, and during, placement.

Asphaltic binder and surface courses should meet the requirements from Section 460 of the Standard Specifications. Asphaltic courses should be placed and compacted to the minimum required density contained within the above mention section. An adequate number of in-place density tests should be performed during construction to document the placement compaction.

Pavements should be sloped to provide positive surface drainage. Water should not be allowed to pond on or adjacent to the pavement as this could saturate the subgrade and cause premature pavement deterioration. The granular base course should be protected from water inflow along drainage paths. Additionally, the granular base course should extend at least one foot beyond the edges of the pavement to allow water that enters the base stone a path for exit. **PSI recommends where site grades are pitching toward the pavement edge that an edge drain be used in order to minimize additional water from entering the granular base course layer thus causing subgrade base failure and heaving. Edge drains should be sloped to the nearest storm sewer.**

PSI recommends using a fill expansion factor for the materials observed within our borings of 1.11. If the excavation below subgrade (EBS) materials are used for non-structural embankments, PSI recommends using an EBS reduction factor of 0.9.

Open Trench Excavation Recommendations

Based on the information provided to PSI, it appears that excavations required to construct the proposed Sanitary Sewers will extend to depths of approximately 5 to 9 feet below the existing ground surface. The soils observed at bearing elevation appear to be suitable for support of the proposed sewer line.

Groundwater was encountered within the borings at depths ranging from 6± to 19± feet below existing grade (elevation 689 feet MSL to 700± feet MSL). Based upon these observations, groundwater-related problems should be anticipated for excavations extending below these depths. If water levels do not recede over a period of time, dewatering with sump pumps, wells or sand points could be necessary. Moisture seepage into excavations in cohesive soils should be at a slower rate which would generally be controlled by gravity flow and construction sump pumps. Removal of water by pumping from excavations in granular soils (silt) below the water table could result in a "quick" condition. Water levels should be maintained 2 or more feet below the bottom of excavations in sand to prevent seepage forces upward which could reduce subgrade support.

Where wet, loose or soft soil conditions are encountered, it may be necessary to place a layer of granular bedding material in the bottom of the excavation to develop a stable working surface. A 9 to 12-inch layer of clean, well-graded crushed limestone should be considered to develop the working surface.

Bedding of the pipe should be performed in accordance with normally accepted procedures for the class of pipe being used. Backfilling of the excavation should be done in such a way as to provide relatively uniform lateral support to the pipe until the backfill extends over the pipe. This can be accomplished by alternating fill placement at approximately 1-foot intervals to both sides of the pipe. PSI recommends that backfill be compacted in uniform lifts which are sufficient to achieve a minimum density of 95 percent of the materials maximum standard Proctor dry density determined by ASTM D 698. The on-site soils can be readily excavated with conventional excavation equipment. Generally, proper compaction of cohesive soils can be achieved with sheepsfoot or pneumatic type compactors under optimum moisture conditions.

The extent of bracing of open cut excavations will depend upon depth of cut, groundwater conditions, soils encountered, length of time the excavation will be open, area available for excavation and local governing regulations. Predominantly cohesive soils may appear to stand nearly vertical in shallow excavations for short periods of time. However, soil creep, surcharge loads, precipitation, subsurface groundwater seepage, construction activity vibrations and other factors may cause these soils to cave within an unpredictable period of time.

Excavations encountering fill, granular or organic soils may tend to cave or slough readily; the potential for caving soil is even greater if water is present within these layers. Unstable excavation walls may also cause surrounding cohesive soils to become unstable.

If groundwater is encountered, steel sheet piling may be necessary to reduce potential seepage. If sheet piling is necessary it should extend at least 5 feet below the proposed lowest extent of the excavation to reduce the potential seepage. Sheet piling is not expected to prevent all the groundwater inflow, the rate of flow should be reduced and most likely could be controlled using sump pits and pumps inside the sheeting. Temporary shoring or use of trench boxes will be required to maintain a safe working area in all other areas of the excavation. The contractor should be aware of and follow all applicable regulations governing this type of construction.

For use in designing flexible excavation bracing or sheet piling, we recommend an active soil pressure represented by a pressure of 60 pcf times the depth of the trench acting on the entire depth of the bracing for the cohesive soils predominantly encountered at the site. These values assume dewatering, if required, would be accomplished in advance of the excavation and a drained soil condition would exist. For undrained cohesive soils, the design lateral pressure should be increased to at least 80 pcf times the depth of the trench.

GEOTECHNICAL RISK

The concept of risk is an important aspect of the geotechnical evaluation. The primary reason for this is that the analytical methods used to develop geotechnical recommendations do not comprise an exact science. The analytical tools which geotechnical engineers use are generally empirical and must be used in conjunction with engineering judgment and experience. Therefore, the solutions and recommendations presented in the geotechnical evaluation should not be considered risk-free and, more importantly, are not a guarantee that the interaction between the soils and the proposed roadway will perform as planned. The engineering recommendations presented in the preceding section constitutes PSI's professional estimate of those measures that are necessary for the proposed roadway to perform according to the proposed design based on the information generated and referenced during this evaluation, and PSI's experience in working with these conditions.

REPORT LIMITATIONS

PSI's recommendations are based on the subsurface conditions at the test boring locations and project details furnished by Strand Associates, Inc. If there are any revisions to the plans for this project, or if the subsurface conditions that are encountered during construction differ from those described in this report, PSI must be notified immediately to determine if our recommendations must be changed. If PSI is not notified of project changes or subsurface variations, we will not be responsible for the impact of those conditions on the project.

The findings, recommendations, and professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

PSI should be retained and provided the opportunity to review the final plans and specifications and to check that our engineering recommendations have been properly incorporated into the design documents. At that time, it may be necessary to submit supplementary recommendations or revise the recommendations provided in this report. This report has been prepared for the exclusive use by Strand Associates, Inc. for the proposed South 5th Avenue Extension in Oak Creek, Wisconsin.

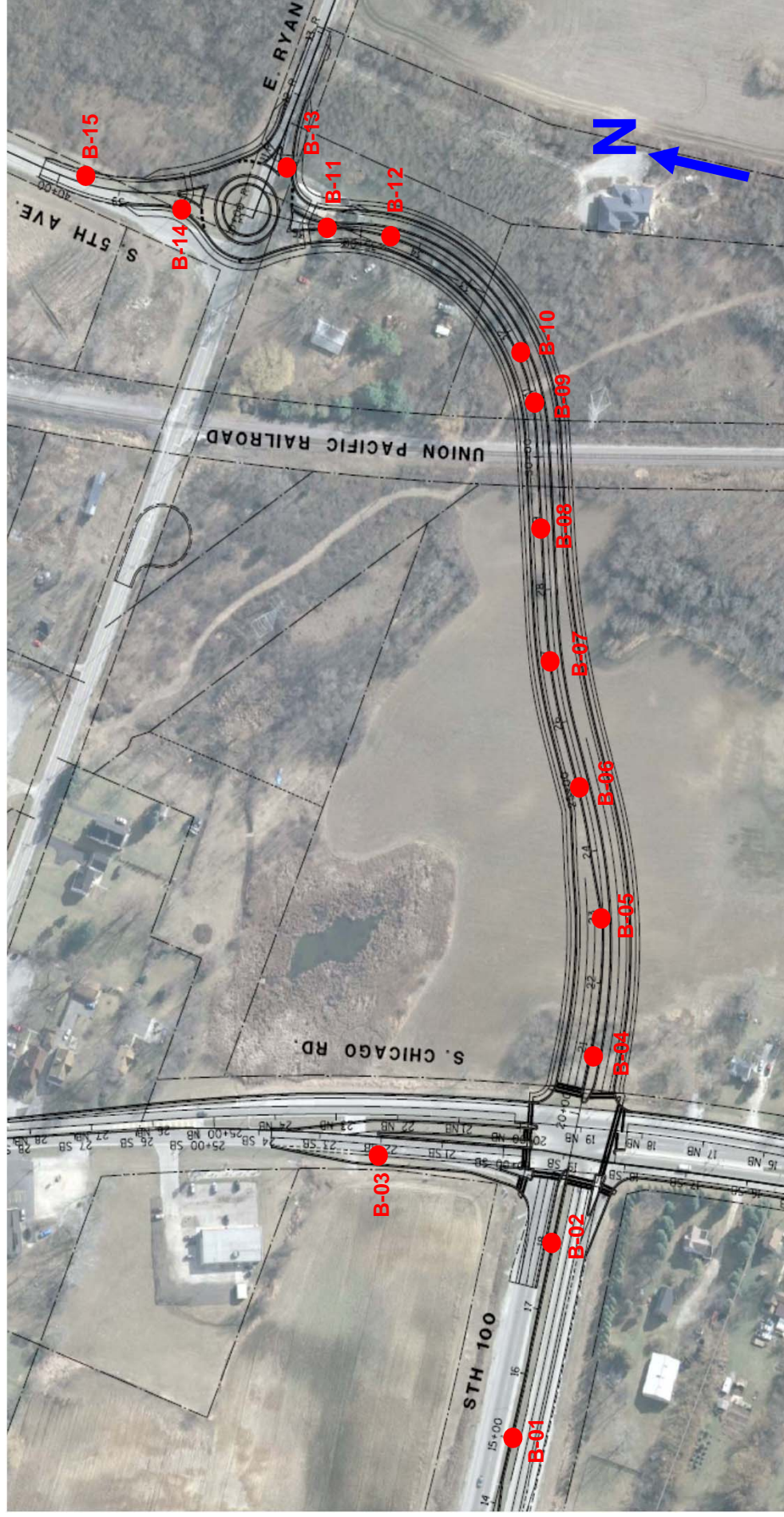
APPENDIX

BORING LOCATION PLAN

LOG OF BORINGS

LABORATORY TEST RESULTS

GENERAL NOTES



[psi] *Information*
To Build On
Engineering • Consulting • Testing
 W237 N2878 Woodgate Road, Suite 2
 Pewaukee, Wisconsin 53072

Project Name: Proposed South 5th Avenue Extension
Project Location: East Ryan Road to STH 100
 Oak Creek, Wisconsin
PSI Project # : 0052589

**Boring
 Location
 Plan**



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LOG OF BORING B-01

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: STH 100 Left Turn Lane

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
▼ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 15+00 Offset: N/A MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▣ PL + LL STRENGTH, tsf ▲ Qu * Qp	Additional Remarks
0						Topsoil (5" Thick)	Fill				
				1	12	Fill, Brown Sandy Clay and Gravel, Moist	Fill	6-5-4 N=9	18	◎ ×	
				2		Brown Mottled Gray Lean Clay, Trace Sand and Gravel, Moist	CL	6-3-3 N=6		◎	
5				3				3-4-4 N=8	18	◎ ×	
				4	3	Gray Lean Clay, Trace Sand, Silt and Gravel, Very Moist to Moist, Stiff to Medium		3-3-4 N=7	26	◎ ×	
10				5	18		CL	3-3-6 N=9	23	◎ * ×	
				6	18			3-3-4 N=7	19	◎ * ×	
15						End of Boring at 15' Cave in at 3'					

Completion Depth: 15.0 ft
Date Boring Started: 2/28/13
Date Boring Completed: 2/28/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
▣ Auger Cutting ▣ Shelby Tube
▣ Split-Spoon ▣ Hand Auger
▣ Rock Core ▣ Calif. Sampler
 ▣ Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-02

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: STH 100 Left Turn Lane

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
▽ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 18+00 Offset: N/A MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▲ Qu * Qp PL LL	Additional Remarks
0	0	Topsoil (6" Thick)					Fill				
		Fill, Gray Silty, Sandy Gravel, Moist					Fill				
		Brown Lean Clay, Trace Sand and Gravel, Moist, Very Stiff		1	15		CL	6-6-6 N=12	20	◎ × *	
				2	18		ML	4-5-9 N=14	14	◎	
	5	Brown Sandy Silt, Trace Gravel, Moist, Medium					ML				
				3	18			5-5-9 N=14	18	◎ × *	
		Gray Lean Clay, Trace Sand and Silt, Moist, Very Stiff									
				4	18		CL	3-6-7 N=13	17	◎ × *	
	10										
				5	18			5-6-5 N=11	18	◎ × *	
	15										
		End of Boring at 15'									
		Cave in at 2'									

Completion Depth: 15.0 ft
Date Boring Started: 2/28/13
Date Boring Completed: 2/28/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-03

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. Chicago Rd Right Turn Lane

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
⚡ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 22+00 SB Offset: N/A MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ⊙ × Moisture ▣ PL + LL STRENGTH, tsf ▲ Qu * Qp	Additional Remarks
0						Topsoil (1" Thick)	Fill				
				1	12	Fill, Brown Sandy Lean Clay, Mixed Gravel, Moist	Fill	9-8-6 N=14	19	⊙ ×	
				2	18	Brown Mottled Gray Lean Clay, Trace Sand, Gravel and Silt Seams, Moist to Very Moist, Very Stiff to Stiff	CL	3-4-7 N=11	18	⊙ × *	
5				3	18			3-4-6 N=10	25	⊙ *	
				4	18	Gray Lean Clay, Trace Sand and Gravel, Very Moist, Stiff	CL	3-3-4 N=7	22	⊙ * ×	
10											
				5	18			2-3-6 N=9	23	⊙ * ×	
15						End of Boring at 15'					
						Cave in at 2'					

Completion Depth: 15.0 ft
Date Boring Started: 2/28/13
Date Boring Completed: 2/28/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
▣ Auger Cutting ▣ Shelby Tube
⊗ Split-Spoon ▣ Hand Auger
▣ Rock Core ▣ Calif. Sampler
 ▣ Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-04

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Extension

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
⚡ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 21+00 Offset: N/A MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▣ PL + LL STRENGTH, tsf ▲ Qu * Qp	Additional Remarks	
	0					Topsoil (1" Thick)	OL					
				1	18	Brown Mottled Gray Lean Clay, Trace Sand and Gravel, Very Moist to Moist, Very Stiff to Hard	CL	2-1-3 N=4	28	◎	×	
				2	18			2-3-4 N=7	23	◎	×	*
	5			3	0			9-8-9 N=17	19	◎	×	
				4	18			4-7-10 N=17	19	◎	×	>>*
	10					End of Boring at 10'						

Completion Depth: 10.0 ft
Date Boring Started: 2/27/13
Date Boring Completed: 2/27/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-05

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Extension

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
▽ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 23+00 Offset: N/A MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▣ PL + LL STRENGTH, tsf ▲ Qu * Qp	Additional Remarks
0						Topsoil (4" Thick)	OL				
				1	18	Brown Mottled Gray Lean Clay, Trace Sand and Gravel, Very Moist	CL	9-9-4 N=13	23	◎ ×	
				2	18	Brown Mottled Gray and Rust Silt, Trace Sand and Clay, Moist, Medium	ML	4-6-7 N=13	16	◎ ×	
5				3	18	Brown Lean Clay, Trace Sand and Gravel, Moist, Hard to Very Stiff	CL	6-6-10 N=16	20	◎ ×	*
				4	18			3-4-7 N=11	21	◎ ×	*
10						End of Boring at 10'					

Completion Depth: 10.0 ft
Date Boring Started: 2/27/13
Date Boring Completed: 2/27/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:

▣ Auger Cutting
▤ Split-Spoon
▥ Rock Core

▦ Shelby Tube
▧ Hand Auger
▨ Calif. Sampler
▩ Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-06

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Extension

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
⚡ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 25+00 Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▲ Qu * Qp PL LL	Additional Remarks
0	0						Topsoil (6" Thick)	Fill				
				1	18		Fill, Brown Sandy Clay, Mixed Gravel, Very Moist to Moist	Fill	7-6-5 N=11	33	×	
				2	12				2-3-7 N=10	10	×	
	5			3	18		Brown Mottled Gray Lean Clay, Trace Sand and Gravel, Moist, Very Stiff	CL	4-5-5 N=10	21	×	*
				4	18				4-5-8 N=13	19	×	*
	10						End of Boring at 10'					

Completion Depth: 10.0 ft
Date Boring Started: 2/27/13
Date Boring Completed: 2/27/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-07

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Extension

WATER LEVELS

▽ While Drilling 6 Ft.
▼ Upon Completion Not Obsvd.
▽ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 27+00 Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▲ Qu * Qp PL LL	Additional Remarks
0	0						Topsoil (10" Thick)	OL				
				1	18		Brown Mottled Gray Lean Clay, Trace Sand and Gravel, Moist, Very Stiff to Hard (Wet Sand Seam at 6.5')	CL	3-4-4 N=8	20	◎ × *	
				2	18			CL	4-7-8 N=15	11	◎ × *	
	5			3	18			CL	6-6-7 N=13	22	◎ ×	
				4	0			CL	5-8-8 N=16	10	◎ ×	
	10						Gray Lean Clay, Trace Sand and Gravel, Moist, Very Stiff	CL				
				5	10			CL	2-7-8 N=15	19	◎ × *	
	15						End of Boring at 15'					
							Cave in at 3'					

Completion Depth: 15.0 ft
Date Boring Started: 2/28/13
Date Boring Completed: 2/28/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-08

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Extension

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
⚡ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 29+00 Offset: N/A MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▣ PL + LL 50 STRENGTH, tsf ▲ Qu * Qp 4.0	Additional Remarks		
	0					Topsoil (4" Thick)	OL						
				1	12	Brown Mottled Gray Lean Clay, Trace Sand and Gravel, Very Moist to Moist, Hard to Very Stiff	CL	5-4-4 N=8	31	◎	×		
				2	18			8-10-13 N=23	18		×	◎	>>*
5				3	18			7-10-17 N=27	19		×	◎	>>*
				4	18			7-8-11 N=19	22		◎	×	*
10													
				5	18			2-4-6 N=10	24	◎	×	*	
15						End of Boring at 15'							

Completion Depth: 15.0 ft
Date Boring Started: 2/28/13
Date Boring Completed: 2/28/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
▣ Auger Cutting ▣ Shelby Tube
▣ Split-Spoon ▣ Hand Auger
▣ Rock Core ▣ Calif. Sampler
 ▣ Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-09

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Extension

WATER LEVELS

▽ While Drilling 13 Ft.
▼ Upon Completion Not Obsvd.
▽ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 30+95 Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▣ PL + LL STRENGTH, tsf ▲ Qu * Qp	Additional Remarks
0							Topsoil (30" Thick)	OL	7-5-4 N=9	48		×
				1	3							
				2	18		Brown Lean Clay, Trace Sand and Gravel, Moist, Very Stiff to Hard	CL	4-6-9 N=15	16		×
5				3	18				6-11-17 N=28	14		×
				4	18		Brown Sandy Silt, Trace Gravel, Wet, Medium	ML	8-11-13 N=24	19		×
10				5	18		Gray Lean Clay, Trace Sand, Gravel and Silt Seams, Very Moist, Stiff	CL	4-5-7 N=12	20		×
15				6	18				2-3-3 N=6	22		×
20							End of Boring at 20' Cave in at 2'					

Completion Depth: 20.0 ft
Date Boring Started: 2/28/13
Date Boring Completed: 2/28/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

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LOG OF BORING B-10

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Extension

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
⚡ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 31+69 Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ⊙ × Moisture ⊠ PL ⊕ LL	STRENGTH, tsf ▲ Qu * Qp	Additional Remarks
0							Topsoil (4" Thick)	OL					
				1	18		Fill, Brown Mixed Gray Sandy Lean Clay, Trace Gravel, Very Moist	Fill	4-4-5 N=9	22	⊙ ×		
				2	15		Brown Mottled Gray Lean Clay, Trace Sand and Gravel, Moist, Hard		3-4-8 N=12	17	⊙ ×	>>*	
5				3	15			CL	8-9-14 N=23	15	× ⊙	>>*	
				4	18				9-11-17 N=28	13	× ⊙	>>*	
10							Gray Lean Clay, Trace Sand and Gravel, Moist, Stiff	CL	4-5-7 N=12	20	⊙ *		
15				5	18								
				6	18		Gray Silt, Trace Clay and Sand, Moist, Medium	ML	6-6-6 N=12	17	⊙ ×		
20							End of Boring at 20'						
							Cave in at 2'						

Completion Depth: 20.0 ft
Date Boring Started: 2/28/13
Date Boring Completed: 2/28/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:

Auger Cutting
Split-Spoon
Rock Core

Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-11

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Extension

WATER LEVELS

▽ While Drilling 19 Ft.
▼ Upon Completion Not Obsvd.
▽ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 35+68 Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ X Moisture PL + LL STRENGTH, tsf ▲ Qu * Qp	Additional Remarks
0							Topsoil (3' Thick)	OL	7-4-5 N=9	74		>>X
				1	3							
				2	12		Brown Lean Clay, Trace Sand and Gravel, Moist, Hard, Trace Moist Sand Seams	CL	5-5-7 N=12	19	X	>>*
5				3	10				5-7-13 N=20	21	X	>>*
				4	18				5-8-11 N=19	12	X	>>*
10												
				5	3		Gray Lean Clay, Trace Sand and Gravel, Very Moist	CL	3-4-5 N=9	24	X	
15												
				6	15		Gray Silt, Trace Sand, Wet, Loose	ML	3-4-5 N=9	21	X	
20												
				7	18		Gray Lean Clay, Trace Sand and Gravel, Moist, Stiff	CL	2-3-5 N=8	18	X	
25							End of Boring at 25' Cave in at 2'					

Completion Depth: 25.0 ft
Date Boring Started: 3/3/13
Date Boring Completed: 3/3/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-12

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Extension

WATER LEVELS

▽ While Drilling 19 Ft.
▼ Upon Completion Not Obsvd.
▼ Delay N/A

Elevation (feet)	Depth (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 34+50 Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▣ PL + LL	STRENGTH, tsf ▲ Qu * Qp	Additional Remarks
0							Topsoil (3" Thick)	OL					
				1	3		Fill, Dark Brown Sandy Clay, Trace Sand and Gravel, Very Moist	Fill	2-3-3 N=6	22	◎	×	
				2	6				3-4-5 N=9	23	◎	×	
5				3	12		Brown Mottled Dark Gray Lean Clay, Trace Sand and Silt Seams, Moist, Very Stiff	CL	4-4-6 N=10	21	◎	× *	
				4	15				3-4-9 N=13	22	◎	×	
10				5	18		Gray Lean Clay, Trace Silt Seams and Sand, Very Moist, Medium	CL	2-2-4 N=6	23	◎ *	×	
				6	12		Gray Silt, Trace Sand, Wet, Medium	ML	3-7-5 N=12	19	◎	×	
20				7	18		Gray Lean Clay, Trace Sand and Gravel, Moist, Stiff	CL	4-5-7 N=12	19	◎	×	
25							End of Boring at 25'						
							Cave in at 1'						

Completion Depth: 25.0 ft
Date Boring Started: 3/3/13
Date Boring Completed: 3/3/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:

Auger Cutting
Split-Spoon
Rock Core

Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-13

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: E. Ryan Rd. Widening

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
⚡ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 11+00 R Offset: N/A	MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ⊙ × Moisture	PL LL	STRENGTH, tsf ▲ Qu * Qp	Additional Remarks
0							Topsoil (30" Thick)	OL	6-6-7 N=13	22	⊙ ×			
				1	10		Brown Sandy Clay, Trace Silt, Moist, Very Stiff	CL	3-4-6 N=10	17	⊙ × *			
				2	15				4-7-8 N=15	16	⊙ × *			
				3	18				5-7-8 N=15	18	⊙ × *			
				4	18				5-7-8 N=15	21	⊙ × *			
				5	18		Gray Lean Clay, Trace Sand and Gravel, Moist, Stiff	CL	3-4-6 N=10	17	⊙ × *			
				6	18									
							End of Boring at 20'							
							Cave in at 1'							

Completion Depth: 20.0 ft
Date Boring Started: 3/3/13
Date Boring Completed: 3/3/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
 Auger Cutting
 Split-Spoon
 Rock Core
 Shelby Tube
 Hand Auger
 Calif. Sampler
 Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-14

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: NW Side of Roundabout

WATER LEVELS

▽ While Drilling 14 Ft.
▼ Upon Completion Not Obsvd.
▽ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 38+00 Offset: N/A MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft ◎ × Moisture ▲ Qu * Qp PL LL	Additional Remarks
0						Topsoil (30" Thick)	OL	4-5-5 N=10	18	◎ ×	
				1	10						
				2	18	Brown Lean Clay, Trace Sand and Gravel, Very Moist to Moist, Stiff to Hard		3-3-4 N=7	24	◎ * ×	
5				3	18		CL	4-8-10 N=18	14	× ◎	>>*
				4	18			4-6-11 N=17	15	× ◎	>>*
10											
				5	18	Gray Silt, Trace Sand, Wet, Medium	ML	4-7-11 N=18	19	◎ ×	
15						End of Boring at 15' Cave in at 2'					

Completion Depth: 15.0 ft
Date Boring Started: 3/3/13
Date Boring Completed: 3/3/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:

The stratification lines represent approximate boundaries. The transition may be gradual.



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LOG OF BORING B-15

Sheet 1 of 1

PSI Job No.: 0052589
Project: Proposed South 5th Avenue Extension
Location: East Ryan Road to STH 100
Oak Creek, Wisconsin

Drilling Method: Hollow Stem Auger
Sampling Method: 2-in SS
Hammer Type: Automatic
Boring Location: S. 5th Ave Widening

WATER LEVELS

▽ While Drilling Not Obsvd.
▼ Upon Completion Not Obsvd.
⚡ Delay N/A

Elevation (feet)	Depth, (feet)	Graphic Log	Sample Type	Sample No.	Recovery (inches)	Station: 39+50 Offset: N/A MATERIAL DESCRIPTION	USCS Classification	SPT Blows per 6-inch (SS)	Moisture, %	STANDARD PENETRATION TEST DATA N in blows/ft © X Moisture PL LL STRENGTH, tsf ▲ Qu * Qp	Additional Remarks
0	0					Topsoil (8" Thick)	OL				
				1	18	Brown Mottled Gray Lean Clay, Trace Sand and Gravel, Moist, Very Stiff		7-7-10 N=17	17		
				2	18			8-11-12 N=23	14		
5				3	18		CL	7-10-13 N=23	15		*
				4	18			5-7-9 N=16	16		*
10						Gray Lean Clay, Trace Sand and Gravel, Moist, Very Stiff	CL	3-5-8 N=13	14		*
15				5	18	End of Boring at 15'					
						Cave in at 4'					

Completion Depth: 15.0 ft
Date Boring Started: 3/3/13
Date Boring Completed: 3/3/13
Logged By: DZ
Drilling Contractor: PSI, Inc.

Sample Types:
Auger Cutting
Split-Spoon
Rock Core
Shelby Tube
Hand Auger
Calif. Sampler
Texas Cone

Latitude:
Longitude:
Drill Rig: ATV
Remarks:


The stratification lines represent approximate boundaries. The transition may be gradual.

GENERAL NOTES

SAMPLE IDENTIFICATION

The Unified Soil Classification System is used to identify the soil unless otherwise noted.

SOIL PROPERTY SYMBOLS

- N: Standard "N" penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2 inch O.D. split-spoon.
- Qu: Unconfined compressive strength, tsf.
- Qp: Penetrometer value, index value of unconfined compressive strength, tsf.
- Mc: Water content, %.
- PL: Plastic limit, %.
- LL: Liquid Limit, %.
- PI: Plasticity Index.
- γ_d : Natural dry density, pcf.
-  Groundwater level observed at time noted after completion of boring.

DRILLING AND SAMPLING SYMBOLS

- SS: Split-Spoon – 1 3/8" I.D., 2" O.D., except where noted.
- ST: Shelby Tube – 3" O.D., except where noted.
- AU: Auger Sample.
- DB: Diamond Bit.
- CB: Carbide Bit.
- WS: Washed Sample.

RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION (Terzaghi & Peck, 1948)

TERM (COHESIONLESS SOILS)

STANDARD PENETRATION RESISTANCE

Very Loose	0 – 4
Loose	4 – 10
Medium	10 – 30
Dense	30 – 50
Very Dense	Over 50

TERM (COHESIVE SOILS)

Qu – (TSF)

Very Soft	0 – 0.25
Soft	0.25 – 0.50
Medium	0.50 – 1.00
Stiff	1.00 – 2.00
Very Stiff	2.00 – 4.00
Hard	4.00+

PARTICLE SIZE (ASTM D2487 AND D422)

Boulders	≥ 12 in. (300mm)	Medium Sand	<2mm (10 sieve) to 425 μ m (#40 sieve)
Cobbles	< 12 in.(300mm) to 3 in. (75mm)	Fine Sand	<425 μ m (#40 sieve) to 75 μ m (#200 sieve)
Gravel	< 3 in. (75mm) to 4.75mm (#4 sieve)	Silt	<75 μ m (#200 sieve) to 5 μ m
Coarse Sand	<4.75mm (#4 sieve) to 2mm (#10 sieve)	Clay	<5 μ m