



**PROJECT NO. 14105**

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

**SOUTH HOWELL AVENUE (STH 38)  
WATER MAIN RELAY PROJECT**

**FOR**

**OAK CREEK WATER AND SEWER UTILITY**

**February 13, 2014**

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

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

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**OAK CREEK WATER & SEWER UTILITY**

**February 13, 2014**

Project Design & Construction Coordination  
Ron J. Pritzlaff, P.E.  
Utility Engineer  
Phone: (414) 570-8210

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**ADVERTISEMENT FOR BIDS**

**Water Main and Appurtenances for  
South Howell Avenue (STH 38) Water Main Relay  
for  
Oak Creek Water and Sewer Utility  
Project No. 14105**

**BID DATE: Thursday, February 27, 2014**

**BID OPENING:**

Sealed bids will be received by Owner until 9:00 a.m. on Thursday, February 27, 2014 at the office of the Oak Creek Water and Sewer Utility, 170 W. Drexel Avenue, Oak Creek, WI 53154.

Bids submitted after this time will not be accepted. Bids will be opened and publicly read aloud immediately after specified closing time. Interested parties are invited to attend.

**PROJECT**

**DESCRIPTION:** The work, officially known as Project No. 14105, South Howell Avenue, (STH 38) Water Main Relay and consists of constructing the following approximate quantities:

**Bid No. 1 – South Howell Avenue (STH 38) Water Main Relay**

	<b>Item Description</b>	<b>Quantity</b>	<b>Units</b>
1	8" CL. 150 PVC Water Main with granular backfill (Type A1), full depth sawcutting, asphalt pavement removal, asphalt pavement replacement, asphalt driveway replacement, CMP culvert replacement, and lawn restoration.	493	LF
2	8" CL. 150 PVC Water Main with granular backfill (Type A8), full depth sawcutting, concrete pavement removal, concrete pavement replacement, concrete curb and gutter replacement, and lawn restoration.	52	LF

3	12" CL. 150 PVC Water Main with granular backfill (Type A8), full depth sawcutting, concrete pavement removal, concrete pavement replacement, concrete curb and gutter replacement, and lawn restoration.	1,516	L.F.
4	Connect original service (COS) 1-1/4" Water Service Laterals (Polyethylene)	19	EA
5	8" Gate Valve	4	EA
6	12" Gate Valve	7	EA
7	Connect to Existing 8" Water Main	3	EA
8	Connect to Existing 12" Water Main	4	EA
9	Hydrant, Lead and 6-Inch Gate Valve	3	EA
10	Salvage and Delivery of Existing Hydrants	1	LS
11	Existing Valve Box Removal (Top Section Only). Fill remainder of valve box to valve.	1	LS
12	Erosion Control	1	LS
13	Traffic Control	1	LS

**BASIS OF BIDS REQUIRED:**

Bids shall be on a unit price basis.

**Bids will be selected based upon the combined total of Base Bid No. 1.**

**PROJECT SCHEDULE:**

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

- Preconstruction meeting as arranged by the Utility Engineer.
- Issuance of the Notice to Proceed by the Utility Engineer.

## **Project Milestone Dates:**

South Howell Avenue (STH 38) Water Main Relay Dates of Importance:

South Howell Avenue (STH 38) Water Main Relay water main work shall not begin before **March 24, 2014**.

Substantial Completion Date: **June 6, 2014**

Final Completion Date: **June 14, 2014**

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.

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.

## **Special Work Time Restrictions:**

Coordination of Work timeframes shall be coordinated and approved by the Utility prior to performing this Work.

Contractor shall complete the work in accordance with the phasing order set forth in the traffic control plans, commencing with the main between Stations 0+00 and 0+43, and completing the two connections at the intersection of E. Groveland Drive and S. Howell Avenue.

Water main crossings constructed perpendicular to the centerline of S. Howell Avenue shall commence with that located at Station 9+97.08 to maintain fire protection to industrial customers. Subsequent crossing construction can be phased at the contractor's option.

## **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.

**EXAMINATION AND DISTRIBUTION OF DOCUMENTS:**

Bidding documents may be obtained at the Oak Creek Water and Sewer Utility Website at: [www.water.oak-creek.wi.us](http://www.water.oak-creek.wi.us) under the "Public Contracts" section after **Thursday, February 13, 2014**.

**BID SECURITY:**

Bids shall be accompanied by Bid Security made payable to Owner in an amount of five (5) percent of Bidder's maximum Bid Price in the form of a Bid Bond, certified check, or cashier's check.

**PUBLIC CONTRACT REQUIREMENTS:**

Procurement of the work and the award of the contract will be in accordance with the provisions of Wis. Stat. S.62.15, S.66.0901, S.66.0903 and S.779.16.

Bidders shall comply with prevailing wage rates, hours of labor and hourly basic pay rates for each trade or occupation established in accordance with S.66.0903 Wisconsin Statutes for this work. This information is on file in the Office of the Oak Creek Water and Sewer Utility and is bound into the Bidding Documents.

**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.

**CONTRACT SECURITY:**

Bidder awarded a contract for the Work shall be required to furnish a Performance Bond and a Payment Bond in the full amount of the contract price.

**CONTRACT AWARD:**

Owner reserves the right to postpone the award of the Contract for a period not exceeding 30 days from the date of bid opening. Bids shall remain firm for that period of time.

**Published by authority of:**

**City of Oak Creek Water and Sewer Utility**

Name of Owner

**Ron J. Pritzlaff, P.E.,**

Authorized Official

**Utility Engineer**

Title

**02/13/2014 and 02/20/2014**

Date(s) of Publication

## **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 27, 2014

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 Schedules 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 City, State, Zip Code

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

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

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

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

ADDENDUM RECEIPT: We acknowledge the receipt of 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 \_\_\_\_\_

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**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>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

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**Schedule One**

Item No.	Item Description	Bid Quantity	Units	Unit Price	Total Price
1	8" PVC Water Main, Asphalt Pavement Restoration Unit price per lineal foot _____ dollars & _____ cents .	500	LF		
2	8" PVC Water Main, Concrete Pavement Restoration Unit price per lineal foot _____ dollars & _____ cents .	60	LF		
3	12" PVC Water Main, Concrete Pavement Restoration Unit price per lineal foot _____ dollars & _____ cents .	1540	LF		
4	Connect Original Service (COS) 1-1/4" Water Service Laterals (Polyethylene), Asphalt Pavement Restoration Unit price per each. _____ dollars & _____ cents .	9	EA		
5	Connect Original Service (COS) 1-1/4" Water Service Laterals (Polyethylene), Concrete Pavement Restoration Unit price per each. _____ dollars & _____ cents .	12	EA		
6	8" Gate Valve Unit price per each. _____ dollars & _____ cents .	4	EA		
7	12" Gate Valve Unit price per each. _____ dollars & _____ cents .	7	EA		
8	Connect to Existing 8" Water Main Unit price per each _____ dollars & _____ cents .	3	EA		
9	Connect to Existing 12" Water Main Unit price per each. _____ dollars & _____ cents .	4	EA		
10	Hydrant, Lead, and 6-inch Gate Valve Unit price per each _____ dollars & _____ cents .	3	EA		

Item No.	Item Description	Bid Quantity	Units	Unit Price	Total Price
11	Salvage and Delivery of Existing Hydrants Unit price per lump sum. _____ dollars & _____ cents .	1	LS		
12	Existing Valve Box Removal (Top Section Only) Unit price per lump sum. _____ dollars & _____ cents .	1	LS		
13	Erosion Control Unit price per lump sum. _____ dollars & _____ cents .	1	LS		
14	Traffic Control Unit price per lump sum. _____ dollars & _____ cents .	1	LS		

**BASE BID TOTAL ITEMS 1 - 14 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.

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 two lanes of roadway open for vehicular access, and 2) 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.

**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) 768-6553
2. Fire Department, 7000 S. 6<sup>th</sup> Street, (414) 570-5630
3. Police Department, 301 W Ryan Road, (414) 768-8200
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.

G. 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. 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 PVC WATER MAIN**

1. All polyvinyl chloride (PVC) water pipe shall conform to the requirements of Chapter 8.10.0 of the Standard Specifications. Polyvinyl chloride pipe shall be used only on water mains of 12" or smaller in size unless otherwise specified on the construction plans or herein the Detailed Specifications.
2. All pipe 8" and larger (if specifically allowed), shall be Class 150 with a standard dimension ratio of 18; all pipe 6" and smaller shall be Class 200 with a standard dimension ratio of 14.

3. PVC fittings shall be used on all PVC pipe. PVC fittings 4"-12" in diameter shall be injection molded and comply with the requirements of AWWA C907 and be certified to CSA B137.2. Molded fittings will be made of PVC compound with a minimum hydrostatic design basis of 4000 psi. Molded fittings must be Factory Mutual approved and listed by the Underwriter's Laboratories International (ULI).

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

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

#### B. GATE VALVES

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

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.

#### C. CAST IRON VALVE BOXES

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

D. VALVE BOX ADAPTORS

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

E. MECHANICAL JOINTS

Wherever mechanical joints are to be installed, as specified, the bolts and nuts shall be Core-Blue, Durabolt 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 1-3/4" 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

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

G. SERVICE CONNECTIONS TO 12" MAIN and 8" MAIN

The following materials shall be used for the Corporation stop:

Corporation Stops: Mueller H-15000

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

H. BEDDING MATERIALS AND BACKFILL MATERIALS

FOREST HILL BACKFILL MATERIAL

Backfill shall consist of mechanically compacted 3/4" graded crushed limestone (T.B.).

SOUTH HOWELL AVENUE BACKFILL MATERIAL

See Section VIII.

BEDDING AND COVER, ALL WATER MAIN

All water main shall consist of 4 inches 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.

I. TRACER WIRE

All water main shall include a 10 gauge solid, blue coated copper tracer wire to be taped to each pipe. Tape shall be securely fastened to main, hydrant leads and hydrants. Splices shall be soldered and water proofed using shrink wrap or underground splice kit. Test station shall be an adjustable height tracer wire access box manufactured by VALVCO, Inc. 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.

J. GALVANIC ANODE PROTECTION

Where connecting to an existing ductile iron water main, the contractor shall install galvanic anode protection in accordance with the galvanic anode installation detail. For ductile iron water mains 12" in diameter and less, the contractor shall install on 32 lb. magnesium anode. The weld shall be coated using REBOUND Aerosol Rubberized Coating or approved equal

**VIII. MATERIALS - GENERAL**

A. TRENCH BACKFILL

**The contractor has two options for trench backfill:**

**Option 1: Use slurry backfill for all trench restoration**

**Option 2: Use ¾ “ T.B. Backfill that meets the requirements of the State Specifications Section 209 with all Wisconsin Department of Transportation Quality Management Practices (QMP).**

#### OPTION 1 – SLURRY BACKFILL

The trench backfill for all water main pipe shall be a slurry mix.

Payment for slurry backfill is considered incidental to the items 8” PVC Water Main Asphalt Restoration, 8” PVC Water Main Concrete Restoration, and 12” PVC Water Main Concrete Restoration including all labor, equipment, and incidentals required to complete the work. Slurry mix shall be as specified in the Wisconsin Department of Transportation Permit located at the rear of these specifications.

#### OPTION 2 – ¾” T.B. BACKFILL AND QMP TESTING

The contract shall use slurry backfill for all trench backfill. This item will be

This specification describes requirements for trench backfill. Conform to standard spec 209 as modified in this specification for all work within the South Howell Avenue roadway foundation. This specification shall be used to backfill excavations for water main items under this contract as shown on the plans and as directed by the engineer.

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

Chapter 8 of the Wisconsin Department of Transportation’s construction and materials manual (CMM) provides additional detailed guidance and describes sampling and testing procedures. The contractor may obtain the CMM from the department’s web site at:

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

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

Do not change the quality control plan without the engineer’s review. Update the

plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:

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

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

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

Materials Laboratory  
3502 Kinsman Boulevard  
Madison, Wisconsin 53704-2583  
Telephone: 608-246-7938  
<http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm>

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

Furnish nuclear gauges from the department's approved product list at <http://www.atwoodsyste.ms.com/materials>. Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge within 12 months before using it on the project. Retain a copy of the calibration certificate with the gauge.

Conform to ASTM D 2950 and CMM 8.15 for density testing and gauge monitoring methods. Perform nuclear gauge measurements using gamma radiation

in the backscatter or direct transmission position. Perform each test for 4 minutes of nuclear gauge count time.

Trench backfill shall consist of Granular Backfill, Grade 2, per Section 209 of the State Specifications.

Develop moisture-density curve for trench backfill soil by utilizing AASHTO T 99, with a minimum of 5 individual points, and a zero air voids curve at a specific gravity of 2.65. If a different specific gravity is used perform a specific gravity test. A new AASHTO T 99 test should be performed when the material gradation changes significantly or the source of material changes.

Ensure that all tests are recorded and become part of the project records.

Document all observations, inspection records, adjustments to fill placement procedures, and test results daily. Note the results of the observations and inspection records as they occur in a permanent field record.

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

#### CONTRACTOR TESTING

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

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

For each test, provide the cubic yards represented and the test location to within 2 feet horizontally and 1 foot vertically. Use project stationing to determine horizontal location and grade stakes to determine vertical location.

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

Perform the field density and field moisture tests using the nuclear density meter method according to AASHTO T 310. Use a coarse particle correction according to AASHTO T 224.

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

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 50 CY of backfill placed or one test per day whichever yields the most tests.

## COMPACTION ZONES

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

The lower control limit for field density measurements in the upper zone is a minimum of 95.0% of the maximum dry density as determined by AASHTO T 99 or T 272.

The lower control limit for field density measurements in the lower zone is a minimum of 93.0% of the maximum dry density as determined by AASHTO T 99 or T 272.

## MOISTURE CONTENT

The upper control limit for the field moisture content in the upper and lower zones is 110.0% of the optimum moisture as determined by AASHTO T 99 or T 272.

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

## CORRECTIVE ACTION

Notify the engineer if an individual field density or field moisture test falls below the individual test control limit. The trench backfill in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the density of the trench backfill material. After corrective action, perform a randomly located retest within the represented quantity to ensure that the material is acceptable.

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

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

The department will provide field density and field moisture test results to the

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

## VERIFICATION TESTING

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

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

The department will perform verification testing as follows:

1. The department will conduct at least one verification test for field density and field moisture per 500 cubic yards.

If verification tests are within specified control limits, no further action is required. If verification tests are not within specified control limits, perform corrective actions, acceptable to the engineer to improve the density of the trench backfill material. After corrective action, perform a randomly located retest within the represented quantity to ensure that the material is acceptable.

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

## INDEPENDENT ASSURANCE TESTING

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

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.

6. Requesting that testing personnel perform additional sampling and testing.

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

#### DISPUTE RESOLUTION

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

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

#### ACCEPTANCE

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

#### CONSTRUCTION

Place all backfill as specified in the state specifications 520.3.4.1(3). Compact all backfill to the density required.

#### PAYMENT

Payment for trench backfill, sampling, testing, and documentation under this specification are considered incidental to the items 8" PVC Water Main Asphalt Restoration, 8" PVC Water Main, Concrete Restoration, and 12" PVC Water Main, Concrete Restoration including all including all labor, equipment, and incidentals required to complete the work.

B. COMPOUNDS FOR ASPHALT PAVEMENT

1. Forest Hill - Binder course mixture shall conform to Section 460 of the State Specifications and consist of one 3", 19mm Binder Course Mix E-1.
2. Asphalt delivered to the site shall arrive at a temperature of 275° plus or minus 25°. 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  
Asphaltic Concrete Pavements .....Section 460

C. CONCRETE FOR CONCRETE PAVEMENT RESTORATION

The materials provided under this contract shall conform to the Standard Specifications Governing Concrete Pavement Construction, City of Oak Creek, Department of Engineering, March 2004, in all respects except as follows:

1. Air Entrainment - Air entrainment shall be between 5 and 7% by volume when concrete is made with 6 sacks of cement per cubic yard of concrete, has a slump of 2" to 3", and is mixed as specified.
2. Air Entraining Cements and Admixtures - Type IA, IIIA, or I S A cements shall be used to provide air entrainment in the concrete. When authorized by the Utility Engineer, an approved air entraining agent may be added to mix to provide the specified air content.
3. Concrete Strength Requirements and Tests - The specified compressive strength of concrete shall be not less than 3,500 pounds per square inch when tested 28 days after placing. Continuous concrete quality and strength tests, in accordance with accepted methods, shall be performed by the City. Test cylinders shall be provided and all job tests performed by the City at no cost to the Contractor; however, the Contractor shall fully cooperate to provide the necessary concrete required for the tests.  
Where high-early-strength concrete is specified, the compressive strength of the concrete shall be not less than 2,500 pounds per square inch when tested 3 days after placing.

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

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

## **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 Inspector 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 an Engineer may investigate such noncompliance.

Any work performed after the work has been ordered stopped by the Inspector shall not be considered as work performed under the contract, and consequently will not be accepted by the 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 City Engineering Department. If necessary to pass an existing obstruction, the Utility Engineer may shift the line to avoid such obstruction.

The Contractor must protect all stakes and benchmarks from disturbances until permission is given to remove them. 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 will be required to obtain a high capacity dewatering permit prior to start of construction for dewatering rate of 70 gallons per minute (gpm) or higher.

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. POLYVINYL CHLORIDE WATER PIPE

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

1. Acceptable Procedure on Anchoring of Vertical Water Main Offsets where Polyvinyl Chloride Pipe is used shall comply with Chapter 4.9.0 and 4.10.0 and File No. 47A of the Standard Specifications.
2. Elimination of Vertical Offsets by the Use of Deflected Pipe - In lieu of the procedures outlined under subsection 1 above, the Contractor may elect to deflect the polyvinyl chloride pipe to provide the vertical location or alignment concept indicated on the construction plans. The use of this alter-

nate 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"

#### THRUST RESTRAINT

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

#### 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.

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

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

After disinfection the water main shall be dechlorinated while it is being flushed. After completing final flushing of the main, 2 separate water samples a minimum of 24 hours apart will be required for safe water sampling. After the Contractor sets up the tests and the Utility will collect samples for testing.

**I. WATER SERVICE CONNECTIONS**

All water service connections, including the tapping work, shall be performed by the Contractor.

All water main taps for services 1-1/4" and smaller shall be direct tap with 1" x 1-1/4" corporation stop. For service taps greater than 1-1/4", the contractor shall provide a rubber full-bodied stainless steel tapping saddle.

**J. NOTICE TO UTILITY**

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

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

Cost of all restoration shall be included in the bid price for the water main installation. 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. Temporary Bituminous Pavement

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 Contractor may be required to place a temporary surface over openings made in paved traffic lanes. Except when the pavement is to be replaced before the opening of the cut to traffic, the fill above the bottom of the paving slab shall be made with suitable material well tamped into place and this fill shall be topped with a minimum of at least 4" of bituminous mixture which is suitable to maintain the opening in good condition until permanent restoration can be made. The crown of the temporary restorations shall not exceed one inch above the adjoining pavement. The Contractor shall exercise special care in making such restorations and must maintain such restorations in safe travelling condition until such time as permanent restorations are made. In the event it becomes necessary for City forces to provide emergency maintenance of the Contractor's trenches, the cost of such work shall be billed to the Contractor. The asphalt which is used shall be in accordance with the specifications. If in the judgment of the City 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 Pavement

a. General

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.

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.

b. Concrete Pavement

All portland cement concrete replacement shall be made with monolithic pour of Class "A" air-entrained concrete, 6-bag mix to a thickness of 12" to match the existing finish grade. Concrete and tie bars shall be #4 epoxy coated, drilled three feet on center, the cost of which shall be included in the water main bid item.

c. Asphalt Pavement

All asphalt pavement restoration shall consist of the following:

- 1) A 12" traffic bound base course installed in accordance with Section 304 (Pages 115-124) of the State Specifications, utilizing materials as specified in Section 8 of these Detailed Specifications.
- 2) A 3" bituminous pavement consisting of a single 3", 19mm binder course, Type E-1 placed on a primed base installed in accordance with Sections 401 and 407 of the State Specifications.
- 3) Driveways shall be 3" asphalt on 6" of T.B. limestone.

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 LAWNS

The contractor shall repair, reseed, resod and/or replanted all established lawns damaged during the course of construction to a condition equal to or better than the condition at the commencement of his work in accordance with 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 grass seed at the rate of not less than six pounds per thousand square feet on leveled topsoil.

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 Engineer and shall be complied with by the Contractor. The 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 Engineer and the acceptance of the entire work. When the Contractor has finally cleaned and repaired the work, he shall notify the Engineer that he is ready for a final inspection and the Engineer will thereupon inspect the work. If the work is not found satisfactory, the Engineer may require further cleaning and repairing and when these are completed will again inspect the work. In no case will the final payment be made until the Contractor has complied with all the requirements set forth and the Engineer has made his final inspection of the entire work and is satisfied that the entire work is properly and satisfactorily constructed in accordance with the plans and specifications and contract, and that such work is ready for his final inspection and acceptance by the 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 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 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 June 6, 2014.
- D. The entire project, including surface restoration shall be completed no later than June 13, 2014.

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:

<b>Original Contract Amount</b>		<b>Daily Charge</b>
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 Inspector 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.) An Inspector will be provided to the Contractor by the Utility at no cost to the Contractor, except that inspection time shall be charged to the Contractor in addition to the specified liquidated damages after he has exceeded his time of completion (see Instructions to Bidders). If the Contractor requests to work on Sundays or declared Utility holidays, an Inspector will be provided but the Contractor must pay for the Inspector'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. Traffic control, surface restoration and any other incidental items necessary shall be incorporated into the various bid items. 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 – 8” PVC Water Main, Asphalt Pavement Restoration**

The unit bid and contract price for these items shall include all equipment, materials, and labor necessary to install 8” PVC Water Main complete in place and ready to use. This item shall include but not be limited to:

- saw cutting the pavement full depth
- removing existing pavement
- installation of tracer wire
- installation of all 8” PVC pipe
- installation of all PVC fittings
- surface restoration for asphalt pavement and driveway - one lift, 3” - 19mm asphalt binder course, Type E-1
- lawn and ditch restoration shall be in accordance with Section 2.7.4 of the Standard Specifications, Type C salt tolerant, and include returning existing ditch lines in a manner to which water flows and shall be graded to the longitudinal slope of the adjacent road from driveway to driveway
- placement of erosion mat in restored ditch areas
- CMP culvert replacement – size to match existing

- assisting Utility staff with GPS point collection

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.

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

### **Item 2 – 8” PVC Water Main, Concrete Pavement Restoration**

The unit bid and contract price for these items shall include all equipment, materials, and labor necessary to install 8” PVC Water Main complete in place and ready to use. This item shall include but not be limited to:

- saw cutting the pavement full depth
- removing existing pavement
- installation of tracer wire
- installation of all 8” PVC pipe
- installation of all PVC fittings
- surface restoration for concrete pavement - one lift, 12” concrete pavement with #4 epoxy coated tie bars drilled three feet on center to match existing finished grade
- curb and gutter replacement – match existing
- Type C salt tolerant lawn restoration in accordance with the Standard Specifications Section 2.7.4
- assisting Utility staff with GPS point collection

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.

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

### **Item 3 – 12” PVC Water Main, Concrete Pavement Restoration**

The unit bid and contract price for these items shall include all equipment, materials, and labor necessary to install 12” PVC Water Main complete in place and ready to use. This item shall include but not be limited to:

- saw cutting the pavement full depth
- removing existing pavement
- installation of tracer wire
- installation of all 12” PVC pipe
- installation of all PVC fittings
- surface restoration for concrete pavement - one lift, 12” concrete pavement with #4 epoxy coated tie bars drilled three feet on center to match existing finished grade
- curb and gutter replacement – match existing
- Type C salt tolerant lawn restoration in accordance with the Standard Specifications Section 2.7.4

- assisting Utility staff with GPS point collection

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.

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

**Item 4 – Connect Original Service (COS) 1-1/4” Water Service Laterals (Polyethylene), Asphalt Restoration**

- excavate trench to install 1-1/4” inch water service
- tapping and installation of corporation stops
- installation of 1-1/4 adaptor to size as necessary to connect to existing service lateral, existing size varies
- triple layer of 6-mil plastic wrapping for corporation stops and adaptors
- surface restoration for asphalt pavement and driveway - one lift, 3” - 19mm asphalt binder course, Type E-1
- curb and gutter replacement – match existing
- Type C salt tolerant lawn restoration in accordance with the Standard Specifications Section 2.7.4

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

**Item 5 – Connect Original Service (COS) 1-1/4” Water Service Laterals (Polyethylene), Concrete Restoration**

The unit bid and contract unit price for this item shall include all equipment, materials, and labor necessary to connect original services (COS), 1-1/4” water service laterals (polyethylene) in place and ready to use by installing water service laterals using the open cut trench method. This item shall include but not be limited to:

- excavate trench to install 1-1/4” inch water service
- tapping and installation of corporation stops
- installation of 1-1/4 adaptor to size as necessary to connect to existing service lateral, existing size varies
- single layer of 6-mil plastic wrapping for corporation stops and adaptors
- surface restoration for concrete pavement - one lift, 12” concrete pavement with #4 epoxy coated tie bars drilled three feet on center to match existing finished grade
- curb and gutter replacement – match existing
- Type C salt tolerant lawn restoration in accordance with the Standard Specifications Section 2.7.4

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

### **Item 6 – 8” 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 8” 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 measured and documented by the Inspector.

### **Item 7 – 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 measured and documented by the Inspector.

### **Item 8 – Connect to Existing 8” Water Main**

The unit bid and contract price for this item shall include but not be limited to all equipment, materials, and labor necessary to connect to the existing 8” 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
- install mechanical restraints as required
- provide and install galvanic anode protection on existing ductile iron pipe
- triple layer of 6-mil plastic wrapping for fittings

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

### **Item 9 – Connect to Existing 12” Water Main**

The unit bid and contract price for this item shall include but not be limited to all equipment, materials, and labor necessary to connect to the 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
- install mechanical restraints as required
- provide and install galvanic anode protection on existing ductile iron pipe
- triple layer of 6-mil plastic wrapping for fittings

This item shall be paid based on the contract unit price per each installed as measured and

documented by the Inspector.

**Item 10 - 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, with associated hydrant lead and auxiliary valve, together with all work and proper backfilling, surface restoration, complete in place and ready to use, in accordance with the construction plans and these Detailed Specifications. This shall include installation of tracer wire test stations.

This item shall include the hydrant, hydrant lead (of various lengths), and aux. valve, as shown on the plans. The hydrant, lead, and valve shall be restrained back the water main.

This item shall be paid based on the contract unit price for each as documented by the Inspector.

**Item 11 – Salvage and Delivery of Existing Hydrants**

The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to salvage and deliver existing hydrants to the Owner's storage yard.

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

**Item 12 – Existing Valve Box Removal (Top section Only)**

The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to remove top section of the existing valve box and fill remainder with 3/8" clear stone and provide surface restoration complete, in place.

This item shall be paid based on the contract unit price per lump sum as documented by the Inspector

**Item 13 – 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:

- compensation for cost of erosion control implementation plan
- furnishing, hauling, and placement of erosion control devices required by local, state, and federal ordinances, statutes, and regulations
- all incidental work related to erosion control required by local, state, and federal ordinances, statutes, and regulations
- regular maintenance and removal of all temporary erosion control devices

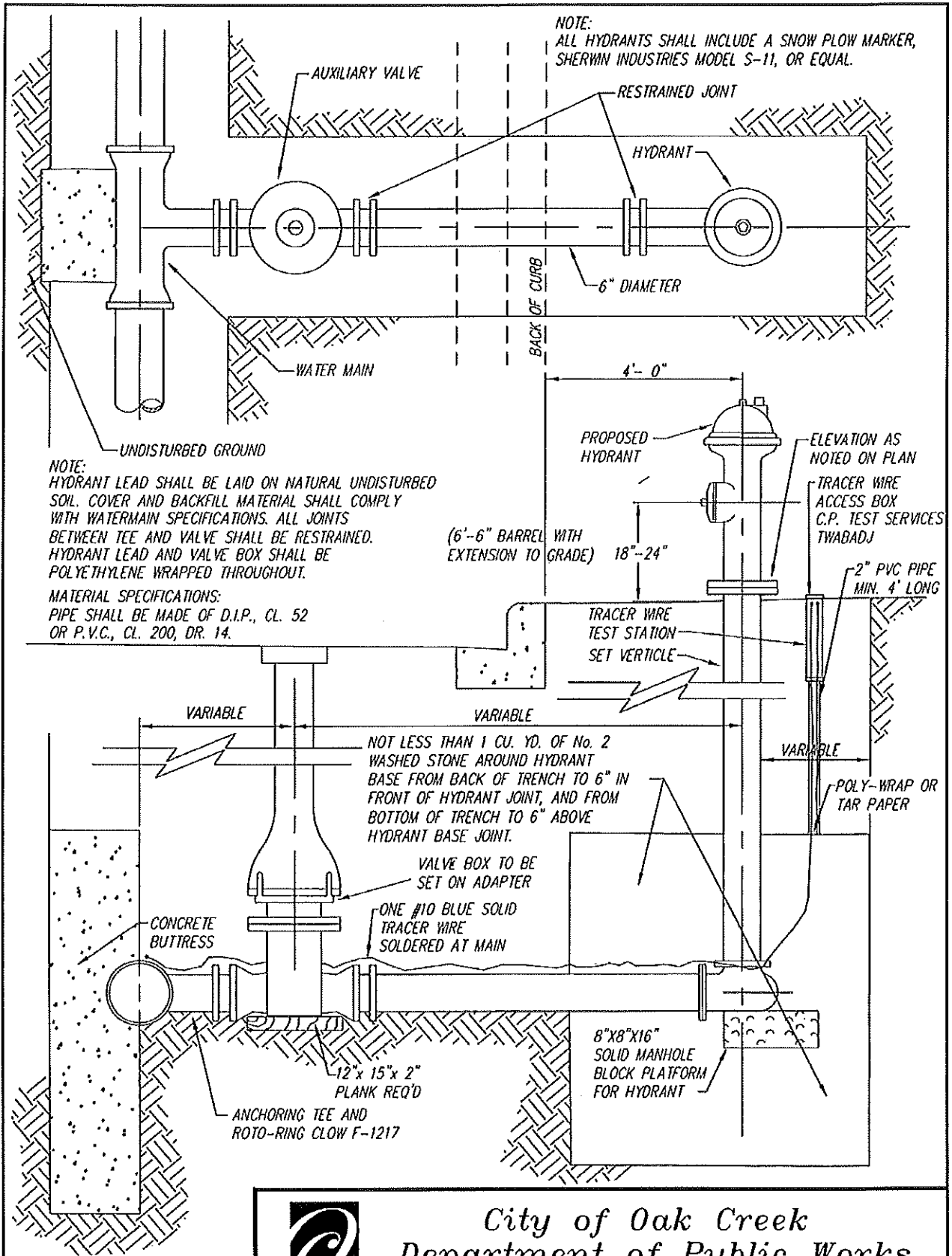
This item shall be paid based on the contract unit price per lump sum as documented by the Inspector


#### **Item 14 – Traffic Control**

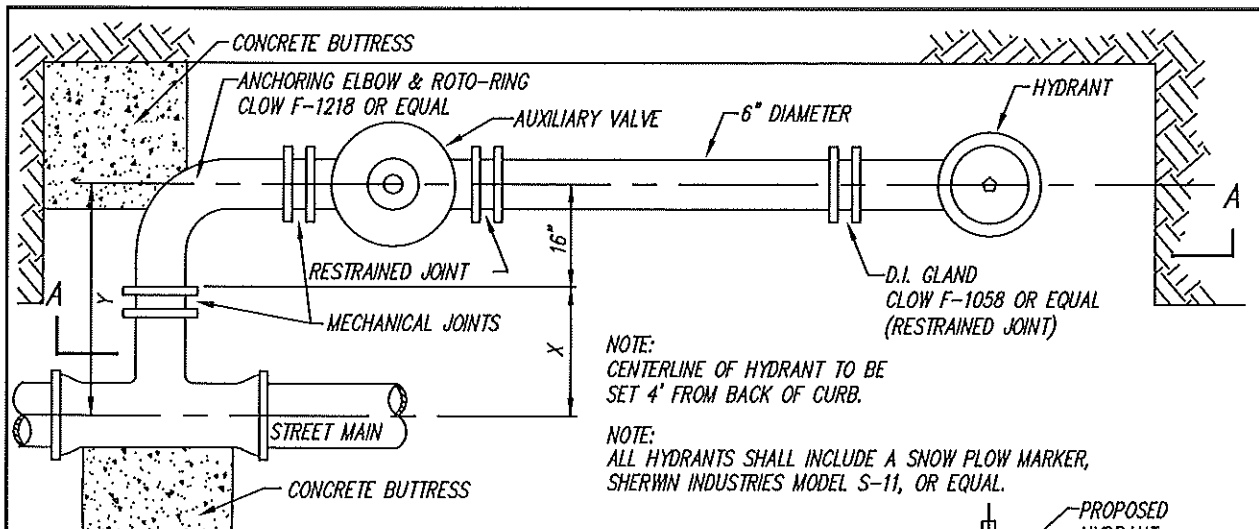
The unit bid and contract price for this item shall include all equipment, materials, and labor necessary to install project traffic control. This item shall include but not be limited to:

- setting traffic control in accordance with the plans and specifications\
- 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

This item shall be paid based on the contract unit price per lump sum as documented by the Inspector



 <b>City of Oak Creek</b> <b>Department of Public Works</b>	
Drawn By: K.C. Seufzer	Scale: Not to Scale
Appv. By: M.J. Sullivan	Date: January 19, 2004
<b>TYPE "A" HYDRANT SETTING DETAIL</b>	<b>WD-13</b>

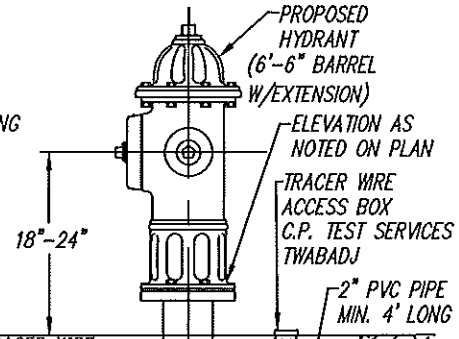


**PLAN VIEW**

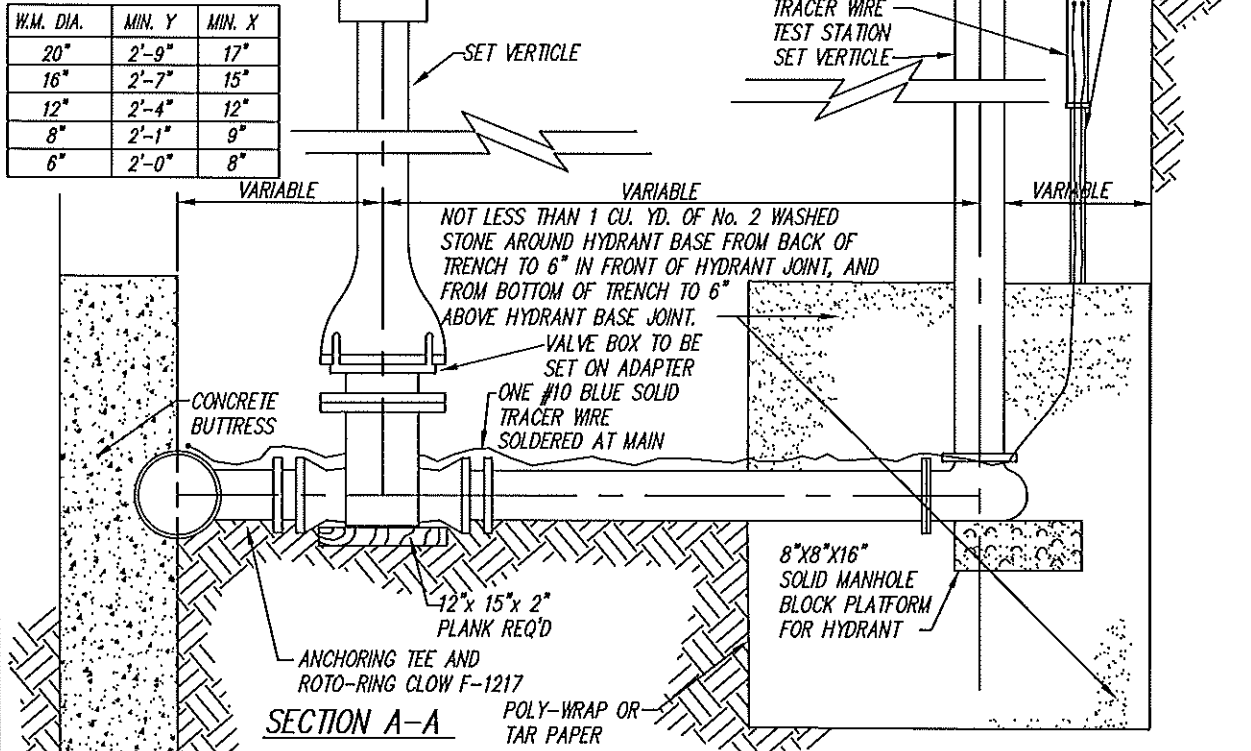
**NOTES:**  
 WHERE SPACING BETWEEN WATERMAIN AND HYDRANT REQUIRE, A CLOW F-1215 ANCHORING COUPLING OR F-1216 ANCHORING PIPE SHALL BE INSTALLED BETWEEN THE TEE AND ANCHORING ELBOW.  
 HYDRANT LEAD SHALL BE LAID ON NATURAL UNDISTURBED SOIL. COVER AND BACKFILL MATERIAL SHALL COMPLY WITH WATERMAIN SPECIFICATIONS. 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.

**NOTE:**  
 CENTERLINE OF HYDRANT TO BE SET 4' FROM BACK OF CURB.

**NOTE:**  
 ALL HYDRANTS SHALL INCLUDE A SNOW PLOW MARKER, SHERWIN INDUSTRIES MODEL S-11, OR EQUAL.

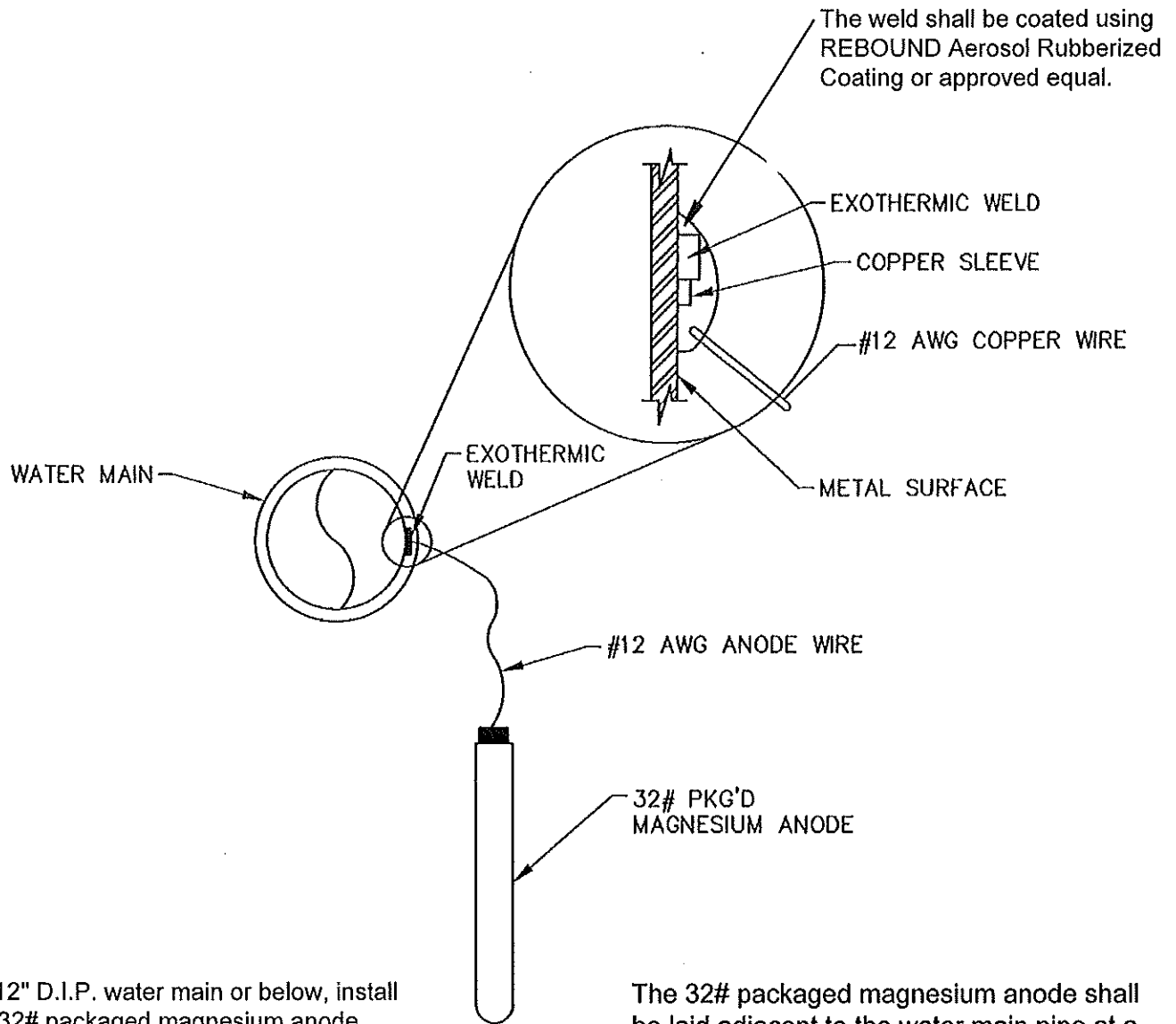


W.M. DIA.	MIN. Y	MIN. X
20"	2'-9"	17"
16"	2'-7"	15"
12"	2'-4"	12"
8"	2'-1"	9"
6"	2'-0"	8"



**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
<b>TYPE "B" HYDRANT SETTING DETAIL</b>	
<b>WD-15</b>	



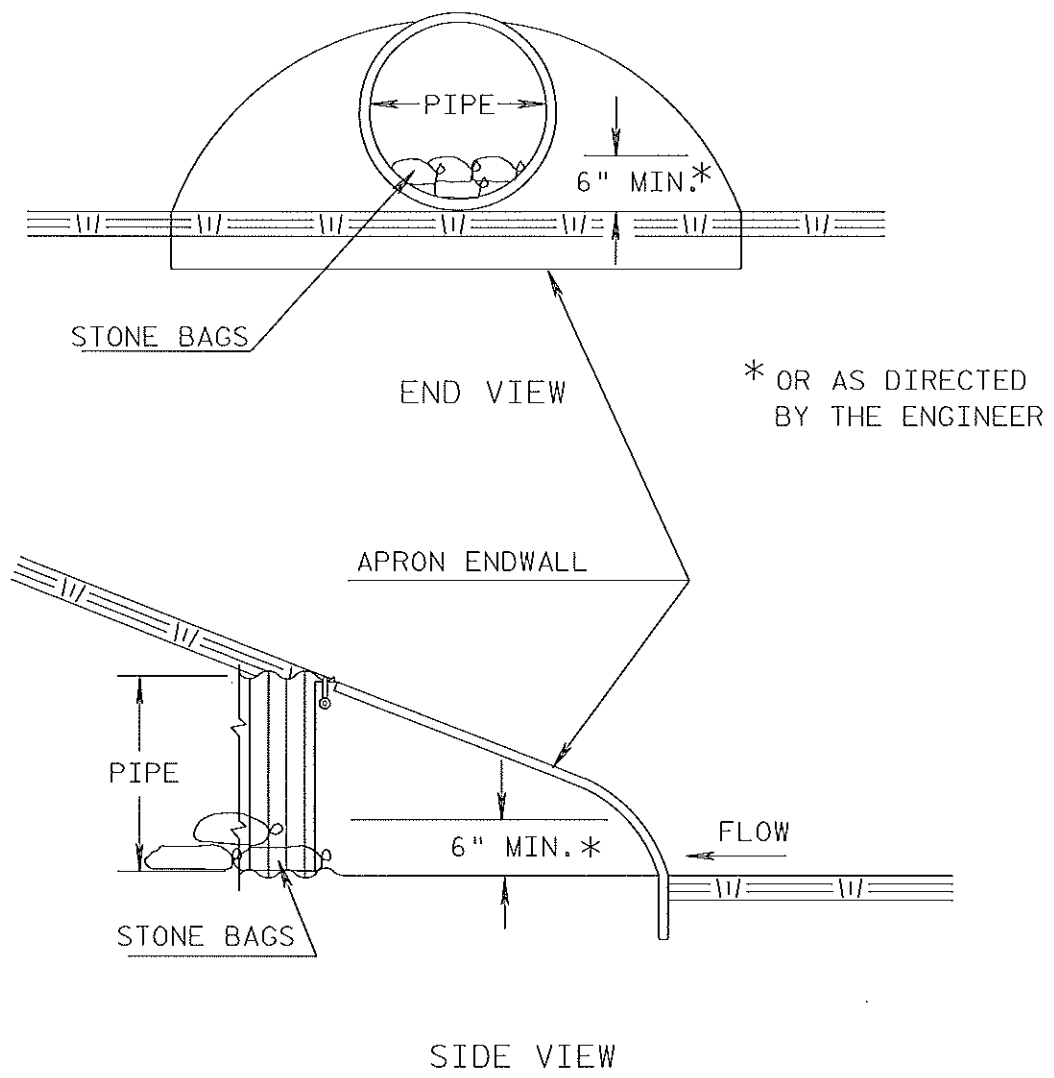
For 12" D.I.P. water main or below, install one 32# packaged magnesium anode.  
 For 16" D.I.P. water main or above, install two 32# packaged magnesium anodes.

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.



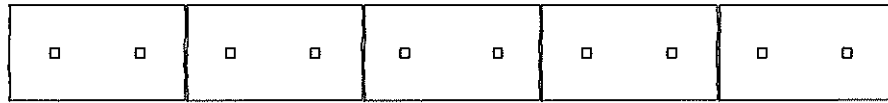
**CULVERT PIPE DITCH CHECK**  
 N.T.S.



PROJECT NUMBER: 20130350  
 DATE: 2/13/14  
 SCALE: N.T.S.  
 REFERENCE SHEET:

PROJECT TITLE: OAK CREEK WATER MAIN  
 SHEET TITLE: CULVERT PIPE DITCH CHECK

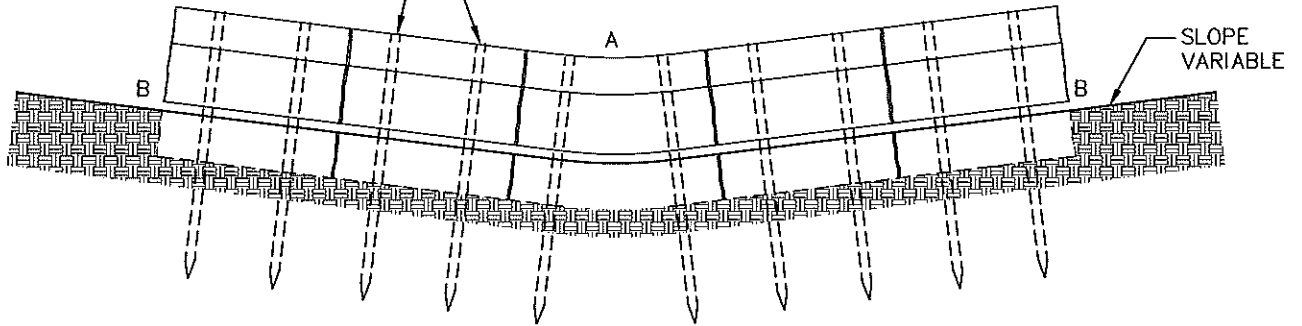
**EXHIBIT B**



PLAN VIEW

STAKES DRIVEN FLUSH WHEN SOIL CONDITIONS PERMITS

NOTE: POINT "B" SHALL BE HIGHER THAN POINT "A"  
IF REQUIRED TWO ROWS MAY BE USED WITH STAGGERED JOINTS.

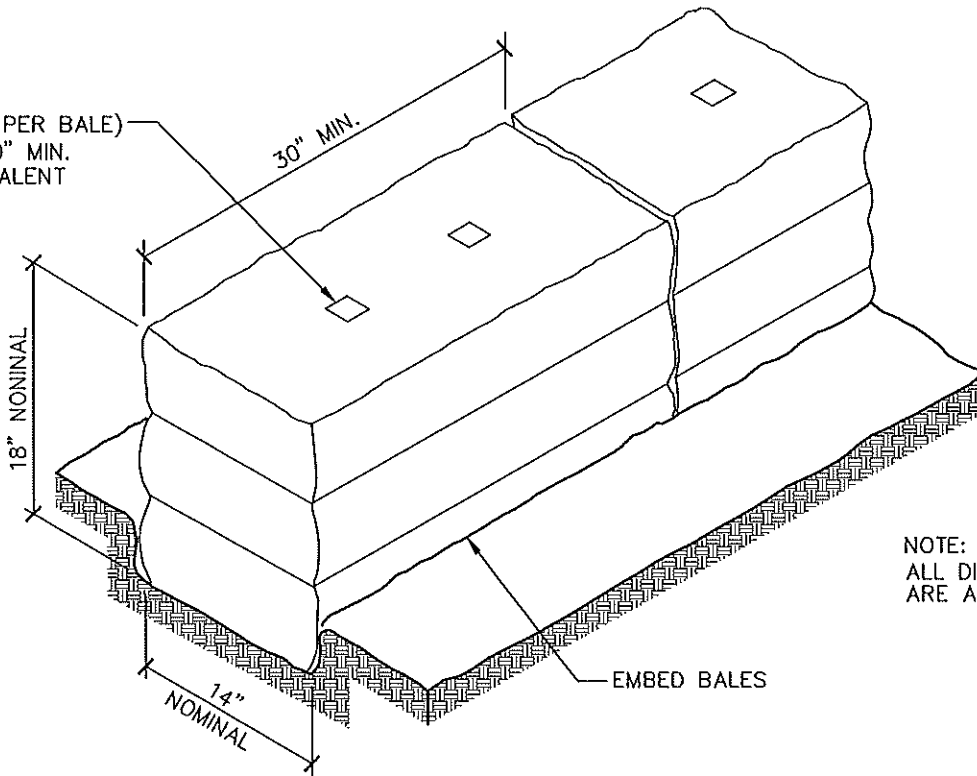


FRONT ELEVATION

EROSION BALES ACROSS DITCH BOTTOM

N.T.S.

WOOD STAKES (2 PER BALE)  
NOMINAL 2"x2"x30" MIN.  
LENGTH OR EQUIVALENT



NOTE:  
ALL DIMENSIONS  
ARE APPROXIMATE

DETAIL OF EROSION BALE INSTALLATION

N.T.S.

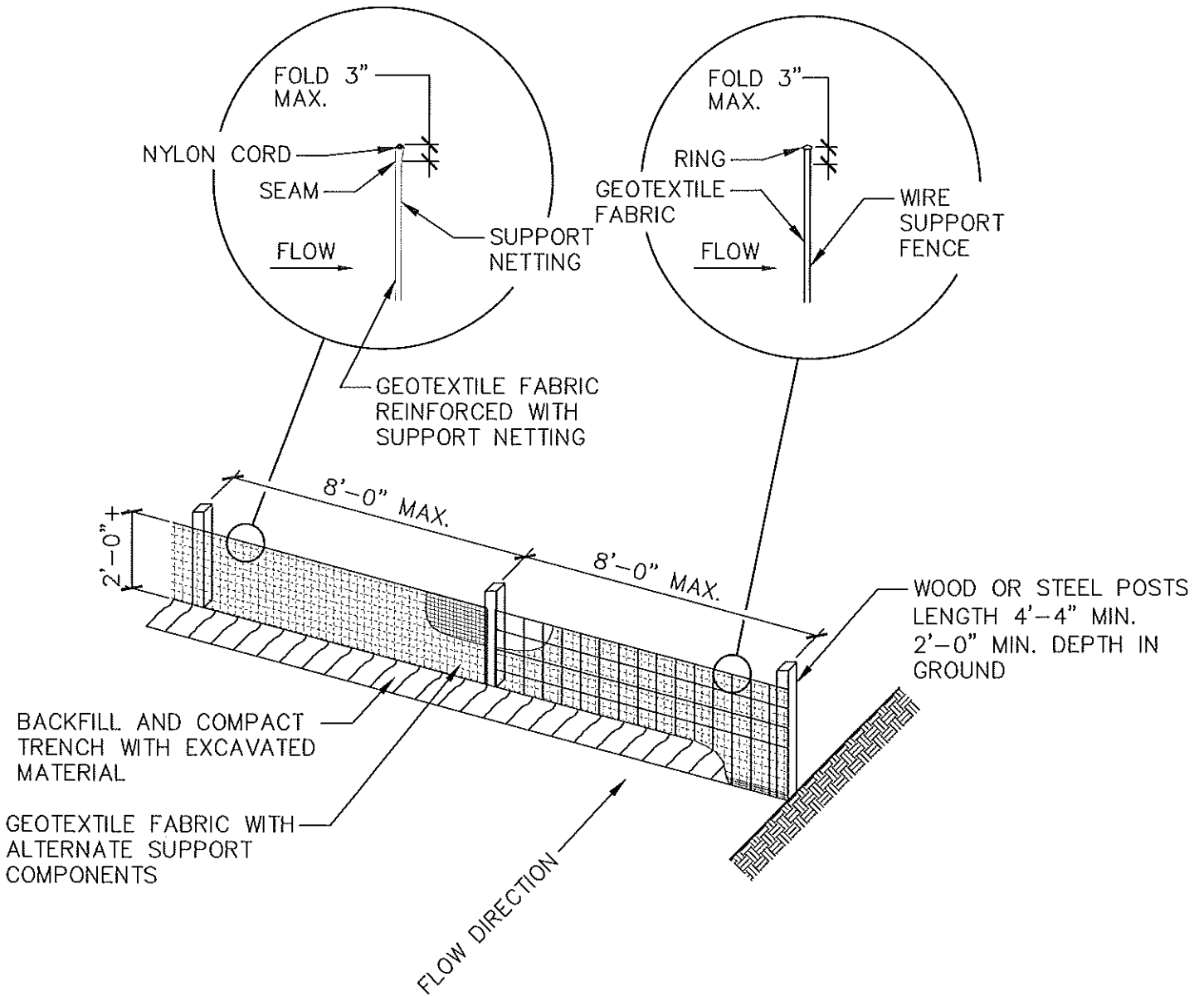


PROJECT NUMBER: 20130350  
DATE: 2/13/14  
SCALE: N.T.S.  
REFERENCE SHEET:

PROJECT TITLE: OAK CREEK WATER MAIN

SHEET TITLE: EROSION BALES

**EXHIBIT C**



NOTE:

**ALTERNATE "A"**

ADDITIONAL POST DEPTH OR TIE BACKS  
MAY BE REQUIRED IN UNSTABLE SOILS

**SILT FENCE**

N.T.S.

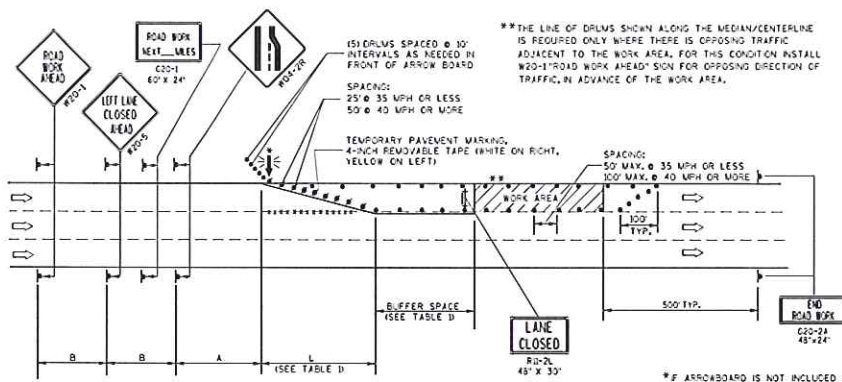


PROJECT NUMBER: 20130350  
DATE: 2/13/14  
SCALE: N.T.S.  
REFERENCE SHEET:

PROJECT TITLE: OAK CREEK WATER MAIN  
SHEET TITLE: SILT FENCE

**EXHIBIT D**

# 15D20: Traffic Control, Single Lane Closure, Non-Freeway/Expressway



### GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED, IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKINGS, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS. ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-L, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

B=400' AT 25-30 MPH 700' AT 35-40 MPH 1000' AT 45-55 MPH	A=200' AT 25-30 MPH 350' AT 35-40 MPH 500' AT 45-55 MPH
--	---

TABLE 1  
TAPER AND BUFFER SPACE  
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	150'	65'
35	175'	75'
40	200'	85'
45	225'	95'
50	250'	105'
55	275'	115'

FOR LANE WIDTH OTHER THAN 12':  
 L = WS, AT 45 MPH OR GREATER  
 L = WS<sup>2</sup>, AT 40 MPH OR LESS  
 L = TAPER LENGTH IN FEET  
 S = NON-CONSTRUCTION SPEED LIMIT (MPH)  
 W = WIDTH OF LANE CLOSURE

### LEGEND

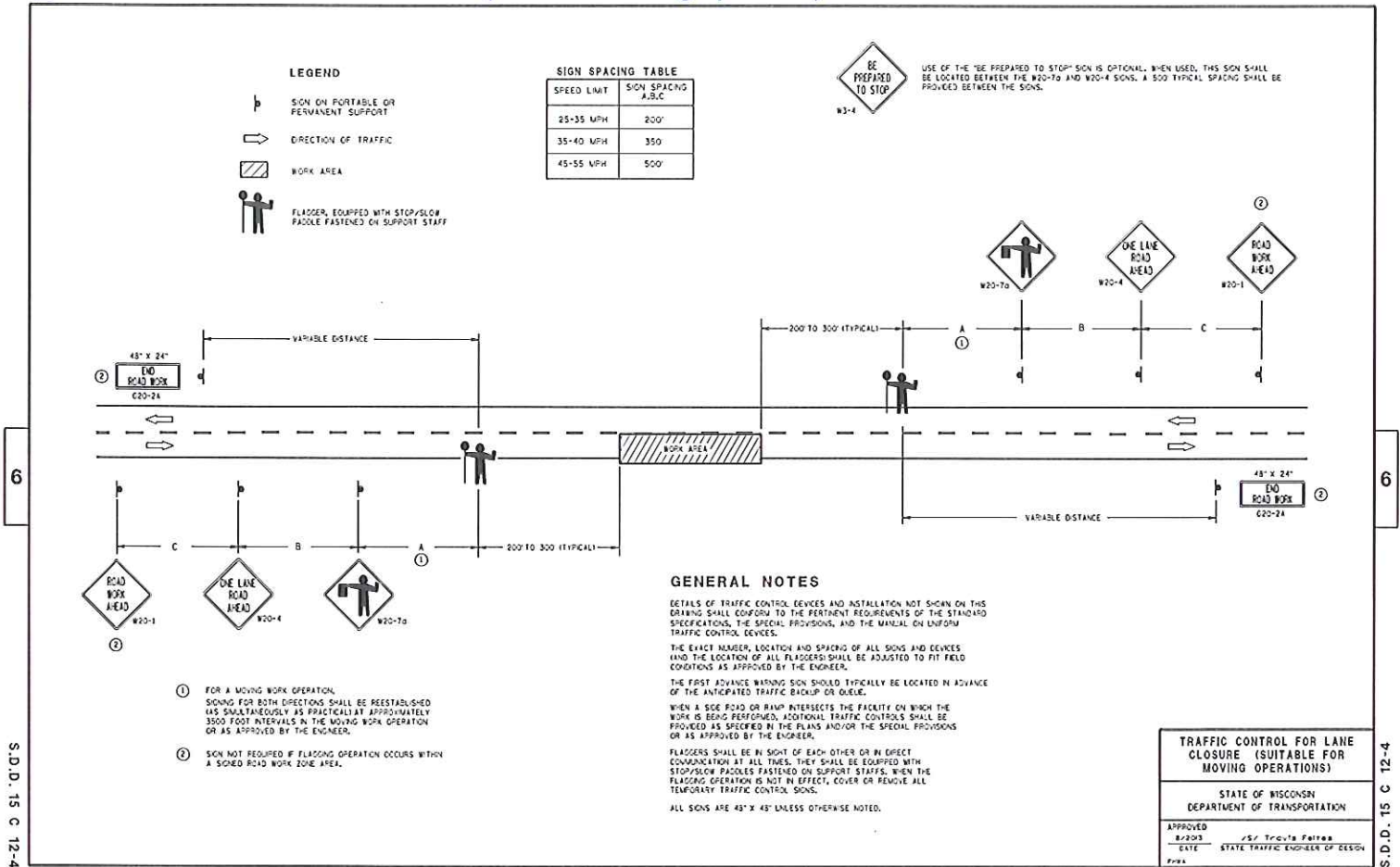
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREWAY/EXPRESSWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 15D203	DATE 1/27/15
STATE TRAFFIC ENGINEER OF DESIGN	

S.D.D. 15 D 20-2

2015 D 15 D 20-2

# 15C12: Traffic Control for Lane Closure (Suitable for Moving Operations)



S.D.D. 15 C 12-4

S.D.D. 15 C 12-4

Attachment 1: Sample 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:

**SOUTHWEST REGION**

Mark Goggin  
[mark.goggin@dot.wi.gov](mailto:mark.goggin@dot.wi.gov)  
Fax: 608-243-3380 Madison office  
608-789-7896 La Crosse office

Utility Job Number:

**SOUTHEAST REGION**

Ryan Schnurer  
[ryan.schnurer@dot.wi.gov](mailto:ryan.schnurer@dot.wi.gov)  
Fax: 262-521-4425

Utility Company:

**NORTHEAST REGION**

Ray Drake  
[ray.drake@dot.wi.gov](mailto:ray.drake@dot.wi.gov)  
Fax: 920-492-0144  
NE Utility Unit General E-Mail:  
[dotdtsdneutilitycoordination@dot.wi.gov](mailto:dotdtsdneutilitycoordination@dot.wi.gov)

Utility Contractor Contact Name and 24-Hour Number:

**NORTH CENTRAL REGION**

Keith Rutkowski – Wis Rapids office  
[keith.rutkowski@dot.wi.gov](mailto:keith.rutkowski@dot.wi.gov)  
Fax: 715-421-7300

Traffic Control Provider and 24-Hour Number:

Terry Catlin – Rhinelander office

[terry.catlin@dot.wi.gov](mailto:terry.catlin@dot.wi.gov)  
Fax: 715-365-5780

Construction Start Date:

**NORTHWEST REGION**

Heather Dresel  
[HeatherL.Dresel@dot.wi.gov](mailto:HeatherL.Dresel@dot.wi.gov)  
Fax: 715-836-2807 Eau Claire office

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.

<p>1. Applicant (Utility facility owner) Name and Address                  Oak Creek Water and Sewer Utility                  170 Drexel Avenue                  Oak Creek, WI 53154</p>	<p>2. Work Start Date                  2/15/2014</p>	<p>3. Work Finish Date*                  5/31/2014</p>	<p>6. Location Description (¼ section, section, town, range; provide plat map or location sketch)                  SW 1/4 Section 16 T5N R22E</p>	
<p>4. Is the work due to a WisDOT highway project?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>			<p>7. Work Location (Check/list all that apply)  <input type="checkbox"/> Town: _____  <input type="checkbox"/> Village: _____  <input checked="" type="checkbox"/> City: <u>Oak Creek</u>  <input checked="" type="checkbox"/> County: <u>Milwaukee</u></p>	
<p>5. Applicant Work Order (If any)                  14105</p>			<p>8. Highway (Check all that apply)  <input checked="" type="checkbox"/> WIS 38  <input type="checkbox"/> US _____  <input type="checkbox"/> Interstate _____  <input type="checkbox"/> _____</p>	
<p>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: <u>12"</u>  <input type="checkbox"/> San Sewer: _____  <input type="checkbox"/> _____: _____  <input type="checkbox"/> Transmission <input checked="" type="checkbox"/> Service: Std  <input checked="" type="checkbox"/> Distribution <input type="checkbox"/> Service: Exp</p>			<p>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 checked="" 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)</p>	
<p>10. Facility Orientation (Check all that apply)  <input 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</p>			<p>13. Work Zone Description (Check all that apply)  <input type="checkbox"/> Full road closure: detour  <input type="checkbox"/> Full road closure: temporary  <input checked="" type="checkbox"/> Lane closure: without flagging  <input checked="" type="checkbox"/> Lane closure: with flagging  <input type="checkbox"/> Lane encroachment (2 feet or less)  <input type="checkbox"/> Intersection/roundabout  <input type="checkbox"/> Shoulder/parking lane closure  <input 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 type="checkbox"/> Near R/W line: outside clear zone  <input type="checkbox"/> Not applicable</p>	
<p>11. Work Types (Check all that apply)  <input checked="" type="checkbox"/> New construction  <input checked="" type="checkbox"/> Improve/repair existing  <input checked="" type="checkbox"/> Removal  <input type="checkbox"/> Maintenance  <input type="checkbox"/> Discontinued, left in place  <input type="checkbox"/> Joint installation</p>			<p>15. Will any appurtenances be installed with the facility?                  (If yes, provide a description and/or specification of each item with this application.)  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>16. Trans 401 project designation?                  (For all Major projects, provide a formal erosion control plan with this application. See <a href="http://www.dhs.gov/HMM09-15-55">HMM 09-15-55</a>)  <input checked="" type="checkbox"/> Minor <input type="checkbox"/> Major</p> <p>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</p>	

**\* 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.**

<p>18. Utility Person Responsible for Construction (Area Code) Telephone Number                  Ron Pritzlaff 414-570-8200</p>	<p>19. Utility or Project 24/7 Emergency Contact (Area Code) Telephone Number                  Bryan Jahns 414-852-3917</p>
<p>20. Is the utility a member of Diggers Hotline?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No, provide line-locate number _____</p>	
<p>21. Provide additional project work details, if needed (Continue on back or include separate page)                  Work includes water main relay in outside shoulder of northbound lanes of STH 38. Connections will then be made to the existing water main located on the inside lane of the northbound lanes of STH 38 between Groveland Drive and Forest Hill Avenue.</p>	
<p>22. If not employed by applicant, authorized representative's company name and address                  (Signature of Authorized Representative – If filled via computer, Brush Script font) (Date)  <i>Ron Pritzlaff</i> 1-28-2014                  Ron Pritzlaff/Utility Engineer                  (Title and/or print name)                  414-570-8200 rpritzlaff@water.oak-creek.wi.us                  (Authorized Representative Telephone Number) (Authorized Representative E-mail Address)</p>	



**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 ↓**

<p><input checked="" type="checkbox"/> <b>THE UTILITY SHALL NOTIFY WisDOT 3 DAYS BEFORE STARTING WORK AT:</b>                  Region contact, title, office address, telephone number, and e-mail address                  Craig Hardy                  Utility Construction Engineer                  141 NW Barstow Street                  Waukesha, WI 53189                  262-548-8706                  Craig.Hardy@dot.wi.gov</p>	<p><input checked="" type="checkbox"/> <b>REVIEW ALL SUPPLEMENTAL PERMIT PROVISIONS</b>  <input checked="" type="checkbox"/> <b>REVISIONS MADE to DRAWINGS or OTHER PAGES</b>  <input checked="" type="checkbox"/> Lane Closure System notification required: <a href="http://www.dhs.gov/HMM09-15-60">HMM 09-15-60</a>  <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 &amp; supersedes # _____ issued: _____  <input type="checkbox"/></p>	<p>Date Application Received                  1/31/14                  Date Application Completed                  2/12/2014                  Date Application Denied                  _____                  Permit Issuance Date                  2/12/2014                  Permit Extension Date                  _____                  Permit Number                  40U-310-14</p>
<p>2060-15-71                  WisDOT Improvement Project ID Numbers (if applicable)</p>		<p><i>Craig Hardy</i>                  (WisDOT Authorized Representative Signature – If filled via computer, Brush Script font)</p>

Use this section to provide information that does not fit on front page

Contractor has the option to use slurry backfill, or granular backfill. If granular backfill is used, follow the testing and compaction requirements found in this permit.

## 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.



**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](mailto: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:

Labor Day-August 30, 2013-12pm through September 3, 2013-6am  
Thanksgiving-November 27, 2013-12pm through December 2, 2013-6am  
Christmas-December 23, 2013-12pm through December 26, 2013-6am  
New Years-December 30, 2013-12pm through January 2, 2014-6am  
Martin Luther King, Jr. Day-January 17, 2014-12pm through January 21, 2014-6am  
Memorial Day-May 23, 2014-12pm through May 27, 2014-6am  
Independence Day-July 3, 2014-12pm through July 7, 2014-6am

**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](mailto: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.

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 were 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 project manager XXX to ensure closure conflicts do not arise. Contact XXX at XXX-XXX-XXXX or [XXX.XXX@dot.wi.gov](mailto:XXX.XXX@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 XXX 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 1<sup>st</sup>. 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 1<sup>st</sup> through April 1<sup>st</sup>. Pavement restoration shall occur before November 1<sup>st</sup> or before materials become unavailable, whichever occurs 1<sup>st</sup>.

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 8" 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.

67) See attached granular backfill provisions

**Concrete Pavement Restoration:**

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

69) Pavement restoration shall occur before November 1<sup>st</sup> or before materials become unavailable, whichever occurs 1<sup>st</sup>.

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

71) Concrete pavement without a bituminous asphalt overlay shall have a fine or heavily broomed finish.

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

**Bituminous Asphalt Pavement Restoration:**

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

74) Pavement restoration shall occur before November 1<sup>st</sup> or before materials become unavailable, whichever occurs 1<sup>st</sup>.

75) 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:**

76) 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:**

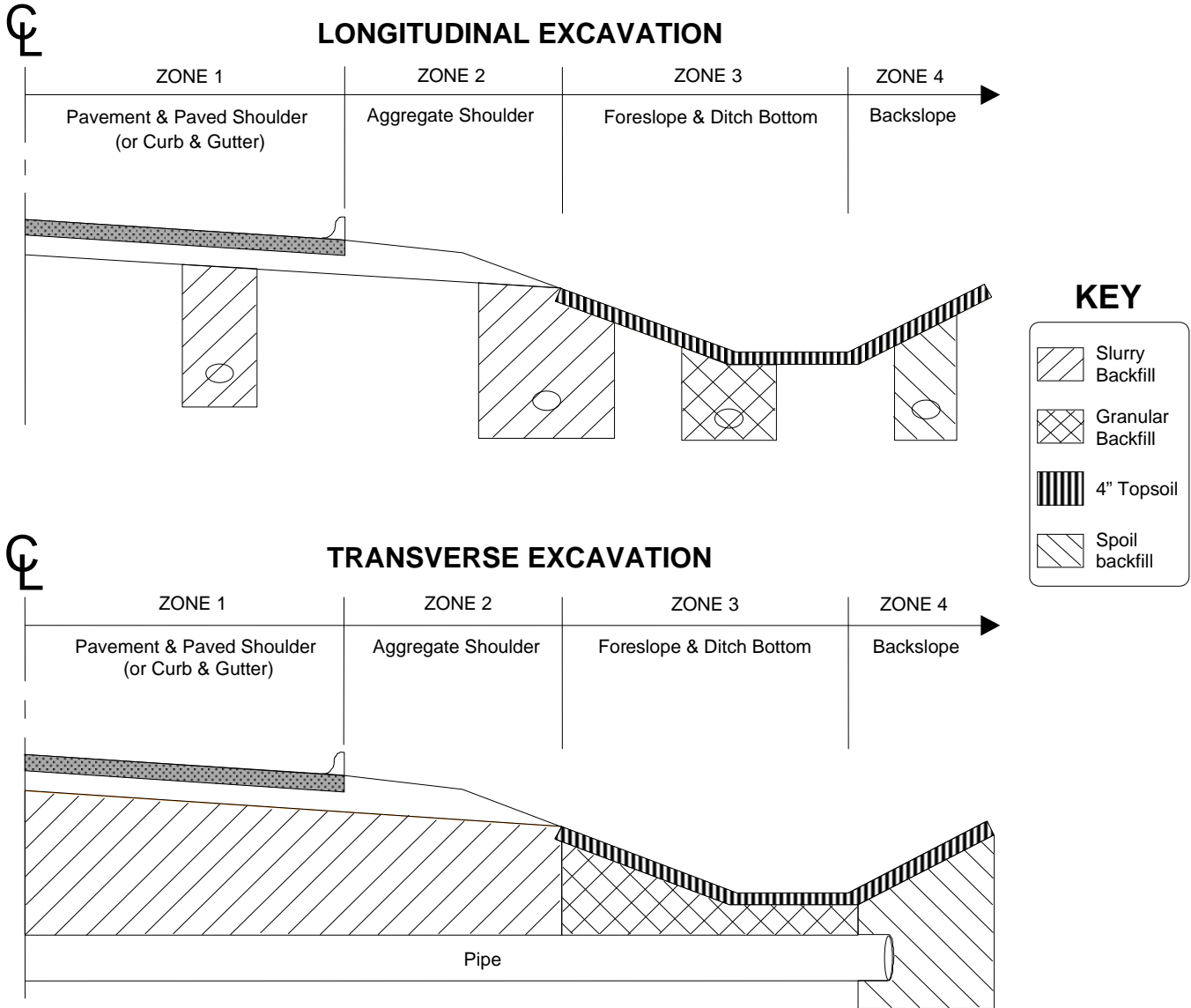
77) Epoxy pavement markings removed shall be replaced in kind with an epoxy based pavement marking paint along with reflective bead materials.

**Temporary Pavement Markings:**

78) 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.

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

**Attachment 2: Backfilling Excavation Detail Drawings**



**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.



**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](http://www.dot.wisconsin.gov)

Telephone: (262) 548-5903  
Facsimile (FAX): (262) 548-5662  
E-Mail: [waukesha.dtd@dot.wi.gov](mailto:waukesha.dtd@dot.wi.gov)

February 11, 2014

Mr. Mike Simmons  
City Engineer  
City of Oak Creek  
8640 S. Howell Avenue  
Oak Creek, WI 53154

**Re:** City of Oak Creek Sanitary Sewer and Watermain- Howell Avenue Reconstruction  
Milwaukee County Project 2060-15-71

Dear Mr. Simmons

Robert Elkin referred your request to me for a deviation to our standard slurry backfill policy for installation of the Oak Creek Sanitary Sewer and Watermain project which is planned to be completed prior to the WisDOT highway widening/reconstruction project. WisDOT Utilities per the Utility Accommodation policy requires that slurry backfill be used for utility construction in our right of way. This is especially critical when that work is scheduled in the same construction period as the roadwork. We understand your concern with backfilled trenches heaving differently than adjacent pavements and acknowledge that you have firsthand knowledge of the soil conditions anticipated to be encountered with the trenching for the pipelines however we have not experienced those same heaving problem. We have recently started, on a case by case basis, to evaluate proposals from municipalities requesting alternates to slurry backfill. The Village of Kewaskum is comparing the slurry cost versus full time construction inspection with compaction testing by a certified nuclear density technician.

The specifications I have attached detail the testing requirements that the City would have to perform and provide to us. WisDOT would perform the verification testing. Please review the information and call me when we can discuss this with Bob Elkin.

Please do not construe this letter as approval to not use slurry. We will evaluate your proposal however our mandate to the public is to protect our highways and create the safest and best transportation facilities in the state of Wisconsin.

Sincerely,

Terry D. Kittson, PE  
SE Region Utility Supervisor  
262-548-6731

Cc Robert Elkin, Claudia Peterson, Dewayne Johnson

## **Trench Backfill Special, Item SPV.0090.115**

### **A Description**

This special provision describes requirements for trench backfill. Conform to standard spec 209 as modified in this special provision for all work within the roadway foundation at the following locations: This item shall be used to backfill excavations for sanitary sewer and water main items under this contract as shown on the plans and as directed by the engineer.

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

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:

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

### **B Materials**

#### **B.1 Quality Control Plan**

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

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

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

#### **B.2 Personnel**

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

### **B.3 Laboratory**

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

Materials Laboratory  
3502 Kinsman Boulevard  
Madison, Wisconsin 53704-2583  
Telephone: 608-246-7938  
<http://www.dot.state.wi.us/business/engrserv/lab-qualification.htm>

### **B.4 Equipment**

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

Furnish nuclear gauges from the department's approved product list at <http://www.atwoodsyste.ms.com/materials>. Ensure that the gauge manufacturer or an approved calibration service calibrates the gauge within 12 months before using it on the project. Retain a copy of the calibration certificate with the gauge.

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

### **B.5 Trench Backfill**

Trench backfill shall consist of Granular Backfill, Grade 2, per Section 209 of the WisDOT Standard Specifications.

Develop moisture-density curve for trench backfill soil by utilizing AASHTO T 99, with a minimum of 5 individual points, and a zero air voids curve at a specific gravity of 2.65. If a different specific gravity is used perform a specific gravity test. A new AASHTO T 99 test should be performed when the material gradation changes significantly or the source of material changes.

### **B.6 Quality Control Documentation**

Ensure that all tests are recorded and become part of the project records.

Document all observations, inspection records, adjustments to fill placement procedures, and test results daily. Note the results of the observations and inspection records as they occur in a permanent field record.

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

## **B.7 Contractor Testing**

### **B.7.1 General**

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

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

For each test, provide the cubic yards represented and the test location to within 2 feet horizontally and 1 feet vertically. Use project stationing to determine horizontal location and grade stakes to determine vertical location.

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

### **B.7.2 Field Density and Field Moisture**

Perform the field density and field moisture tests using the nuclear density meter method according to AASHTO T 310. Use a coarse particle correction according to AASHTO T 224.

### **B.7.3 Testing Frequency**

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

Test	Minimum Frequency
Field Density and Moisture (AASHTO T 310)	One test per 50 CY of backfill placed or one test per day whichever yields the most tests.

## **B.7.4 Compaction Zones**

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

## **B.7.5 Control Limits**

### **B.7.5.1 Field Density**

#### **B.7.5.1.1 General Conditions**

The lower control limit for field density measurements in the upper zone is a minimum of 95.0% of the maximum dry density as determined by AASHTO T 99 or T 272.

The lower control limit for field density measurements in the lower zone is a minimum of 93.0% of the maximum dry density as determined by AASHTO T 99 or T 272.

### **B.7.5.2 Field Moisture Content**

#### **B.7.5.2.1 general conditions**

The upper control limit for the field moisture content in the upper and lower zones is 110.0% of the optimum moisture as determined by AASHTO T 99 or T 272.

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

## **B.7.6 Corrective Action**

Notify the engineer if an individual field density or field moisture test falls below the individual test control limit. The trench backfill in this area is unacceptable. Perform corrective actions, acceptable to the engineer to improve the density of the trench backfill material. After corrective action, perform a randomly located retest within the represented quantity to ensure that the material is acceptable.

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

## **B.8 Department Testing**

### **B.8.1 General**

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

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

### **B.8.2 Verification Testing**

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

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

The department will perform verification testing as follows:

1. The department will conduct at least one verification test for field density and field moisture per 500 cubic yards.

If verification tests are within specified control limits, no further action is required. If verification tests are not within specified control limits, perform corrective actions, acceptable to the engineer to improve the density of the trench backfill material. After corrective action, perform a randomly located retest within the represented quantity to ensure that the material is acceptable.

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

### **B.8.3 Independent Assurance Testing**

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

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.

4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

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

### **B.9 Dispute Resolution**

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

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

### **B.10 Acceptance**

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

### **C Construction**

Place all backfill as specified in standard spec 520.3.4.1(3). Compact all backfill to the density required in Article B.7.5.

### **D Measurement**

The department will measure Trench Backfill Special by the linear foot of trench containing sanitary sewer pipe, water main pipe, manholes, and water main fittings and appurtenances acceptably installed under this contract.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.115	Trench Backfill Special	LF

Payment for Trench Backfill Special is full compensation for furnishing and installing granular backfill, including all labor, equipment, and incidentals required to complete the work.

If the engineer directs construction of the utility pipe greater than one foot above or below the elevations the plans show, the department will pay for the Trench Backfill Special as specified for extra work in 109.4. The department will not pay additional for backfill required for additional trench width.

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



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](http://www.dot.wisconsin.gov)

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

September 24, 2013

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

**Work Plan Approval & Start  
Work Notice**

**SUBJECT:** PROJECT I.D.: 2060-15-71  
HOWELL AVENUE, CITY OF OAK CREEK  
OAKWOOD RD TO GRANGE AVE  
STH-038  
MILWAUKEE COUNTY

Dear Mr. Pritzlaff:

This letter is to advise you that we have received your proposed Work Plan for City of Oak Creek – Sewer & Water dated 8/22/2013 for the subject project and you are hereby authorized to proceed with your adjustment and/or relocation work.

Please keep in mind that this approval constitutes only DOT acceptance of your work plan and your start work notice. You may need to obtain approvals, permits, or easements from other parties prior to relocating any utility facilities within or outside the project corridor. You will need to coordinate any other approvals needed directly with the affected parties.

Please contact me at (262) 548-5901 to inform me of the date you plan to start construction and when you have completed the construction. If you have any questions, feel free to call me.

Sincerely,

*Gary C. Dahms*

Gary Dahms  
Southeast Region Utility Coordinator  
[gary.dahms@dot.state.wi.us](mailto:gary.dahms@dot.state.wi.us)

**LEGEND AND ABBREVIATIONS**

▲	TRaverse POINT	○	TILE	---	EDGE OF BRUSH
□	POWER POLE	PVC P	PVC PIPE	---	EDGE OF WOODS
⊗	LIGHT POLE	○	CLEANOUT	---	HEDGE ROW
○	FLAG	R BAR	REBAR	---	RIP RAP
○	MANHOLE	BM.	BENCH MARK	---	CHAIN LINK FENCE
⊕	STORM INLET	○	TMH TELEPHONE MANHOLE	---	GUARD RAIL
⊗	WATER VALVE	⊗	BSV GAS SERVICE VALVE	---	BURIED CABLE TV
⊗	GAS VALVE	⊗	WSV WATER SERVICE VALVE	---	BURIED ELECTRIC LINE
⊗	FIRE HYDRANT	⊕	CATCH BASIN	---	OVERHEAD ELECTRIC LINE
⊗	MAIL BOX	⊗	CONIFEROUS TREE	---	BURIED GAS MAIN
⊗	TELEPHONE PEDESTAL	⊗	STUMP	---	BURIED FORCE MAIN
⊗	CONTROL BOX	⊗	BUSH	---	BURIED STREET LIGHTING
⊗	TRAFFIC SIGNAL	○	METAL METAL POST	---	BURIED SANITARY SEWER
○	GUY	⊗	HANDHOLE	---	BURIED MIS SEWER
⊗	GUY WIRE	⊗	MISCELLANEOUS METER	---	BURIED STORM SEWER
⊗	MONUMENT	⊗	WOOD	---	BURIED TELEPHONE LINE
○	1" IRON PIPE	⊗	WOOD POST	---	BURIED WATER MAIN
○	2" IRON PIPE	⊗	ABANDONED POLE	---	EXISTING PROPERTY LINE
○	VENT PIPE	○	YL YARD LIGHT	---	EXISTING RIGHT OF WAY
⊗	PULL BOX	⊗	SIGN		
A/C	AIR CONDITIONER	⊗	INLET PROTECTION		
⊗	DECIDUOUS TREE	○	CULVERT PIPE DITCH CHECK		

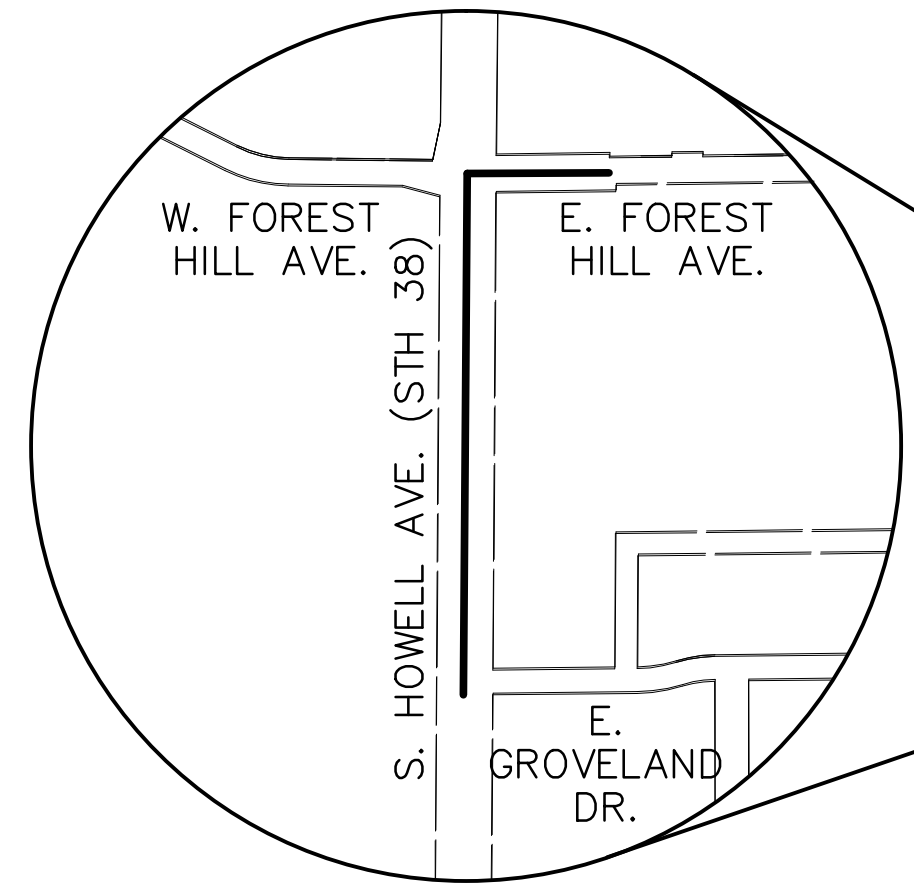
ASPH.	ASPHALT	I.E.	INVERT ELEVATION
BSM'T.	BASEMENT	I.P.	IRON PIPE
BIT.	BITUMINOUS	LAT.	LATERAL
CB.	CATCHBASIN	MH.	MANHOLE
C/L	CENTERLINE	M.J.	MECHANICAL JOINT
CIPP	CURED-IN-PLACE PIPE	PAV'T.	PAVEMENT
CONC.	CONCRETE	PROP.	PROPOSED
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE
CMPA	CORRUGATED METAL PIPE ARCH	PVC P.	PVC PIPE
C. & G.	CURB & GUTTER	R. BAR	REBAR
DRAIN T.	DRAIN TILE	REQ'D.	REQUIRED
D.I.P.	DUCTILE IRON PIPE	R.J.	RESTRAINED JOINT
DWY.	DRIVEWAY	SAN.	SANITARY
ECC.	ECCENTRIC	S.	SLOPE
EXIST.	EXISTING	STL.	STEEL
F.F.	FIRST FLOOR	STM.	STORM
FM.	FORCE MAIN	SUMP D.	SUMP DISCHARGE
G.V.	GAS VALVE	TYP.	TYPICAL
GR.	GRAVEL	VENT P.	VENT PIPE
G.W.	GUY WIRE	WM.	WATER MAIN
HYD.	HYDRANT	W.V.	WATER VALVE
INL.	INLET	W/	WITH

# CITY OF OAK CREEK

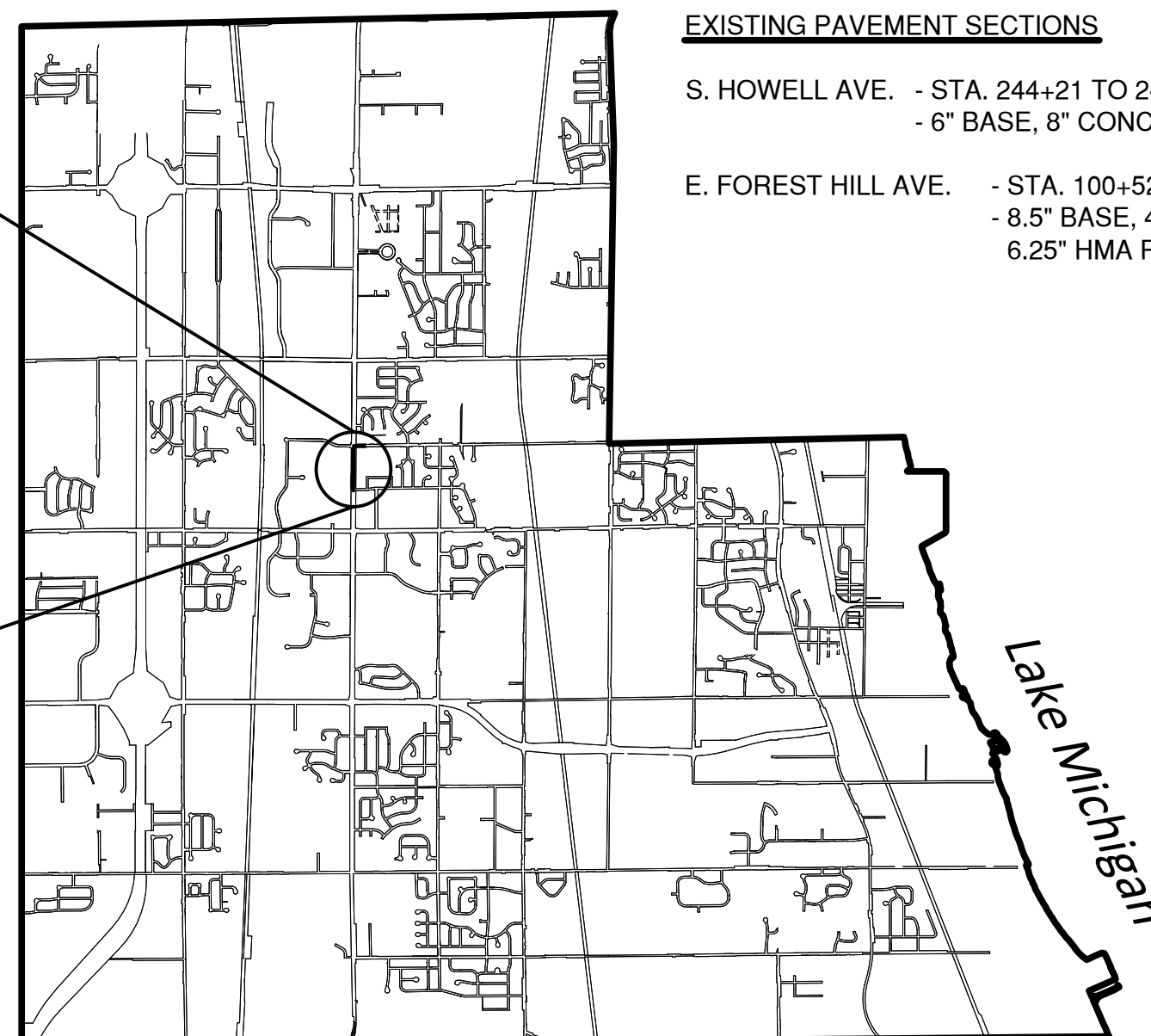
## WATER AND SEWER UTILITY S. HOWELL AVENUE (STH 38) WATER MAIN RELAY

PROJECT NUMBER  
**14105**

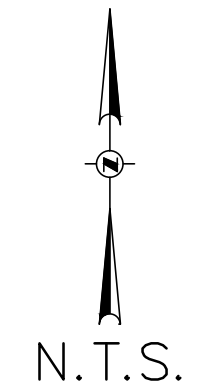
DRAFT DATE: FEBRUARY 10, 2014



PROJECT LOCATION MAP  
S. HOWELL AVE. (STH 38)



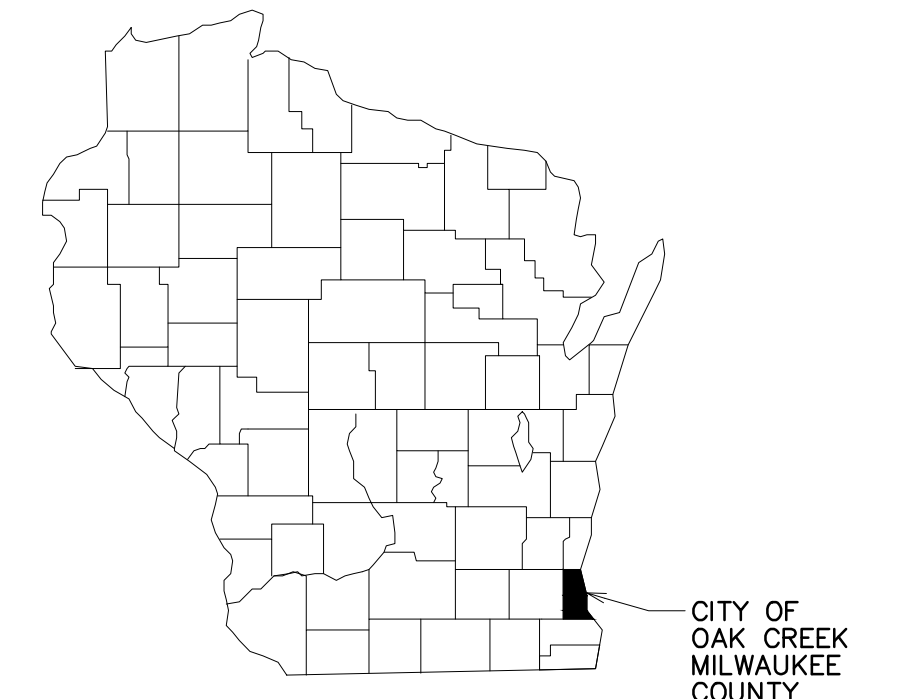
CITY OF OAK CREEK  
VICINITY MAP



**EXISTING PAVEMENT SECTIONS**  
S. HOWELL AVE. - STA. 244+21 TO 247+49  
- 6" BASE, 8" CONCRETE, 4" HMA PAVEMENT  
E. FOREST HILL AVE. - STA. 100+52 TO 105+40  
- 8.5" BASE, 4" AGGREGATE OPEN GRADED,  
6.25" HMA PAVEMENT



**WATER and SEWER UTILITY**  
A COMMITMENT TO WATER QUALITY



**SHEET INDEX**

Sheet No. 01	COVER SHEET
Sheet No. 02	INDEX SHEET
Sheet No. 03-05	PROPOSED WATER MAIN RELAY
Sheet No. 06-08	TRAFFIC CONTROL
TOTAL SHEETS = 08	

**SURFACE RESTORATION**

- Ⓜ ASPHALT REPLACEMENT
- Ⓜ CONCRETE REPLACEMENT

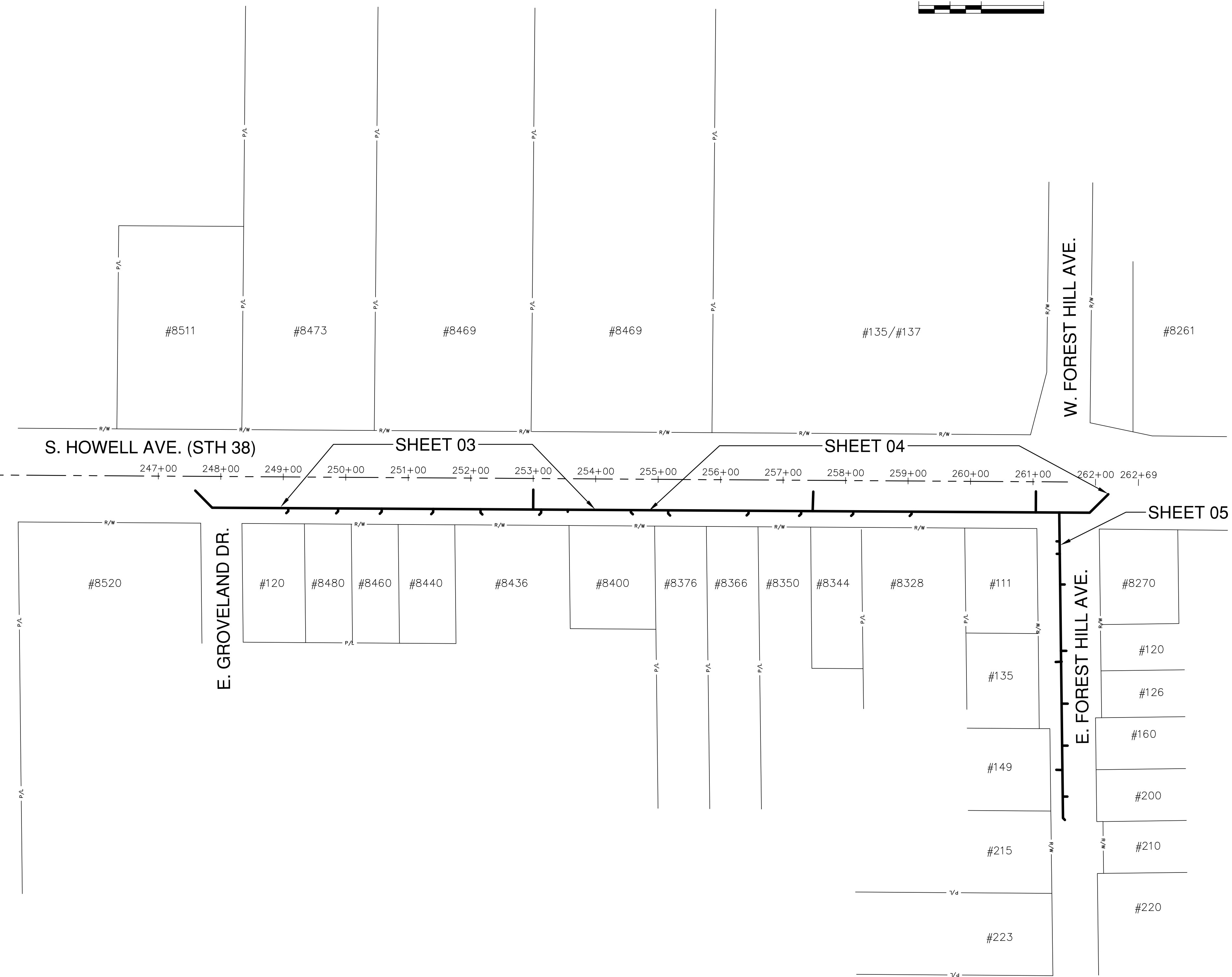
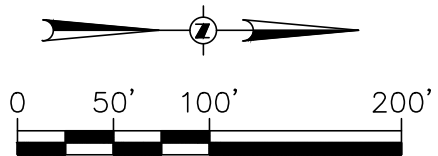
**BACKFILL LEGEND**

- Ⓜ 3/4"-INCH T.B.B.F. (TYPE A1)
- Ⓜ GRANULAR BACKFILL (TYPE A1)

PROJECT ENGINEER: GRAEF



**GRAEF**  
One Honey Creek Corporate Center  
125 South 84th Street, Suite 401  
Milwaukee, WI 53214-1469  
414 / 259 1500  
414 / 259 0037 fax  
www.graef-usa.com



**GENERAL NOTES:**

- CONTRACTOR SHALL REMOVE SIGNS, MAILBOXES, ETC. DURING CONSTRUCTION. IMMEDIATELY AFTER PIPE INSTALLATION AND BACKFILL OCCURS, ALL SIGNS, MAILBOXES, ETC. SHALL BE RETURNED TO THEIR PREVIOUS LOCATION. ALL STOP SIGNS MUST BE DISPLAYED AT ALL TIMES.
- THE BASE SURVEY AND PROPOSED LINEWORK WAS PREPARED BY GRAEF AND SUPPLEMENTED WITH INFORMATION PROVIDED BY OTHERS. ALL UNDERGROUND UTILITIES AND STRUCTURES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE THERETO.
- CONTRACTOR SHALL VERIFY LOCATION OF PROPOSED WORK AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL FURNISH ALL PROPOSED HYDRANTS WITH A BURY DEPTH OF 6.5- FEET AND PROVIDE EXTENSIONS AS REQUIRED TO SET BOTTOM HYD. FLANGE AT THE PROPOSED GROUND ELEVATION.
- CONTRACTOR SHALL PROVIDE CONCRETE BUTTRESS RESTRAINT AT ALL HORIZONTAL BENDS W/STANDARD DIMENSIONS PER FILE NO. 44 OF THE STANDARD SPECIFICATIONS. RESTRAIN VERTICAL BENDS WITH MEGA LUGS OR APPROVED EQUAL. RESTRAINT OF PROPOSED WATER MAIN IS INCIDENTAL TO WATER MAIN CONSTRUCTION.
- ALL DIMENSIONS ARE TO CENTER OF STRUCTURE/FITTING OR OPERATING NUT OF HYDRANT.
- INSULATION IS REQUIRED WHEREVER COVER OVER THE TOP OF WATER MAIN, HYDRANT LEAD, OR WATER LATERAL IS LESS THEN 6- FEET OR WHERE SHOWN ON PLANS. (INCIDENTAL TO PROPOSED WATER MAIN)
- SUPPORTING OF POWER/LIGHT POLES ALONG THE ENTIRE PROJECT LIMITS FOR PROPOSED WATER MAIN IS INCIDENTAL TO PROPOSED WATER MAIN CONSTRUCTION.
- LOCATION OF PROPOSED WATER LATERALS ON PLANS ARE APPROXIMATE. FINAL LOCATION SHALL BE DETERMINED IN FIELD DURING CONSTRUCTION.
- CONTRACTOR SHALL SALVAGE ALL EXISTING HYDRANTS CONNECTED TO EXISTING WATER MAIN TO BE ABANDONED BY DISASSEMBLING THE CONNECTION TO THE EXISTING 6" HYDRANT LEAD AT THE HYDRANT SHOE, AND SALVAGING THE HYDRANT, BARREL, SHOE, AND NOZZLE CAPS TO THE CITY OF OAK CREEK WATER AND SEWER UTILITY LOCATED AT 170 W. DREXEL AVE. OAK CREEK, WI 53154. COORDINATE DELIVERY WITH UTILITY STAFF.
- CONTRACTOR SHALL BACKFILL ALL TRENCH EXCAVATIONS WITH SLURRY BACKFILL AND RESTORE CONCRETE PAVEMENT IN KIND WITH FULL PANEL REPLACEMENT. PAVEMENT REMOVAL LIMITS SHOWN ON THE PLANS ARE APPROXIMATE AND SHALL BE ADJUSTED TO MEET FIELD CONDITIONS.
- COORDINATES IN THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, (NAD 27). ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF OAK CREEK VERTICAL DATUM.
- CONTRACTOR SHALL INSTALL GALVANIC ANODE CORROSION PROTECTION AT EACH CONNECTION TO EXISTING WATER MAIN.
- CONTRACTOR SHALL INSTALL METAL GROUNDING RODS AT ALL CONNECTIONS TO EXISTING WATER MAIN AND CONNECT TO TRACER WIRE FOR FUTURE UTILITY LOCATING.
- CONTRACTOR SHALL COMPLY WITH WORK RESTRICTIONS AS SET FORTH IN THE PROJECT MANUAL, PHASING PLAN, AND WISDOT APPLICATION/PERMIT TO CONSTRUCT, OPERATE, AND MAINTAIN UTILITY FACILITIES ON HIGHWAY RIGHT-OF-WAY.
- PVC FITTINGS SHALL BE USE ON ALL PVC PIPE. PVC FITTINGS 4"-12" IN DIAMETER SHALL BE INJECTION MOLDED AND COMPLY WITH THE REQUIREMENTS OF AWWA C907 AND BE CERTIFIED CSA B137.2. MOLDED FITTINGS WILL BE MADE OF PVC COMPOUND WITH A MINIMUM HYDROSTATIC DESIGN BASIS OF 4000 PSI. MOLDED FITTINGS MUST BE FACTORY MUTUAL APPROVED AND LISTED BY THE UNDERWRITER'S LABORATORIES INTERNATIONAL (ULI).

C905 FABRICATED FITTINGS MUST MEET ASTM D 3139 AND BE MANUFACTURED FROM PIPE SECTIONS THIRD PARTY CERTIFIED TO CSA B137.3 AND MUST MEET THE REQUIREMENTS OF AWWA C905. FABRICATED FITTINGS MUST ALSO BE CERTIFIED TO CSA B137.3. ALL FITTINGS MUST BE NSF-61 LISTED.

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.

**EROSION CONTROL NOTES**

- CONSTRUCTION SITE AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF OAK CREEK, AND SHALL EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSTRUCTION SITE EROSION AND SEDIMENTATION CONTROL TECHNICAL STANDARDS.
- ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
- PERIODIC INSPECTION AND MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT LEAVING THE PROJECT LIMITS. EROSION CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORK DAY.
- SILT FENCE SHALL BE INSTALLED AS DIRECTED BY THE FIELD ENGINEER.
- INLET PROTECTION SHALL BE INSTALLED ON ALL INLETS RECEIVING RUNOFF FROM THE PROJECT AREA TO TRAP SEDIMENT.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.
- ALL DISTURBED AREAS WILL BE PERMANENTLY STABILIZED BY THE APPLICATION OF SEED AND MULCH; THE TYPE OF SEED USED WILL BE WISDOT MIXTURE 40 AS SPECIFIED IN THE LATEST EDITION OF THE STATE OF WISCONSIN STANDARDS SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- TYPE "C" EROSION CONTROL MATTING SHALL BE USED ON ALL SLOPES 3:1 OR GREATER AND AS DIRECTED BY FIELD ENGINEER.

**TRAFFIC CONTROL NOTES**

- TRAFFIC CONTROL SHALL BE INSTALLED IN STAGES CORRESPONDING TO WORK ZONES, AND SHALL BE LIMITED TO AREAS WHERE WORK IS ACTIVELY TAKING PLACE TO MINIMIZE DISRUPTION TO MOTORISTS.
- ALL TRAFFIC CONTROL SIGNAGE SHALL HAVE DIAMOND GRADE SHEETING PER WISDOT STANDARDS.
- CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO ENGINEER FOR REVIEW AND APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION.
- ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

**RESTORATION NOTES**

- RESTORATION ON S. HOWELL AVE. SHALL BE 9" CONCRETE BASE WITH DRILLED #4 EPOXY COATED TIE BARS ON-CENTER.
- E. FOREST HILL AVE. DITCH LINES TO BE RESTORED WITH 4" OF TOPSOIL, EROSION MATTING, AND MULCH. CONTRACTOR SHALL INSURE POSITIVE DRAINAGE WITH LONGITUDINAL DITCH SLOPE MATCHING THE LONGITUDINAL GRADE OF THE ROAD CENTER LINE.

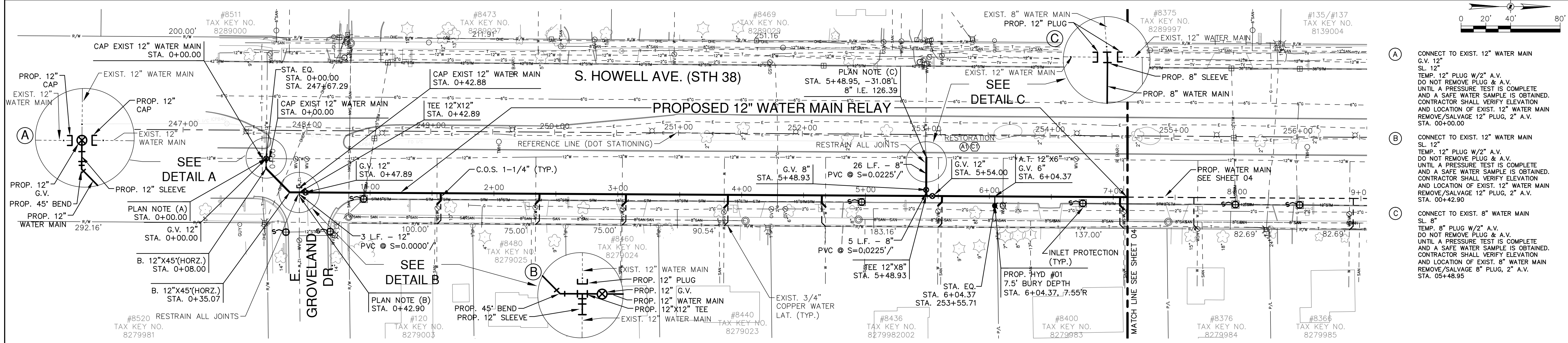
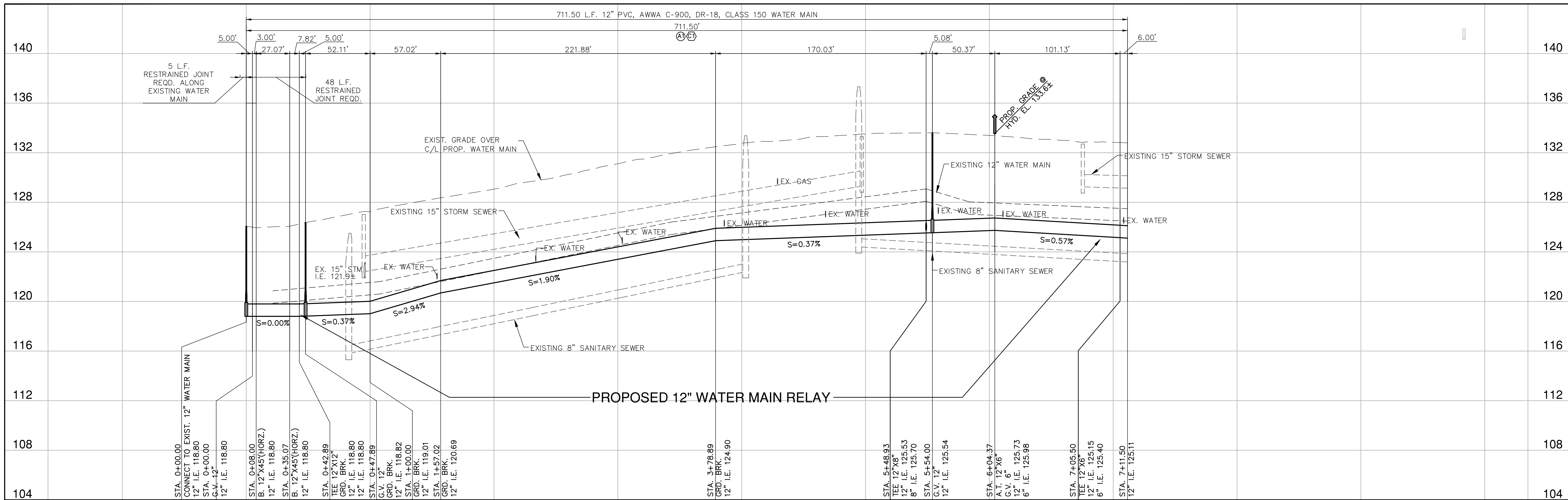
**NOTICE:**  
In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

**GRAEF**  
One Honey Creek Corporate Center  
125 South 84th Street, Suite 401  
Milwaukee, WI 53214-1469  
414 / 259 1500  
414 / 259 0037 fax  
www.graef-usa.com

**DISCLAIMER:**  
The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.

BID ITEM NOS.	ESTIMATE OF QUANTITIES	WATER MAIN CONTRACTOR:	SA.FKO ST.FKO
		MAINLINE INSPECTED BY:	W. FKO
		LATERALS INSPECTED BY:	G. FKO
		DATE COMPLETED:	E. FKO
		TYPE OF PIPE, ASTM NO.	T. FKO
		TYPE OF PIPE, ASTM NO.	I. FKO
		AS-BUILTS BY: DATE:	TS.FKO
		This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.	PP.
		Utility Engineer Date	
		REVISION BY DATE	

CITY OF OAK CREEK, WISCONSIN			APPROVED BY		
DESIGNED BY	DATE	DRAWN BY	DATE	UTILITY ENGINEER	DATE
AS	2-13-14	FKO	2-13-14	MNP	2-13-14
S. HOWELL AVE. (STH 38) WATER MAIN RELAY					
IN: S. HOWELL AVENUE					
FR: E. GROVELAND DR.					
TO: E. FOREST HILL AVE.					
SCALE					SHEET
PLAN HOR. AS NOTED					02
PROFILE HOR.					OF
VER.					08
FILE NO: 14105-2C-2233					



- (A) CONNECT TO EXIST. 12" WATER MAIN G.V. 12" TEMP. 12" PLUG W/2" A.V. DO NOT REMOVE PLUG & A.V. UNTIL A PRESSURE TEST IS COMPLETE AND A SAFE WATER SAMPLE IS OBTAINED. CONTRACTOR SHALL VERIFY ELEVATION AND LOCATION OF EXIST. 12" WATER MAIN REMOVE/SALVAGE 12" PLUG, 2" A.V. STA. 00+00.00
- (B) CONNECT TO EXIST. 12" WATER MAIN SL. 12" TEMP. 12" PLUG W/2" A.V. DO NOT REMOVE PLUG & A.V. UNTIL A PRESSURE TEST IS COMPLETE AND A SAFE WATER SAMPLE IS OBTAINED. CONTRACTOR SHALL VERIFY ELEVATION AND LOCATION OF EXIST. 12" WATER MAIN REMOVE/SALVAGE 12" PLUG, 2" A.V. STA. 00+42.90
- (C) CONNECT TO EXIST. 8" WATER MAIN SL. 8" TEMP. 8" PLUG W/2" A.V. DO NOT REMOVE PLUG & A.V. UNTIL A PRESSURE TEST IS COMPLETE AND A SAFE WATER SAMPLE IS OBTAINED. CONTRACTOR SHALL VERIFY ELEVATION AND LOCATION OF EXIST. 8" WATER MAIN REMOVE/SALVAGE 8" PLUG, 2" A.V. STA. 05+48.95

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Milwaukee, WI 53214-1469  
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414 / 259 0037 fax  
www.graef-usa.com

BID ITEM NOS.	ESTIMATE OF QUANTITIES	WATER MAIN CONTRACTOR:	SAFKO ST.FKO
2	8" CL. 150 PVC Water Main with granular backfill, full depth sawcutting, concrete pavement removal, concrete pavement replacement, concrete curb and gutter replacement, and lawn restoration.	CONTRACTOR:	W. FKO
3	12" CL. 150 PVC Water main with granular backfill, full depth sawcutting, concrete pavement removal, concrete pavement replacement, concrete curb and gutter replacement, and lawn restoration.	MAINLINE INSPECTED BY:	G. FKO
4	Connect original service (COS) 1-1/4" Water Service Laterals (Polyethylene)	LATERALS INSPECTED BY:	E. FKO
5	8" Gate Valve	DATE COMPLETED:	T. FKO
6	12" Gate Valve	TYPE OF PIPE, ASTM NO.	I. FKO
7	Connect to Existing 8" Water Main	TYPE OF PIPE, ASTM NO.	TS.FKO
8	Connect to Existing 12" Water Main	AS-BUILTS BY:	PP.
9	Hydrant, Lead and 6-Inch Gate Valve	DATE:	

WATER MAIN CONTRACTOR:	SAFKO ST.FKO
CONTRACTOR:	W. FKO
MAINLINE INSPECTED BY:	G. FKO
LATERALS INSPECTED BY:	E. FKO
DATE COMPLETED:	T. FKO
TYPE OF PIPE, ASTM NO.	I. FKO
TYPE OF PIPE, ASTM NO.	TS.FKO
AS-BUILTS BY:	PP.
DATE:	
Utility Engineer	Date

**CITY OF OAK CREEK, WISCONSIN**

DESIGNED BY: AS DATE: 2-13-14  
DRAWN BY: FKO DATE: 2-13-14  
CHECKED BY: MNP DATE: 2-13-14

**S. HOWELL AVE. (STH 38) WATER MAIN RELAY**

IN: S. HOWELL AVE. (STH 38)  
FR: E. GROVELAND DR.  
TO: 670 FT. NORTH OF E. GROVELAND DR.

APPROVED BY: \_\_\_\_\_  
UTILITY ENGINEER DATE: \_\_\_\_\_

APPROVED BY: \_\_\_\_\_  
CITY ENGINEER DATE: \_\_\_\_\_

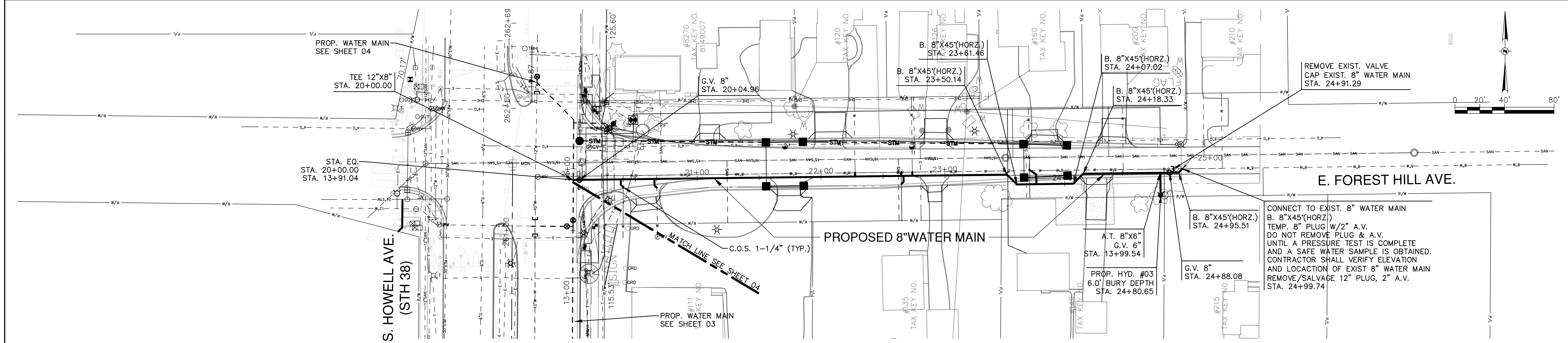
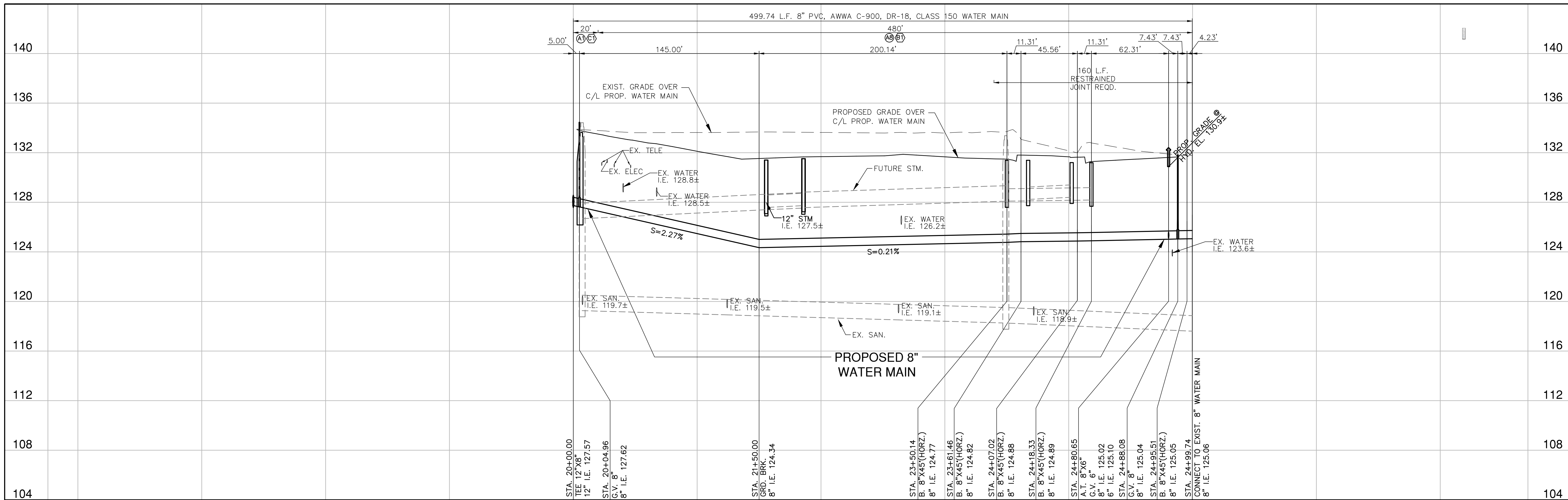
SCALE: \_\_\_\_\_ SHEET: \_\_\_\_\_

PLAN HOR. 1"=40' OF 03  
PROFILE HOR. 1"=40' OF 08  
VER. 1"=4'

REVISION BY: \_\_\_\_\_ DATE: \_\_\_\_\_

FILE NO: 14105-3C-2234





**NOTICE:**  
In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

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414 / 259 0037 fax  
www.graef-usa.com

ESTIMATE OF QUANTITIES		
BID ITEM NOS.	DESCRIPTION	QUANTITY
1	8" CL. 150 PVC Water Main with 3/4-inch T.B.B.F., full depth sawcutting, asphalt pavement removal, asphalt pavement replacement, asphalt driveway replacement, CMP culvert replacement, and lawn restoration.	500 L.F.
4	Connect original service (COS) 1-1/4" Water Service Laterals (Polyethylene)	7 EA.
5	8" Gate Valve	1 EA.
7	Connect to Existing 8" Water Main	2 EA.
9	Hydrant, Lead and 6-Inch Gate Valve	1 EA.

WATER MAIN	
CONTRACTOR:	SA.FKO
ST.FKO	ST.FKO
W. FKO	W. FKO
G. FKO	G. FKO
E. FKO	E. FKO
T. FKO	T. FKO
I. FKO	I. FKO
TS.FKO	TS.FKO
PP.	PP.
REVISION BY	DATE

CITY OF OAK CREEK, WISCONSIN				APPROVED BY	
DESIGNED BY	DATE	DRAWN BY	DATE	UTILITY ENGINEER	DATE
AS	2-13-14	FKO	2-13-14	MNP	2-13-14
S. HOWELL AVE. (STH 38) WATER MAIN RELAY					
IN: E. FOREST HILL AVE.					
FR: S. HOWELL AVE.					
TO: 300 FT. EAST OF S. HOWELL AVE.					
				CITY ENGINEER	DATE
				SCALE	SHEET
				PLAN	1"=40'
				HOR.	05
				PROFILE	OF
				HOR.	1"=40'
				VER.	08
FILE NO: 14105-5C-2236					

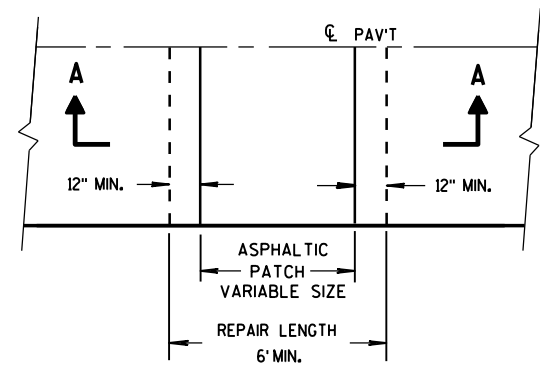
**GENERAL NOTES**

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

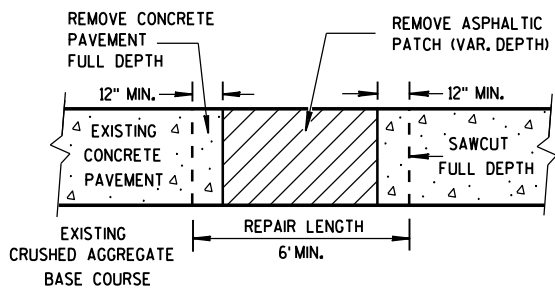
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

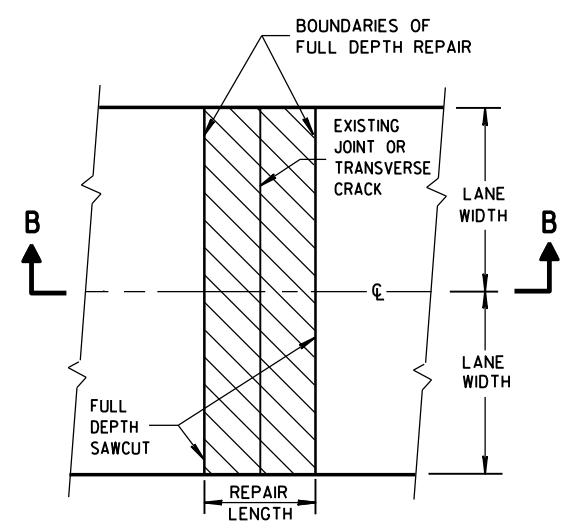
① DOWEL BARS MIGHT NOT EXIST.



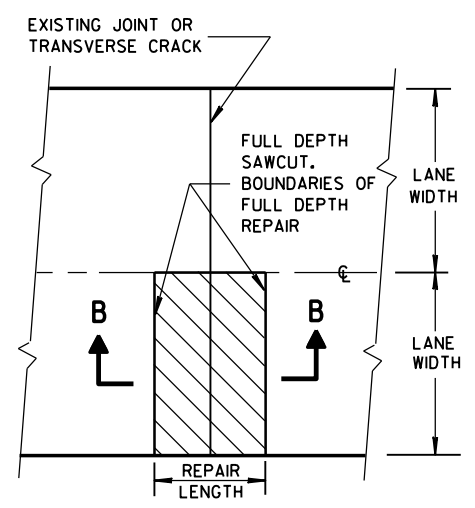
**PLAN VIEW**



**SECTION A-A  
HMA PATCH REMOVAL**



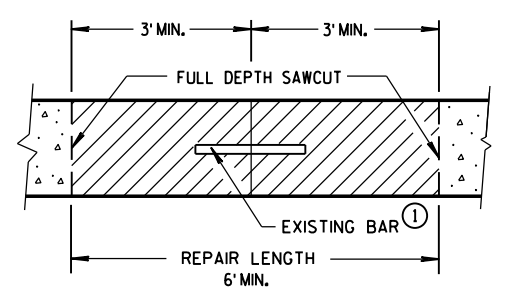
**PLAN VIEW  
(DOUBLE LANE REPAIR)**



**PLAN VIEW  
(SINGLE LANE REPAIR)**

**FULL DEPTH CONCRETE PAVEMENT REMOVAL**

(SEE NOTE)



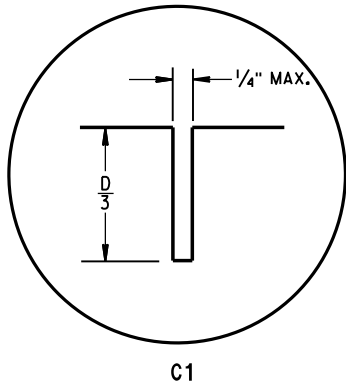
**SECTION B-B  
CONCRETE REMOVAL**

6

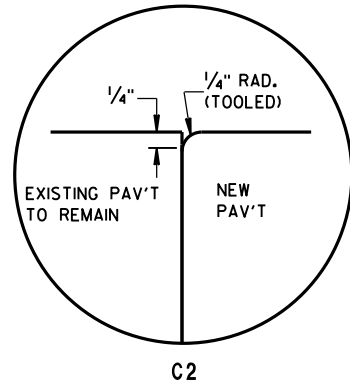
6

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH 24' OR 26'	≥ 30'
6, 6 1/2"	3" ± 1/2"	48"	42"
7, 7 1/2"	3 1/4" ± 1"	45"	36"
8, 8 1/2"	3 3/4" ± 1"	39"	30"
9, 9 1/2"	4 1/4" ± 1"	33"	27"
10, 10 1/2"	4 3/4" ± 1"	30"	24"
11, 11 1/2"	5 1/4" ± 1"	27"	21"
12"	5 3/4" ± 1"	24"	21"

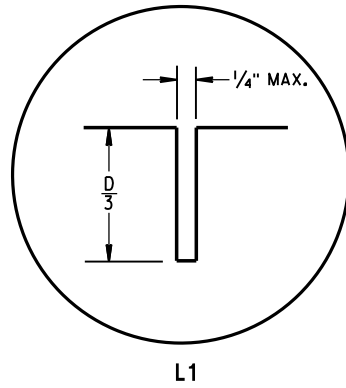


C1

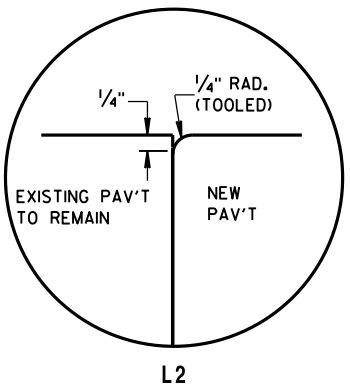


C2

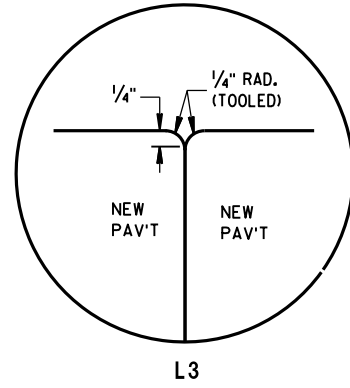
TRANSVERSE JOINTS



L1

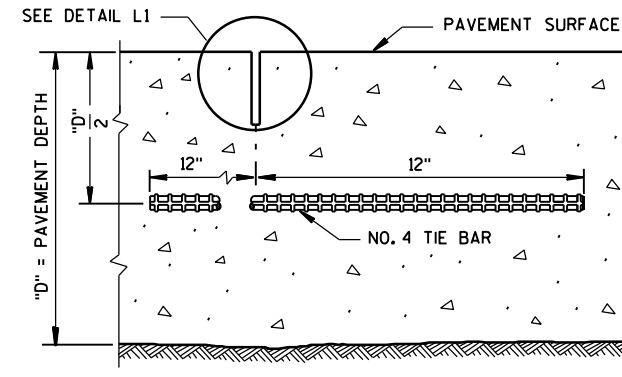


L2

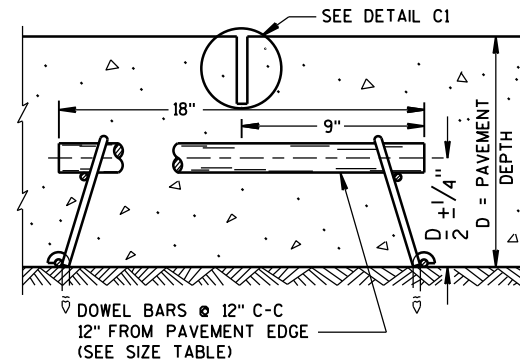


L3

LONGITUDINAL JOINTS



SECTION C-C  
SAWED LONGITUDINAL JOINT



SECTION F-F  
CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

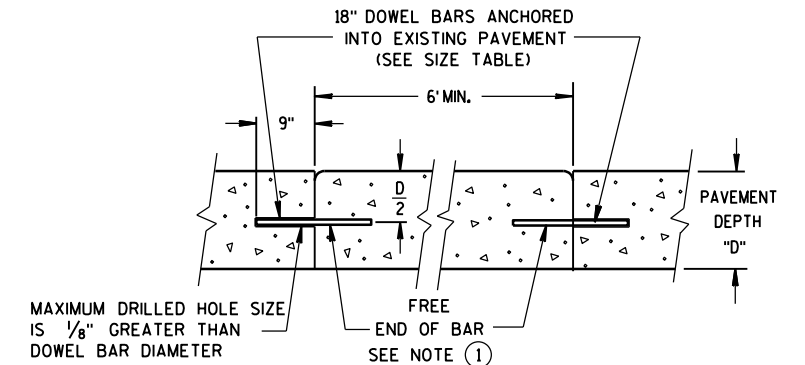
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

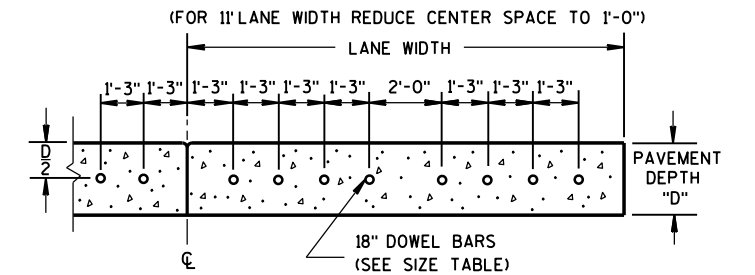
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

- ① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



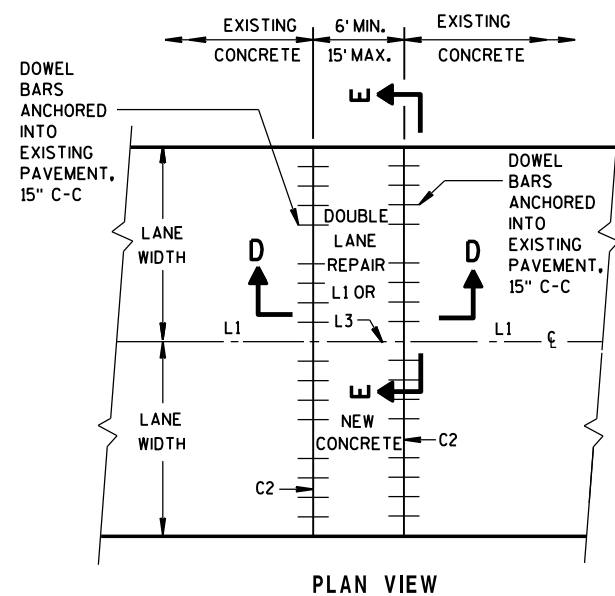
SECTION D-D



SECTION E-E  
DRILLED DOWEL BAR CONSTRUCTION JOINT

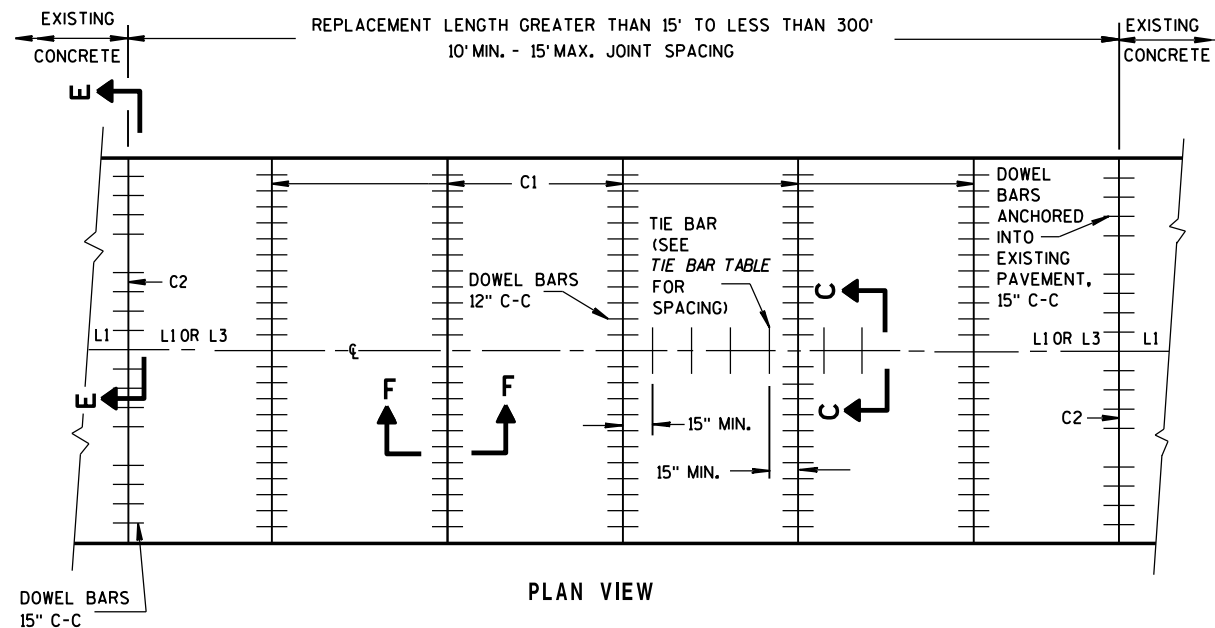
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

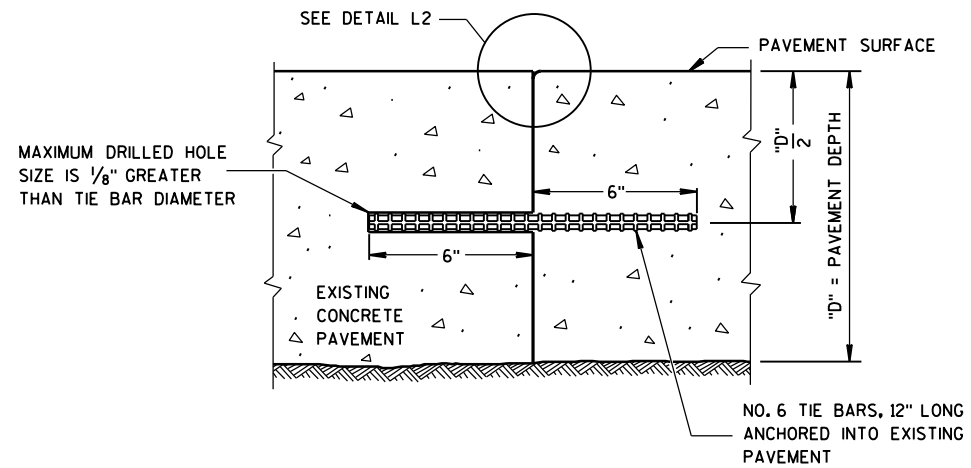
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

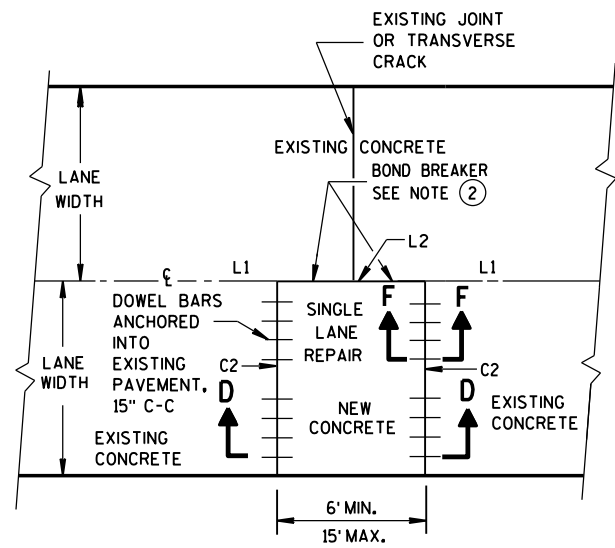
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

**GENERAL NOTES**

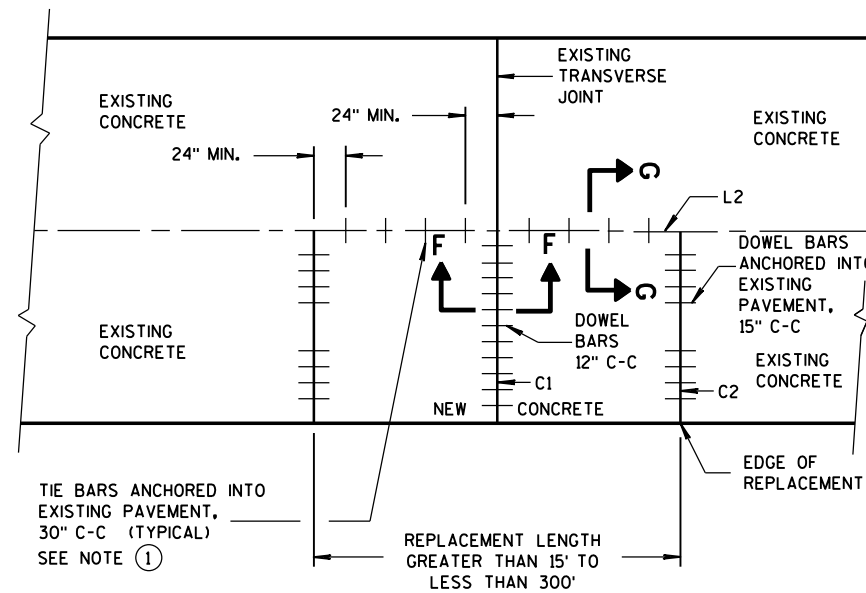
- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



**SECTION G-G  
TIE BARS ANCHORED  
INTO EXISTING PAVEMENT**



**PLAN VIEW  
SINGLE LANE  
CONCRETE PAVEMENT REPAIR**



**PLAN VIEW  
SINGLE LANE  
CONCRETE PAVEMENT REPLACEMENT**

<b>CONCRETE PAVEMENT REPAIR AND REPLACEMENT</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-2013 DATE	/S/ Deb Bischoff PAVEMENT POLICY & DESIGN ENGINEER
FHWA	

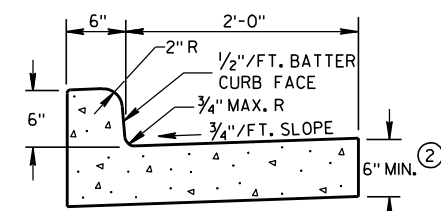
6

6

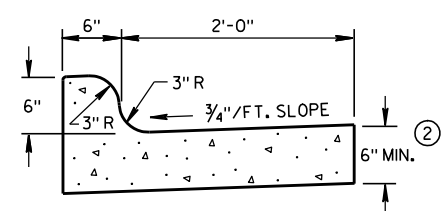
S.D.D. 13 C 9-11c

S.D.D. 13 C 9-11c

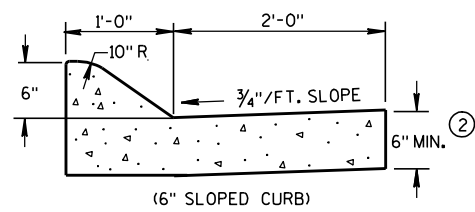
# 8D1: Concrete Curb, Concrete Curb & Gutter and Ties



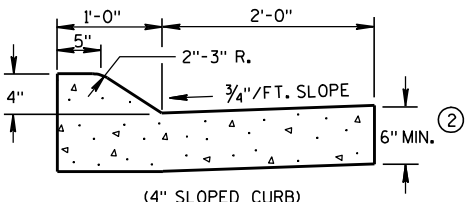
TYPES A & D ①



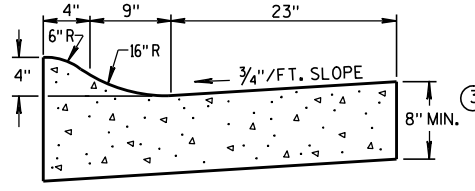
TYPES K & L ①



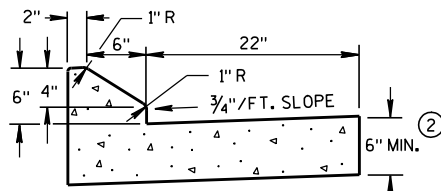
(6" SLOPED CURB) ②



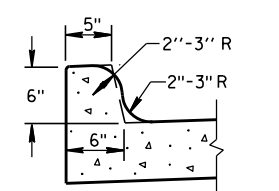
(4" SLOPED CURB) ②



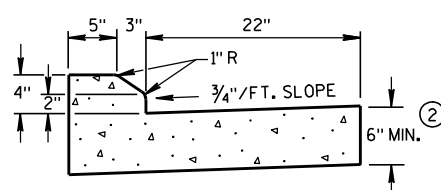
4" SLOPED CURB TYPES R & T ① ④



6" SLOPED CURB TYPES G & J ①

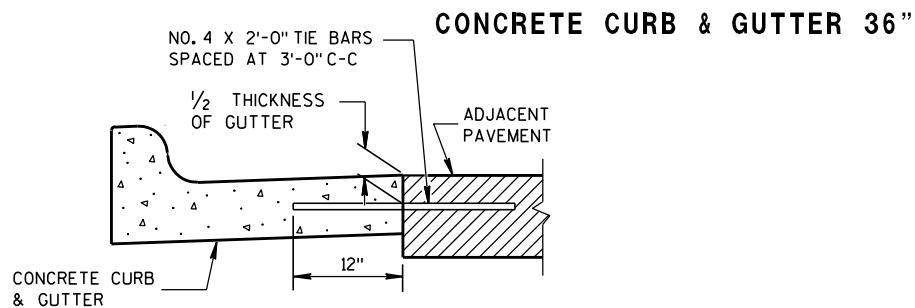


OPTIONAL CURB SHAPE FOR TYPES K & L ①

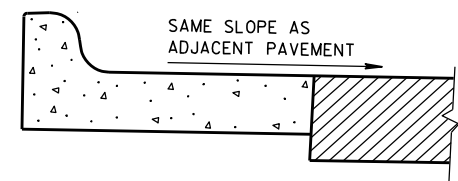


4" SLOPED CURB TYPES G & J ①

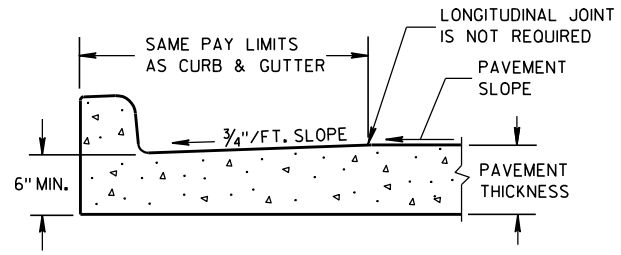
CONCRETE CURB & GUTTER 30"



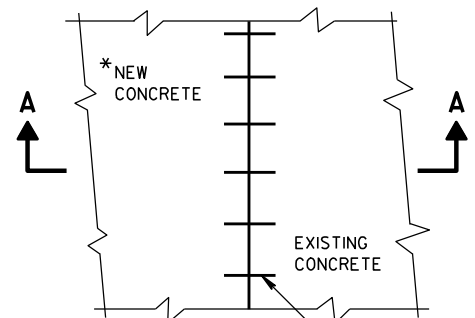
TYPICAL TIE BAR LOCATION ①



REVERSE SLOPE GUTTER (TYPICAL FOR ALL CURB & GUTTER TYPES) ⑤



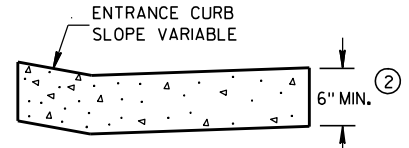
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



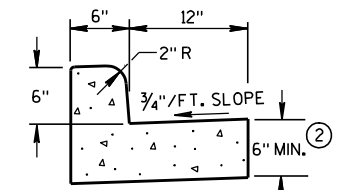
PLAN VIEW

\* NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

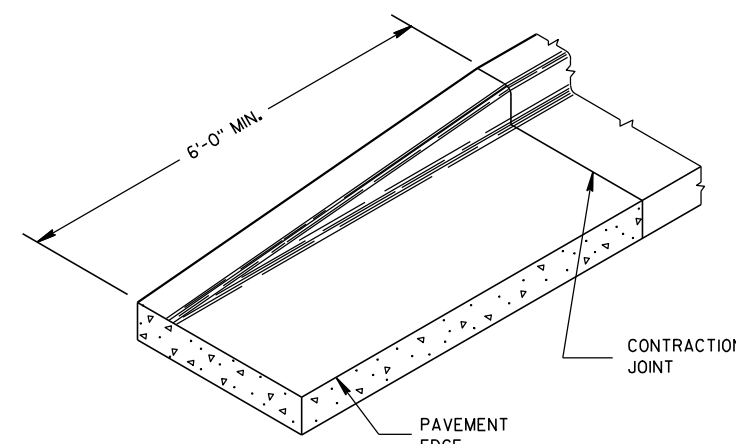
NO. 6 TIE BARS SPACED 2'-6" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT.



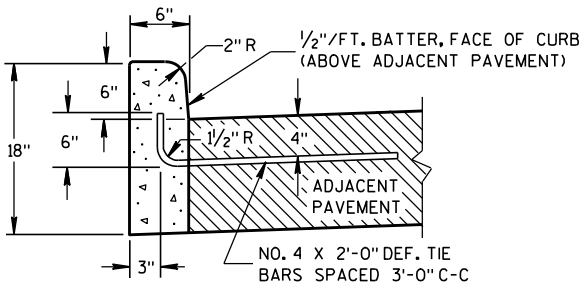
DRIVEWAY ENTRANCE CURB (WHEN DIRECTED BY THE ENGINEER) ②



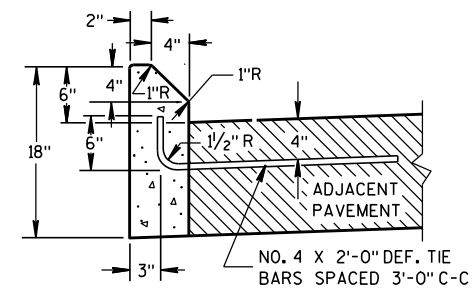
TYPES A & D CONCRETE CURB & GUTTER 18" ②



END SECTION CURB & GUTTER



TYPES A & D ①



TYPES G & J ①

CONCRETE CURB

## GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.
- INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.
- WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.
- UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.
- TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
  - THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
  - THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
  - THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
  - WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

6

6

S.D.D. 8 D 1-17

S.D.D. 8 D 1-17

<b>CONCRETE CURB, CONCRETE CURB &amp; GUTTER AND TIES</b>	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 9/4/08 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

## Hardy, Craig W - DOT

---

**From:** Schultz, Adam [adam.schultz@graef-usa.com]  
**Sent:** Friday, January 24, 2014 10:59 AM  
**To:** Callan, Benjamin S - DNR  
**Cc:** Lambert, Jamie D - DNR; Yanke, Brooke B - DNR; Paulos, Mike; Sisel, Jayme; Rogahn, Doug; Ron Pritzlaff (rjp1ro@yahoo.com)  
**Subject:** RE: Oak Creek: S. Howell Ave Water Main Relay and Hydrant Alterations

Thank you Ben. Based on groundwater mapping, we do not anticipate any trench dewatering at this time. Vehicle traffic will be contained to the roadway and/or terrace area as well so I do not anticipate any wetland/waterway disturbance.

We will include language in the spec. for the contractor to coordinate with the DNR should these situations arise.

Have a Great Weekend,

**Adam Schultz**  
Design Engineer



125 S. 84th Street, Suite 401  
Milwaukee, WI 53214

414 / 259 1500 office  
414 / 266 9281 direct  
414 / 349 0700 mobile  
414 / 259 0037 fax

[adam.schultz@graef-usa.com](mailto:adam.schultz@graef-usa.com)  
<http://www.linkedin.com/pub/adam-schultz/8/266/48b>

[www.graef-usa.com](http://www.graef-usa.com)

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**From:** Callan, Benjamin S - DNR [mailto:Benjamin.Callan@wisconsin.gov]  
**Sent:** Friday, January 24, 2014 10:51 AM  
**To:** Schultz, Adam  
**Cc:** Lambert, Jamie D - DNR; Yanke, Brooke B - DNR  
**Subject:** Oak Creek: S. Howell Ave Water Main Relay and Hydrant Alterations

Hi Adam –

The attached project will not require a waterway permit under Chapter 30 (Wis. Stats.), or a wetland permit under Chapter 281 (Wis. Stats.). However, please note that this assumes there will be no disturbance in the mapped waterways and wetlands (e.g. from vehicle access, etc.).

It's not clear if your proposal will involve any pit/trench dewatering. Just in case, I've cc'd Storm Water Specialists Jamie Lambert and Brooke Yanke.

Please contact me if your plans change, or if you have additional questions.

Thanks, Ben

**Benjamin Callan** (OB/7)

Wisconsin Department of Natural Resources  
Bureau of Energy, Transportation, and Environmental Analysis (formerly *Office of Energy*)  
101 S. Webster Street  
PO Box 7921  
Madison, WI 53707-7921

(☎) phone: (608) 266-3524

(☎) fax: (608) 267-5231

(✉) e-mail: [benjamin.callan@wisconsin.gov](mailto:benjamin.callan@wisconsin.gov)

(🌐) DNR Website: <http://dnr.wi.gov>

(🌐) OE website: <http://dnr.wi.gov/topic/Sectors/Energy.html>

(🌐) Utility permits: <http://dnr.wi.gov/topic/Sectors/UtilityPermitting.html>



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**From:** Schultz, Adam [<mailto:adam.schultz@graef-usa.com>]  
**Sent:** Thursday, January 23, 2014 4:48 PM  
**To:** Callan, Benjamin S - DNR  
**Cc:** 'Ron Pritzlaff'; Paulos, Mike  
**Subject:** S. Howell Ave Water Main Relay and Hydrant Alterations

Ben-

Please find attached our submittal for your use in making an environmental jurisdictional review for our project. We have been directed by the DOT to submit to you for all projects taking place within DOT right-of-way. Please do not hesitate to contact me with any questions.

Thanks!

**Adam Schultz**  
Design Engineer



125 S. 84th Street, Suite 401  
Milwaukee, WI 53214

414 / 259 1500 office  
414 / 266 9281 direct  
414 / 349 0700 mobile  
414 / 259 0037 fax

[adam.schultz@graef-usa.com](mailto:adam.schultz@graef-usa.com)

<http://www.linkedin.com/pub/adam-schultz/8/266/48b>

[www.graef-usa.com](http://www.graef-usa.com)

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**ISSUE DATE:** 1/23/2014

**PROJECT:**

S. HOWELL AVE WATER MAIN RELAY  
OAK CREEK CITY, MILWAUKEE COUNTY, WI  
Determination No. 201400166 [Owner Project No. 2013-0350.03]

**PROJECT OWNER:**

MICHAEL J SULLIVAN, UTILITY ENGINEER  
CITY OF OAK CREEK  
170 W DREXEL AVE  
OAK CREEK, WI 53154

**REQUESTER:**

ADAM SCHULTZ, DESIGN ENGINEER  
GRAEF  
125 S 84TH STREET SUITE 401  
MILWAUKEE, WI 53214

**ADDITIONAL CONTACT:**

**NOTE:** The Requester must provide a copy of this Project Determination and enclosures to the Project Owner and Additional Contact.

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.

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.

Enclosures

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.

ISSUED BY:

Equal Rights Division  
Labor Standards Bureau  
Construction Wage Standards Section  
P.O. Box 8928, Madison, WI 53708-8928  
(608)266-6861

Web Site: <http://dwd.wisconsin.gov/er/>

## PREVAILING WAGE RATE DETERMINATION

Issued by the State of Wisconsin  
Department of Workforce Development  
Pursuant to s. 66.0903, Wis. Stats.  
Issued On: 1/23/2014

**DETERMINATION NUMBER:** 201400166

**EXPIRATION DATE:** Prime Contracts MUST Be Awarded or Negotiated On Or Before 12/31/2014. If NOT, You MUST Reapply.

**PROJECT NAME:** S. HOWELL AVE WATER MAIN RELAY  
PROJECT NO: 2013-0350.03

**PROJECT LOCATION:** OAK CREEK CITY, MILWAUKEE COUNTY, WI

**CONTRACTING AGENCY:** CITY OF OAK CREEK

<b>CLASSIFICATION:</b>	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: <a href="http://dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm">dwd.wisconsin.gov/er/prevailing_wage_rate/Dictionary/dictionary_main.htm</a> .
<b>OVERTIME:</b>	<p>Time and one-half must be paid for all hours worked:</p> <ul style="list-style-type: none"><li>- over 10 hours per day on prevailing wage projects</li><li>- over 40 hours per calendar week</li><li>- Saturday and Sunday</li><li>- 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;</li><li>- The day before if January 1, July 4 or December 25 falls on a Saturday;</li><li>- The day following if January 1, July 4 or December 25 falls on a Sunday.</li></ul> <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>
<b>FUTURE INCREASE:</b>	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.
<b>PREMIUM PAY:</b>	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.
<b>DOT PREMIUM:</b>	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.
<b>APPRENTICES:</b>	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.
<b>SUBJOURNEY:</b>	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.

<b>BUILDING OR HEAVY CONSTRUCTION</b>
---------------------------------------

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.

<b>SKILLED TRADES</b>
-----------------------

<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u>	<u>HOURLY FRINGE BENEFITS</u>	<u>TOTAL</u>
		\$	\$	\$
101	Acoustic Ceiling Tile Installer Future Increase(s): Add \$1.25/hr on 6/2/2014.	33.68	19.81	53.49
102	Boilermaker	31.91	26.47	58.38
103	Bricklayer, Blocklayer or Stonemason 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.	35.37	18.00	53.37
104	Cabinet Installer	30.48	15.90	46.38
105	Carpenter Future Increase(s): Add \$1.25/hr on 6/2/2014. 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.	33.68	19.81	53.49
106	Carpet Layer or Soft Floor Coverer	32.93	19.71	52.64
107	Cement Finisher	32.07	17.53	49.60
108	Drywall Taper or Finisher	29.87	19.99	49.86
109	Electrician 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.	32.82	22.61	55.43
110	Elevator Constructor	43.21	26.06	69.27
111	Fence Erector	16.00	3.33	19.33
112	Fire Sprinkler Fitter	38.50	19.65	58.15
113	Glazier	34.19	18.25	52.44
114	Heat or Frost Insulator	33.68	24.31	57.99
115	Insulator (Batt or Blown)	15.00	9.50	24.50

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
116	Ironworker Future Increase(s): Add \$.80/hr on 6/1/2014. 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.	30.52	23.47	53.99
117	Lather	32.93	19.81	52.74
118	Line Constructor (Electrical)	38.25	17.63	55.88
119	Marble Finisher	26.89	19.18	46.07
120	Marble Mason	35.80	16.87	52.67
121	Metal Building Erector	22.05	8.08	30.13
122	Millwright	28.53	24.98	53.51
123	Overhead Door Installer	20.95	4.94	25.89
124	Painter	29.52	18.84	48.36
125	Pavement Marking Operator	30.00	0.00	30.00
126	Piledriver Premium Increase(s): Add \$.65/hr for Piledriver Loftsman; Add \$.75/hr for Sheet Piling Loftsman. DOT PREMIUM: Pay two times the hourly basic rate on Sunday, New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	29.56	25.71	55.27
127	Pipeline Fuser or Welder (Gas or Utility)	31.82	19.74	51.56
129	Plasterer	31.56	18.18	49.74
130	Plumber	37.97	17.30	55.27
132	Refrigeration Mechanic	39.26	19.30	58.56
133	Roofer or Waterproofofer	29.40	17.05	46.45
134	Sheet Metal Worker	36.17	18.04	54.21
135	Steamfitter Future Increase(s): Add \$1.70/hr on 6/1/2014.	39.76	21.09	60.85
137	Teledata Technician or Installer Future Increase(s): Add \$.85/hr on 6/1/2014; Add \$.86/hr on 6/1/2015. 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.	24.89	17.15	42.04

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
138	Temperature Control Installer	17.39	4.18	21.57
139	Terrazzo Finisher	26.89	19.18	46.07
140	Terrazzo Mechanic	30.20	18.42	48.62
141	Tile Finisher	23.85	17.18	41.03
142	Tile Setter	29.45	16.30	45.75
143	Tuckpointer, Caulker or Cleaner	34.57	16.42	50.99
144	Underwater Diver (Except on Great Lakes)	34.48	15.90	50.38
146	Well Driller or Pump Installer	25.32	15.65	40.97
147	Siding Installer	25.92	18.04	43.96
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.16	14.34	43.50
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.86	45.46
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	28.74	17.27	46.01

**TRUCK DRIVERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
201	Single Axle or Two Axle	33.82	17.60	51.42
203	Three or More Axle	18.50	18.42	36.92
204	Articulated, Euclid, Dumptor, Off Road Material Hauler Future Increase(s): Add \$1.60/hr on 5/30/2016.	33.02	18.10	51.12
205	Pavement Marking Vehicle	18.50	18.42	36.92
207	Truck Mechanic	18.50	18.42	36.92

**LABORERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
301	General Laborer Premium Increase(s): Add \$.11 for mortar mixer, fork lift operator, air and electric equipment and power buggy operators; Add \$.22 for jackhammer operator, certified welder, gunite machineman.	28.31	16.62	44.93
302	Asbestos Abatement Worker	19.00	0.00	19.00
303	Landscaper	14.28	8.24	22.52
310	Gas or Utility Pipeline Laborer (Other Than Sewer and Water)	19.78	17.04	36.82
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased) Premium Increase(s): DOT PREMIUMS: Pay two times the hourly basic rate on New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day & Christmas Day.	17.71	16.01	33.72
314	Railroad Track Laborer	13.50	4.06	17.56
315	Final Construction Clean-Up Worker	28.31	16.62	44.93

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

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
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 Mfgr's Rated Capacity of 130,000 Lbs. or Over; Backhoe (Track Type) Having a Mfgr'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 \$1.00/hour 6/2/2014; Add \$1.50/hour 6/1/2015; Add \$1.60/hour 5/30/2016.	34.07	18.10	52.17

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
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 \$1.00/hour 6/2/2014; Add \$1.50/hour 6/1/2015; Add \$1.60/hour 5/30/2016.	34.07	18.10	52.17
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.	30.82	18.96	49.78
504	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	18.98	57.78
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.	38.80	18.98	57.78
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.	34.50	18.98	53.48
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.	34.50	18.98	53.48

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

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
508	<p>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 &amp;/or Jib Lengths Measuring 176 Ft or Over; Master Mechanic.</p> <p>Future Increase(s): Add \$1.25/hr on 6/1/2014; Add \$1.55/hr on 6/1/2015.</p> <p>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.</p>	40.36	19.15	59.51
509	<p>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. &amp; Under; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &amp;/or Jib Lengths Measuring 175 Ft or Under; Pile Driver; Versi Lifts, Tri-Lifts &amp; Gantrys (20,000 Lbs. &amp; Over).</p> <p>Future Increase(s): Add \$1.25/hr on 6/1/2014; Add \$1.55/hr on 6/1/2015.</p> <p>Premium Increase(s): Crane Operators with CCO certification add \$.50/hr.</p>	39.86	19.15	59.01
510	<p>Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. &amp; 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 &amp; Gutter Machine; Concrete Spreader &amp; Distributor; Dredge (NOT Performing Work on the Great Lakes); Forklift (Machinery Moving or Steel Erection, 25 Ft &amp; Over); Gradall (Cruz-Aire Type); Hydro-Blaster (10,000 PSI or Over); Milling Machine; Skid Rig; Traveling Crane (Bridge Type).</p> <p>Future Increase(s): Add \$1.25/hr on 6/1/2014; Add \$1.55/hr on 6/1/2015.</p> <p>Premium Increase(s): Crane Operators with CCO certification add \$.50/hr.</p>	39.36	19.15	58.51

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
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). Future Increase(s): Add \$1.25/hr on 6/1/2014; Add \$1.55/hr on 6/1/2015.	38.67	19.15	57.82
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. Future Increase(s): Add \$1.25/hr on 6/1/2014; Add \$1.55/hr on 6/1/2015.	31.64	19.15	50.79
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. Future Increase(s): Add \$1.25/hr on 6/1/2014; Add \$1.55/hr on 6/1/2015.	31.64	19.15	50.79
514	Gas or Utility Pipeline, Except Sewer & Water (Primary Equipment).	36.34	21.14	57.48
515	Gas or Utility Pipeline, Except Sewer & Water (Secondary Equipment). Future Increase(s): Add \$1.60/hr on 06/01/2014; Add \$1.65/hr on 06/01/2015	33.26	18.55	51.81
516	Fiber Optic Cable Equipment Future Increase(s): Add \$1.75/hr on 02/01/2014.	27.89	17.20	45.09



<b>SEWER, WATER OR TUNNEL CONSTRUCTION</b>
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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).

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**SKILLED TRADES**

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<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
		\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason 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.	35.10	18.40	53.50
105	Carpenter Future Increase(s): Add \$1.25/hr on 6/2/2014. 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.	33.68	19.81	53.49
107	Cement Finisher Future Increase(s): Add \$1.87 on 6/1/14; Add \$1.87 on 6/1/15; 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.	33.51	16.13	49.64
109	Electrician 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.	32.82	22.61	55.43
111	Fence Erector	16.00	3.33	19.33
116	Ironworker	31.25	19.46	50.71
118	Line Constructor (Electrical)	38.25	17.63	55.88
125	Pavement Marking Operator	16.00	7.35	23.35
126	Piledriver	30.98	15.90	46.88
130	Plumber	33.75	14.07	47.82
135	Steamfitter	37.76	19.99	57.75
137	Teledata Technician or Installer	24.75	16.08	40.83

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>				
<b><u>CODE</u></b>	<b><u>TRADE OR OCCUPATION</u></b>	<b><u>HOURLY BASIC RATE OF PAY</u></b>	<b><u>HOURLY FRINGE BENEFITS</u></b>	<b><u>TOTAL</u></b>
		<b>\$</b>	<b>\$</b>	<b>\$</b>
143	Tuckpointer, Caulker or Cleaner	34.57	16.42	50.99
144	Underwater Diver (Except on Great Lakes)	38.80	18.98	57.78
146	Well Driller or Pump Installer	25.32	15.65	40.97
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	29.16	14.34	43.50
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.86	45.46
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.04	11.74	32.78

**TRUCK DRIVERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>				
<b><u>CODE</u></b>	<b><u>TRADE OR OCCUPATION</u></b>	<b><u>HOURLY BASIC RATE OF PAY</u></b>	<b><u>HOURLY FRINGE BENEFITS</u></b>	<b><u>TOTAL</u></b>
		<b>\$</b>	<b>\$</b>	<b>\$</b>
201	Single Axle or Two Axle	30.00	15.00	45.00
203	Three or More Axle	16.00	7.35	23.35
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	32.89	18.96	51.85
205	Pavement Marking Vehicle	16.00	7.35	23.35
207	Truck Mechanic	16.00	7.35	23.35

**LABORERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>				
<b><u>CODE</u></b>	<b><u>TRADE OR OCCUPATION</u></b>	<b><u>HOURLY BASIC RATE OF PAY</u></b>	<b><u>HOURLY FRINGE BENEFITS</u></b>	<b><u>TOTAL</u></b>
		<b>\$</b>	<b>\$</b>	<b>\$</b>
301	General Laborer Premium Increase(s): Add \$1.92 for bottomman; Add \$2.03 for concrete manhole builder, bracer, jointman, or pipelayer; Add \$4.83 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.	28.84	17.12	45.96
303	Landscaper	25.28	11.46	36.74
304	Flagperson or Traffic Control Person	17.41	10.10	27.51
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.69	15.50	33.19
314	Railroad Track Laborer	13.50	4.06	17.56

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

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
521	<p>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 &amp;/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.</p> <p>Future Increase(s): Add \$1.05/hr on 6/2/2014; Add \$1.55/hr on 6/1/2015.</p> <p>Premium Increase(s): Add \$.25/hr for operating tower crane.</p>	36.84	19.45	56.29
522	<p>Backhoe (Track Type) Having a Mfgr.'s Rated Capacity of Under 130,000 Lbs., Backhoe (Mini, 15,000 Lbs. &amp; 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 &amp; Distributor; Crane, Tower Crane, Portable Tower, Pedestal Tower or Derrick, With Boom, Leads &amp;/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. &amp; Under; Dredge (NOT Performing Work on the Great Lakes); Milling Machine; Skid Rig; Telehandler; Traveling Crane (Bridge Type).</p> <p>Future Increase(s): Add \$1.05/hr on 6/2/2014; Add \$1.55/hr on 6/1/2015.</p> <p>Premium Increase(s): Add \$.25/hr for operating tower crane.</p>	36.06	19.45	55.51
523	<p>Air Track, Rotary or Percussion Drilling Machine &amp;/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 &amp; Under), Concrete Conveyor (Rotec or Bidwell Type); Concrete Slipform Placer Curb &amp; 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).</p> <p>Future Increase(s): Add \$1.05/hr on 6/2/2014; Add \$1.55/hr on 6/1/2015.</p> <p>Premium Increase(s): Add \$.25/hr for operating tower crane.</p>	35.11	19.45	54.56

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
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. Future Increase(s): Add \$1.05/hr on 6/2/2014; Add \$1.55/hr on 6/1/2015. Premium Increase(s): Add \$.25/hr for operating tower crane.	35.11	19.45	54.56
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.	30.19	20.94	51.13
526	Boiler (Temporary Heat); Forklift; Greaser; Oiler.	30.44	19.10	49.54
527	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	18.98	57.78
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.	38.80	18.98	57.78
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.	34.50	18.98	53.48
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.	34.50	18.98	53.48

<b>LOCAL STREET OR MISCELLANEOUS PAVING CONSTRUCTION</b>
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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).

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**SKILLED TRADES**

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Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
103	Bricklayer, Blocklayer or Stonemason	35.80	16.87	52.67
105	Carpenter	32.93	19.99	52.92
107	Cement Finisher	30.09	17.53	47.62
109	Electrician	31.27	22.81	54.08
111	Fence Erector	16.00	3.33	19.33
116	Ironworker	30.51	22.97	53.48
118	Line Constructor (Electrical)	38.25	17.63	55.88
124	Painter	29.52	18.84	48.36
125	Pavement Marking Operator	30.00	0.00	30.00
126	Piledriver	29.06	25.46	54.52
133	Rofer or Waterproofer	29.40	15.55	44.95
137	Teledata Technician or Installer	24.75	16.08	40.83
143	Tuckpointer, Caulker or Cleaner	34.57	16.42	50.99
144	Underwater Diver (Except on Great Lakes)	38.80	18.98	57.78
150	Heavy Equipment Operator - ELECTRICAL LINE CONSTRUCTION ONLY	34.43	15.24	49.67
151	Light Equipment Operator -ELECTRICAL LINE CONSTRUCTION ONLY	30.60	14.86	45.46
152	Heavy Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	26.78	13.63	40.41
153	Light Truck Driver - ELECTRICAL LINE CONSTRUCTION ONLY	24.86	12.97	37.83
154	Groundman - ELECTRICAL LINE CONSTRUCTION ONLY	21.04	11.74	32.78

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**TRUCK DRIVERS**

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Fringe Benefits Must Be Paid On <u>All</u> Hours Worked		HOURLY BASIC RATE OF PAY	HOURLY FRINGE BENEFITS	TOTAL
<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	\$	\$	\$
201	Single Axle or Two Axle	30.00	15.00	45.00

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
203	Three or More Axle	18.00	0.00	18.00
204	Articulated, Euclid, Dumptor, Off Road Material Hauler	32.89	18.96	51.85
205	Pavement Marking Vehicle	18.00	0.00	18.00
206	Shadow or Pilot Vehicle	30.00	15.00	45.00
207	Truck Mechanic	18.00	0.00	18.00

**LABORERS**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
301	General Laborer	23.07	18.07	41.14
303	Landscaper Future Increase(s): Add \$1.60/hr on 6/1/14. 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).	29.04	14.63	43.67
304	Flagperson or Traffic Control Person	17.41	10.10	27.51
311	Fiber Optic Laborer (Outside, Other Than Concrete Encased)	17.69	15.50	33.19
314	Railroad Track Laborer	13.50	4.06	17.56

**HEAVY EQUIPMENT OPERATORS  
CONCRETE PAVEMENT OR BRIDGE WORK**

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
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 \$1.75/hr on 6/1/2014; Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium 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: <a href="http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm">http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm</a> .	36.72	20.40	57.12
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 \$1.75/hr on 6/1/2014; Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium 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: <a href="http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm">http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm</a> .	36.22	20.40	56.62

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>		<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
543	<p>Air Track, Rotary or Percussion Drilling Machine &amp;/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. &amp; 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 &amp; Gutter Machine; Concrete Spreader &amp; 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 &amp; A-Frames.</p> <p>Future Increase(s):            Add \$1.75/hr on 6/1/2014; Add \$1.25/hr on 6/1/2015;            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 &amp; 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: <a href="http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm">http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm</a>.</p>	35.72	20.40	56.12
544	<p>Backfiller; Belting, Burlap, Texturing Machine; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed &amp; Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Pile Driver &amp; 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>	33.96	19.79	53.75
545	<p>Air Compressor (&amp;/or 400 CFM or Over); Air, Electric or Hydraulic Jacking System; Automatic Belt Conveyor &amp; Surge Bin; Boiler (Temporary Heat); Concrete Proportioning Plant; Crusher, Screening or Wash Plant; Generator (&amp;/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.</p>	30.32	18.46	48.78
546	Fiber Optic Cable Equipment.	26.69	16.65	43.34

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>				
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
		<b>\$</b>	<b>\$</b>	<b>\$</b>
547	Work Performed on the Great Lakes Including Diver; Wet Tender or Hydraulic Dredge Engineer.	38.80	18.98	57.78
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.	38.80	18.98	57.78
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.	34.50	18.98	53.48
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.	34.50	18.98	53.48

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

<b>Fringe Benefits Must Be Paid On <u>All</u> Hours Worked</b>				
<b>CODE</b>	<b>TRADE OR OCCUPATION</b>	<b>HOURLY BASIC RATE OF PAY</b>	<b>HOURLY FRINGE BENEFITS</b>	<b>TOTAL</b>
		<b>\$</b>	<b>\$</b>	<b>\$</b>
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.	39.16	19.10	58.26
552	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 \$1.75/hr on 6/1/2014; Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium 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: <a href="http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm">http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm</a> .	36.22	20.40	56.62

**Fringe Benefits Must Be Paid On All Hours Worked**

<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u> \$	<u>HOURLY FRINGE BENEFITS</u> \$	<u>TOTAL</u> \$
553	<p>Air, Track, Rotary or Percussion Drilling Machine &amp;/or Hammers, Blaster; Asphalt Heater, Planer &amp; 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. &amp; Under); Bituminous (Asphalt) Plant &amp; 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 &amp; 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 &amp; A-Frames.</p> <p>Future Increase(s):                      Add \$1.75/hr on 6/1/2014; Add \$1.25/hr on 6/1/2015;                      Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p>	35.17	20.05	55.22
554	<p>Backfiller; Broom or Sweeper; Compactor (Self-Propelled or Tractor Mounted, Towed &amp; Light Equipment); Concrete Finishing Machine (Road Type); Environmental Burner; Farm or Industrial Type Tractor; Fireman (Asphalt Plant, Pile Driver &amp; 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.</p> <p>Future Increase(s):                      Add \$1.75/hr on 6/1/2014; Add \$1.25/hr on 6/1/2015;                      Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017.</p>	35.17	20.05	55.22

**Fringe Benefits Must Be Paid On All Hours Worked**

<u>CODE</u>	<u>TRADE OR OCCUPATION</u>	<u>HOURLY BASIC RATE OF PAY</u> \$	<u>HOURLY FRINGE BENEFITS</u> \$	<u>TOTAL</u> \$
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 \$1.75/hr on 6/1/2014; Add \$1.25/hr on 6/1/2015; Add \$1.30/hr on 6/1/2016; Add \$1.25/hr on 6/1/2017. Premium 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: <a href="http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm">http://roadwaystandards.dot.wi.gov/hcci/labor-wages-eeo/index.shtm</a> .	35.17	20.40	55.57
556	Fiber Optic Cable Equipment.	26.69	16.65	43.34

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

Department of Workforce Development  
 Equal Rights Division  
 P.O. Box 8928  
 Madison, WI 53708-8928  
 Telephone: (608) 266-6860  
 Fax: (608) 267-4592  
 TTY: (608) 264-8752



Scott Walker, Governor  
 Reginald J. Newson, Secretary  
 Joe Handrick, Division Administrator

The documents following the Prevailing Wage Rate Determination consist of 18 pages of various forms/documents that will be used throughout the completion of the project. 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
16056	Post the White Sheet	Contracting agency	1
16770	Substance Abuse Prevention on Public Works and Publicly Funded Projects, §103.503, Wis. Stats.	All contractors working on public works and publicly funded private construction projects	1
10908	Consolidated List of Debarred Contractors	Any party contracting someone to complete work on a prevailing wage project	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
	Prevailing Wage - Public Entity Project Owners	Explanation of project owner responsibilities	2
	Prevailing Wage – Contractors	Explanation of contractor responsibilities	2
	Summary of Prevailing Wage Law Changes Effective July 1, 2011	Information for public entity or any other interested party	4

09/01/12

## **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.

## Disclaimer

**Employers performing work on public works and publicly funded private construction projects in Wisconsin are required to have a written substance abuse testing program in place. The provisions of this requirement are contained in Sec. 103.503, Wis. Stats. The Department of Workforce Development is neither responsible for enforcement of this law nor authorized to answer questions concerning its provisions. For legal advice on complying with Sec. 103.503, Wis. Stats., you may wish to consult with a private attorney.**

### **103.503 Substance abuse prevention on public works and publicly funded projects. (1) DEFINITIONS.** In this section:

(a) "Accident" means an incident caused, contributed to, or otherwise involving an employee that resulted or could have resulted in death, personal injury, or property damage and that occurred while the employee was performing the work described in s. 66.0903 (4), 66.0904 (3), or 103.49 (2m) on a project.

(b) "Alcohol" has the meaning given in s. 340.01 (1q).

(c) "Contracting agency" means a local governmental unit, as defined in s. 66.0903 (1) (d), a state agency, as defined in s. 103.49 (1) (f), or an owner or developer under s. 66.0904 that has contracted for the performance of work on a project.

(d) "Drug" means any controlled substance, as defined in s. 961.01 (4), or controlled substance analog, as defined in s. 961.01 (4m), for which testing is required by an employer under its substance abuse prevention program under this section.

(e) "Employee" means a laborer, worker, mechanic, or truck driver who performs the work described in s. 66.0903 (4), 66.0904 (3), or 103.49 (2m) on a project.

(f) "Employer" means a contractor, subcontractor, or agent of a contractor or subcontractor that performs work on a project.

(g) "Project" mean a project of public works that is subject to s. 66.0903 or 103.49 or a publicly funded private construction project that is subject to s. 66.0904.

(2) **SUBSTANCE ABUSE PROHIBITED.** No employee may use, possess, attempt to possess, distribute, deliver, or be under the influence of a drug, or use or be under the influence of alcohol, while performing the work described in s. 66.0903 (4), 66.0904 (3), or 103.49 (2m) on a project. An employee is considered to be under the influence of alcohol for purposes of this subsection if he or she has an alcohol concentration that is equal to or greater than the amount specified in s. 885.235 (1g) (d).

(3) **SUBSTANCE ABUSE PREVENTION PROGRAMS REQUIRED.** (a) Before an employer may commence work on a project, the employer shall have in place a written program for the prevention of substance abuse among its employees. At a minimum, the program shall include all of the following:

1. A prohibition against the actions or conditions specified in sub. (2).

2. A requirement that employees performing the work described in s. 66.0903 (4), 66.0904 (3), or 103.49 (2m) on a project submit to random, reasonable suspicion, and post-accident drug and alcohol testing and to drug and alcohol testing before commencing work on a project, except that testing of an employee before commencing work on a project is not required if the employee has been participating in a random testing program during the 90 days preceding the date on which the employee commenced work on the project.

3. A procedure for notifying an employee who violates sub. (2), who tests positive for the presence of a drug in his or her system, or who refuses to submit to drug or alcohol testing as required under the program that the employee may not perform work on a project until he or she meets the conditions specified in sub. (4) (b) 1. and 2.

(b) Each employer shall be responsible for the cost of developing, implementing, and enforcing its substance abuse prevention program, including the cost of drug and alcohol testing of its employees under the program. The contracting agency is not responsible for that cost, for the cost of any medical review of a test result, or for any rehabilitation provided to an employee.

(4) **EMPLOYEE ACCESS TO PROJECT.** (a) No employer may permit an employee who violates sub. (2), who tests positive for the presence of a drug in his or her system, or who refuses to submit to drug or alcohol testing as required under the employer's substance abuse prevention program under sub. (3) to perform work on a project until he or she meets the conditions specified in par. (b) 1. and 2. An employer shall immediately remove an employee from work on a project if any of the following occurs:

1. The employee violates sub. (2), tests positive for the presence of a drug in his or her system, or refuses to submit to drug or alcohol testing as required under the employer's substance abuse prevention program.

2. An officer or employee of the contracting agency has a reasonable suspicion that the employee is in violation of sub. (2) and requests the employer to immediately remove the employee from work on the project.

(b) An employee who is barred or removed from work on a project under par. (a) may commence or return to work on the project upon his or her employer providing to the contracting agency documentation showing all of the following:

1. That the employee has tested negative for the presence of drugs in his or her system and is not under the influence of alcohol as described in sub. (2).

2. That the employee has been approved to commence or return to work on the project in accordance with the employer's substance abuse prevention program.

(c) Testing for the presence of drugs or alcohol in an employee's system and the handling of test specimens shall be conducted in accordance with guidelines for laboratory testing procedures and chain-of-custody procedures established by the substance abuse and mental health services administration of the federal department of health and human services.

(5) **LOCAL ORDINANCES; STRICT CONFORMITY REQUIRED.** A local governmental unit, as defined in s. 66.0903 (1) (d), may enact an ordinance regulating the conduct regulated under this section only if the ordinance strictly conforms to this section.

History: 2005 a. 181; 2009 a. 28.

Consolidated List of Debarred Contractors  
Prepared and Issued By  
State of Wisconsin  
Department of Workforce Development

September 1, 2012

This list has been prepared in accordance with the provisions of s. 66.0903(12), s. 66.0904(10) and s. 103.49(7), 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 or publicly funded private construction 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 Julie Eckenwalder, Equal Rights Division, P. O. Box 8928, Madison, WI 53708 or call (608) 266-3148. 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>
Abel, Mike	See, Abel Electric, Inc					
Abel Electric, Inc	3385 Belmar Rd Green Bay, WI 54313	9/1/12	8/31/2015	1	2011	None
Atkins, Scott	See, Freedom Insulation, Inc					
Boecker, Roger	See, R-Way Pumping, Inc					
Castlerock Commercial Construction, Inc	PO Box 11699 Milwaukee, WI 53211-0699	2/1/12	1/31/15	1, 2 and 4	2009 & 2010	None
Custom Heating & Air LLC	283 Tony Lane Green Bay, WI 54304	12/1/06	11/30/09	1, 2 and 4	2003 & 2004	None
Dem/Ex Group, Inc	805 S Adams St Manito, IL 61546	12/1/11	11/30/14	1 and 2	2010	None
Fisher, Ed &/or Fisher, Rhonda	See, Dem/Ex Group, Inc					
Freedom Insulation, Inc	117925 219 <sup>th</sup> Ave Chippewa Falls, WI 54729	9/1/11	8/31/14	1	2008- 2010	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>
JT Roofing, Inc	350 Tower Dr Saukville, WI 53080	6/1/11	5/31/15	1, 2 and 4	2007 & 2008	None
Jinkins, Richard	See, Castlerock Commercial Construction, Inc.					
Joseph Stoller Company	N8426 Hwy 42 Algoma, WI 54201	2/1/07	1/31/10	1 and 2	2004 & 2005	None
Keiver, David	See, Custom Heating & Air LLC					
Ofstie, Darin	See, Precision Excavating and Grading, LLC					
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
Stoller Enterprises LLC	N8426 Hwy 42 Algoma, WI 54201-9552	2/1/2007	1/31/10	1 and 2	2005 to 2006	None
Stoller, Joseph	See, Joseph Stoller Company					
Stoller, Patrick J	See, Stoller Enterprises LLC					
Thull, Gerald T	See, JT Roofing, Inc.					

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

## 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.
    - (2) Or 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

### Other Construction Business

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

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



## 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		

## 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
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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 (       )	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) 267-0310 / **DO NOT e-mail your request.**  
 Call (608) 266-6861 for assistance in completing this form.

Department of Workforce Development  
Equal Rights Division  
P.O. Box 8928  
Madison, WI 53708-8928  
Telephone: (608) 266-6860  
Fax: (608) 267-4592  
TTY: (608) 264-8752



Scott Walker, Governor  
Reginald J. Newson, Secretary  
John P. Conway, Division Administrator

## 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 each 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.

Effective July 1, 2011, 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](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:

[http://dwd.wisconsin.gov/er/prevaling\\_wage\\_rate/pw\\_online\\_determinations.htm](http://dwd.wisconsin.gov/er/prevaling_wage_rate/pw_online_determinations.htm)

- 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.”
- 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](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.

Department of Workforce Development  
Equal Rights Division  
P.O. Box 8928  
Madison, WI 53708-8928  
Telephone: (608) 266-6860  
Fax: (608) 267-4592  
TTY: (608) 264-8752



Scott Walker, Governor  
Reginald J. Newson, Secretary  
John P. Conway, Division Administrator

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## 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 each of these exclusions. The prevailing wage law that applies to local governmental units and their contractors is §66.0903, Wis. Stats. The prevailing wage law that applies to state agencies and their contractors is §103.49, 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.

Effective July 1, 2011, 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."
- 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](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.

## SUMMARY OF PREVAILING WAGE LAW CHANGES EFFECTIVE JULY 1, 2011

(This document updated 07/27/11)

For further updates on this topic, refer to the prevailing wage website at:  
[http://dwd.wisconsin.gov/er/prevailing\\_wage\\_rate/default.htm](http://dwd.wisconsin.gov/er/prevailing_wage_rate/default.htm)

The recently approved State budget bill (2011 Wisconsin Act 40) includes major changes to prevailing wage laws (§§66.0903, 66.0904, 103.49 & 103.50, Wis. Stats.) effective JULY 1, 2011. Significant changes are described below.

Topic	Who's affected?	Brief description of requirement under §66.0903 or §103.49
Thresholds	All public entities & Contractors	The \$25,000 threshold for public works projects has been changed to single-trade and multiple-trade project thresholds as noted below. The new thresholds apply to prevailing wage projects whose prime contract is awarded after June 30, 2011.
Non-applicability: Threshold for Single-Trade Projects	All public entities & Contractors	Any single-trade project of public works with an estimated cost of completion of less than \$48,000 does not require a prevailing wage rate determination. "Single-trade project of public works" means a project of public works in which a single trade accounts for 85 percent or more of the total labor cost of the project.
Non-applicability: Threshold for Multiple-Trade Projects	All public entities except cities, towns & villages as noted below & Contractors	Any multiple-trade project of public works with an estimated cost of completion of less than \$100,000 does not require a prevailing wage rate determination. "Multiple-trade project of public works" means a project of public works in which no single trade accounts for 85 percent or more of the total labor cost of the project.
Non-applicability: Threshold for Multiple-Trade Projects	Cities or villages with a population less than 2500 & Towns & Contractors	A multiple trade project of public works erected, constructed, repaired, remodeled, or demolished by a private contractor for a city or village with a population less than 2500, or a town with an estimated cost of completion of less than \$234,000 does not require a prevailing wage rate determination. "Multiple-trade project of public works" means a project of public works in which no single trade accounts for 85 percent or more of the total labor cost of the project.
Non-applicability: Minor service & maintenance work	Towns & Contractors	The following TOWN projects only do not require a prevailing wage rate determination: <ul style="list-style-type: none"> <li>• A project not funded under §86.31, Stats. (TRIP projects) that is limited to minor crack filling, chip or slurry sealing or other minor pavement patching, not including overlays.</li> <li>• The depositing of gravel on an existing gravel road applied solely to maintain the road;</li> <li>• Road shoulder maintenance;</li> <li>• Cleaning drainage or sewer ditches or structures;</li> <li>• Any other limited, minor work on public facilities or equipment that is routinely performed to prevent breakdown or deterioration.</li> </ul>
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.
Non-applicability: Certain nursing homes	All public entities	Prevailing wage law §66.0903, Stats., does not apply to a project of public works involving the erection, construction, repair, remodeling, or demolition of a nursing home in a county having a population of less than 50,000 when the project commences no later than July 1, 2012.
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 is discontinued effective July 1, 2011. However, contractors who worked on prevailing wage projects during the period January 1, 2010 through June 30, 2011, must comply with the repealed law for work completed on projects during that period of time.
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.
Complaints	Complainants	There are no longer investigation fees.
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.

Topic	Who's affected?	Brief description of requirement under §66.0903, §103.49 or §103.50
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> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> </ol>
Annual Prevailing Wage Survey	All public entities	When establishing yearly prevailing wage rates, DWD may not use data from any construction work that is performed by a local governmental unit or a state agency.
Prevailing Wage Rates	DOT & Contractors & Employees	For state highway prevailing wage rates, DWD is required to include wage rates for work performed on Sundays, holidays and shift differentials based on the time of day or night when work is performed.

The 2009-2011 State budget bill (2009 Wisconsin Act 28) created a new prevailing wage law (§66.0904, Wis. Stats.) for PUBLICLY FUNDED PRIVATE CONSTRUCTION PROJECTS effective January 1, 2010. The current 2011-2013 State budget bill (2011 Wisconsin Act 32) REPEALS this law. So the publicly funded private construction projects law only applies to projects that awarded the prime contract during the period January 1, 2010 through June 30, 2011.

**SINGLE & MULTIPLE TRADE PROJECT THRESHOLDS  
FOR §§66.0903 & 103.49, Wis. Stats.  
Effective July 1, 2011**

The \$25,000 threshold for public works projects has been changed to single-trade and multiple-trade project thresholds as described below. Projects of public works with total estimated costs of completion that equal or exceed these thresholds require a prevailing wage rate determination.

**SINGLE-TRADE THRESHOLD**

A “single-trade project of public works” means a project in which a single trade accounts for 85 percent or more of the total labor cost of the project.

The single trade threshold is \$48,000.

**MULTIPLE-TRADE THRESHOLDS**

A “multiple-trade project of public works” means a project in which no single trade accounts for 85 percent 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

**APPLYING THE NEW THRESHOLDS**

The department will apply the new single-trade & multiple-trade prevailing wage thresholds to projects of public works for which the prime contract is awarded on or after July 1, 2011.

**LEGEND AND ABBREVIATIONS**

▲	TRaverse POINT	○	TILE	---	EDGE OF BRUSH
□	POWER POLE	PVC P	PVC PIPE	---	EDGE OF WOODS
⊗	LIGHT POLE	○	CLEANOUT	---	HEDGE ROW
○	FLAG	R BAR	REBAR	---	RIP RAP
○	MANHOLE	BM.	BENCH MARK	---	CHAIN LINK FENCE
⊕	STORM INLET	○	TMH TELEPHONE MANHOLE	---	GUARD RAIL
⊗	WATER VALVE	⊗	BSV GAS SERVICE VALVE	---	BURIED CABLE TV
⊗	GAS VALVE	⊗	WSV WATER SERVICE VALVE	---	BURIED ELECTRIC LINE
⊗	FIRE HYDRANT	⊕	CATCH BASIN	---	OVERHEAD ELECTRIC LINE
⊗	MAIL BOX	⊗	CONIFEROUS TREE	---	BURIED GAS MAIN
⊗	TELEPHONE PEDESTAL	⊗	STUMP	---	BURIED FORCE MAIN
⊗	CONTROL BOX	⊗	BUSH	---	BURIED STREET LIGHTING
⊗	TRAFFIC SIGNAL	○	METAL POST	---	BURIED SANITARY SEWER
○	GUY	⊗	HANDHOLE	---	BURIED MIS SEWER
⊗	GUY WIRE	⊗	MISCELLANEOUS METER	---	BURIED STORM SEWER
⊗	MONUMENT	⊗	WOOD POST	---	BURIED TELEPHONE LINE
○	1" IRON PIPE	⊗	ABANDONED POLE	---	BURIED WATER MAIN
○	2" IRON PIPE	○	YL YARD LIGHT	---	EXISTING PROPERTY LINE
○	VENT PIPE	⊗	SIGN	---	EXISTING RIGHT OF WAY
⊗	PULL BOX	○	INLET PROTECTION		
A/C	AIR CONDITIONER	○	CULVERT PIPE DITCH CHECK		
⊗	DECIDUOUS TREE				

ASPH.	ASPHALT	I.E.	INVERT ELEVATION
BSM'T.	BASEMENT	I.P.	IRON PIPE
BIT.	BITUMINOUS	LAT.	LATERAL
CB.	CATCHBASIN	MH.	MANHOLE
C/L	CENTERLINE	M.J.	MECHANICAL JOINT
CIPP	CURED-IN-PLACE PIPE	PAV'T.	PAVEMENT
CONC.	CONCRETE	PROP.	PROPOSED
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE
CMPA	CORRUGATED METAL PIPE ARCH	PVC P.	PVC PIPE
C. & G.	CURB & GUTTER	R. BAR	REBAR
DRAIN T.	DRAIN TILE	REQ'D.	REQUIRED
D.I.P.	DUCTILE IRON PIPE	R.J.	RESTRAINED JOINT
DWY.	DRIVEWAY	SAN.	SANITARY
ECC.	ECCENTRIC	S.	SLOPE
EXIST.	EXISTING	STL.	STEEL
F.F.	FIRST FLOOR	STM.	STORM
FM.	FORCE MAIN	SUMP D.	SUMP DISCHARGE
G.V.	GAS VALVE	TYP.	TYPICAL
GR.	GRAVEL	VENT P.	VENT PIPE
G.W.	GUY WIRE	WM.	WATER MAIN
HYD.	HYDRANT	W.V.	WATER VALVE
INL.	INLET	W/	WITH

# CITY OF OAK CREEK

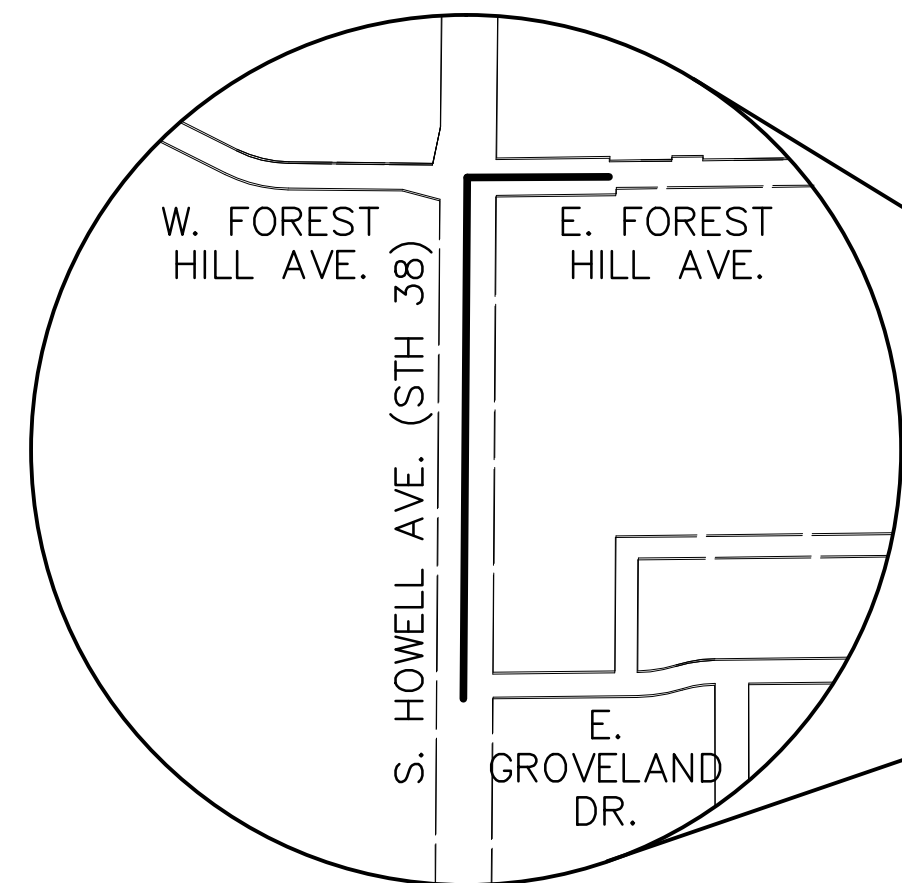
## WATER AND SEWER UTILITY S. HOWELL AVENUE (STH 38) WATER MAIN RELAY

PROJECT NUMBER  
**14105**

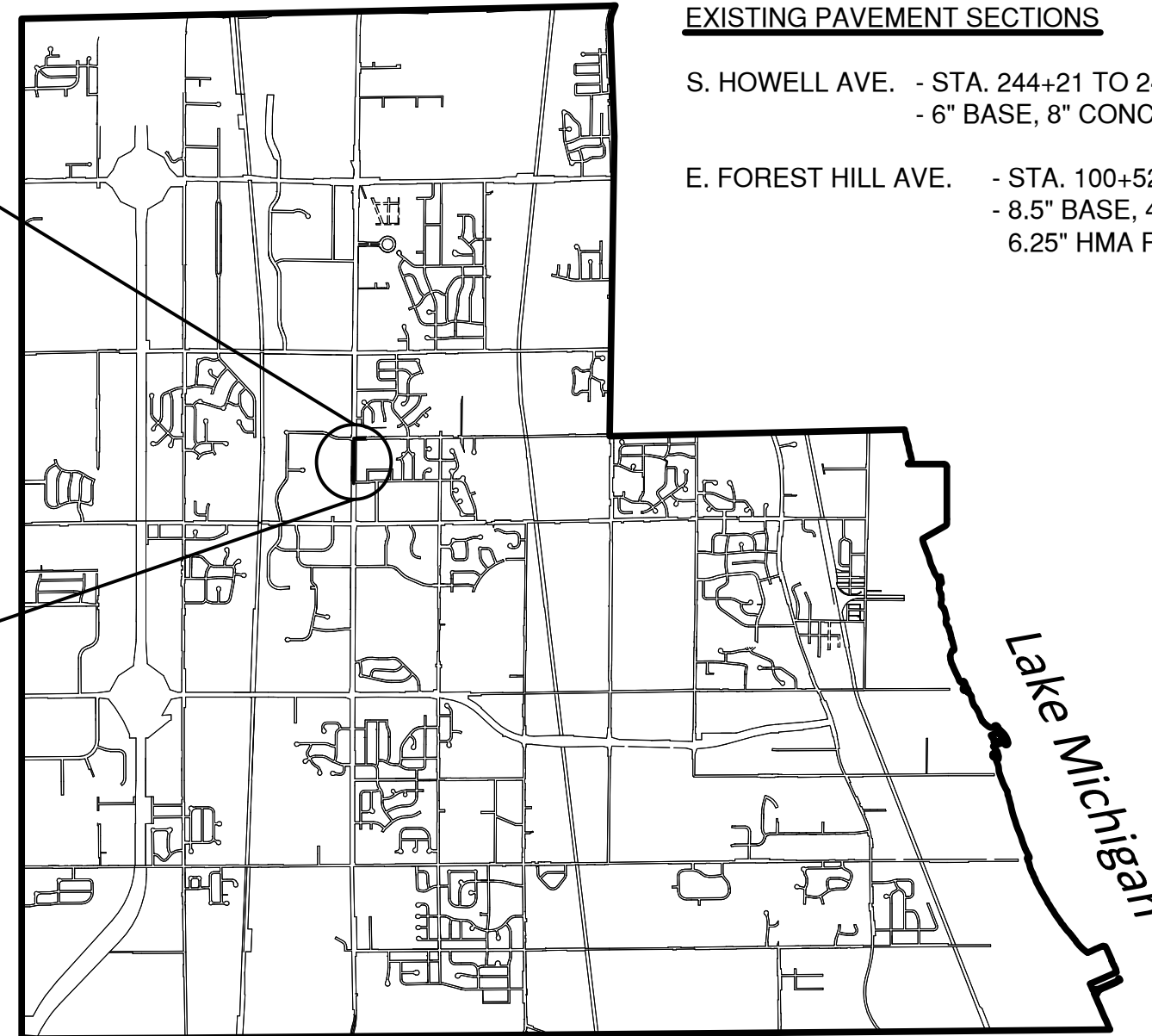
**FEBRUARY 13, 2014**



**WATER and SEWER UTILITY**  
A COMMITMENT TO WATER QUALITY

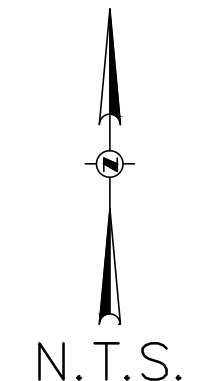


PROJECT LOCATION MAP  
S. HOWELL AVE. (STH 38)



CITY OF OAK CREEK  
VICINITY MAP

**EXISTING PAVEMENT SECTIONS**  
S. HOWELL AVE. - STA. 244+21 TO 247+49  
- 6" BASE, 8" CONCRETE, 4" HMA PAVEMENT  
E. FOREST HILL AVE. - STA. 100+52 TO 105+40  
- 8.5" BASE, 4" AGGREGATE OPEN GRADED,  
6.25" HMA PAVEMENT



**SHEET INDEX**

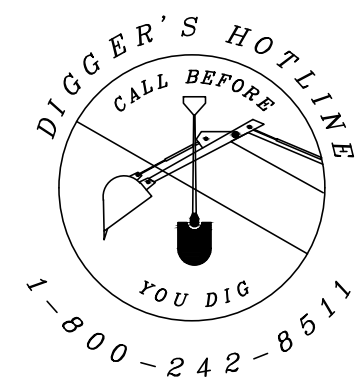
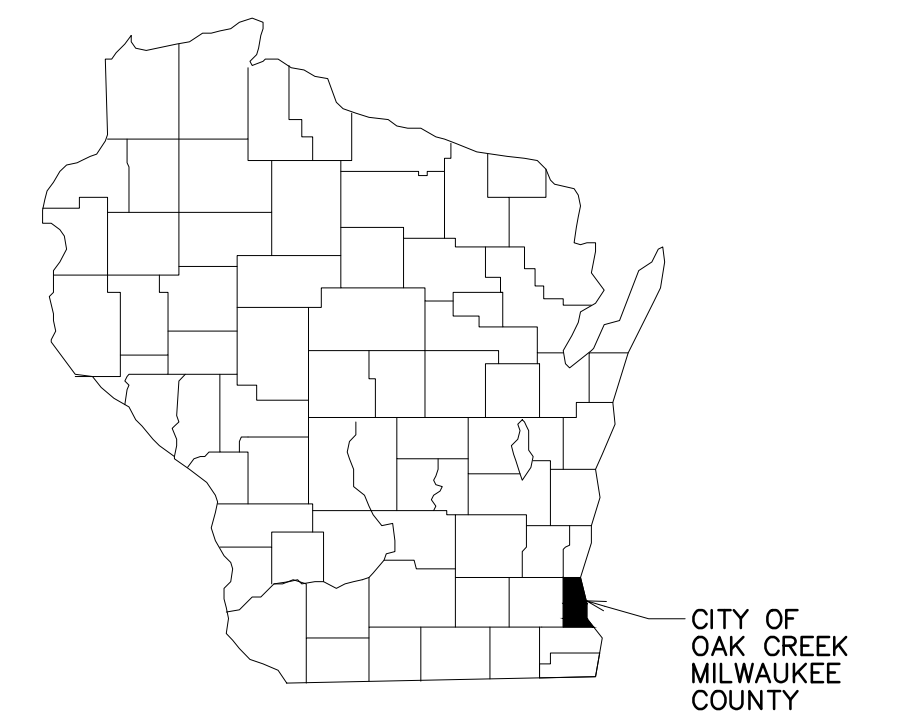
Sheet No. 01	COVER SHEET
Sheet No. 02	INDEX SHEET
Sheet No. 03-05	PROPOSED WATER MAIN RELAY
Sheet No. 06-08	TRAFFIC CONTROL
TOTAL SHEETS = 08	

**SURFACE RESTORATION**

- (H1) ASPHALT REPLACEMENT
- (C1) CONCRETE REPLACEMENT

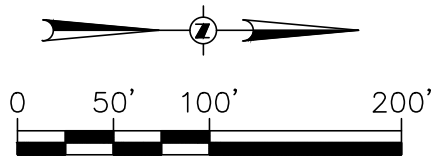
**BACKFILL LEGEND**

- (A1) 3/4"-INCH T.B.B.F. (TYPE A1)
- (A8) GRANULAR BACKFILL (TYPE A8)



**GRAEF**  
One Honey Creek Corporate Center  
125 South 84th Street, Suite 401  
Milwaukee, WI 53214-1469  
414 / 259 1500  
414 / 259 0037 fax  
[www.graef-usa.com](http://www.graef-usa.com)

**PROJECT ENGINEER: GRAEF**



**GENERAL NOTES:**

- CONTRACTOR SHALL REMOVE SIGNS, MAILBOXES, ETC. DURING CONSTRUCTION. IMMEDIATELY AFTER PIPE INSTALLATION AND BACKFILL OCCURS, ALL SIGNS, MAILBOXES, ETC. SHALL BE RETURNED TO THEIR PREVIOUS LOCATION. ALL STOP SIGNS MUST BE DISPLAYED AT ALL TIMES.
- THE BASE SURVEY AND PROPOSED LINEWORK WAS PREPARED BY GRAEF AND SUPPLEMENTED WITH INFORMATION PROVIDED BY OTHERS. ALL UNDERGROUND UTILITIES AND STRUCTURES HAVE BEEN SHOWN TO A REASONABLE DEGREE OF ACCURACY AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THEIR EXACT LOCATION AND TO AVOID DAMAGE THERETO.
- CONTRACTOR SHALL VERIFY LOCATION OF PROPOSED WORK AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
- CONTRACTOR SHALL PROVIDE CONCRETE BUTTRESS RESTRAINT AT ALL HORIZONTAL BENDS W/STANDARD DIMENSIONS PER FILE NO. 44 OF THE STANDARD SPECIFICATIONS. RESTRAIN VERTICAL BENDS WITH MEGA LUGS OR APPROVED EQUAL. RESTRAINT OF PROPOSED WATER MAIN IS INCIDENTAL TO WATER MAIN CONSTRUCTION.
- ALL DIMENSIONS ARE TO CENTER OF STRUCTURE/FITTING OR OPERATING NUT OF HYDRANT.
- INSULATION IS REQUIRED WHEREVER COVER OVER THE TOP OF WATER MAIN, HYDRANT LEAD, OR WATER LATERAL IS LESS THEN 6- FEET OR WHERE SHOWN ON PLANS. (INCIDENTAL TO PROPOSED WATER MAIN)
- SUPPORTING OF POWER/LIGHT POLES ALONG THE ENTIRE PROJECT LIMITS FOR PROPOSED WATER MAIN IS INCIDENTAL TO PROPOSED WATER MAIN CONSTRUCTION.
- LOCATION OF PROPOSED WATER LATERALS ON PLANS ARE APPROXIMATE. FINAL LOCATION SHALL BE DETERMINED IN FIELD DURING CONSTRUCTION.
- CONTRACTOR SHALL SALVAGE ALL EXISTING HYDRANTS CONNECTED TO EXISTING WATER MAIN TO BE ABANDONED BY DISASSEMBLING THE CONNECTION TO THE EXISTING 6" HYDRANT LEAD AT THE HYDRANT SHOE, AND SALVAGING THE HYDRANT, BARREL, SHOE, AND NOZZLE CAPS TO THE CITY OF OAK CREEK WATER AND SEWER UTILITY LOCATED AT 170 W. DREXEL AVE. OAK CREEK, WI 53154. COORDINATE DELIVERY WITH UTILITY STAFF.
- COORDINATES IN THIS PLAN ARE REFERENCED TO THE WISCONSIN STATE PLANE COORDINATE SYSTEM, SOUTH ZONE, (NAD 27). ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF OAK CREEK VERTICAL DATUM.
- CONTRACTOR SHALL INSTALL GALVANIC ANODE CORROSION PROTECTION AT EACH CONNECTION TO EXISTING WATER MAIN.
- CONTRACTOR SHALL INSTALL METAL GROUNDING RODS AT ALL CONNECTIONS TO EXISTING WATER MAIN AND CONNECT TO TRACER WIRE FOR FUTURE UTILITY LOCATING.
- CONTRACTOR SHALL COMPLY WITH WORK RESTRICTIONS AS SET FORTH IN THE PROJECT MANUAL, PHASING PLAN, AND WISDOT APPLICATION/PERMIT TO CONSTRUCT, OPERATE, AND MAINTAIN UTILITY FACILITIES ON HIGHWAY RIGHT-OF-WAY.
- PVC FITTINGS SHALL BE USED ON ALL PVC PIPE. PVC FITTINGS 4" TO 12" IN DIAMETER SHALL BE INJECTION MOLDED AND COMPLY WITH THE REQUIREMENTS OF AWWA C907 AND BE CERTIFIED CSA B137.2. MOLDED FITTINGS WILL BE MADE OF PVC COMPOUND WITH A MINIMUM HYDROSTATIC DESIGN BASIS OF 4000 PSI. MOLDED FITTINGS MUST BE FACTORY MUTUAL APPROVED AND LISTED BY THE UNDERWRITER'S LABORATORIES INTERNATIONAL (ULI).  
  
C905 FABRICATED FITTINGS MUST MEET ASTM D 3139 AND BE MANUFACTURED FROM PIPE SECTIONS THIRD PARTY CERTIFIED TO CSA B137.3 AND MUST MEET THE REQUIREMENTS OF AWWA C905. FABRICATED FITTINGS MUST ALSO BE CERTIFIED TO CSA B137.3. ALL FITTINGS MUST BE NSF-61 LISTED.  
  
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.

**EROSION CONTROL NOTES**

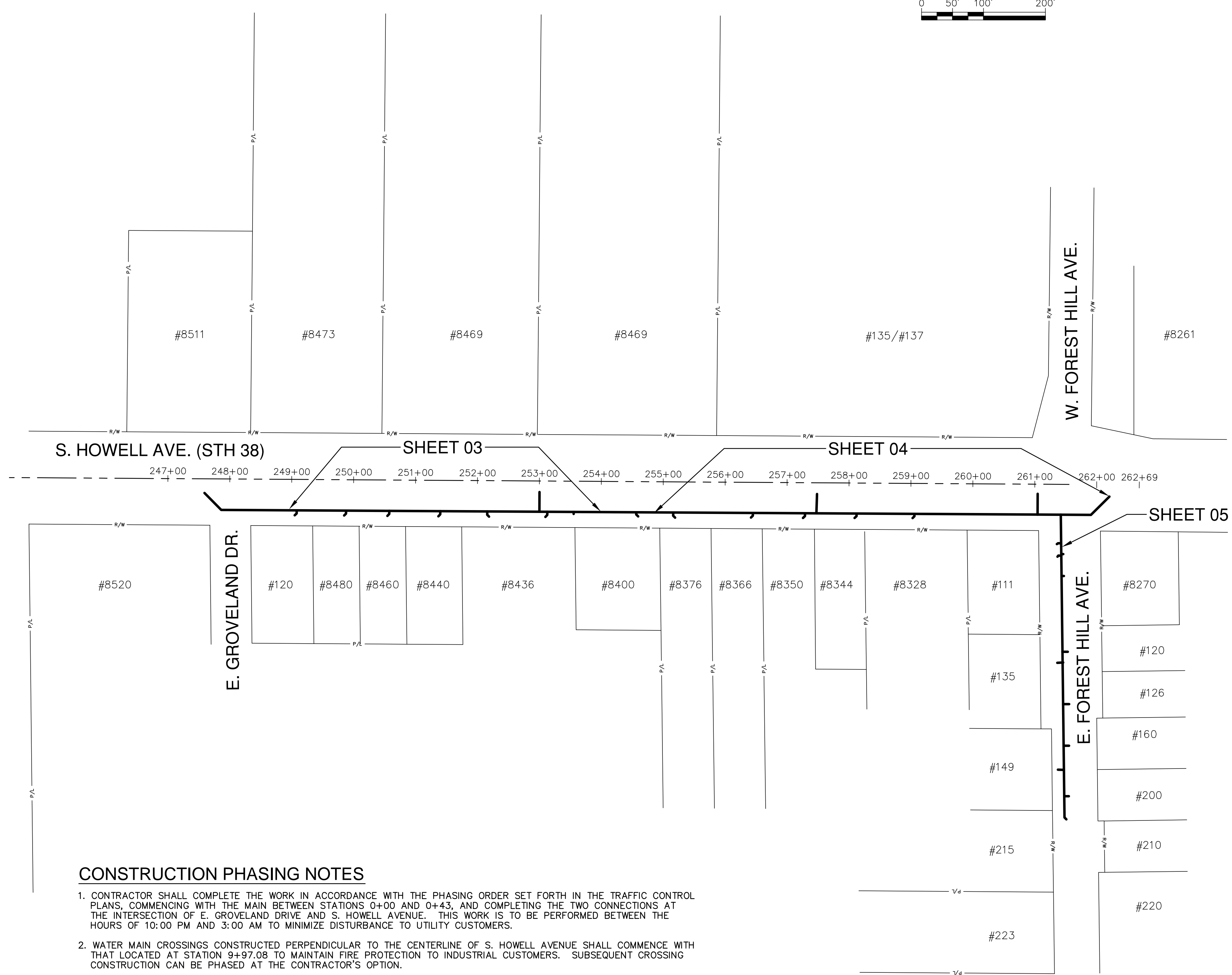
- CONSTRUCTION SITE AND SEDIMENTATION CONTROL SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF OAK CREEK, AND SHALL EMPLOY EROSION CONTROL METHODS AS SHOWN AND SPECIFIED IN THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSTRUCTION SITE EROSION AND SEDIMENTATION CONTROL TECHNICAL STANDARDS.
- ALL EROSION CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.
- PERIODIC INSPECTION AND MAINTENANCE OF ALL EROSION CONTROL STRUCTURES SHALL BE PROVIDED TO ENSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANUP AND REMOVAL OF ALL SEDIMENT LEAVING THE PROJECT LIMITS. EROSION CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORK DAY.
- SILT FENCE SHALL BE INSTALLED AS DIRECTED BY THE FIELD ENGINEER.
- INLET PROTECTION SHALL BE INSTALLED ON ALL INLETS RECEIVING RUNOFF FROM THE PROJECT AREA TO TRAP SEDIMENT.
- EROSION CONTROL MEASURES SHALL BE MAINTAINED ON A CONTINUING BASIS UNTIL SITE IS FULLY STABILIZED.
- ALL DISTURBED AREAS WILL BE PERMANENTLY STABILIZED BY THE APPLICATION OF SEED AND MULCH; THE TYPE OF SEED USED WILL BE WISDOT MIXTURE 40 AS SPECIFIED IN THE LATEST EDITION OF THE STATE OF WISCONSIN STANDARDS SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- TYPE "C" EROSION CONTROL MATTING SHALL BE USED ON ALL SLOPES 3:1 OR GREATER AND AS DIRECTED BY FIELD ENGINEER.

**TRAFFIC CONTROL NOTES**

- TRAFFIC CONTROL SHALL BE INSTALLED IN STAGES CORRESPONDING TO WORK ZONES, AND SHALL BE LIMITED TO AREAS WHERE WORK IS ACTIVELY TAKING PLACE TO MINIMIZE DISRUPTION TO MOTORISTS.
- ALL TRAFFIC CONTROL SIGNAGE SHALL HAVE DIAMOND GRADE SHEETING PER WISDOT STANDARDS.
- CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO ENGINEER FOR REVIEW AND APPROVAL A MINIMUM OF TWO WEEKS PRIOR TO CONSTRUCTION.
- ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

**RESTORATION NOTES**

- RESTORATION ON S. HOWELL AVE. SHALL BE 12" CONCRETE WITH DRILLED #4 EPOXY COATED TIE BARS AT 3- FEET ON-CENTER. TRENCH RESTORATION ONLY, FULL PANEL REPLACEMENT NOT REQUIRED.
- E. FOREST HILL AVE. DITCH LINES TO BE RESTORED WITH 4" OF TOPSOIL, EROSION MATTING, AND MULCH. CONTRACTOR SHALL INSURE POSITIVE DRAINAGE WITH LONGITUDINAL DITCH SLOPE MATCHING THE LONGITUDINAL GRADE OF THE ROAD CENTER LINE.



**CONSTRUCTION PHASING NOTES**

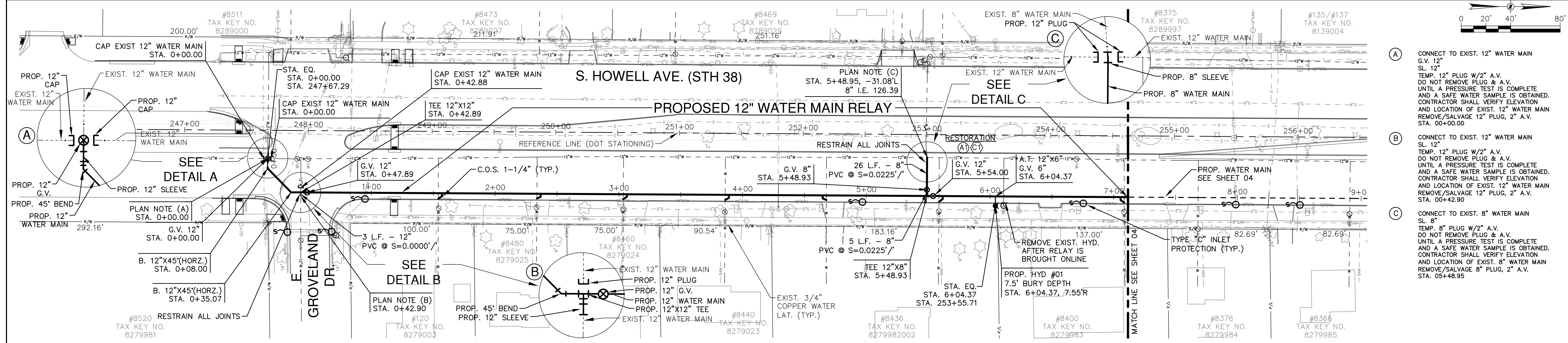
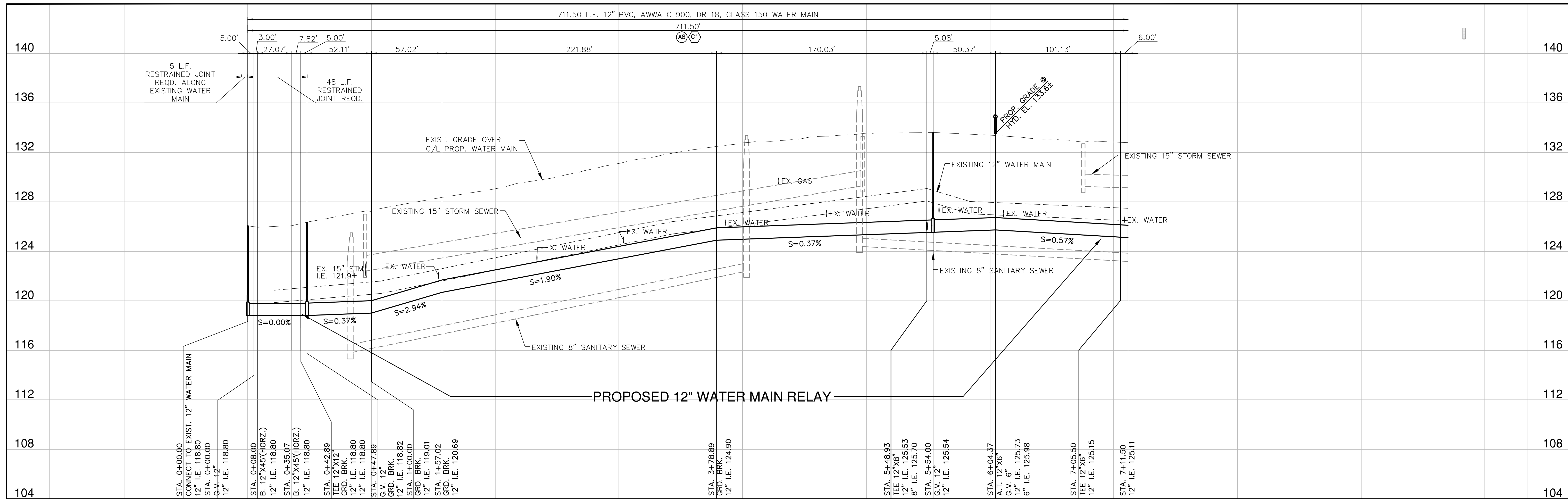
- CONTRACTOR SHALL COMPLETE THE WORK IN ACCORDANCE WITH THE PHASING ORDER SET FORTH IN THE TRAFFIC CONTROL PLANS, COMMENCING WITH THE MAIN BETWEEN STATIONS 0+00 AND 0+43, AND COMPLETING THE TWO CONNECTIONS AT THE INTERSECTION OF E. GROVELAND DRIVE AND S. HOWELL AVENUE. THIS WORK IS TO BE PERFORMED BETWEEN THE HOURS OF 10:00 PM AND 3:00 AM TO MINIMIZE DISTURBANCE TO UTILITY CUSTOMERS.
- WATER MAIN CROSSINGS CONSTRUCTED PERPENDICULAR TO THE CENTERLINE OF S. HOWELL AVENUE SHALL COMMENCE WITH THAT LOCATED AT STATION 9+97.08 TO MAINTAIN FIRE PROTECTION TO INDUSTRIAL CUSTOMERS. SUBSEQUENT CROSSING CONSTRUCTION CAN BE PHASED AT THE CONTRACTOR'S OPTION.

NOTICE:  
In accordance with Wisconsin statute 182.0175, damage to transmission facilities, excavator shall be solely responsible to provide advance notice to the designated "ONE CALL SYSTEM" not less than three working days prior to commencement of any excavation required to perform work contained on this drawing, and further, excavator shall comply with all other requirements of this statute relative to excavator's work.

**GRAEF**  
One Honey Creek Corporate Center  
125 South 84th Street, Suite 401  
Milwaukee, WI 53214-1469  
414 / 259 1500  
414 / 259 0037 fax  
www.graef-usa.com

DISCLAIMER:  
The underground utilities shown have been located from field survey information and existing drawings. The surveyor makes no guarantees that the underground utilities shown comprise all such utilities in the area, either in service or abandoned. The surveyor further does not warrant that the underground utilities shown are in the exact location indicated although he does certify that they are located as accurately as possible from information available. The surveyor has not physically located the underground utilities.

BID ITEM NOS.	ESTIMATE OF QUANTITIES		WATER MAIN CONTRACTOR:		SA.FKO	CITY OF OAK CREEK, WISCONSIN			APPROVED BY		
			MAINLINE INSPECTED BY:		ST.FKO	DESIGNED BY DATE DRAWN BY DATE CHECKED BY DATE			UTILITY ENGINEER DATE		
				LATERALS INSPECTED BY:		W. FKO	AS 2-13-14 FKO 2-13-14 MNP 2-13-14			APPROVED BY	
				DATE COMPLETED:		G. FKO	S. HOWELL AVE. (STH 38) WATER MAIN RELAY			CITY ENGINEER DATE	
				TYPE OF PIPE, ASTM NO.		E. FKO	IN: S. HOWELL AVENUE			SCALE SHEET	
				TYPE OF PIPE, ASTM NO.		T. FKO	FR: E. GROVELAND DR.			PLAN HOR. AS NOTED 02	
				AS-BUILTS BY: DATE:		I. FKO	TO: E. FOREST HILL AVE.			PROFILE HOR. OF	
				This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.		TS.FKO				VER. 08	
				Utility Engineer Date		PP.				FILE NO: 14105-2C-2233	
							REVISION BY DATE				



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ESTIMATE OF QUANTITIES		
2	8" PVC Water Main, Concrete Pavement Restoration	26 L.F.
3	12" PVC Water Main, Concrete Pavement Restoration	712 L.F.
5	Connect Original Service (COS) 1-1/4" Water Service Laterals (Polyethylene) Concrete Pavement Restoration	7 EA.
6	8" Gate Valve	1 EA.
7	12" Gate Valve	3 EA.
8	Connect to Existing 8" Water Main	1 EA.
9	Connect to Existing 12" Water Main	2 EA.
10	Hydrant, Lead and 6-Inch Gate Valve	1 EA.

WATER MAIN	
CONTRACTOR:	SA.FKO
MAINLINE INSPECTED BY:	ST.FKO
LATERALS INSPECTED BY:	W. FKO
DATE COMPLETED:	G. FKO
TYPE OF PIPE, ASTM NO.	E. FKO
TYPE OF PIPE, ASTM NO.	T. FKO
AS-BUILTS BY:	I. FKO
DATE:	TS.FKO
This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.	PP.
Utility Engineer	Date

**CITY OF OAK CREEK, WISCONSIN**

DESIGNED BY: AS DATE: 2-13-14  
DRAWN BY: FKO DATE: 2-13-14  
CHECKED BY: MNP DATE: 2-13-14

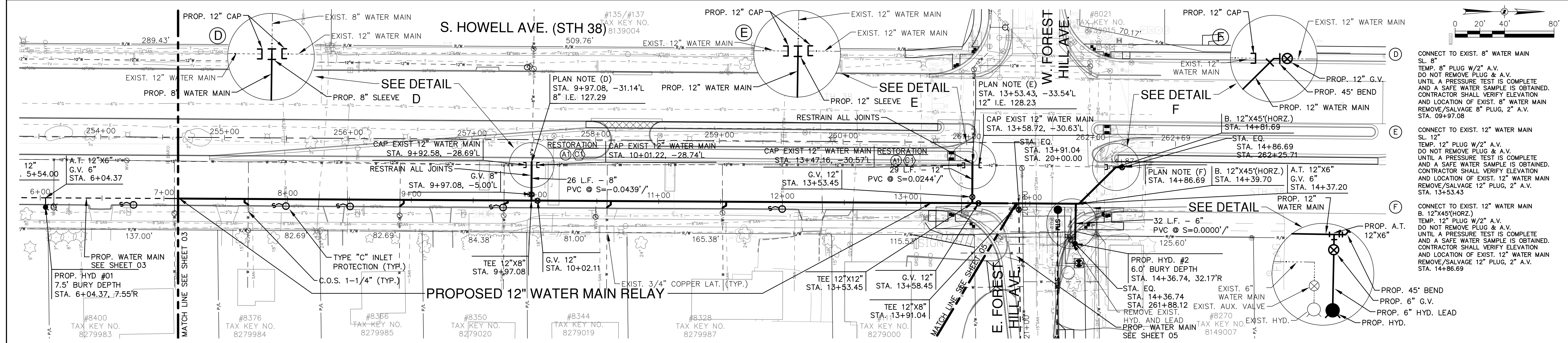
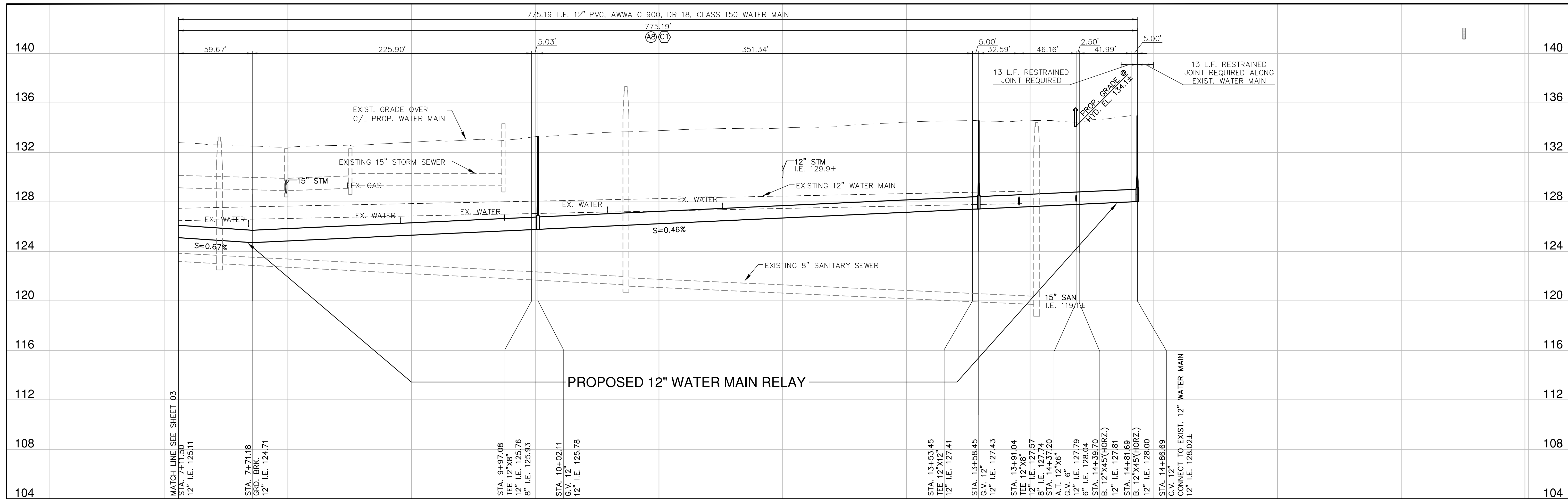
**S. HOWELL AVE. (STH 38) WATER MAIN RELAY**

IN: S. HOWELL AVE. (STH 38)  
FR: E. GROVELAND DR.  
TO: 670 FT. NORTH OF E. GROVELAND DR.

APPROVED BY: \_\_\_\_\_  
UTILITY ENGINEER DATE: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_  
CITY ENGINEER DATE: \_\_\_\_\_  
SCALE: \_\_\_\_\_ SHEET: \_\_\_\_\_  
PLAN HOR. 1"=40' \_\_\_\_\_ 03  
PROFILE HOR. 1"=40' \_\_\_\_\_ OF  
VER. 1"=4' \_\_\_\_\_ 08

REVISION BY: \_\_\_\_\_ DATE: \_\_\_\_\_

FILE NO: 14105-3C-2234



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Milwaukee, WI 53214-1469  
414 / 259 1500  
414 / 259 0037 fax  
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ESTIMATE OF QUANTITIES	
2	8" PVC Water Main, Concrete Pavement Restoration 26 L.F.
3	12" PVC Water Main, Concrete Pavement Restoration 805 L.F.
5	Connect Original Service (COS) 1-1/4" Water Service Laterals (Polyethylene) Concrete Pavement Restoration 5 EA.
6	8" Gate Valve 1 EA.
7	12" Gate Valve 4 EA.
8	Connect to Existing 8" Water Main 1 EA.
9	Connect to Existing 12" Water Main 2 EA.
10	Hydrant, Lead and 6-Inch Gate Valve 1 EA.

WATER MAIN	
CONTRACTOR:	SA.FKO
MAINLINE INSPECTED BY:	ST.FKO
LATERALS INSPECTED BY:	W. FKO
DATE COMPLETED:	G. FKO
TYPE OF PIPE, ASTM NO.	E. FKO
TYPE OF PIPE, ASTM NO.	T. FKO
AS-BUILTS BY:	I. FKO
DATE:	TS.FKO
This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.	
Utility Engineer	Date
REVISION BY	DATE

**CITY OF OAK CREEK, WISCONSIN**

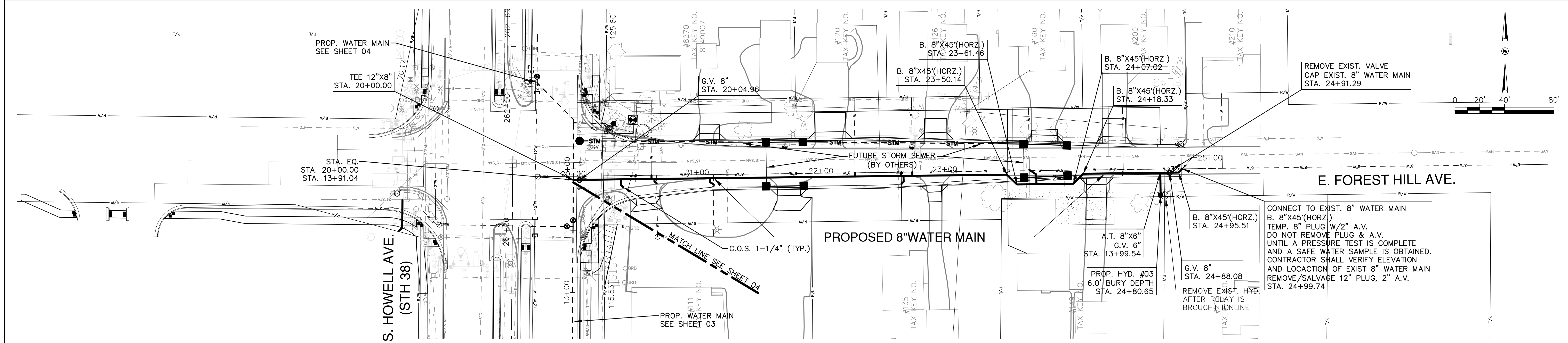
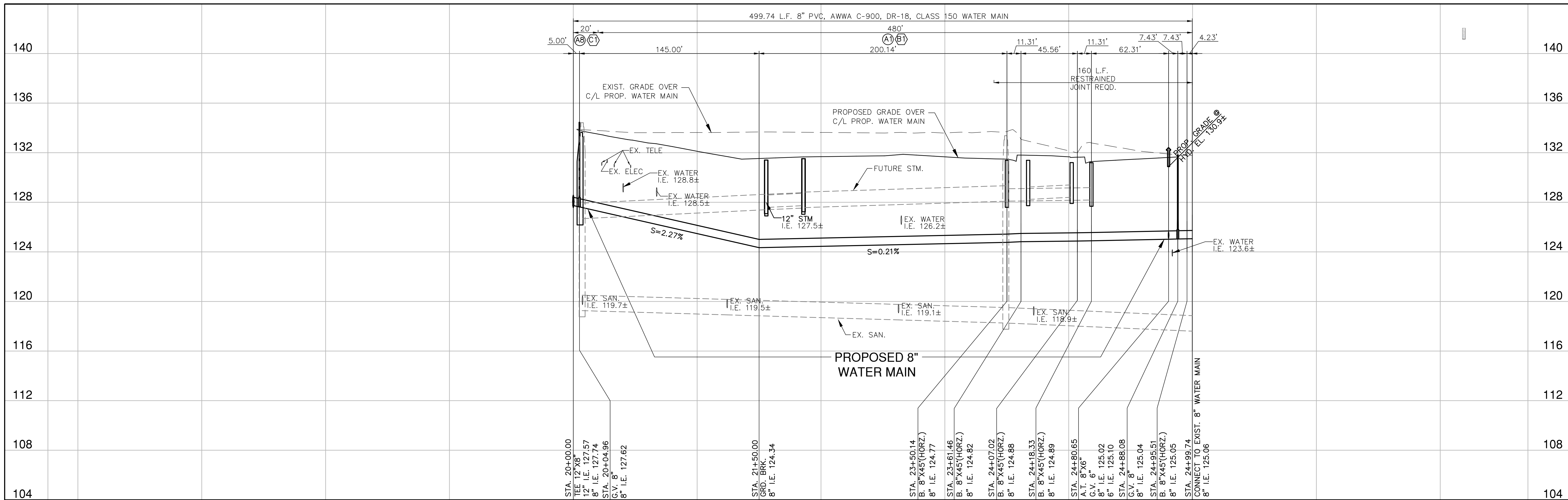
DESIGNED BY: AS DATE: 2-13-14  
DRAWN BY: FKO DATE: 2-13-14  
CHECKED BY: MNP DATE: 2-13-14

**S. HOWELL AVE. (STH 38) WATER MAIN RELAY**

IN: S. HOWELL AVE. (STH 38)  
FR: 700 FT. SOUTH OF E. FOREST HILL AVE.  
TO: E. FOREST HILL AVE.

APPROVED BY: \_\_\_\_\_  
UTILITY ENGINEER DATE: \_\_\_\_\_  
APPROVED BY: \_\_\_\_\_  
CITY ENGINEER DATE: \_\_\_\_\_  
SCALE: \_\_\_\_\_ SHEET: \_\_\_\_\_  
PLAN HOR. 1"=40' \_\_\_\_\_ OF \_\_\_\_\_  
PROFILE HOR. 1"=40' \_\_\_\_\_ OF \_\_\_\_\_  
VER. 1"=4' \_\_\_\_\_ OF \_\_\_\_\_

FILE NO: 14105-4C-2235



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ESTIMATE OF QUANTITIES	
1	8" PVC Water Main, Asphalt Restoration 480 L.F.
2	8" PVC Water Main, Concrete Pavement Restoration 20 L.F.
4	Connect Original Service (COS) 1-1/4" Water Service Laterals (Polyethylene), Asphalt Pavement Restoration 9 EA.
6	8" Gate Valve 1 EA.
8	Connect to Existing 8" Water Main 2 EA.
10	Hydrant, Lead and 6-Inch Gate Valve 1 EA.

WATER MAIN	
CONTRACTOR:	SA.FKO
MAINLINE INSPECTED BY:	ST.FKO
LATERALS INSPECTED BY:	W. FKO
DATE COMPLETED:	G. FKO
TYPE OF PIPE, ASTM NO.	E. FKO
TYPE OF PIPE, ASTM NO.	T. FKO
AS-BUILTS BY:	I. FKO
DATE:	TS.FKO
This is to certify that this plan was approved by the Water Works and Sewer Utility Commission of Oak Creek at a regular meeting.	
Utility Engineer	Date
PP.	

CITY OF OAK CREEK, WISCONSIN				APPROVED BY	
DESIGNED BY	DATE	DRAWN BY	DATE	UTILITY ENGINEER	DATE
AS	2-13-14	FKO	2-13-14	MNP	2-13-14
S. HOWELL AVE. (STH 38) WATER MAIN RELAY					
IN: E. FOREST HILL AVE.					
FR: S. HOWELL AVE.					
TO: 300 FT. EAST OF S. HOWELL AVE.					
REVISION BY	DATE	CITY ENGINEER			
		SCALE		DATE	
		1"=40'		05	
		PROFILE		OF	
		HOR. 1"=40'		08	
		VER. 1"=4'			
FILE NO: 14105-5C-2236					





