

## **AGENDA**

Board of Public Works Meeting  
Tuesday, May 26, 2015 – 7:00 P.M.  
Jackson Village Hall  
N168W20733 Main Street

1. Call to Order and Roll Call.
2. Approval of Minutes for April 28, 2015, meeting.
3. Review of Village Sidewalk Policy.
4. Pay Request #4 – Digester Improvement Project.
5. Review of Bids for Georgetown Drive Reconstruction Project.
6. Verizon Wireless Antenna Modification Project – White Water Tower.
7. Review of Jackson Telecomm Utility and Ethoplex Contract.
8. Discussion of Board of Public Works Scheduled Meeting Dates.
9. Director of Public Works Report.
10. Citizens/Village Staff to address the Board.
11. Adjourn.

Persons with disabilities requiring special accommodations for attendance at the meeting should contact the Village Hall at least one (1) business day prior to the meeting.

It is possible that members of the Village Board may attend the above meeting. No action will be taken by any governmental body at this meeting other than the governmental body specifically referred to in this meeting notice. This notice is given so that members of the Village Board may attend the meeting without violating the open meeting law.

## **DRAFT MINUTES**

### **Board of Public Works Meeting**

**Tuesday, April 28, 2015 – 7:00 P.M.**

**Jackson Village Hall**

**N168W20733 Main Street**

#### **1. Call to Order and Roll Call.**

Chairman Tr. Don Olson called the meeting to order at 7:00 p.m.

Members present: Tr. Jack Lippold, Tr. Scott Mittelsteadt, Brian Heckendorf, Linda Granec, Scott Thielmann, and Corinne Benson

Members excused: None.

Staff present: Brian Kober and John Walther.

#### **2. Approval of Minutes for March 24, 2015, meeting.**

Motion by Scott Thielmann, second by Linda Granec to approve the minutes of the March 24, 2015, Board of Public Works meeting. Tr. Don Olson questioned if the Town's Residents outstanding water bills had been paid. Brian Kober commented that the Town had paid the outstanding Town water bills.

Vote: 7 ayes, 0 nays. Motion carried.

#### **3. Review of Improving Sports Park along Eagle Drive.**

Brian Kober reviewed the letter and pictures that were sent to the new Village President with the request to put the item on the agenda. The pond is where the sump pump discharges. The request is to re-grade the field. It is a vacant field that is used for field hockey and soccer. This is not an official park of the Village. Future extension of Spruce Street would split the field. Pheasant Lane does not have storm sewer, and is a private road. The condo association would have to pay to put in the storm sewer. There were up to six inches of rain at the time of the pictures. The water has since drained out. If we have three – four inches of rain this is a problem. Brian commented to put the item on the five year capital projects plan.

No official games are held here, it is used as a practice field.

Motion by Tr. Mittelsteadt, Corinne Benson to put the item on the five year capital projects plan.

This would be a joint effort with the soccer club and the Village.

Vote: 7 ayes, 0 nays. Motion carried.

#### **4. Georgetown Drive Reconstruction Project - Update.**

Brian Kober reviewed the reconstruction project. Six people from the construction area attended the informal informational meeting prior to the Board of Public Works Meeting. It will be a total road reconstruction of Georgetown Drive. The sanitary sewer was televised and found that the laterals are separating from the main line so it will need to be replaced. The water main will also need to be replaced. The item will go out to bid on May 7<sup>th</sup> and bids will open on May 19<sup>th</sup>.

This will be on the Board of Public Works agenda on May and then the Village Board in June.

The project might start right after Action in Jackson, with completion before school starts.

Utilities will pay for a portion and special assessments for a portion.

Motion by Tr. Olson, second by Tr. Lippold to have the Georgetown Reconstruction project advertise for bids.

Vote: 7 ayes, 0 nays. Motion carried.

**5. Resolution 15-07 Preliminary Assessment Georgetown Dr. Reconstruction Project.**

Brian Kober reviewed the resolution and map of the special assessment area. Process of the special assessment was explained. An estimated cost will be sent out and a Public Hearing will be held by the Village Board with a final resolution. Motion by Brian Heckendorf, second by Scott Thielmann, to recommend approval of Resolution 15-07 Preliminary Assessment Georgetown Dr. Reconstruction Project.

Vote: 7 ayes, 0 nays. Motion carried.

**6. Review of Village Sidewalk Policy.**

Brian Kober reviewed the sidewalk policy that was put into place in 1991. Some areas were not in the Village when the policy was created. The policy needs to be updated. Discussion ensued of the policy returning to the Board of Public Works with updated maps. Motion by Scott Thielmann, second by Corinne Benson for Brian Kober to update the policy and bring it back to the Board of Public Works next month.

Vote: 7 ayes, 0 nays. Motion carried.

**7. Director of Public Works Report.**

Brian Kober reviewed the Public Works Report.

Motion by Tr. Lippold, second by Tr. Mittelsteadt to place the report on file.

Vote: 7 ayes, 0 nays. Motion carried.

**8. Citizens/Village Staff to address the Board.**

None.

**9. Adjourn.**

Motion by Tr. Mittelsteadt, second by Tr. Brian Heckendorf to adjourn at 7:32 p.m.

Vote: 7 ayes, 0 nays. Motion carried.

Respectfully submitted by: Deanna L. Boldrey

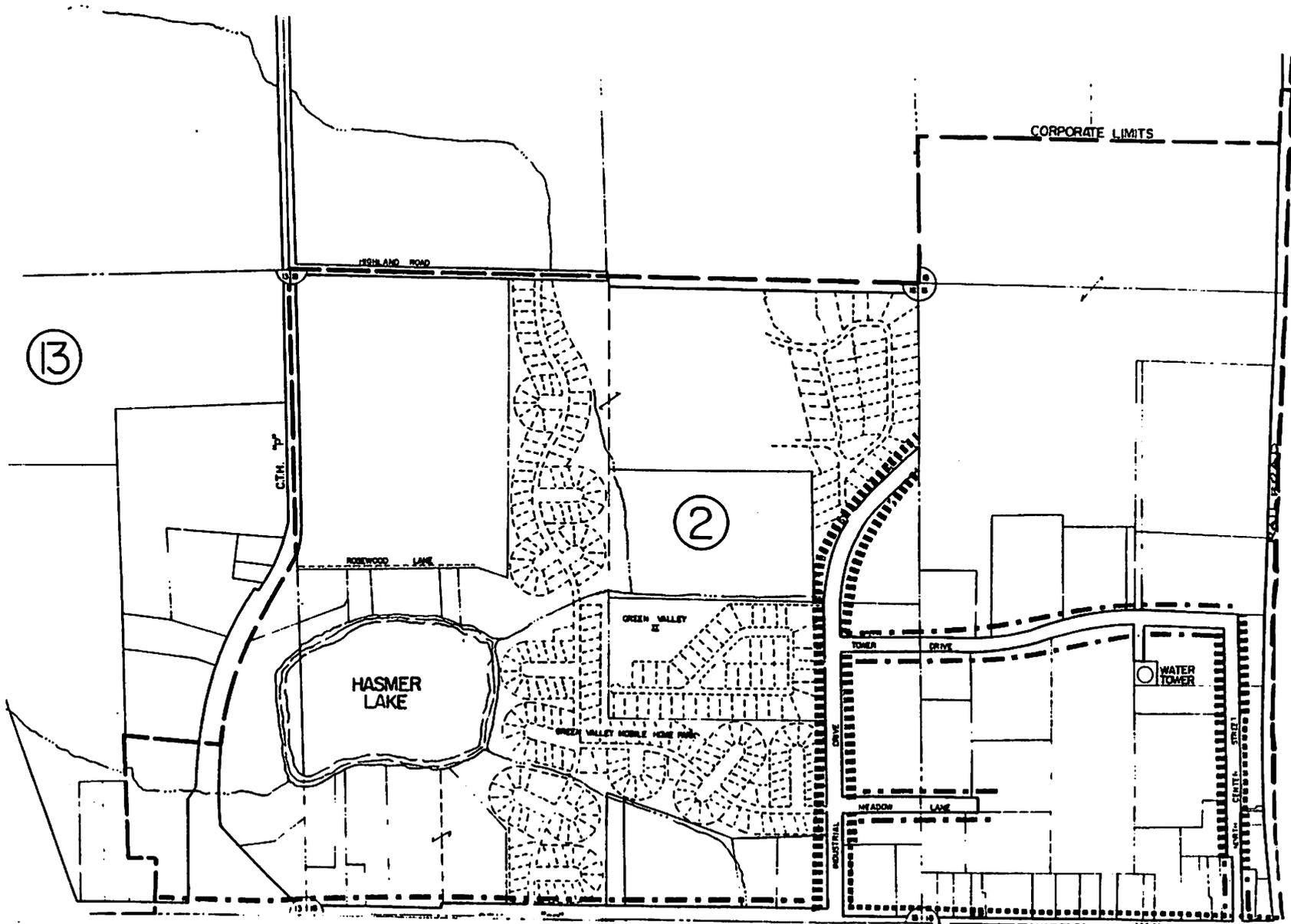
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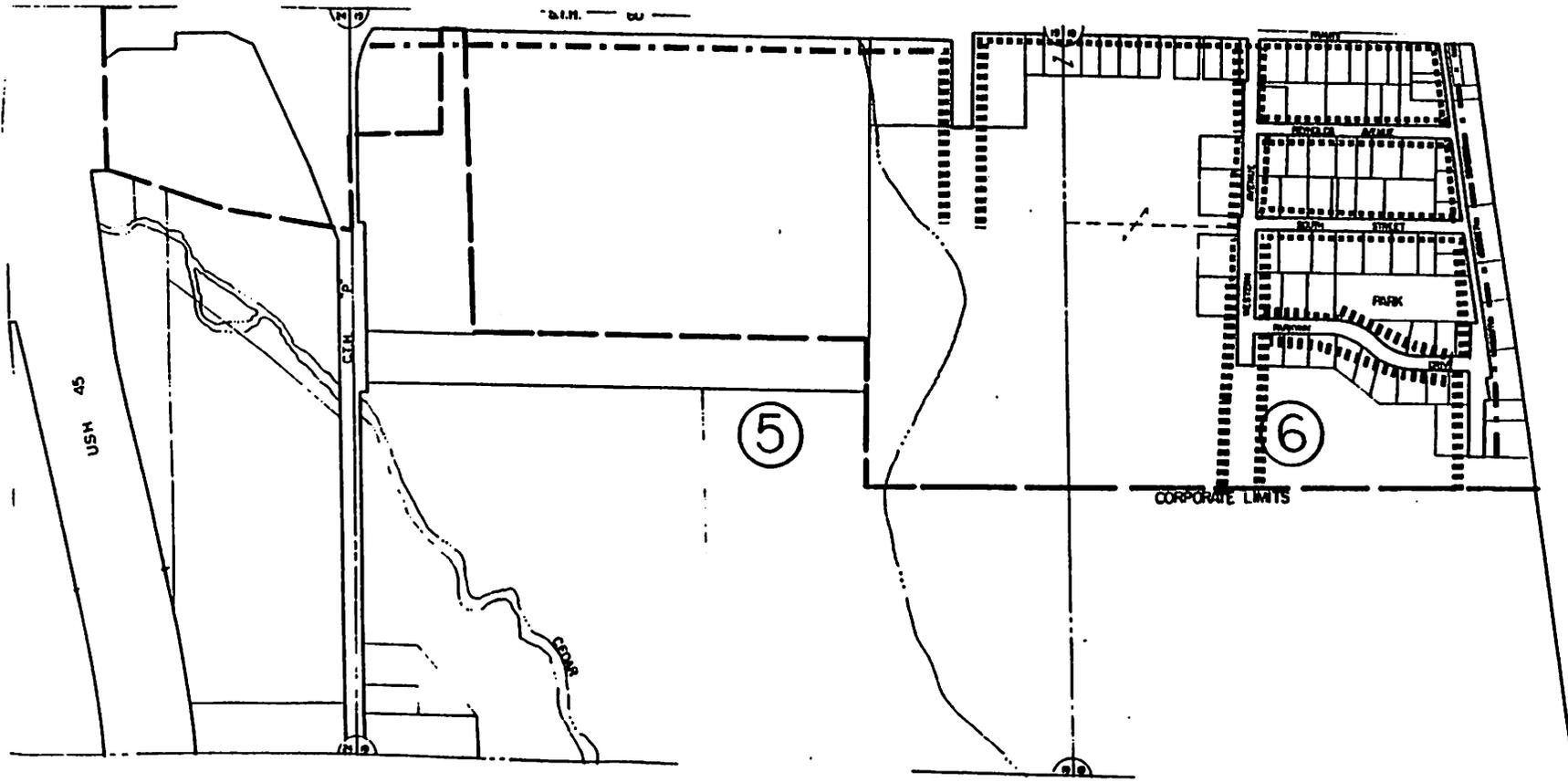
**SIDEWALK POLICY**  
**ADOPTED - OCTOBER 8, 1991**

**Existing Sidewalks** .....

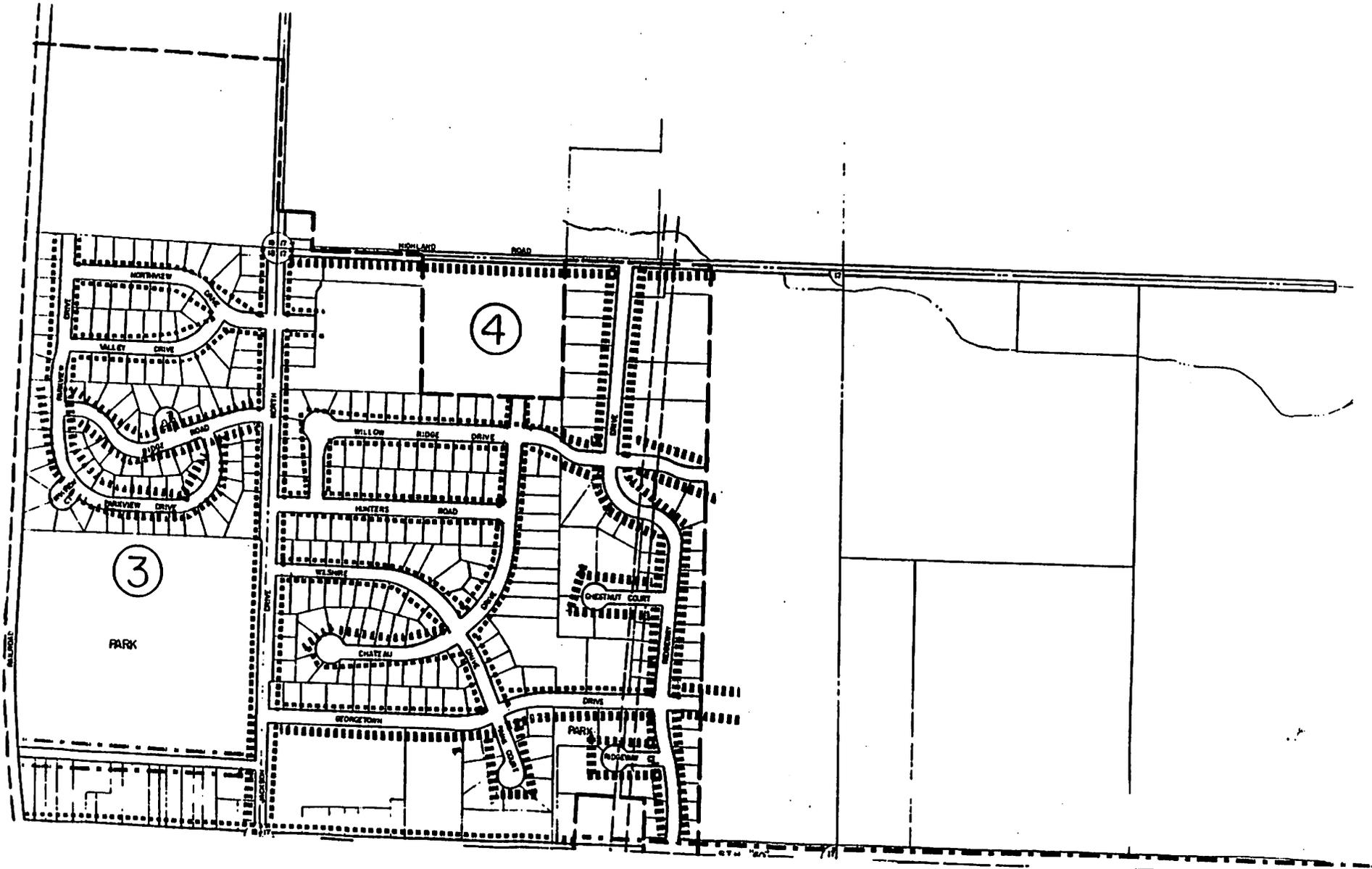
**Proposed Sidewalks** .....

**Not Required** .-.-.-.-.-

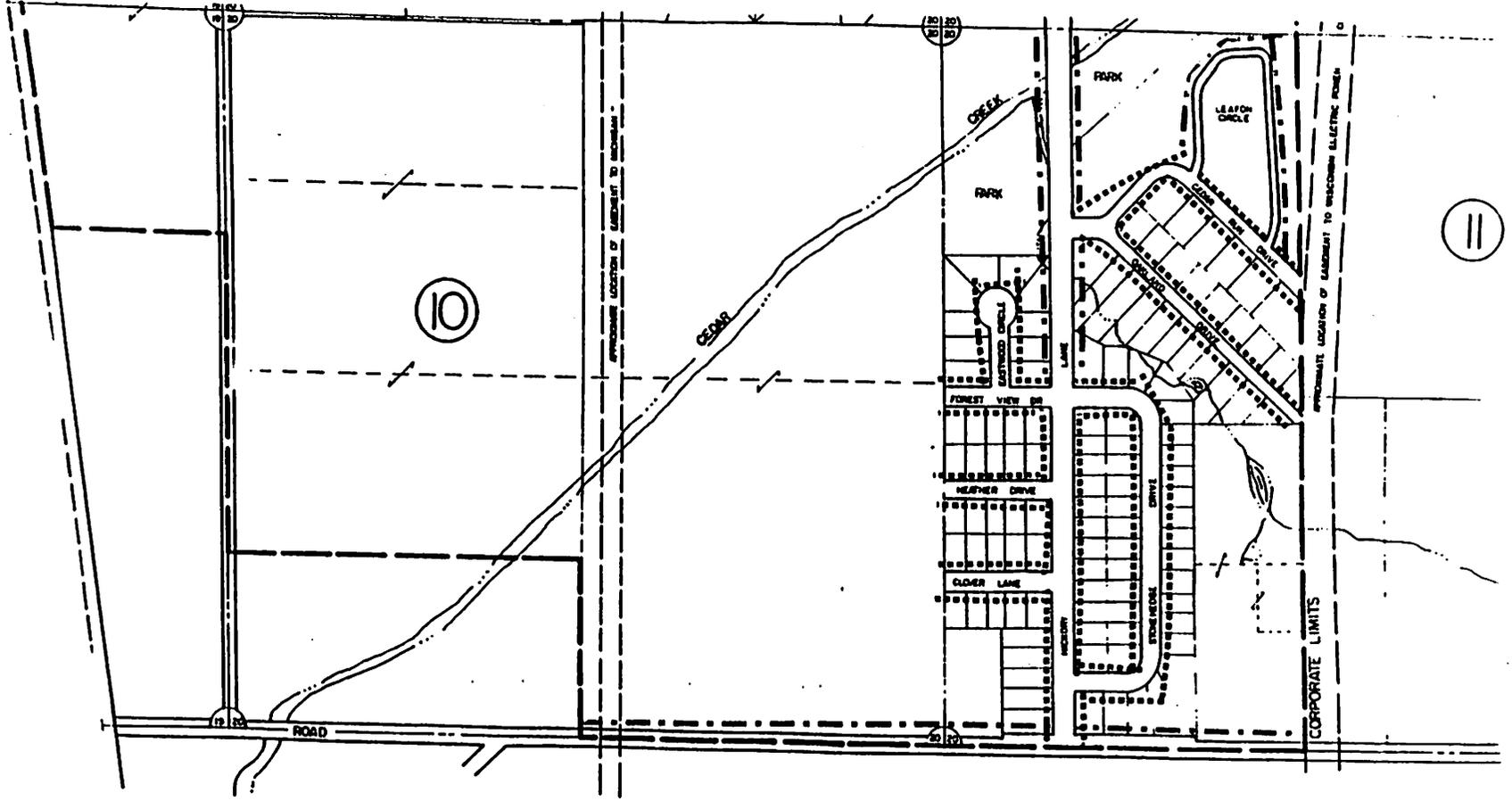




OPTION "A."







## SIDEWALK POLICIES

Sidewalks shall be installed under the following conditions:

1. On all collector and arterial streets with the following exceptions:
  - a. The east side of South Center Street.
  - b. Main Street west of Industrial Drive and east of Ridgeway Drive.
  - c. On Eagle Drive - from Main Street to Hickory Lane.
  - d. Hickory Lane - from Eagle Drive to Forest View and from Pine to Eagle Drive on the south side of Hickory Lane.
  - e. The north side of Sherman Road.
  - f. Tower Drive between North Center Street and Industrial Drive.
2. Where sidewalks are interrupted and are deemed necessary for continuous pedestrian circulation.
3. Where safe pedestrian circulation is deemed necessary. For example:
  - a. For direct access to parks, schools, and shopping.
  - b. Where the density of population or development creates a high degree of pedestrian/vehicle conflicts.
  - c. For consistency, continuity, and compliance with the adopted subdivision regulations.



May 14, 2015

Mr. Brian Kober, P.E.  
Village of Jackson  
N168 W20733 Main Street  
Jackson, WI 53037

Re: Digester Improvements Project

Dear Mr. Kober:

Clark Dietz, Inc. has reviewed the fourth pay request from Sabel Mechanical, LLC for the Digester Improvements Project currently underway at the wastewater treatment plant. The total amount requested on this draw is \$68,150.21 for the following work completed:

- General demolition work.
- Painting in the basement of the digester building.
- Installation of process piping.
- Installation of the digester covers.

Less the 5% retainage, Sabel is requesting a payment of \$64,742.11. At this time Clark Dietz, Inc. takes no exceptions to their request and recommends payment by the Village. Trailing partial lien waivers associated with pay request #2 were provided with this application.

Sincerely,  
Clark Dietz, Inc.

A handwritten signature in black ink that reads "Diane L. Thoue".

Diane L. Thoue, P.E.  
Project Engineer



**CONTINUATION SHEET**

ATTACHMENT TO PAY APPLICATION

APPLICATION NUMBER: 1010-4  
 APPLICATION DATE: 08/19/14  
 PERIOD TO: 5-Apr-15  
 ARCHITECT'S PROJECT NO:

PROJECT:  
 Village of Jackson WWTP  
 Digester Improvements  
 Jackson, WI 53037

A Item No.	B Description of Work	C Scheduled Value	D Work Completed		F Materials Presently Stored (Not In D or E)	G		H Balance To Finish (C - G)	I Retainage
			From Previous Application (D + E)	This Period		Total Completed And Stored To Date (D + E + F)	% (G/C)		
1	General Contract work	29,317.00	17,810.00	4,351.65		22,161.65	76%	7,155.35	1,108.08
2	General Demolition Work	13,060.00	8,985.00	4,075.00		13,060.00	100%		653.00
3	Painting Work	14,880.00		3,500.00		3,500.00	24%	11,380.00	175.00
4	Process Piping	47,544.00	29,886.48	2,858.56		32,745.04	69%	14,798.96	1,637.25
5	Electrical Work	33,659.00	29,500.00			29,500.00	88%	4,159.00	1,475.00
6	Digester Mxing Equipment	114,000.00						114,000.00	
7	Digester Covers	55,440.00		53,365.00		53,365.00	96%	2,075.00	2,668.25
8	Allowance	20,000.00						20,000.00	
9	Digester Inspection	40,000.00						40,000.00	
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	SUBTOTALS PAGE 2	367,900.00	86,181.48	68,150.21		154,331.69	42%	213,568.31	7,716.58

128349

DATE: 4/15

Sabel Mechanical

PARTIAL WAIVER OF LIEN

JOB # 1010

For value received, we hereby waive partial rights and claims for lien on land and on buildings about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto for

Jackson WWTF, owner, by Sabel Mechanical, contractor, for Material same being situated in Fond du Lac County, State of Wisconsin.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances.

<u>Invoice Number:</u>	<u>Payment Amount:</u>
60016676	\$5,022.00
60016135	\$2,508.00

Please Return Signed Lien Waiver to the Following Address:

Sabel Mechanical  
N7295 Winnebago Dr.  
Fond du Lac, WI 54935

Company Name: DeZurik, Inc.

Signature:



Title:

VP Finance

Date:

4-22-15

Sabel Mechanical

PARTIAL WAIVER OF LIEN

JOB # 1010

For value received, we hereby waive partial rights and claims for lien on land and on buildings about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto for

Jackson WWTF, owner, by Sabel Mechanical, contractor, for Material same being situated in Fond du Lac County, State of Wisconsin.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances.

Invoice Number:                      Payment Amount:

576746

\$20,900.00

(Excludes 5% retainer: \$1,100.00)

Please Return Signed Lien Waiver to the Following Address:

Sabel Mechanical  
N7295 Winnebago Dr.  
Fond du Lac, WI 54935

Company Name: PIEPER ELECTRIC, INC.

Signature: 

Title: Accounting Supervisor      Date: 4/2/15

Sabel Mechanical

PARTIAL WAIVER OF LIEN

JOB # 1010

For value received, we hereby waive partial rights and claims for lien on land and on buildings about to be erected, being erected, erected, altered or repaired and to the appurtenances thereunto for

Jackson WWTF, owner, by Sabel Mechanical, contractor, for Material same being situated in Fond du Lac County, State of Wisconsin.

For all labor performed and for all material furnished for the erection, construction, alteration or repair of said building and appurtenances.

Invoice Number:                      Payment Amount:

16911

\$10,270.00

Please Return Signed Lien Waiver to the Following Address:

Sabel Mechanical  
N7295 Winnebago Dr.  
Fond du Lac, WI 54935

Company Name: RWI PIPE FABRICATORS, INC.

Signature: 

Title: *owner*

Date: *4/8/15*

# Bid Tabulation

**Project Name:** Georgetown Drive Reconstruction  
**Owner:** Village of Jackson  
Washington County, Wisconsin

**Bid Date:** May 19, 2015  
**Time:** 2:00 PM  
**Project No.:** W141579.00

CONTRACTOR				Advance Construction Co. 2141 Woodale Avenue Green Bay, WI 54313		Vinton Construction Co. PO Box 1987 Manitowoc, WI 54221-1987		Woleske Construction Co., Inc. 536 Antelope Trail Suamico, WI 54313			
BID SECURITY				5% BB      X		5% BB      X		5% BB      X		5% BB	
ADDENDUM NO. 1				X		X		X			
No.	Item	Unit	Qty	Price	Total	Price	Total	Price	Total	Price	Total
<b>Section A - Sanitary Sewer</b>											
1	8" Sanitary Sewer Relay	LF	725	\$114.00	\$82,650.00	\$96.20	\$69,745.00	\$144.00	\$104,400.00		
2	48" Sanitary Manhole (3 units)	VF	38	\$250.00	\$9,500.00	\$368.00	\$13,984.00	\$400.00	\$15,200.00		
3	6" Sanitary Sewer Lateral (5 units)	LF	143	\$85.00	\$12,155.00	\$106.00	\$15,158.00	\$104.00	\$14,872.00		
<b>Subtotal - Section A, Items 1 thru 3, Inclusive...</b>				<b>Subtotal</b>	<b>\$104,305.00</b>	<b>Subtotal</b>	<b>\$98,887.00</b>	<b>Subtotal</b>	<b>\$134,472.00</b>	<b>Subtotal</b>	<b>Subtotal</b>
<b>Section B - Water Main</b>											
4	8" Water Main Relay	LF	748	\$89.25	\$66,759.00	\$85.80	\$64,178.40	\$124.00	\$92,752.00		
5	8" Gate Valve	EA	3	\$1,591.00	\$4,773.00	\$2,310.00	\$6,930.00	\$3,400.00	\$10,200.00		
6	6" Water Main Relay	LF	14	\$89.25	\$1,249.50	\$124.00	\$1,736.00	\$180.00	\$2,520.00		
7	6" Gate Valve	EA	1	\$1,016.00	\$1,016.00	\$3,207.00	\$3,207.00	\$3,000.00	\$3,000.00		
8	Hydrant Assembly	EA	3	\$6,290.00	\$18,870.00	\$6,157.00	\$18,471.00	\$6,400.00	\$19,200.00		
9	1-1/4" Water service (4 units)	LF	136	\$36.00	\$4,896.00	\$75.60	\$10,281.60	\$114.00	\$15,504.00		
10	1-1/4" Water service fittings	EA	4	\$522.50	\$2,090.00	\$950.00	\$3,800.00	\$400.00	\$1,600.00		
<b>Subtotal - Section B, Items 4 thru 10 Inclusive...</b>				<b>Subtotal</b>	<b>\$99,653.50</b>	<b>Subtotal</b>	<b>\$108,604.00</b>	<b>Subtotal</b>	<b>\$144,776.00</b>	<b>Subtotal</b>	<b>Subtotal</b>
<b>Section C - Storm Sewer</b>											
11	36" HDPE Storm Sewer	LF	117	\$117.00	\$13,689.00	\$78.85	\$9,225.45	\$174.00	\$20,358.00		
12	30" HDPE Storm Sewer	LF	300	\$104.00	\$31,200.00	\$72.40	\$21,720.00	\$164.00	\$49,200.00		
13	15" HDPE Storm Sewer	LF	10	\$64.50	\$645.00	\$69.70	\$697.00	\$104.00	\$1,040.00		
14	12" HDPE Storm Sewer	LF	224	\$52.50	\$11,760.00	\$49.00	\$10,976.00	\$94.00	\$21,056.00		
15	19" x 30" CL HE-III RCP	LF	646	\$120.00	\$77,520.00	\$86.90	\$56,137.40	\$124.00	\$80,104.00		
16	19" x 30" CL HE-III RCP	EA	2	\$2,300.00	\$4,600.00	\$2,250.00	\$4,500.00	\$3,400.00	\$6,800.00		
17	6" PVC Storm Sewer Later (10 units)	LF	314	\$34.00	\$10,676.00	\$52.70	\$16,547.80	\$44.00	\$13,816.00		
18	60" Storm Manhole (3 units)	VF	14.2	\$540.00	\$7,668.00	\$623.00	\$8,846.60	\$604.00	\$8,576.80		
19	72" Storm Manhole (1 unit)	VF	4.5	\$704.40	\$3,169.80	\$750.00	\$3,375.00	\$744.00	\$3,348.00		
20	120" Storm Manhole (4 units)	VF	16.8	\$1,776.00	\$29,836.80	\$1,653.00	\$27,770.40	\$1,440.00	\$24,192.00		
21	Standard Catch Basin	EA	11	\$2,247.00	\$24,717.00	\$2,214.00	\$24,354.00	\$2,400.00	\$26,400.00		
<b>Subtotal - Section C, Items 11 thru 21, Inclusive...</b>				<b>Subtotal</b>	<b>\$215,481.60</b>	<b>Subtotal</b>	<b>\$184,149.65</b>	<b>Subtotal</b>	<b>\$254,890.80</b>	<b>Subtotal</b>	<b>Subtotal</b>

## Bid Tabulation

**Project Name:** Georgetown Drive Reconstruction  
**Owner:** Village of Jackson  
Washington County, Wisconsin

**Bid Date:** May 19, 2015  
**Time:** 2:00 PM  
**Project No.:** W141579.00

CONTRACTOR				Advance Construction Co. 2141 Woodale Avenue Green Bay, WI 54313		Vinton Construction Co. PO Box 1987 Manitowoc, WI 54221-1987		Woleske Construction Co., Inc. 536 Antelope Trail Suamico, WI 54313			
BID SECURITY				5% BB      X		5% BB      X		5% BB      X		5% BB	
ADDENDUM NO. 1				X		X		X			
No.	Item	Unit	Qty	Price	Total	Price	Total	Price	Total	Price	Total
<b>Section D - Roadway</b>											
22	Common Excavation	LS	1	\$21,000.00	\$21,000.00	\$69,800.00	\$69,800.00	\$38,000.00	\$38,000.00		
23	Pavement Removal	SY	3,000	\$3.50	\$10,500.00	\$1.00	\$3,000.00	\$1.50	\$4,500.00		
24	Excavation Below Subgrade (Estimated)	CY	200	\$6.00	\$1,200.00	\$17.50	\$3,500.00	\$15.00	\$3,000.00		
25	Granular Backfill (3") for EBS (Estimated)	TONS	400	\$14.00	\$5,600.00	\$11.90	\$4,760.00	\$12.50	\$5,000.00		
26	30" Concrete Curb & Gutter	LF	1,520	\$13.00	\$19,760.00	\$12.55	\$19,076.00	\$10.40	\$15,808.00		
27	7" Concrete Sidewalk	SF	1,100	\$3.50	\$3,850.00	\$5.10	\$5,610.00	\$5.25	\$5,775.00		
28	5" Concrete Sidewalk	SF	6,100	\$5.00	\$30,500.00	\$4.55	\$27,755.00	\$4.50	\$27,450.00		
29	7" Concrete Driveway	SY	115	\$54.90	\$6,313.50	\$46.40	\$5,336.00	\$50.00	\$5,750.00		
30	Base Aggregate Dense	TONS	2,200	\$11.00	\$24,200.00	\$10.30	\$22,660.00	\$11.00	\$24,200.00		
31	Asphaltic Concrete Pavement	TONS	950	\$64.81	\$61,569.50	\$53.85	\$51,157.50	\$64.00	\$60,800.00		
32	Sawcutting	LF	260	\$2.00	\$520.00	\$3.00	\$780.00	\$2.50	\$650.00		
33	Lawn Restoration	SY	800	\$6.50	\$5,200.00	\$7.81	\$6,248.00	\$10.00	\$8,000.00		
34	Adjust Storm Manhole	EA	2	\$500.00	\$1,000.00	\$400.00	\$800.00	\$600.00	\$1,200.00		
35	Adjust Sanitary Manhole	EA	3	\$500.00	\$1,500.00	\$750.00	\$2,250.00	\$600.00	\$1,800.00		
36	Traffic Control	LS	1	\$7,000.00	\$7,000.00	\$19,586.00	\$19,586.00	\$8,400.00	\$8,400.00		
<b>Subtotal - Section D, Items 22 thru 36, Inclusive...</b>				<b>Subtotal</b>	<b>\$199,713.00</b>	<b>Subtotal</b>	<b>\$242,318.50</b>	<b>Subtotal</b>	<b>\$210,333.00</b>	<b>Subtotal</b>	<b>Subtotal</b>
<b>TOTAL - (BASE BID) - SECTIONS A thru D; ITEMS 1 thru 36, INCLUSIVE...</b>				<b>Total</b>	<b>\$619,153.10</b>	<b>Total</b>	<b>\$633,959.15</b>	<b>Total</b>	<b>\$744,471.80</b>	<b>Total</b>	<b>Total</b>

\* Note

Addendum Modified Line Item

\$14,806.05

Corrected Item

May 20, 2015

W141579.00

Mr. Brian Kober, Director of Public Works  
Village of Jackson  
N168 W20733 Main St.  
Jackson, Wisconsin 53037

**Letter of Recommendation  
Georgetown Drive Reconstruction**

Dear Brian:

In accordance with your Official Notice to Bidders, sealed bids for the above referenced project were received until 2:00 p.m. on May 19<sup>th</sup>, 2015 at the Village Hall and were publicly opened and read aloud.

A total of three (3) bids were received for this project. The low bid was submitted by Advance Construction, Inc. of Green Bay in the amount of \$619,153.10. The remaining base bids ranged from \$633,959.15 to \$744,471.00.

It is our opinion that Advance Construction, Inc., is qualified to perform this work based upon their experience with similar types of projects, and we therefore recommend that the Village Board award this project to Advance Construction, Inc., in the amount of \$619,153.10.

Upon award of the construction contract by the Village of Jackson, we will prepare the Notice of Award and contract documents for execution by the Contractor and the Village. Please direct any questions regarding this matter to me at any time.

Sincerely,

**GAI Consultants, Inc.**



Chris J. Walter, P.E.  
Assistant Design Manager

CJW/cmf

Enc.: Copy of Bid Tabulations

**BID FORM**  
**TABLE OF CONTENTS**

ARTICLE 1. BID RECIPIENT .....1

ARTICLE 2. BIDDER’S ACKNOWLEDGEMENTS .....1

ARTICLE 3. BIDDER’S REPRESENTATIONS.....1

ARTICLE 4. BIDDER’S CERTIFICATION .....3

ARTICLE 5. BASIS OF BID.....4

ARTICLE 6. TIME OF COMPLETION .....13

ARTICLE 7. ATTACHMENTS TO THIS BID .....13

ARTICLE 8. DEFINED TERMS.....14

ARTICLE 9. BID SUBMITTAL .....14



# **BID FORM**

PROJECT IDENTIFICATION:

**Georgetown Drive Reconstruction  
Village of Jackson  
Washington Country, Wisconsin**

PROJECT NO.: **W141579.00**

## **ARTICLE 1. BID RECIPIENT**

1.01 This Bid is submitted to:

Village of Jackson  
Brian Kober, Director of Public Works  
N168 W20733 Main Street  
Jackson, Wisconsin 53037

(hereinafter called Owner)

1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

## **ARTICLE 2. BIDDER'S ACKNOWLEDGEMENTS**

2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

## **ARTICLE 3. BIDDER'S REPRESENTATIONS**

3.01 In submitting this Bid, Bidder represents that:

A. Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.

Addendum Date

_____	_____
_____	_____
_____	_____

- B. Bidder has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has carefully studied all: (1) Reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) that have been identified in SC-4.02 as containing reliable “technical data”, and (2) Reports and drawings of Hazardous Environmental Conditions, if any, at the Site that have been identified in SC-4.06 as containing reliable “technical data”.
- E. Bidder has considered the information known to Bidder; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on: (1) The cost, progress, and performance of the Work; (2) The means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) Bidder’s safety precautions and programs.
- F. Based on the information and observations referred to in Paragraph 3.01.E above, Bidder does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.

- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- J. Bidder acknowledges that Owner and Engineer do not assume responsibility for the accuracy or completeness of information and data shown or indicated in the Bidding Documents with respect to Underground Facilities at or contiguous to the site. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all such examinations, investigation, explorations, test, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder and safety precautions and programs incident thereto. Bidder does not consider that any additional examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance and furnishing of the Work in accordance with the time, price, and other items and conditions of the Contract Documents.

#### **ARTICLE 4. BIDDER'S CERTIFICATION**

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
  - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
  - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive

levels, or (c) to deprive Owner of the benefits of free and open competition;

3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

## ARTICLE 5. BASIS OF BID

5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

### UNIT PRICE SCHEDULE

As provided in Paragraph 11.03 of the General Conditions estimated quantities are not guaranteed, and determinations of actual quantities and classification are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions. Bidder has computed unit prices as provided in Paragraph 11.03.C of the General Conditions.

<u>Estimated Quantity &amp; Item</u>	<u>Unit Price</u>	<u>Total</u>
<b>Section A – Sanitary Sewer</b>		
1. 725 lin. ft., 8” Sanitary Sewer Relay, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
2. 38 vert. ft., 48” Sanitary Manhole (3 units), furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per vert. ft.	(\$ _____)	(\$ _____)

<u>Estimated Quantity &amp; Item</u>	<u>Unit Price</u>	<u>Total</u>
3. 143 lin. ft., 6" Sanitary Sewer Lateral (5 units), furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
<b>Subtotal – Section A - ITEMS 1 THRU 3, INCLUSIVE</b>		(\$ _____)
<b>Section B – Water Main</b>		
4. 748 lin. ft., 8" Water Main Relay, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
5. 3 ea. 8" Gate Valve, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents each.	(\$ _____)	(\$ _____)
6. 14 lin. ft., 6" Water Main Relay, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
7. 1 ea. 6" Gate Valve, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents each.	(\$ _____)	(\$ _____)
8. 3 ea., Hydrant assembly, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents each.	(\$ _____)	(\$ _____)

<u>Estimated Quantity &amp; Item</u>	<u>Unit Price</u>	<u>Total</u>
9. 136 lin. ft., 1-1/4" Water Service (4 units), furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
10. 4 ea., 1-1/4" Water Service Fittings, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents each.	(\$ _____)	(\$ _____)
<b>Subtotal – Section B – ITEMS 4 THRU 10, INCLUSIVE</b>		(\$ _____)
<b>Section C – Storm Sewer</b>		
11. 117 lin. ft., 36" HDPE Storm Sewer, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
12. 300 lin. ft., 30" HDPE Storm Sewer, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
13. 10 lin. ft., 15" HDPE Storm Sewer, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
14. 224 lin. ft., 12" HDPE Storm Sewer, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)

<u>Estimated Quantity &amp; Item</u>	<u>Unit Price</u>	<u>Total</u>
15. 160 lin. ft., 19" x 30" CL VI RCP, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
16. 243 lin. ft., 29" x 45" CL IV RCP, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft..	(\$ _____)	(\$ _____)
17. 314 lin. ft., 6" PVC Storm Sewer Lateral (10 units), furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
18. 10.0 vert. ft., 60" Storm Manhole (2 units), furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per vert. ft.	(\$ _____)	(\$ _____)
19. 4.5 vert. ft., 72" Storm Manhole (1 unit), furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per vert. ft.	(\$ _____)	(\$ _____)
20. 8.6 vert. ft., 84" Storm Manhole (2 units), furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per vert. ft.	(\$ _____)	(\$ _____)

<u>Estimated Quantity &amp; Item</u>	<u>Unit Price</u>	<u>Total</u>
21. 8.2 vert. ft., 120" Storm Manhole (2 units), furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per vert. ft.	(\$ _____)	(\$ _____)
22. 11 ea., Standard Catch Basin, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents each.	(\$ _____)	(\$ _____)
<b>Subtotal – Section C - ITEMS 11 THRU 22, INCLUSIVE</b>		(\$ _____)
<b>Section D – Roadway</b>		
23. 1 lump sum, Common Excavation as specified, at a unit price (written) of  _____ dollars and _____ cents.	(\$ _____)	(\$ _____)
24. 3000 sq. yds., Pavement Removal, as specified, at a unit price (written) of  _____ dollars and _____ cents per sq. yd.	(\$ _____)	(\$ _____)
25. 200 cu. yds., Excavation Below Subgrade (Estimated), as specified, at a unit price (written) of  _____ dollars and _____ cents per cu. yd.	(\$ _____)	(\$ _____)
26. 400 tons, Granular Backfill (3") for EBS, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per ton.	(\$ _____)	(\$ _____)

<u>Estimated Quantity &amp; Item</u>	<u>Unit Price</u>	<u>Total</u>
27. 1520 lin. ft., 30" Concrete Curb & Gutter, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)
28. 1100 sq. ft., 7" Concrete Sidewalk, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents sq. ft.	(\$ _____)	(\$ _____)
29. 6100 sq. ft., 5" Concrete Sidewalk, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per sq. ft.	(\$ _____)	(\$ _____)
30. 115 sq. yds., 7" Concrete Driveway, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per sq. yd.	(\$ _____)	(\$ _____)
31. 2200 tons, Base Aggregate Dense, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per ton.	(\$ _____)	(\$ _____)
32. 950 tons, Asphaltic Concrete Pavement, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per ton.	(\$ _____)	(\$ _____)
33. 260 lin. ft., Sawcutting, as specified, at a unit price (written) of  _____ dollars and _____ cents per lin. ft.	(\$ _____)	(\$ _____)

<u>Estimated Quantity &amp; Item</u>	<u>Unit Price</u>	<u>Total</u>
34. 800 sq. yds., Lawn Restoration, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents per sq. yd.	(\$ _____)	(\$ _____)
35. 2 ea., Adjust Storm Manhole, as specified, at a unit price (written) of  _____ dollars and _____ cents each.	(\$ _____)	(\$ _____)
36. 3 ea., Adjust Sanitary Manhole, as specified, at a unit price (written) of  _____ dollars and _____ cents each.	(\$ _____)	(\$ _____)
37. 1 lump sum, Traffic Control, furnished and installed as specified, at a unit price (written) of  _____ dollars and _____ cents.	(\$ _____)	(\$ _____)
<b>Subtotal – Section D - ITEMS 23 THRU 37, INCLUSIVE</b>		(\$ _____)
<b>TOTAL - ITEMS 1 THRU 37, INCLUSIVE</b>		(\$ _____)

The preceding Unit Price Schedule is divided into Sections representing distinct portions of the Work. It is the Owner's intent to receive bids on all Sections and to award a single Contract for the entire project, including all Sections of Work.

**SCHEDULE OF SUPPLEMENTAL UNIT PRICES**

The following unit prices shall apply in the event additions to or deductions from the work required in the Base Bid are ordered by the Engineer. The unit prices bid shall include all costs of furnishing and installing or placing bid items.

Utility Construction – General:

1. Rock excavation. \$ \_\_\_\_\_ per Cubic Yard
2. Close sheathing and bracing, ordered left in place. \$ \_\_\_\_\_ per 1,000 Bd. Ft.

3. Spot sheathing and bracing, ordered left in place. \$ \_\_\_\_\_ per 1,000 Bd. Ft.
4. No. 3 crushed stone, 2 inch size, for unstable trench bottom, including excavation of unsuitable material. \$ \_\_\_\_\_ per Cubic Yard
5. Excavated material backfill, ordered to replace granular backfill, deduct. \$ \_\_\_\_\_ per Cubic Yard
6. Slurry backfill, ordered to replace granular backfill. \$ \_\_\_\_\_ per Cubic Yard
7. Granular backfill, to support underground structures. \$ \_\_\_\_\_ per Cubic Yard
8. Reinforced concrete beam, to support underground structures. \$ \_\_\_\_\_ per Lin. Ft.
9. Insulation. \$ \_\_\_\_\_ per Lin. Ft.
10. Erosion bales. \$ \_\_\_\_\_ per Each
11. Silt fence, placed and maintained. \$ \_\_\_\_\_ per Lin. Ft.
12. Erosion mat. \$ \_\_\_\_\_ per Sq. Yd.

Sanitary Sewer Construction:

1. Install PVC pressure pipe, AWWA C-900, DR 18, CL 150, or ASTM D2241, SDR 17, CL 250, within 50 feet of private wells, add to base bid sanitary sewer:
  - a) 10 inch pipe \$ \_\_\_\_\_ per Lin. Ft.
  - b) 12 inch pipe \$ \_\_\_\_\_ per Lin. Ft.
  - c) 16 inch pipe (for 15" sewer) \$ \_\_\_\_\_ per Lin. Ft.
2. Waterproof manhole frame and lid, Neenah R-1755-C, installed in place of base bid standard manhole frame and lid. \$ \_\_\_\_\_ per Each
3. External manhole seal. \$ \_\_\_\_\_ per Each
4. Sewer lateral clean out. \$ \_\_\_\_\_ per Each

5. Offset existing water main:
  - a) Offset 6 inch water main \$\_\_\_\_\_ per Each
  - b) Offset 8 inch water main \$\_\_\_\_\_ per Each
  - c) Offset 12 inch water main \$\_\_\_\_\_ per Each

Water Main Construction:

1. Polyethylene wrap:
  - a) 6 inch water main \$\_\_\_\_\_ per Lin. Ft.
  - b) 8 inch water main \$\_\_\_\_\_ per Lin. Ft.
  - c) 12 inch water main \$\_\_\_\_\_ per Lin. Ft.
2. Hydrant barrel extension:
  - a) 6 inch extension \$\_\_\_\_\_ per Each
  - b) 12 inch extension \$\_\_\_\_\_ per Each
  - c) 18 inch extension \$\_\_\_\_\_ per Each
  - d) 24 inch extension \$\_\_\_\_\_ per Each

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Road Construction:

1. Stone backfill to stabilize subgrade, 2 inch size. \$\_\_\_\_\_ per Ton
2. Soil stabilization fabric, Mirafi 600X or equal. \$\_\_\_\_\_ per Square Yard
3. Subbase material, crushed stone – Gradation No. 1, placed over stabilization fabric. \$\_\_\_\_\_ per Ton
4. Clearing and grubbing. \$\_\_\_\_\_ per In. Dia.
5. Borrow excavation. \$\_\_\_\_\_ per Cu. Yd.
6. Erosion bales. \$\_\_\_\_\_ per Each
7. Silt fence, placed and maintained. \$\_\_\_\_\_ per Lin. Ft.

Road Construction:

- 8. Sod. \$ \_\_\_\_\_ per Sq. Yd.
- 9. Erosion mat. \$ \_\_\_\_\_ per Sq. Yd.
- 10. Valve box section, to adjust valve boxes to grade. \$ \_\_\_\_\_ per Each
- 11. Align manhole frames disturbed by others. \$ \_\_\_\_\_ per Each
- 12. Align valve boxes disturbed by others. \$ \_\_\_\_\_ per Each

At any time, the Owner reserves the right to reject or renegotiate any of the prices listed in the Schedule of Supplemental Unit Prices that he feels are not comparable to current prices being Bid for those items.

**ARTICLE 6. TIME OF COMPLETION**

6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before the dates or within the number of calendar days indicated in the Agreement.

6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

**ARTICLE 7. ATTACHMENTS TO THIS BID**

7.01 The following documents are submitted and made a condition of this Bid:

- A. Required Bid Security in the form of \_\_\_\_\_  
(Certified Check, Bid Bond, Cashier's Check or Money Order)  
  
in the amount of \_\_\_\_\_.  
(Dollars or Percent)
- B. List of Proposed Subcontractors/Suppliers;
- C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such license within the time for acceptance of Bids;
- D. If applicable, Contractor's License No.: \_\_\_\_\_ ; or,  
Evidence of Bidder's ability to obtain a State Contractor's License and a covenant by Bidder to obtain said license within the time for acceptance of Bids;

- E. List of Project References, if requested;
- F. Disclosure of Ownership form (attached).

**ARTICLE 8. DEFINED TERMS**

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

**ARTICLE 9. BID SUBMITTAL**

9.01 The Bid is submitted by:

If Bidder is:

**An Individual:**

Name: \_\_\_\_\_  
(Typed or Printed)

By: \_\_\_\_\_  
(Individual's Signature)

Doing business as: \_\_\_\_\_

**A Partnership:**

Partnership Name: \_\_\_\_\_

By: \_\_\_\_\_  
(Signature of general partner -- attach evidence of authority to sign)

Name: \_\_\_\_\_  
(Typed or Printed)

**A Corporation:**

Corporation Name: \_\_\_\_\_ (SEAL)

State of Incorporation: \_\_\_\_\_

Type: \_\_\_\_\_  
(General Business, Professional, Service, Limited Liability)

By: \_\_\_\_\_  
(Signature -- attach evidence of authority to sign)

Name: \_\_\_\_\_  
(Typed or Printed)

Title: \_\_\_\_\_  
(CORPORATE SEAL)

Attest: \_\_\_\_\_

Date of Qualification to do business in \_\_\_\_\_ is \_\_\_\_ / \_\_\_\_ / \_\_\_\_ .  
(State where Project is Located)

**A Joint Venture:**

Name of Joint Venture: \_\_\_\_\_

First Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
(Signature of first joint venture partner -- attach evidence of authority to sign)

Name: \_\_\_\_\_  
(Typed or Printed)

Title: \_\_\_\_\_

Second Joint Venturer Name: \_\_\_\_\_ (SEAL)

By: \_\_\_\_\_  
(Signature of first joint venture partner -- attach evidence of authority to sign)

Name: \_\_\_\_\_  
(Typed or Printed)

Title: \_\_\_\_\_

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

**All Bidders:**

Bidder's Business Address: \_\_\_\_\_  
\_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone No.: \_\_\_\_\_; Fax No.: \_\_\_\_\_

E-mail: \_\_\_\_\_

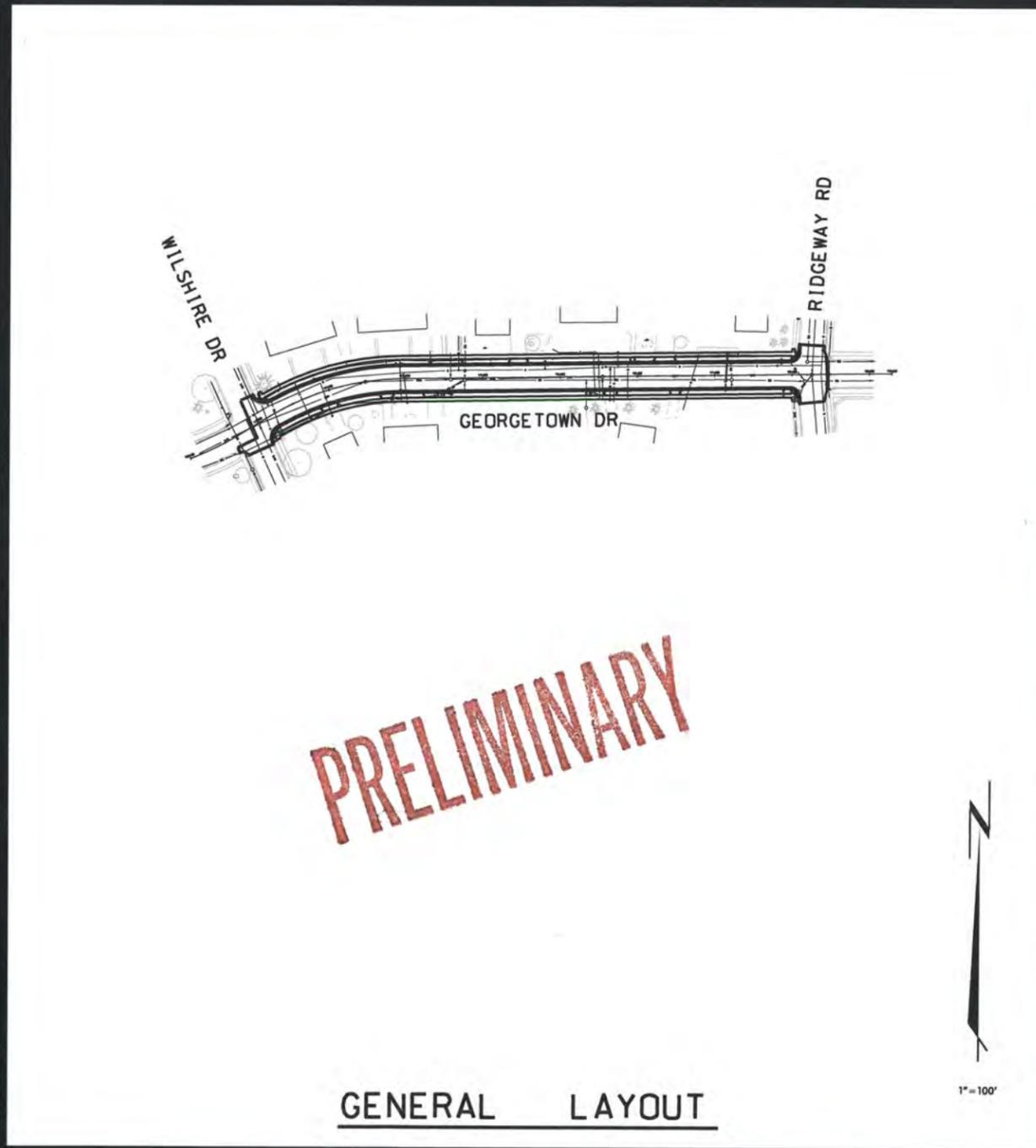
SUBMITTED on \_\_\_\_\_, 20\_\_\_\_.

State Contractor License No. \_\_\_\_\_. (If applicable)

Bidders shall not add any conditions or qualifying statements to this Bid as otherwise the Bid may be declared irregular as being not responsive to the advertisement. BIDDERS SHALL USE THIS BID FORM IN SUBMITTING THEIR BIDS.

REVISION/PLOT DATE Sht01\_Cover.dgn 4/15/2015 PLOT BY: greisb

# GEORGETOWN DRIVE RECONSTRUCTION VILLAGE OF JACKSON



### LEGEND

<ul style="list-style-type: none"> <li>ABANDONED SEWER OR WATER LINE, LABEL</li> <li>B-1 BORING (&amp; NUMBER)</li> <li>BUSH, CONIFEROUS LABEL, DIA</li> <li>BUSH, DECIDUOUS LABEL, DIA</li> <li>CENTERLINE</li> <li>-690- CONTOUR LINE, EX</li> <li>-700- CONTOUR LINE, NEW</li> <li>CORPORATE LIMITS</li> <li>18" CMP CULVERT/CMP, LABEL</li> <li>CURB &amp; GUTTER, EX</li> <li>CURB &amp; GUTTER, FUTURE</li> <li>CURB &amp; GUTTER, NEW</li> <li>DITCH FLOWLINE, EX</li> <li>DITCH FLOWLINE, NEW</li> <li>EDGE OF DIRT/FIELD</li> <li>EDGE OF GRAVEL</li> <li>EDGE OF WATER</li> <li>EDGE OF WOODS/BRUSH</li> <li>FENCE, BARBED WIRE</li> <li>FENCE, BOARD</li> <li>FENCE, LABEL</li> <li>FENCE, RAIL</li> <li>FENCE, SILT</li> <li>FENCE, CHAIN LINK</li> <li>FLOODPLAIN BOUNDARY</li> <li>-8" FM- FORCE MAIN, EXISTING</li> <li>-8" FM- FORCE MAIN, NEW</li> <li>GAS PUMP, ISLAND</li> <li>GUY WIRE</li> <li>HEDGE, DEC/CON</li> <li>HYDRANT, EXISTING</li> <li>HYDRANT, NEW</li> <li>INLET/CATCH BASIN, EXISTING</li> <li>INLET/CATCH BASIN, NEW</li> <li>IRON PIPE</li> <li>IRON ROD</li> <li>MAIL BOX</li> <li>MANHOLE, EXISTING</li> <li>MANHOLE, NEW</li> <li>MARKER, LABEL</li> <li>MATCH/BREAK LINE</li> <li>POLE, COMBINATION</li> <li>POLE, LIGHT</li> <li>POLE, POWER</li> <li>POLE, TELEPHONE</li> </ul>	<ul style="list-style-type: none"> <li>PROPERTY LINE</li> <li>RAILROAD CROSSING SIGNAL</li> <li>RAILROAD TIES LANDSCAPE</li> <li>RAILROAD TRACKS</li> <li>RIGHT-OF-WAY, EXIST</li> <li>RIGHT-OF-WAY, FUTURE</li> <li>RIGHT-OF-WAY, NEW</li> <li>ROAD SIGN</li> <li>-8" SAN- SANITARY SEWER, EX</li> <li>-8" SAN- SANITARY SEWER, NEW</li> <li>SEC. LINE &amp; CORNER</li> <li>24" SS- STORM SEWER, EX</li> <li>24" SS- STORM SEWER, NEW</li> <li>STRUCTURE, EXISTING</li> <li>STRUCTURE, FUTURE</li> <li>STRUCTURE, NEW</li> <li>STRUCTURE, REMOVAL</li> <li>SURVEY POINT</li> <li>TELEPHONE BOOTH</li> <li>TELEPHONE/ELECTRIC PEDESTAL OR BOX</li> <li>TOP OF BANK TOE/TOP OF BANK, LABEL</li> <li>TRAFFIC SIGNAL</li> <li>TRANSIT LINE W/HPI</li> <li>8" TREE, CONIFEROUS LABEL, TRUNK DIA</li> <li>TREE, DEADFALL</li> <li>8" TREE, DECIDUOUS LABEL, TRUNK DIA</li> <li>TREE, REMOVAL</li> <li>8" 12" TREE, STUMP LABEL, TRUNK DIA</li> <li>WALL, BLOCK</li> <li>WALL, CONCRETE</li> <li>WALL, STONE</li> <li>-8" W- WATER MAIN, EXISTING</li> <li>-8" W- WATER MAIN, NEW 1 DASH PER 2" DIA</li> <li>WETLAND, BOUNDARY</li> <li>TV- UNDERGROUND CABLE, CATV</li> <li>E- UNDERGROUND CABLE, ELECTRIC</li> <li>T- UNDERGROUND CABLE, TELEPHONE</li> <li>FO- UNDERGROUND CABLE, FIBER OPTIC</li> <li>G- UNDERGROUND MAIN, GAS</li> <li>OH- OVERHEAD UTILITY</li> <li>WELL</li> </ul>
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### SHEET INDEX

1. COVER SHEET /GENERAL LAYOUT
2. CONSTRUCTION DETAILS
- 3.-4. ROADWAY & STORM SEWER PLAN & PROFILE
- 5.-6. SANITARY SEWER & WATER MAIN PLAN & PROFILE
7. INTERSECTION DETAILS
- 8.-x. CROSS SECTIONS

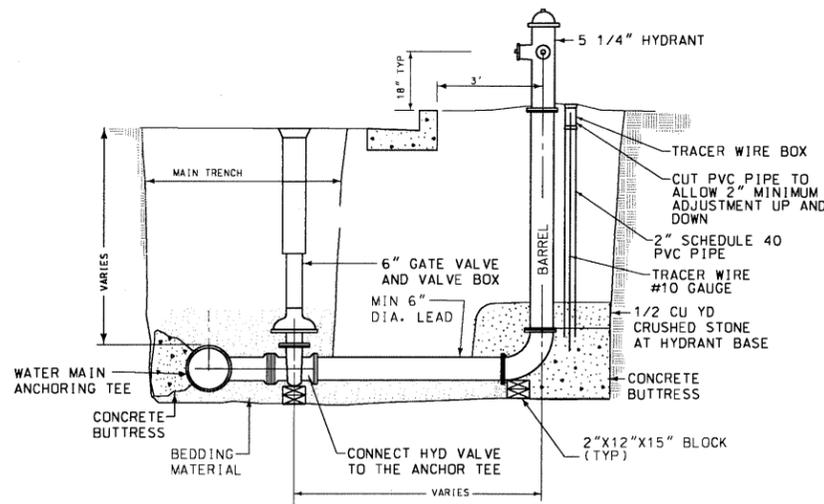
### BENCH MARKS

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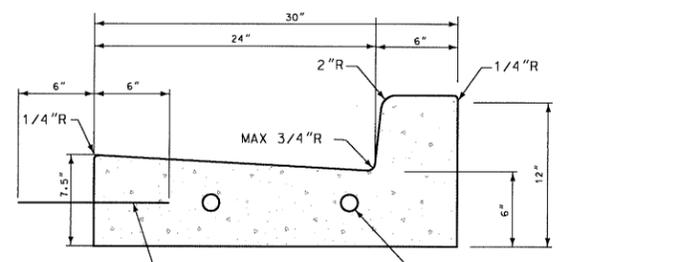
NO.	REVISIONS	BY	DATE	VERIFY SCALES	DRAWN BY:	DESIGNED BY	PROJECT NO.
				BAR IS ONE INCH ON ORIGINAL DRAWING.	PRELIM BJJ FINAL BJJ REVIEW X	T. MILES	W141579.00
				IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DATE APRIL 2015	CHECKED BY R. DALTON	SHEET NO. 1 OF 7
				REVISED TO CONFORM TO CONSTRUCTION RECORDS DATE	SCALE AS NOTED		FILE NO. F-

**gai consultants**  
W175 N11081 STONEWOOD DRIVE, SUITE 103  
GERMANTOWN, WI 53022  
262.250.8000 • FAX 262.250.8011

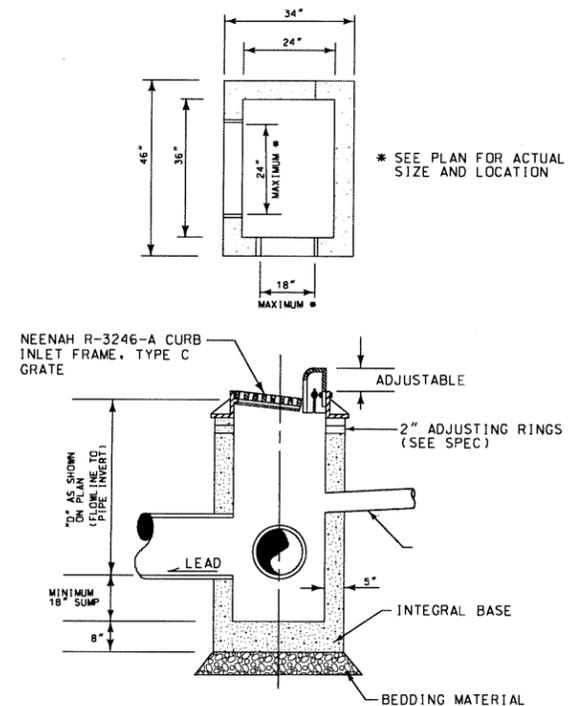
REVISION/PLOT DATE 5/15/2015  
W:\Projects\2015\150402\150402.dgn 4/15/2015  
 PLOT BY: J. DALTON



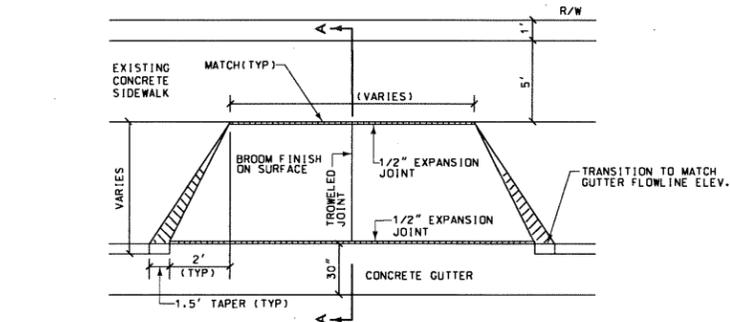
**STANDARD HYDRANT ASSEMBLY WITH TRENCH DETAIL**



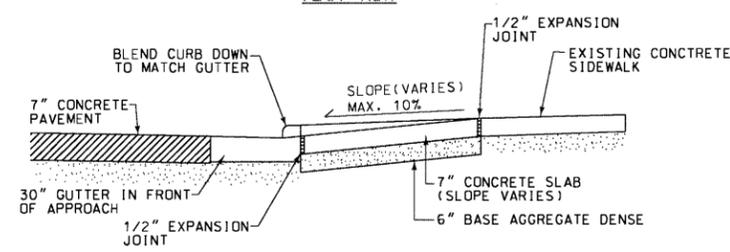
**30" CONCRETE CURB AND GUTTER DETAIL**  
 TYPE "A" OR TYPE "D"



**PRECAST RECTANGULAR CATCH BASIN DETAIL**

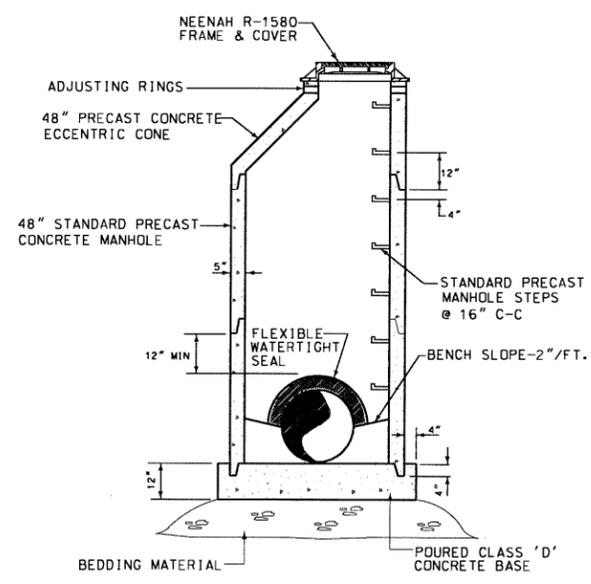


**PLAN VIEW**

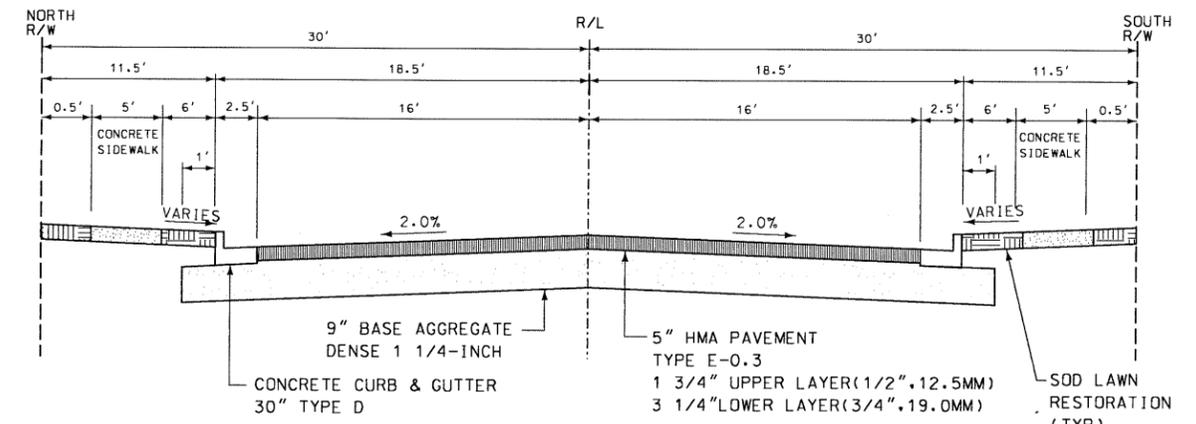


**PROFILE VIEW (SECTION A-A)**

**STANDARD CONCRETE DRIVEWAY APPROACH**



**STANDARD SANITARY MANHOLE WITH POURED BASE**



**TYPICAL SECTION**

NO.	REVISIONS	BY	DATE

VERIFY SCALES	DRAWN BY:	DESIGNED BY:
BAR IS ONE INCH ON ORIGINAL DRAWING.	PRELIM B J G	T. MILES
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	FINAL B J G	CHECKED BY R. DALTON
	DATE APRIL, 2015	SCALE NTS
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**gai consultants**  
 W175 N11081 STONEWOOD DRIVE, SUITE 103  
 GERMANTOWN, WI 53022  
 262.250.8000 • FAX 262.250.8011

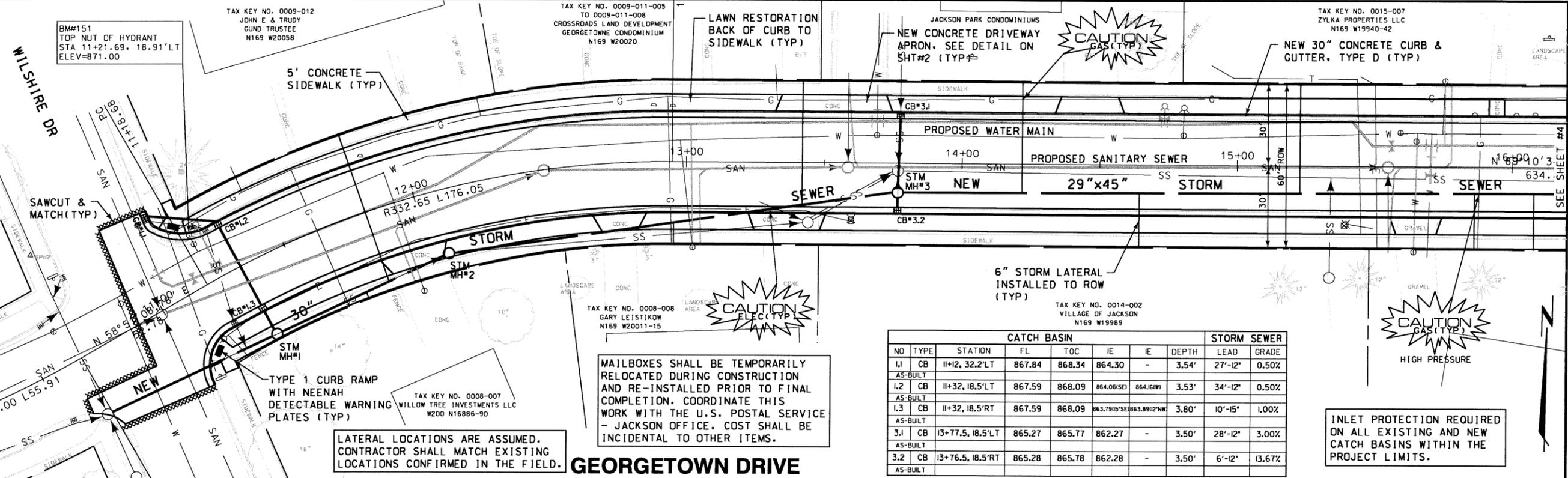
**GEORGETOWN DRIVE RECONSTRUCTION  
 VILLAGE OF JACKSON  
 WASHINGTON COUNTY, WISCONSIN  
 CONSTRUCTION DETAIL**

PROJECT NO.	W141579.00
SHEET NO.	2 OF 7
FILE NO.	F-

REVISION/PLOT DATE

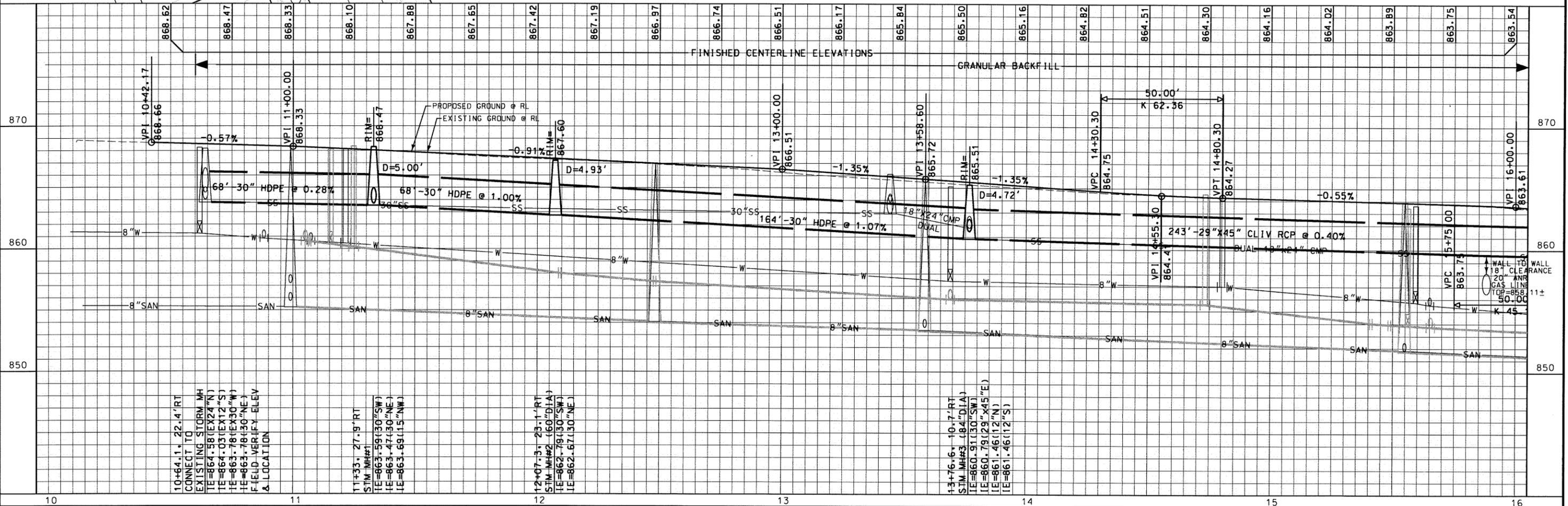
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NOTE: REMOVE ALL EXISTING STORM SEWER, MANHOLES, & CATCH BASINS WITHIN NEW STORM SEWER LIMITS.



CATCH BASIN							STORM SEWER		
NO	TYPE	STATION	FL	TOC	IE	IE	DEPTH	LEAD	GRADE
1.1	CB	11+2, 32.2'LT	867.84	868.34	864.30	-	3.54'	27'-12"	0.50%
AS-BUILT									
1.2	CB	11+32, 18.5'LT	867.59	868.09	864.06(SE)	864.16(W)	3.53'	34'-12"	0.50%
AS-BUILT									
1.3	CB	11+32, 18.5'RT	867.59	868.09	863.79(S)	863.89(W)	3.80'	10'-15"	1.00%
AS-BUILT									
3.1	CB	13+77.5, 18.5'LT	865.27	865.77	862.27	-	3.50'	28'-12"	3.00%
AS-BUILT									
3.2	CB	13+76.5, 18.5'RT	865.28	865.78	862.28	-	3.50'	6'-12"	13.67%
AS-BUILT									

**GEORGETOWN DRIVE**

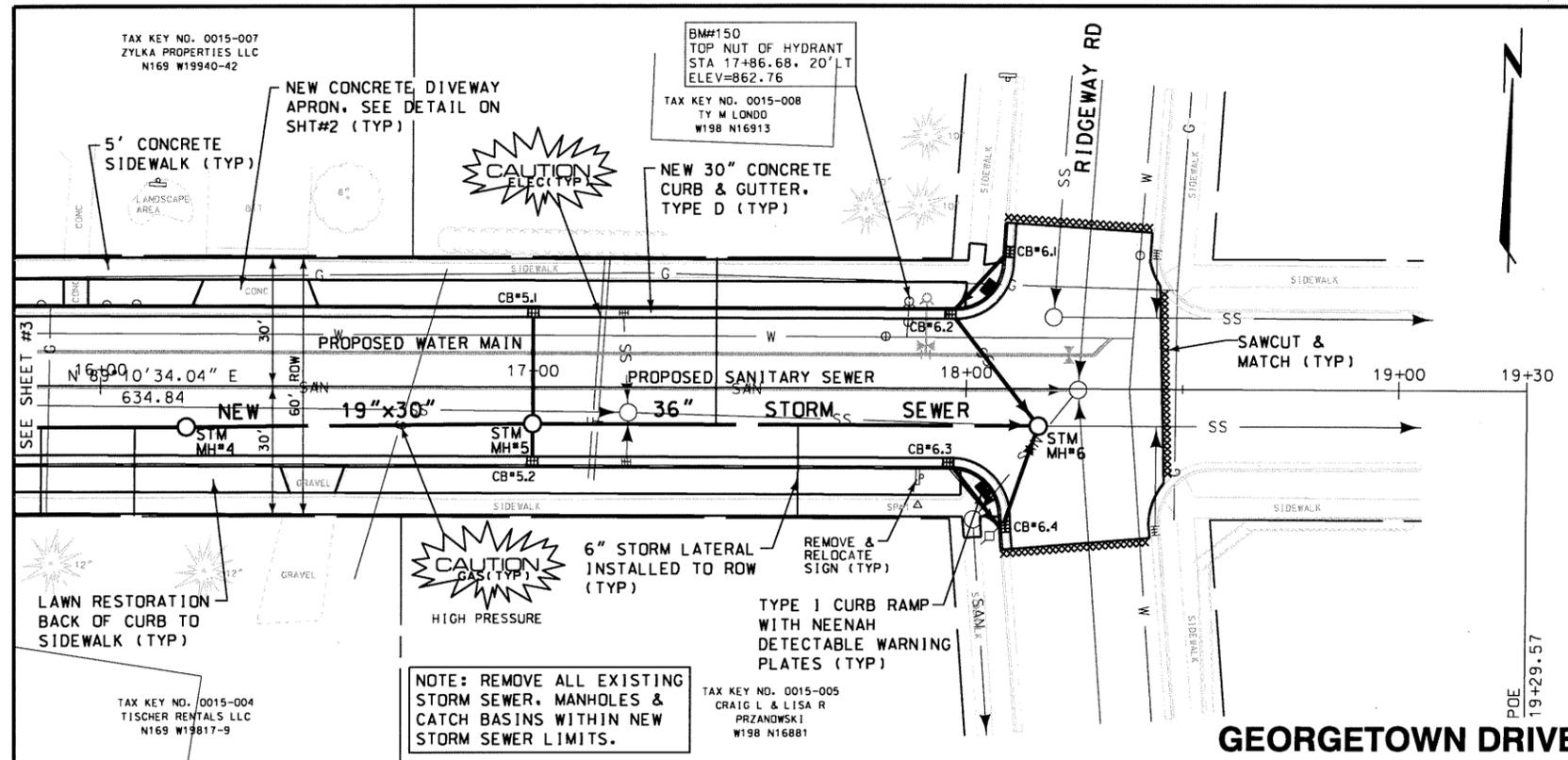


NO.	REVISIONS	BY	DATE	VERIFY SCALES	DRAWN BY:	DESIGNED BY:	<p>gai consultants W175 N11081 STONWOOD DRIVE, SUITE 103 GERMANTOWN, WI 53022 262.250.8000 • FAX 262.250.8011</p>	<p><b>GEORGETOWN DRIVE RECONSTRUCTION</b> <b>VILLAGE OF JACKSON</b> <b>WASHINGTON COUNTY, WISCONSIN</b> <b>ROADWAY AND STORM SEWER</b></p>	PROJECT NO.
				BAR IS ONE INCH ON ORIGINAL DRAWING. 0" = 1' IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	PRELIM BJB FINAL BJB	T. MILES R. DALTON			W141579.00
									SHEET NO.
									3 OF 7
									FILE NO.
									F-

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REVISED TO CONFORM TO CONSTRUCTION RECORDS DATE

REVISION/PLOT DATE: 5/10/15 - Roadway & Storm - dgn: 4/15/2015  
 PLOT BY: J. P. P. (182)



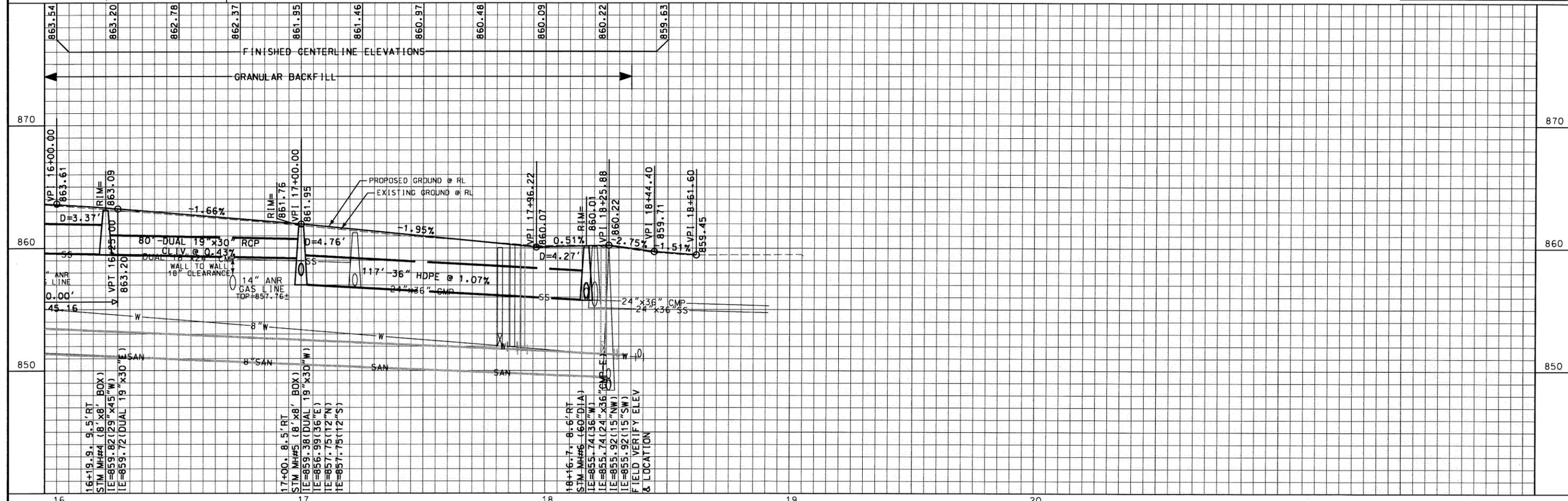
INLET PROTECTION REQUIRED ON ALL EXISTING AND NEW CATCH BASINS WITHIN THE PROJECT LIMITS.

LATERAL LOCATIONS ARE ASSUMED. CONTRACTOR SHALL MATCH EXISTING LOCATIONS CONFIRMED IN THE FIELD.

MAILBOXES SHALL BE TEMPORARILY RELOCATED DURING CONSTRUCTION AND RE-INSTALLED PRIOR TO FINAL COMPLETION. COORDINATE THIS WORK WITH THE U.S. POSTAL SERVICE - JACKSON OFFICE. COST SHALL BE INCIDENTAL TO OTHER ITEMS.

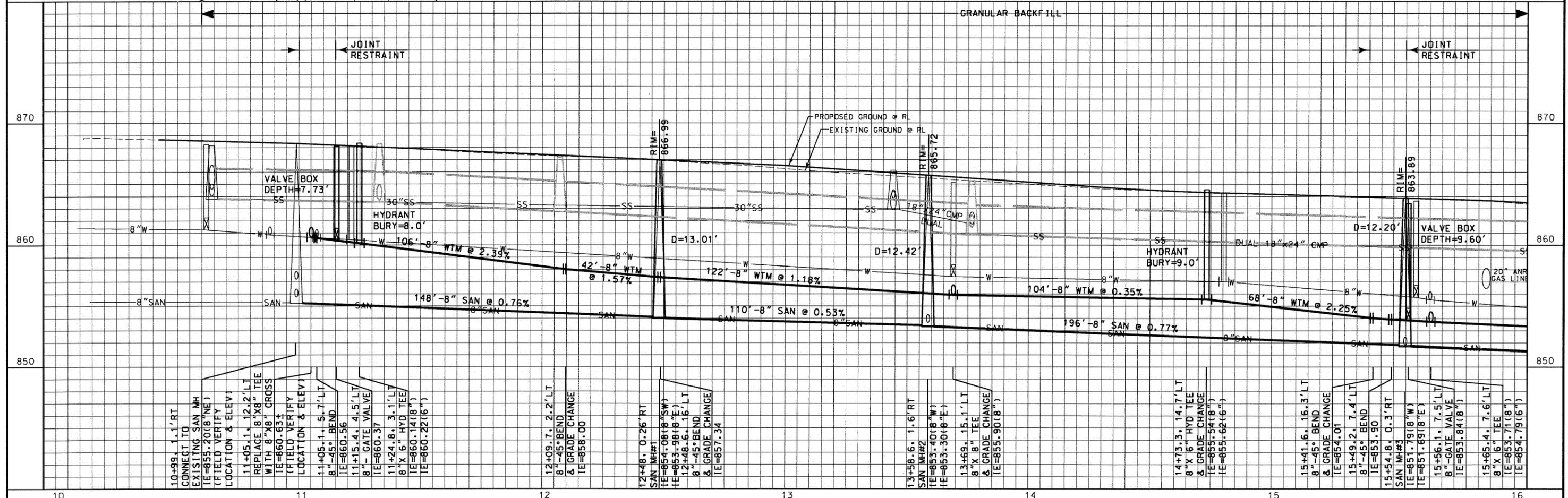
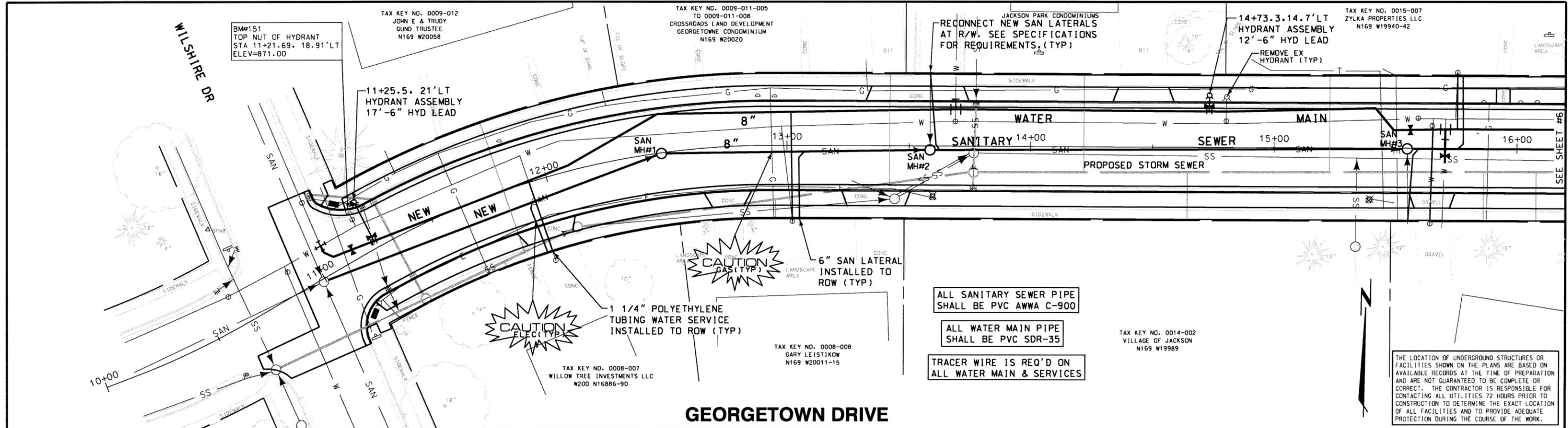
CATCH BASIN								STORM SEWER	
NO	TYPE	STATION	FL	TOC	IE	IE	DEPTH	LEAD	GRADE
5.1	CB	17+00, 18.5'LT	861.50	862.00	858.00	-	3.50'	25'-12"	1.00%
AS-BUILT									
5.2	CB	17+00, 18.5'RT	861.50	862.00	858.00	-	3.50'	9'-12"	2.78%
AS-BUILT									
6.1	CB	18+08.5, 31.6'LT	859.18	859.68	856.18	-	3.00'	19'-12"	0.50%
AS-BUILT									
6.2	CB	17+96, 18.5'LT	859.62	860.12	856.09	-	3.53'	33'-12"	0.50%
AS-BUILT									
6.3	CB	17+96, 18.5'RT	859.62	860.12	856.62	-	3.00'	19'-12"	2.00%
AS-BUILT									
6.4	CB	18+08, 31.9'RT	859.11	859.61	856.24	-	2.87'	24'-12"	1.33%
AS-BUILT									

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NO.	REVISIONS	BY	DATE	VERIFY SCALES	DRAWN BY:	DESIGNED BY:	<p>gai consultants          W175 N11081 STONEMOOD DRIVE, SUITE 103          GERMANTOWN, WI 53022          262.250.8000 • FAX 262.250.8011</p>	<p><b>GEORGETOWN DRIVE RECONSTRUCTION</b>  <b>VILLAGE OF JACKSON</b>  <b>WASHINGTON COUNTY, WISCONSIN</b>  <b>ROADWAY AND STORM SEWER</b></p>	PROJECT NO.
				BAR IS ONE INCH ON ORIGINAL DRAWING.	PRELIM BJB	T. MILES			W141579.00
				IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	FINAL BJB	CHECKED BY R. DALTON			SHEET NO.
				REVISED TO CONFORM TO CONSTRUCTION RECORDS	DATE: APRIL 2015	SCALE: HORZ: 1"=20' VERT: 1"=4'			4 OF 7
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REVISION/PLOT DATE Sht05\_Sanitary&Wtrm.dgn 4/15/2015



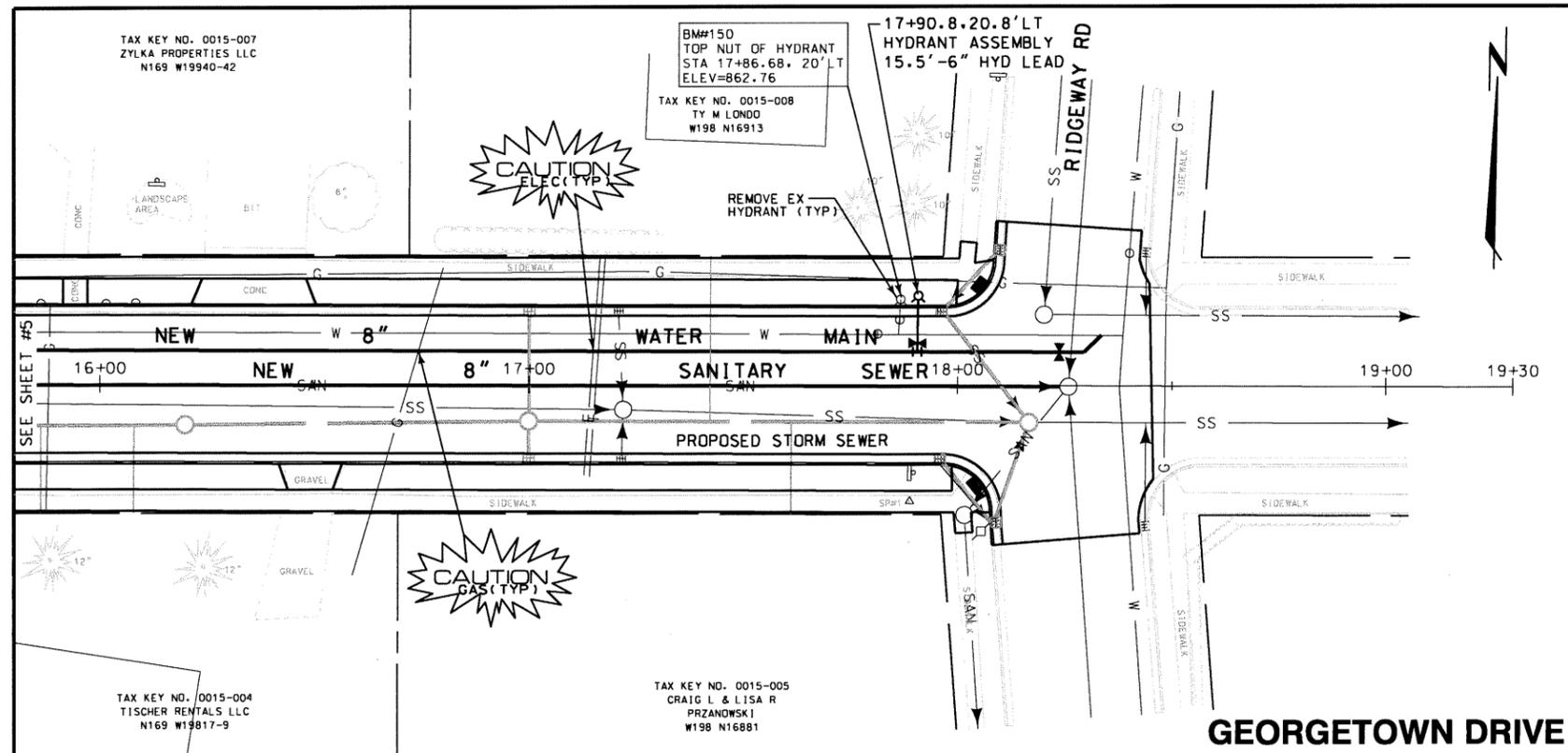
NO.	REVISIONS	BY	DATE	VERIFY SCALES	DRAWN BY:	DESIGNED BY:	PROJECT NO.
				BAR IS ONE INCH ON ORIGINAL DRAWING.	PRELIM BJB	T. MILES	W141579.00
				IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.	FINAL BJB	CHECKED BY R. DALTON	SHEET NO. 5 OF 7
					DATE APRIL, 2015	SCALE HORZ: 1"=20' VERT: 1"=4'	FILE NO. F-
				REVISED TO CONFORM TO CONSTRUCTION RECORDS			
				DATE			

**gai consultants**  
 W175 N11081 STONEWOOD DRIVE, SUITE 103  
 GERMANTOWN, WI 53022  
 262.250.8000 • FAX 262.250.8011

**GEORGETOWN DRIVE RECONSTRUCTION**  
**VILLAGE OF JACKSON**  
**WASHINGTON COUNTY, WISCONSIN**  
**SANITARY AND WATER MAIN**

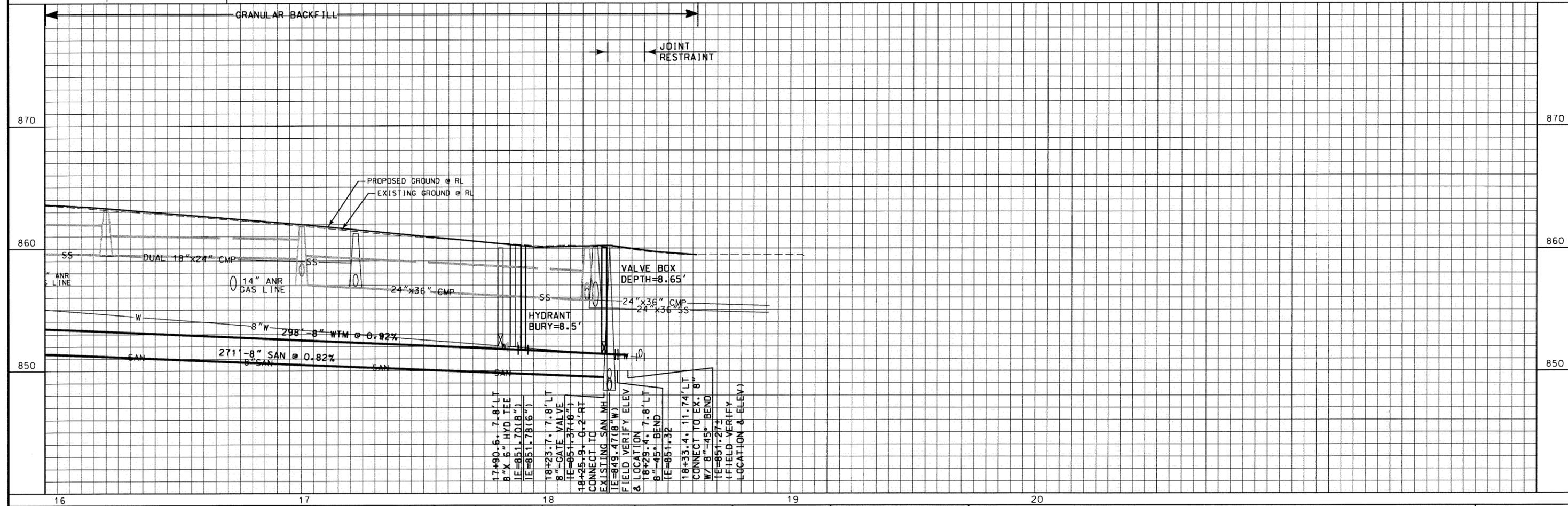
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REVISION/PLOT DATE Sht06\_Sanitary&Water.dgn 4/15/2015  
 PLOT BY: sgrebbj



ALL SANITARY SEWER PIPE SHALL BE PVC AWWA C-900  
 ALL WATER MAIN PIPE SHALL BE PVC SDR-35  
 TRACER WIRE IS REQ'D ON ALL WATER MAIN & SERVICES

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NO.	REVISIONS	BY	DATE

VERIFY SCALES: BAR IS ONE INCH ON ORIGINAL DRAWING. 0" = 1". IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

DATE: APRIL 2015

REVIS TO CONFORM TO CONSTRUCTION RECORDS BY DATE

DRAWN BY: PRELIM B.J.G., FINAL B.J.G.

DESIGNED BY: T. MILES

CHECKED BY: R. DALTON

SCALE: HORIZ: 1"=20', VERT: 1"=4'

g ai consultants  
 1775 N11081 STONEWOOD DRIVE, SUITE 103  
 GERMANTOWN, WI 53022  
 262.250.8000 • FAX 262.250.8011

**GEORGETOWN DRIVE RECONSTRUCTION**  
**VILLAGE OF JACKSON**  
**WASHINGTON COUNTY, WISCONSIN**  
**SANITARY AND WATER MAIN**

PROJECT NO. W141579.00  
 SHEET NO. 6 OF 7  
 FILE NO. F-

SPECIAL PROVISIONS  
TABLE OF CONTENTS

101.	GENERAL.....	1
102.	PERMITS AND EASEMENTS.....	4
103.	NOTIFICATION OF UTILITIES .....	7
104.	SUBSURFACE SOIL INVESTIGATION DATA .....	8
110.	WORK SCHEDULE - PROJECT COMPLETION.....	8
401.	STORM SEWER CONSTRUCTION .....	10
405.	STORM SEWER MATERIALS .....	12
410.	STORM SEWER MANHOLES .....	13
415.	CATCH BASINS .....	16
416.	CATCH BASIN REMOVAL .....	16
501.	WATER MAIN CONSTRUCTION .....	17
502.	ABANDONING WATER MAINS AND SERVICES .....	21
503.	CONSTRUCTION / CONNECTION SEQUENCE.....	24
505.	WATER MAIN MATERIALS .....	24
505.2.	POLYVINYL CHLORIDE PIPE .....	25
505.4.	FITTINGS (USED WITH DUCTILE IRON AND PVC).....	25
510.	VALVES AND VALVE BOXES.....	25
530.	HYDRANTS .....	27
540.	WATER SERVICES.....	29
550.	HYDROSTATIC TESTS.....	30
555.	DISINFECTION .....	31
600.	GENERAL CONSTRUCTION PROCEDURES .....	32
605.	ROCK EXCAVATION .....	32

606.	PREVENTION OF PIPE FLOTATION .....	32
607.	PORTABLE TRENCH BOX.....	32
608.	MANUFACTURER’S REPRESENTATIVE.....	33
609.	HANDLING PIPE AND ACCESSORIES .....	33
635.	TRACER WIRE.....	34
640.	SUPPORT OF UNDERGROUND STRUCTURES.....	36
650.	EROSION CONTROL .....	37
700.	BACKFILLING UTILITY TRENCHES.....	41
900.	TRAFFIC MAINTENANCE.....	43
1201.1.	TREE ROOT REMOVAL .....	45
1204.	REMOVING MISCELLANEOUS STRUCTURES .....	45
1204.1.	REMOVING PAVEMENT .....	45
1204.3.	REMOVING CONCRETE STRUCTURES .....	46
1204.5.	DISPOSAL OF PAVEMENT AND CONCRETE STRUCTURES .....	46
1205.	ROADWAY AND DRAINAGE EXCAVATION .....	46
1205.1.	COMMON EXCAVATION .....	46
1205.2.	EXCAVATION BELOW SUBGRADE (EBS).....	48
1205.5.	DISPOSAL OF MATERIALS.....	49
1305.	BASE AGGREGATE DENSE .....	49
1450.	ASPHALTIC CONCRETE PAVEMENT.....	51
1501.	CONCRETE MASONRY .....	55
1601.	CONCRETE CURB AND GUTTER .....	56
1602.	CONCRETE SIDEWALK, STEPS, AND DRIVEWAYS.....	57
1611.1.	MANHOLE AND VALVE BOX ADJUSTMENTS.....	60
1611.1.	SANITARY MANHOLE ADJUSTMENTS .....	60

1611.2.	CATCH BASIN ADJUSTMENTS.....	63
1617.	DELIVERY TICKETS .....	63
1625.	TOPSOIL .....	63
1630.	LAWN RESTORATION.....	64

## SPECIAL PROVISIONS

### **Georgetown Drive Reconstruction Village of Jackson Washington County, Wisconsin**

#### 101. GENERAL

##### A. Definition of Work.

1. The work covered by this Contract(s) shall consist of furnishing all labor, equipment, tools, supervision, machinery, supplies and all materials necessary to complete the Georgetown Drive Reconstruction Project.
2. Plans.
  - a. The work is described in these Special Provisions and shown on the Plans identified with File Nos. F-28936 through F28949.
  - b. Final construction plans are marked “Released for Construction”.
3. Plans/Specifications at Project Site.
  - a. The Contractor shall have a complete set of plans and specifications at the project site at all times. Specifications shall include:
    - (1) Project manual, including Special Provisions;
    - (2) “Standard Specifications”, if applicable;
    - (3) “State Specifications”;
    - (4) Other documents pertaining to the project.

##### B. Specifications.

1. Utility Construction.
  - a. The “Standard Specifications for Sewer and Water Construction in Wisconsin”, Sixth Edition, December 22, 2003, with Addendum No. 1 and Addendum No. 2, will govern all utility work performed on this project and hereinafter will be referred to as the “Standard Specifications”.
    - (1) Delete Part I, General Conditions, from the “Standard Specifications”.

2. Road Construction.

a. The State of Wisconsin, Department of Transportation, "Standard Specifications for Highway and Structure Construction", Current Edition, and all "Interim Supplemental Specifications"; will govern all road work performed on this project and hereinafter will be referred to as the "State Specifications".

(1) Delete Part I, General Requirements and Covenants, from the "State Specifications", except those sections specifically referenced in these contract documents.

(2) All references to the "Department" or "State" (The "Department" of Transportation of the "State" of Wisconsin) shall be interpreted to mean the Owner.

(3) All references to metric unit(s) shall be converted to their nearest whole equivalent Standard unit(s) (U.S. Standard) in accordance with the conversion tables shown in the Appendix of the "State Specifications". Any necessary adjustments or interpretations shall be made by the Engineer.

3. In the event of a discrepancy between these "Special Provisions" and either the "Standard Specifications" or the "State Specifications", these "Special Provisions" shall govern.

4. Copies of the "Standard Specifications for Sewer and Water Construction in Wisconsin", Sixth Edition, may be obtained for \$45.00 each, plus \$7.50 shipping, upon request to:

Public Works Industry Improvement Program  
2835 N. Mayfair Road, Suite 35  
Milwaukee, WI 53222

Phone: (414) 778-1050

5. The "Standard Specifications for Highway and Structure Construction", Current Edition, may be viewed for free via the internet at the following website:

<http://roadwaystandards.dot.wi.gov/standards/stnds-spec/index.htm>

6. Hard copies or CDs of the "Standard Specifications for Highway and Structure Construction," Current Edition, may be ordered from WisDOT by downloading their order form available at the following website:

<http://roadwaystandards.dot.wi.gov/standards/stnds-spec/hidden/order/index.htm>

C. Staking Line and Grade.

1. The Engineer will provide a one time staking of the project at no expense to the Contractor. Additional staking will be performed by the Engineer at a per diem charge-out rate. Notification of at least two (2) days is required when making periodic requests for line and grade.

D. Alternate Materials.

1. The Contractor may furnish alternate materials in place of those specified in these Special Provisions where “or equal” is stated and when the following provisions have been complied with.

“If the Contractor wishes to substitute an alternate material as an “equal” to the material specified, he shall first submit a detailed description of such to the Engineer and Owner for their review and approval/disapproval. The Contractor shall not install any alternate materials prior to receiving approval for their use. Only those materials listed in these Special Provisions or approved as alternates may be used on this project.”

E. Work Schedule.

1. The Contractor shall complete the work in accordance with the schedule specified in the Agreement. The Contractor may be required to provide a construction schedule prior to beginning work on this project.
2. Refer to Section 110 of these Special Provisions for additional work scheduling/completion requirements.
3. Continuity of Work.
  - a. Once construction has started on the project, the Contractor shall work continuously until the project is complete. Work days are defined as Monday through Friday (excluding inclement weather days and holidays). Suitable days shall be determined by the Engineer. A sum of \$500.00 for each suitable day on which no substantial work is completed shall be deducted from any monies due to the Contractor.

G. Construction Working Hours.

- a. The Contractor may only work within the times noted below unless otherwise approved by the Owner. These hours only apply to Contractor’s operations that create noise levels that could negatively affect adjacent properties.

(1) Weekdays - 7:00 a.m. to 6:00 p.m.

(2) Saturday - 8:00 a.m. to 5:00 p.m.

(3) Sunday - No Work Allowed.

H. Sewer and Water Service Disruption (Notification of Property Owners).

1. The Contractor shall notify the Owner at least six (6) days prior to shutting off any sewer or water service to allow the Owner time to notify affected properties at least four (4) days (excluding weekends and holidays) prior to shutting off the service. Coordinate the work schedule with the Owner in order to minimize inconvenience and disruption caused by the temporary discontinuance of water service. The Owner will contact/notify all property owners whose sewer or water service will be temporarily shut off as a result of Contractor's operations. The Contractor shall not interfere with functions previously scheduled by individuals, businesses, or institutions.

I. Basis of Payment.

1. Payment for work completed under this contract shall be in accordance with the appropriate sections of these Special Provisions, the "Standard Specifications", or the "State Specifications".
2. All miscellaneous or minor work necessary to complete the project, but not listed as bid items in the Bid Form, shall be considered incidental to and included in the prices bid for other items of work.

102. PERMITS AND EASEMENTS

A. Permits and Approvals.

1. Amend Section 1.2.8. of the "Standard Specifications" to read in part:

"The Owner has or will obtain the following permits/approvals needed for construction of the work. Copies of these documents are or will be made available for the Contractor to review and become familiar with in order that he may comply with their special provisions."

The following permits and approvals have been applied for:

- a. DNR – Water Main Extension
  - b. DNR – Sanitary Sewer
  - c. ANR Pipeline (High Pressure Gas) approval
2. DNR Well Permits.
    - a. The Contractor shall obtain well permits from the Department of Natural Resources if dewatering wells will be installed or operated

for which the single or aggregate capacity will be in excess of 70 gallons per minute. Permits must be obtained before well construction can begin.

- b. The DNR's address for well permits is as follows:

Wisconsin Department of Natural Resources  
Bureau of Drinking Water and Groundwater  
Box 7921  
Madison, WI 53707

or

Contact: Mark Putra at (608) 267-7649

- c. Permit requirements:

- (1) The fee for a High Capacity Well (greater than 70 gpm) is \$500.00 and must accompany each application.
- (2) Any new well on a high capacity well property requires an approval and is subject to the fee.
- (3) Global Positioning Satellite (GPS) location data is required for all wells listed on applications.
- (4) Temporary dewatering well installations with multiple wells for one project are subject to a single \$500.00 fee.

3. Construction Pit Dewatering Discharge Permit.

- a. The Contractor shall comply with the provisions of Chapter 283.35, Wisconsin Statutes, regulating the discharge of effluent from construction pit (trench) dewatering. These provisions provide for the removal of suspended solids from dewatering effluent prior to the direct discharge to surface waters or wetlands.
- b. The Contractor shall apply to the Department of Natural Resources for a permit to discharge effluent from construction pit dewatering. This discharge may be covered by an existing General Permit for discharging Contaminated Storm Water Runoff/Or Construction Pit Dewatering. Application forms for this permit(s) may be obtained at:

[www.dnr.state.wi.us/org/water/wm/ww/gpindex/gpinfo.htm](http://www.dnr.state.wi.us/org/water/wm/ww/gpindex/gpinfo.htm)

4. Contractor is responsible for obtaining all necessary off-site disposal permits.
  5. Water Supply for Construction Purposes.
    - a. When a source of water is required by the Contractor for construction purposes in the Village of Jackson the Contractor may obtain water from the municipal water system only upon approval of the Village Engineer. Any attempt to obtain water without the Village of Jackson's approval, is subject to fines and penalties.
- B. Easements and Construction License Agreements (Permits).
1. No easements or construction licenses (permits) are required for this project.
- C. Soil Boring Permit/Approval.
1. Contractors (Bidders) shall obtain permission from the Owner prior to performing subsurface investigations. Street opening or highway permits may be required for taking soil borings within Georgetown Drive.
  2. The Contractor is reminded to contact all utilities, as well as Diggers Hotline, before performing soil boring work.
  3. Soil borings shall not be taken within existing pavement or shoulder areas without the Owner's prior permission. All boring holes shall be completely filled after the work has been completed.
  4. Borehole/Drillhole Abandonment.
    - a. All boreholes shall be completely filled after the work has been completed. Drillholes (boreholes) shall be abandoned in accordance with DNR regulations. Chapter NR 812, Wisconsin Administrative Code, defines drillholes as "any excavation or opening . . . deeper than it is wide that extends more than 10 feet below the ground surface."
    - b. Section NR 812.26 specifies the procedures to be used in drillhole abandonment. Drillholes shall be filled with acceptable materials as specified in Section NR 812.26(7).
    - c. An abandonment form (Form 3300 - 5b or 5w) shall be submitted to the appropriate DNR District office for each abandoned drillhole within 30 days of completion of the work in accordance with Section NR 812.26(8).

### 103. NOTIFICATION OF UTILITIES

#### A. Utility Location and Coordination.

1. The locations of utilities shown on the Plans are from existing records and/or field locations and may not be complete or accurate. The Contractor shall contact Diggers Hotline at (800) 242-8511, as well as other utilities not served by Diggers Hotline but having facilities in the work area, at least three (3) full business days prior to construction to notify the utilities to locate their underground facilities.
2. A preconstruction meeting will be held, if required, to coordinate the work operations of the Contractor and the utility companies and resolve any conflicts that may exist.

#### B. Utility Protection.

1. It shall be the responsibility of the Contractor to protect all utilities that are encountered in his work operations. The Contractor shall contact utilities to determine their procedure and schedule for supporting and/or relocating poles and shall notify any above ground utility such as electric and telephone companies to relocate or reinforce any poles, ties or anchors which may be on or near the line of the proposed utility or weakened by excavation for the proposed utility or within road construction grading limits. All costs of protecting existing utilities; such as tunneling, sheathing, bracing or relocation including utility company bracing and relocation charges shall be considered incidental to utility construction.

#### C. Utility Contacts.

- |    |                                       |                            |
|----|---------------------------------------|----------------------------|
| 1. | Diggers Hotline                       | (800) 242-8511             |
| a. | We-Energies/Gas<br>Tom Minesal        | (414) 540-5377             |
| b. | We-Energies/Electric<br>Al Schmitt    | (262) 338-7662             |
| c. | AT &T Engineering Svc.<br>Steve Ubert | (414) 535-7420             |
| d. | Charter Communications<br>Tom Haryck  | (262) 306-8756<br>ext. 206 |
| e. | Village of Jackson<br>Brian Kober     | (262) 677-9001             |

104. SUBSURFACE SOIL INVESTIGATION DATA

- A. Subsurface soil investigation was not done on this project.

110. WORK SCHEDULE - PROJECT COMPLETION

- A. The Contractor shall complete all work on this project, including replacement and restoration work, by the date specified or within the time allowed in the Agreement.
- B. It is the Owner's intent to complete all work, including restoration, in a continuous manner, as quickly as possible, to minimize disruption and inconvenience to the public.
- C. Substantial Completion.
  - 1. Definition.
    - a. Substantial completion of this project is defined as "such time as all roadway and utilities are completed to a point that lawn restoration may be completed. "Note that lawns may be resoted prior to completing paving operations."
    - b. The date of substantial completion shall be determined by the Engineer using his best judgment.
  - 2. The Engineer may determine that the project is substantially complete even though some work remains; i.e., placement of back-ordered materials such as manhole castings, hydrants, etc. or final testing and approval. The Engineer may also set a date of substantial completion for triggering the final restoration timetable if, in the judgment of the Engineer, the Contractor is not making a good faith effort to complete the work in a timely manner.
- D. Completion of Site Restoration.
  - 1. Notice to Proceed With Restoration.
    - a. The provisions of this Section shall apply only if the Contractor substantially completes the project more than 30 days before the completion date or time specified in the Agreement. In the event that a Notice To Proceed With Restoration is issued, the completion time allowed by such notice shall apply for the project and shall supersede the completion date or time specified in the Agreement.
    - b. At such time as the project is substantially complete the Engineer will issue a written notice to the Contractor to proceed with final

restoration; i.e., surface replacement (pavements, shoulders, driveways, parking areas, etc.) and site restoration (lawns, etc.). All replacement and restoration work shall be completed within thirty (30) calendar days after the date of the Notice To Proceed With Restoration.

d. Definition of Restoration.

(1) The terms restoration or site restoration, as used in the context of this Section, shall be defined as including all surface replacement and site restoration work.

2. Liquidated Damages.

a. If replacement and restoration work are not completed within the time period specified by the Notice To Proceed With Restoration, there shall be deducted from any monies due the Contractor or Surety a sum of \$500.00 for each and every calendar day thereafter, that the work shall remain uncompleted.

3. Any restoration work that cannot be completed within the time period specified, through no fault of the Contractor, and any restoration work that must be redone due to further construction work shall be replaced or restored as quickly as possible. If such work is not completed within a reasonable amount of time, the Engineer will issue a subsequent Notice To Proceed With Restoration, per the provisions of Paragraphs D.1. and D.2. above, except that the Contractor will be allowed only ten (10) calendar days from the date of such notice to complete all restoration work.

4. Unacceptable or defective restoration work shall be repaired or replaced immediately or shall be considered as not being completed and shall be subject to the liquidated damages specified above. Restoration work found to be unacceptable through no fault of the Contractor, such as grass seed failing to take, shall be restored immediately or within fourteen (14) calendar days after the date that a subsequent Notice To Proceed With Restoration (if required) is issued.

E. Seasonal Restoration.

1. Work completed during winter months or at other times that weather adversely affects pavement or lawn restoration shall be restored as quickly as possible when weather conditions permit and shall be completed within the time periods specified below.

2. Lawn Restoration.

a. Seeding may be done at any time during the growing season when soil conditions are suitable. Ideally, seeding will be completed prior to October 1st.

3. Pavement Replacement.
  - a. Asphaltic pavement shall be placed in accordance with Section 1450 of these Special Provisions.

#### 401. STORM SEWER CONSTRUCTION

##### A. Bedding Sections.

1. Reinforced Concrete Pipe.
  - a. Reinforced concrete pipe shall be installed using Class "B" Bedding unless Class "A" or Class "C" Bedding is specified on the Plans.
2. Flexible Pipe (HDPE Pipe).
  - a. High density polyethylene (HDPE) pipes shall be installed using Class "B" Bedding.
3. Class "B" Bedding.
  - a. Class "B" Bedding shall conform to File No. 4 and Paragraph 3.2.6(b) (concrete pipe) or Paragraph 3.2.6(i) (HDPE) of the "Standard Specifications".
  - b. Delete the following sentence from Paragraph 3.2.6(b)(2):

"If crushed stone chips or other materials conforming to Section 8.43.2(a) are used as cover material, no compaction is required."
  - c. Amend Section 8.43.2(a) to state that crushed pea gravel is not acceptable as bedding material.
  - d. Cover material shall be the same material as used for bedding and shall conform to Section 8.43.2(a).
  - e. Placement and Compaction.
    - (1) Place bedding material to the springline of the pipe and compact prior to placing cover material. Compaction of bedding material at the level of the pipe springline shall include working bedding material under the haunches of the pipe using shovels or other suitable methods. The Contractor shall take care to completely work bedding material under the haunches of the pipe to provide adequate side support.

- (2) Place and compact cover material in one or more lifts after compacting bedding material.
- (3) Refer to Subsection 607.B of these Special Provisions for requirements for recompacting Class "B" bedding disturbed by trench boxes.

4. Class "C" Bedding.

- a. Class "C" Bedding shall conform to File No. 3 and Paragraph 3.2.6(a) of the "Standard Specifications".
- b. Amend File No. 3 and Paragraph 3.2.6(a) to require cover material to 12 inches over the top of the pipe.
- c. Bedding Material.
  - (1) Bedding material shall conform to Subsection 8.43.2 of the "Standard Specifications", as modified below.
    - (a) Amend Section 8.43.2(a) to state that crushed pea gravel is not acceptable as bedding material.

B. Pipe Fittings.

1. The cost of furnishing and installing fittings such as tees, plugs, bends and reducers shall be included in the unit price(s) bid for storm sewer pipe.

C. Field Tile Connections.

1. All field or sump pump lines encountered during construction shall be connected to the new storm sewer. The cost of tile connections shall be included in the unit price(s) bid for storm sewer.
  - a. Tile lines crossed by the trench shall be replaced with polyvinyl chloride (PVC) sewer pipe meeting the requirements of ASTM D3034, SDR-35, with rubber gasket joints. The PVC pipe shall extend for a minimum distance of 2 feet outside of the edge of the undisturbed trench wall. The tile to PVC pipe connection shall be made with compatible fittings, adapters or encased in concrete. The size of the new pipe shall be equal to or greater than the field tile it is connected to.
  - b. All damaged field tile shall be repaired and connected to the storm sewer the same day as the damage occurs so that the flow of water will not be unreasonably restricted.

F. Storm Laterals.

1. The Contractor shall install storm laterals as shown on the Plans. All laterals shall be 42 inches deep whenever possible.
2. Sump pump lateral material shall be polyvinyl chloride (PVC) pipe conforming to the following:
  - a. PVC pipe meeting the requirements of ASTM D3034, SDR-35.
3. All new storm laterals shall be installed from the main line to the property side of the sidewalk as shown on the Plans. The laterals shall be connected to any existing buried downspout receptacles in the area.
4. The lateral connection to the concrete storm sewer main shall be connected by a precast tee or a Kor-N-Tee connection. The cost of the mainline connection or any existing buried downspout connection shall be paid for at the unit price bid for storm laterals.
5. Mark the ends of laterals with a vertical wooden stake, with a spike or durable magnetic material in the top of the marker. The cost of the marker shall be included in the cost of the lateral.
6. The cost of a connection to a catch basin will be included in the cost of the lateral.

G. Pay Measurement for Storm Sewers.

1. Pay measurement for storm sewers shall be in accordance with Subsection 2.9.1 of the "Standard Specifications", as specified below.
2. 8" Through 48" Diameter Sewers.
  - a. Centerline of manhole to centerline of manhole or catch basin;
  - b. To the end of a new pipe or to the near edge of an end section, excluding the end section length. (Note: End sections paid for as bid items.)

405. STORM SEWER MATERIALS

A. Storm sewer pipe material shall be reinforced concrete sewer pipe and HDPE pipe conforming to the following:

1. Reinforced concrete sewer pipe (RCP) shall meet the requirements of ASTM C76 with mortar or rubber gasket joints conforming to ASTM C443.

- a. RCP shall be furnished for the following classes of pipe:
  - 12" – Class V
  - 15" – Class IV
  - 18" or Greater – Class III
2. Reinforced concrete horizontal elliptical sewer pipe RCHEP shall meet the requirements of ASTM C507 with mortar or rubber gasket joints conforming to ASTM C443.
  - a. All RCHEP pipe shall be Class HE-V.
3. High Density Polyethylene Pipe (HDPE) with a corrugated exterior and smooth interior and provided with watertight bell and spigot joints with rubber gaskets. Four inch through 10 inch diameter pipes shall meet the requirements of AASHTO M-252 and 12 inch through 36 inch diameter pipes shall meet the requirements of AASHTO M-294, Type S.
  - a. HDPE pipe shall be ADS N-12 "ProLink ULTRA" as manufactured by Advanced Drainage Systems, Inc. of Columbus Ohio; or Hancor "Sure-Lok 10.8" as manufactured by Hancor, Inc. of Findlay, Ohio.

#### 410. STORM SEWER MANHOLES

##### A. Standard Manhole.

1. Storm sewer manholes shall be constructed in accordance with Chapter 3.5.0 and File Nos. 12, 13, and 15 of the "Standard Specifications" and these Special Provisions.
  - a. Poured Manhole Base.
    - (1) All manhole bases (benches) shall be poured in place in accordance with Subsection 3.5.5(b) of the "Standard Specifications". Precast manhole bases or precast integral base units will be allowed, however, no precast base units with preformed benches are allowed.
  - b. Manholes less than 4 feet deep do not require steps.
  - c. Plastic manhole steps shall be provided in accordance with Paragraph 3.5.4(g) of the "Standard Specifications".
2. Manholes shall be precast 60", 72", 84", 120" inch inside diameter, as noted on the Plans, with eccentric cones.

- a. Flat top slabs with offset openings may be used for shallow manholes where there is not sufficient depth to install cones or on deeper manholes with the approval of the Engineer.
- b. Adjusting Rings.
  - (1) A minimum of 4 inches to a maximum of 12 inches of adjusting rings shall be furnished for each manhole, unless shown otherwise on the Plans. Rings shall be 2 or 4 inches high.
  - (2) Material - Adjusting rings shall be
    - (a) Concrete Adjusting Rings.
      - 1) Concrete adjusting rings shall meet the requirements of Subsection 8.39.11 of the "Standard Specifications".
- c. Manhole depths shown on the Plans are approximate only, unless the cover elevation is indicated. Manhole covers shall be placed to match the existing grade or at the elevation shown on the Plans.
  - (1) Place manhole covers 1/4 inch below the pavement grade in streets.

3. Manhole Frames and Covers.

- a. Manhole frames and covers shall be Neenah R-1580 with Type "B" lids, non-rocking.
- b. Manhole frames shall be centered on the top of the cone section.

B. Manhole Joints.

- 1. Joints for precast manhole riser sections shall be made with non-shrink grout, rubber "O"-ring gaskets, a continuous ring of butyl rubber sealant (EZ-Stik or Kent Seal in rope form). The butyl sealant shall be 1 inch diameter equivalent or as recommended by the manhole manufacturer.
- 2. Adjusting rings and manhole frames shall be set with non-shrink grout or butyl rubber sealant troweled into a 1/4 inch thick layer over the entire surface areas of the top of cone and all adjusting rings. The butyl rubber sealant shall be EZ-Stik or Kent Seal butyl base sealant in trowelable grade.

3. Non-Shrink Grout.

- a. Grout shall be a premixed, non-metallic, cementitious, controlled expansion, high strength, versatile non-shrink grout; PenngROUT by IPA Systems, Inc. or equal.

C. Cone/Ring Dimensions.

1. Manhole Cone Sections.

- a. The top dimensions of cone sections shall be either 24 inches inside diameter by 36 inches outside diameter or 26 inches inside diameter by 38 inches outside diameter.
- b. The outside diameter of the top of the cone section shall be as large as or larger than the base flange of the manhole casting.

2. Adjusting Rings.

- a. Adjusting ring dimensions shall match the dimensions of the top of the cone section.
- b. Adjusting rings shall have flat or even bearing surfaces providing bearing contact over the entire contact surfaces.
- c. Concrete adjusting rings shall be as specified in Section 8.39.11 of the "Standard Specifications".

3. Center adjusting rings on manhole cones and center manhole castings on adjusting rings so that their surfaces will be flush whenever possible.

D. Manhole/Pipe Connections.

1. Connections of pipes to manholes shall be made in accordance with Section 3.5.7 of the "Standard Specifications", as modified below. All field tapped holes for connecting sewer pipe to manholes shall be made by coring.

- a. Rigid Pipe. Reinforced concrete pipe shall be connected by means of brick and mortar per Subsection 3.5.7(a)1.b.
- b. Flexible Pipe. Corrugated polyethylene pipe (HDPE) shall be connected by either an approved flexible pipe to manhole seal or by means of brick and mortar per Subsection 3.5.7(b). Install a rubber gasket around the pipe, centered on the manhole wall, when forming mortared connections.

2. All costs associated with connecting existing storm sewers to new manholes or catch basins will be included in the cost of new manholes or catch basins.

#### 415. CATCH BASINS

##### A. Standard Catch Basin.

1. Catch basins shall be constructed in accordance with the standard catch basin details shown on the Plans and/or in the Appendix and these Special Provisions.
  - a. Catch basins shall be precast 48 inch diameter round and shall have 12 inch sumps.
  - b. The depths of catch basins shown on the Plans are measured from the invert of the lead to the flow line of the grate and do not include the sump depth. Catch basin grates shall be placed to match the ditch or gutter grade or at the elevation indicated on the Plans.
  - c. Catch basin frame and cover shall be Neenah R-3246-AL (vertical face).
  - d. If bedrock is encountered, the City may direct the Contractor to eliminate sumps.
  - e. Catch basins shall be backfilled with 1" crushed stone chips to the base course of pavement.
  - f. A minimum of 4 inches to a maximum of 12 inches of adjusting rings shall be furnished for each catch basin.

##### B. Catch Basin/Pipe Connections.

1. Connections of rigid pipes to catch basins shall be made with brick and mortar in accordance with Subsection 3.5.7(a)1.b. of the "Standard Specifications".
2. Connections of flexible pipes (HDPE) to catch basins shall be made with brick and mortar in accordance with Subsection 3.5.7(b) of the "Standard Specifications". Place a rubber gasket around the pipe centered on the catch basin wall.

#### 416. CATCH BASIN REMOVAL

- A. Removing catch basins shall include removing and disposing of catch basins as shown on the Plans, backfilling excavations with granular material, and plugging

lines with concrete as specified in Section 3.2.24 of the “Standard Specifications”, included in the cost of other bid items.

- B. Salvageable inlet castings, as determined by the Owner, shall remain the property of the Owner. Deliver salvaged castings to a location specified by the Owner.

#### 501. WATER MAIN CONSTRUCTION

- A. Bedding and Cover Material.

- 1. Polyvinyl Chloride (PVC) Pipe.

- a. Bedding materials – Class “B” (Compacted Section) bedding as specified in Chapter 4.3.0, Laying of Water Main, and File No. 36, Part VII, of the Standard Specifications shall be used. Bedding materials shall be Crushed Stone Chip specified in Chapter 8.43.2, Bedding Materials, of the Standard Specifications.
- b. Cover Materials – Cover materials used shall be crushed stone chips as specified in Chapter 8.43.2, and extend 12-inches above pipe barrel.

- 3. Trench Section.

- a. The trench section shall conform to Section 4.3.3 and File No. 36 of the “Standard Specifications”, as amended below:
  - (1) Bedding and cover shall be placed in a minimum of three separate lifts to ensure adequate compaction of these materials, with one lift of bedding material ending at or near the springline of the pipe. The Contractor shall take care to completely work bedding material under the haunch of the pipe to provide adequate side support.
  - (2) Amend Section 4.3.3 and File No. 36 of the “Standard Specifications” to require a minimum of 12 inches of cover material over the top of the pipe.

- B. Polyethylene Wrap.

- 1. Polyethylene wrap (8 mil and taped to pipe) shall be provided on all ductile iron water main and cast iron or ductile iron fittings, as specified in Chapter 8.22.0 of the Standard Specifications.
  - a. All joint restraint systems shall be enclosed within the wrap.
  - b. Wrap the first three feet of water service piping.
  - c. Wrap all ductile iron fittings used with PVC pipe.

- d. Wrap all valve boxes.
  - e. Wrap all hydrant barrels, but be careful not to plug weepholes.
2. Polyethylene wrap shall meet the requirements of AWWA Standard C-105 (ANSI A21.5) using Class C (black) polyethylene material with 8 mils minimum thickness and shall be installed as specified in Section 4.4.4 of the “Standard Specifications”.
- a. Fold and tape loose wrap material to minimize air entrapment which could cause the material to be punctured when backfilling.
- C. Disinfecting Water Mains.
- 1. Water mains shall be cleaned and disinfected in accordance with Sections 4.3.11 and 4.3.12 and Chapter 4.16.0 of the “Standard Specifications” and AWWA Standard C651. Place calcium hypochlorite tablets in the water main as specified in Section 4.3.12.
  - 2. See Section 555 of these Special Provisions for water main flushing and sampling requirements.
- D. Sewer Crossings.
- 1. Center one full length of water main pipe on sewers wherever water main crosses over or under a sanitary or storm sewer so that both water main joints will be as far from the sewer as possible.
- E. High Points in Water Main.
- 1. The Contractor shall install water main at the grades shown on the Plans with no high points constructed in the main except at hydrants and as indicated on the Plans. If a high point which could trap air can not be prevented, then an air release assembly shall be constructed at that point, if so ordered by the Engineer.
    - a. The Engineer reserves the right to order the Contractor to relay water main placed at the wrong grade. The cost of such relay work shall be paid for by the Contractor.
  - 2. The cost of furnishing and installing an air release assembly(s) will be paid for by the Owner if it is required through no fault of the Contractor, otherwise this work shall be at the Contractor’s expense.

F. Joint Restraint.

1. Restraining Fittings, Valves and Sleeves.

a. MEGALUG Restrained Joints.

- (1) Restrain all fittings (bends, tees, caps, and plugs), valves, and sleeves using MEGALUG restrained joints as manufactured by EBAA Iron Sales, Inc. of Eastland, Texas, or as provided for in Paragraph b. below.

2. Restraining Vertical Bends, Offsets, Horizontal Bends, Dead Ends, and Tees.

- a. Changes in the grade of the water main made by vertical bends or offsets shall be restrained by strapping in accordance with File No. 47 of the “Standard Specifications” or as provided for in Subsection F.1 above.
- b. Restraint for horizontal bends and dead ends shall be at the minimum lengths shown below, unless otherwise shown on the Plans, and shall be in accordance with File No. 47A of the “Standard Specifications” with restraint as specified in Subsection F.1 above.

Water Main Size	90° Horiz. Bend		45° Horiz. Bend		Dead End	
	L (D.I.)	L (PVC)	L (D.I.)	L (PVC)	L (D.I.)	L (PVC)
4	15'	15'	10'	5'	35'	25'
6	25'	20'	10'	10'	50'	30'
8	30'	25'	15'	10'	65'	40'
10	35'	30'	15'	15'	75'	50'
12	40'	35'	20'	15'	90'	60'
16	50'	40'	25'	20'	115'	75'

- c. At a minimum restrain all joints within 20 feet of the centerline of the tee (on both the main and branch lines), unless otherwise shown on the Plans, for water mains 4" to 12". For larger mains restraint lengths are shown on the Plans.

3. Restrained Joint Pipe Sections.

- a. All water main pipe and fittings, within sections shown on the Plans as “Joint Restraint” or “Restrained”, shall be restrained as specified in Subsection F.1 above and fittings shall be buttressed as specified in Subsection G below.

6. Restrained Hydrant Leads.
  - a. Hydrant leads shall be restrained in accordance with Subsection 530.D of these “Special Provisions”.
- G. Concrete Blocking (Buttresses).
  1. All horizontal bends, tees, caps and plugs shall be provided with concrete buttresses, in addition to joint restraint as specified in Paragraph F.1.a(1) above, in accordance with Section 4.3.13 and File Nos. 44, 44A, 45, and 46 of the “Standard Specifications”.
- H. Insulation.
  1. Water mains shall be insulated where noted on the Plans and wherever the depth of cover is less than five (5) feet when so ordered by the Engineer. Insulation shall be in accordance with Chapter 4.17.0 of the “Standard Specifications” and the details in the Appendix.
    - a. The cost of insulating water mains, where shown on the Plans, shall be included in the unit price(s) bid for water main.
    - b. The cost of insulating additional water main, ordered by the Engineer, will be paid for at the price bid in the Schedule of Supplemental Unit Prices.
- I. Operation of Existing Valves.
  1. All existing valves and new valves isolating the new main from existing mains will be operated by or under the supervision of the Village of Jackson Water Department. Contact Brian Kober at (262) 677-9001.
- J. Water Service Disruption.
  1. The Contractor shall coordinate his work schedule with the Owner when connecting intersecting streets to the new water main in order to minimize inconvenience and disruption caused by the temporary discontinuance of water service. Water service to residences shall not be shut down for a period longer than eight (8) hours, nor after 4:30 p.m. or on weekends without approval of the Owner. Residential water service may only be shut down between the hours of 8:30 a.m. to 4:30 p.m., except that residential water services may be shut down outside of these hours with the Owner’s permission. Water service to businesses shall not be shut down for a period longer than two (2) hours unless satisfactory arrangements are made with the businesses affected. The Contractor shall take whatever measures are necessary to return service at the end of each working day, including the use of temporary valves or plugs.

- a. The Contractor shall notify homeowners and businesses at least 24 hours prior to shutting off any water service.

K. Water Main Offsets.

1. Water mains shall be offset as shown on the Plans or as directed by the Engineer. Water main offsets shall be in accordance with File No. 47 of the "Standard Specifications" as modified below.
  - a. Place offsets to provide a minimum of six (6) feet of cover.
    - (1) Water main shall be offset down only (under the conflicting utility) to prevent high points being created in the offset.
  - b. Offset castings may be used when the change in grade is 24 inches or less.
  - c. Concrete buttresses shall be constructed as shown, however, optional restraining methods as specified in the section on Joint Restraint of this article may be used in lieu of strapping.

L. Tracer Wire.

1. See Section 635 of these Special Provisions for tracer wire requirements.

M. Cost of Fittings and Connections.

1. The cost of connecting to existing water mains and the cost of furnishing and installing fittings such as tees, bends, plugs, reducers, crosses, closures and cutting-in-sleeves, etc., unless bid separately in the Bid Form, shall be included in the unit price(s) bid for water main.

502. ABANDONING WATER MAINS AND SERVICES

A. Abandoning Water Mains.

1. The Contractor shall abandon all existing water main within the project limits and all intersecting mains within the street right-of-way as shown on the Plans and as directed by the Engineer. Mains shall be abandoned to an existing tee or cross in live mains or as shown on the Plans.
2. Abandoned mains may be left in place except that abandoned mains within new water main trenches shall be removed and disposed of by the Contractor. All cut ends of abandoned mains left in place shall be plugged with a minimum 6 inch thick concrete bulkhead.
3. Live tees, crosses and mains shall be secured with mechanical joint plugs and buttresses.

B. Abandoning Valves, Valve Boxes and Valve Manholes.

1. The procedure for abandoning valves, including hydrant valves and curb stops, valve boxes and valve manholes shall be as specified below:
  - a. Abandoned valves shall be closed and left in place unless it is stated on the Plans to remove and salvage the valve(s) for the Owner.
  - b. Valve boxes shall be abandoned by removing the cover and top section(s) to a depth of 3 feet below the street grade. Backfill remaining valve box sections and the excavation with 3/8 inch crushed stone chips (bedding material) thoroughly compacted in 12 inch maximum lifts.
  - c. Valve manholes shall be abandoned by removing the casting and manhole sections to a depth of 3 feet below the street grade. Manhole frames and covers shall be salvaged for the Owner. Cut a 6 inch diameter hole in the bottom of manholes to provide drainage. Backfill remaining manhole sections and the excavation with granular backfill thoroughly compacted in 12 inch maximum lifts.
  - d. Unless directed otherwise by the Owner, all existing hydrants, valves, and valve manholes within the new water main locations shall be abandoned or removed.
2. Valves, valve boxes and valve manholes within new water main trenches shall be removed and disposed of by the Contractor except that all salvageable valves, valve boxes and manhole castings shall remain the property of the Owner. The Contractor shall deliver salvageable materials to a location designated by the Owner.

C. Abandoning Hydrants.

1. The Contractor shall remove and salvage all hydrants shown on the Plans to be abandoned, removed or replaced. Abandoned hydrants shall be delivered to a location designated by the Owner.
2. Hydrant valves and valve boxes adjacent to hydrants shall be removed and salvaged for the Owner.

D. Connections to Intersecting Mains.

1. The Contractor shall remove and replace sections of intersecting water mains at street intersections and at other locations as shown on the Plans and as directed by the Engineer. New intersecting mains shall be placed at the grades shown on the Plans or at the elevation of the existing main if no grade is shown. Install the intersecting main at a constant grade with no intermediate high points which could trap air. Do not connect intersecting

mains until after the main line has been tested and approved unless otherwise allowed in these Special Provisions by the Engineer.

2. Trapped air in intersecting mains shall be bled off (by tapping the main) when filling the main with water and/or removed through hydrants when flushing intersecting mains.
3. It is not necessary to pressure test intersecting mains, however, the intersecting mains shall be subjected to line pressure and any visible defects repaired prior to backfilling.
4. Intersecting mains shall be thoroughly flushed through the nearest hydrant(s) prior to or when placing in service. See Paragraph 555.E. of these Special Provisions for water main disinfection requirements.

E. Replacing and Abandoning Water Services.

1. The Contractor shall replace all existing lead and galvanized water services, including replacing lead and galvanized water service piping from the new mains to curb valves and replacing existing curb valves and boxes. The Contractor is responsible for ensuring that all live water services, plus water services to vacant lots, are reconnected. Existing services are of varying size (1/2 inch to 1 inch) and material including copper (Cu), lead (Pb) and galvanized iron. The Contractor shall furnish and install all adaptors, reducers, etc. required to connect to existing services on the house side of the new curb valve.
  - a. Place new curb valves at the same location as existing curb valves or as directed by the Engineer.
  - b. Install water service piping to provide a minimum of 6-1/2 feet of cover. New water service piping crossing existing water mains shall be placed at least 6 inches below the existing main.
  - c. Crimp the ends of all abandoned water service piping left in place.
  - d. See Section 540 of these Special Provisions for additional water service requirements.
2. Abandoned water service piping located in the new water service trench and abandoned curb valves and valve boxes shall be removed and disposed of by the Contractor except that salvageable curb valves and valve boxes shall remain the property of the Owner.
3. The cost of abandoning water services and connecting to existing services shall be included in the price(s) bid for water service piping.

- F. All costs of abandoning existing water mains, valves, valve boxes, valve manholes, hydrants, and water services, unless bid separately in the Bid Form, shall be included in unit prices bid for other items.

### 503. CONSTRUCTION / CONNECTION SEQUENCE

- A. The following is one possible water main construction/connection sequence. The Contractor may propose an alternate sequence for consideration.
  - 1. Construct new water mains.
  - 2. Connect Intersecting Mains.
    - a. Connect new mains to intersecting streets and shut connecting valves, thereby isolating new mains from existing lines.
  - 3. Install Hydrants.
    - a. Install hydrants, either during or after constructing main line, and place covers over new hydrants until the new main is placed in service.
  - 4. Flush new mains and obtain safe samples by the Village of Jackson.
    - a. Note that safe samples must be obtained prior to pressure testing to minimize the potential for introducing contaminated water into existing live mains.
  - 5. Perform pressure and leakage tests.
    - a. Obtain additional safe samples from any sections of pipe requiring repair.
  - 6. Connect water services, and hydrants if not previously connected, to the new main after it has been tested and approved.
  - 7. Abandon existing mains as shown on the Plans.
    - a. Cut lines as noted and plug.
    - b. Remove hydrants.
    - c. Abandon valves.

### 505. WATER MAIN MATERIALS

- A. Water main pipe material shall be polyvinyl chloride (PVC) pipe conforming to the following:

B. Tests.

1. Pipe material delivered for use on this project shall conform to the requirements of the appropriate AWWA and ASTM Specifications noted herein. All pipe shall be marked in accordance with the requirements of the cited Specifications and each load delivered to the job site shall be accompanied by the manufacturer's certification of such compliance. Said certification to be delivered to the Engineer or his representative.

505.2. POLYVINYL CHLORIDE PIPE

- A. Polyvinyl chloride (PVC) pipe (4 inch through 12 inch diameter) meeting the requirements of AWWA Standard C900, DR18, with Class 150 with "push on" type rubber gasket joints, and as specified in Chapter 8.20.00 in the Standard Specifications.

1. Hydrant leads shall be ductile iron pipe.

505.4. FITTINGS (USED WITH DUCTILE IRON AND PVC)

- A. Fittings – all valves, tees, crosses, bends, offsets and other fittings shall be ductile iron, and be as specified in Chapter 8.22.0. Fittings for Water Main, of the Standard Specifications. Manufacturer shall be Tyler, Union, or American made. All fittings for sizes 3" thru 24" in diameter shall be Class 350. All mechanical joints shall be made with "Cor-Blue" nuts and bolts and Megalug glands, or approved corrosion resistant equivalents that conform to C-111, AWWA Specifications. All fittings shall be cement lined and coated in accordance with AWWA C-110 and AWWA C-153. Corrosion protection shall be provided in accordance with Chapter 4.4.4, Polyethylene Wrap, (8 mil and taped securely to pipe) of the Standard Specifications. All hydrant tees shall be anchor type.

B. Bolts.

1. All water main nuts and bolts, including connections to mains, fittings, valves and hydrants, shall be Cor-Blue T-Bolts as manufactured by NSS Industries.

- C. All tees and fittings shall be wrapped with polyethylene and be anchored with Mega-Lugs or pre-approved equal.

510. VALVES AND VALVE BOXES

A. Resilient-Seated Gate Valves.

1. All gate valves shall be resilient-seated gate valves and meet the requirements of AWWA C509 and Chapter 8.27.0 of the Standard Specifications. and be ductile iron body construction.

- a. Resilient-seated gate valves shall be open left, epoxy coated, and have stainless steel bonnet bolts and be furnished and installed with a valve pressure rating of 250 psi. Connections shall be MJ and have non-rising stems.
- b. Gate valves shall be used on all mains 3" to 12" diameter.
- c. Acceptable manufacturers include: Kennedy, Waterous, or equal.

B. Valve Boxes.

1. Valve boxes shall be three (3) piece cast iron valve boxes as specified in Chapter 8.29.0 Cast Iron Valve Boxes consisting of base, screw type center (5-1/4 inch shaft diameter), and top section with cover marked "WATER". A number 6 base shall be furnished with 6" and 8" sizes.
  - a. Place valve box covers at the existing grade or to the elevation shown on the Plans or as specified in these Special Provisions. Furnish extension sections as required. Turn the top section down, where covers are set below the finished grade, to allow for future final adjustment (raising) to finish grade.
  - b. Valve boxes shall be Tyler, East Jorden, or equal.
  - c. All valve boxes shall be wrapped with polyethylene.
2. Valve Box Adaptors.
  - a. Valve boxes for gate valves shall be installed by mounting on valve box adaptors. Valve box adaptors shall be "Valve Box Adaptor II", made from recycled rubber, as manufactured by Adaptor, Inc., of Oak Creek, Wisconsin.
3. Valve Stem Extensions.
  - a. All valves installed at greater than 6 feet of depth shall be provided with valve stem extensions to bring the operating nut up to normal depth (equivalent to a valve at 6 feet of depth). The extension shall be secured to the operating nut with at least 2 set screws drilled into the nut. Provide a centering ring at the top of the extension.
  - b. Extension stems must be approved by Jackson Water Utility.
4. Valve Box Depth.
  - a. Valve box depths shown on the Plans are approximate only, unless the cover elevation is indicated. Valve box covers shall be placed to match the existing grade (1/4 inch below pavement surface) unless the finished elevation is shown on the Plans.

C. Tapping Valves and Sleeves.

1. Tapping valves shall be similar to the AWWA gate valves specified in Subsection 510.A. of these Special Provisions except for the end connection (usually flanged) to the tapping sleeve and oversized seat rings to permit entry of the tapping machine cutters.
2. Tapping sleeves shall be supplied by the manufacturer of the tapping valves.

530. HYDRANTS

A. Standard Hydrant.

1. Hydrants shall be traffic models with break-away flange, 16” break off, located 4” above grade, conforming to the following specifications:
  - a. Hydrants shall be compression type, with 5-1/4 inch bottom valve and 6 inch mechanical joint inlet connection, “O”-ring packing, safety flange construction, meeting the requirements of AWWA Standard C502 and meeting specifications for 300 PSI test pressure and 150 PSI working pressure.
    - (1) The bottom or base flange and any other buried flanges, including all extension flanges, shall be fastened using stainless steel nuts and bolts.
  - b. Hydrants shall have two 2-1/2 inch hose nozzles and one 4-1/2 inch pumper nozzle (4 NST) with fire hose coupling screw threads and nut type nozzle caps with gasket and chains. Secure the bottom or base flange and any other buried flanges, using stainless steel nuts and bolts.
  - c. Acceptable suppliers include Waterous Pacer and Mueller Centurion and supplied with Hydrafinder hydrant flag or equal.
  - d. Hydrants shall have 1-1/4 inch pentagon operating nut opening to the left (counter-clockwise).
  - e. Hydrants, including barrel extensions, shall be painted red and open left.
  - f. All hydrants shall be backfilled with 1” clean washed stone, 3 feet in diameter around the hydrant and 1’ above the drain hole. Filter fabric shall be placed above the washed stone.
  - g. Hydrants shall be located 3 feet behind proposed curb face and pumper nozzle shall be oriented to the street.



## 540. WATER SERVICES

### A. Installation.

1. Water service piping shall be installed in accordance with Chapter 5.5.0 of the “Standard Specifications” and the following provisions:
  - a. Do not connect services to the water main until after the main has been tested and a safe water sample obtained.
  - b. Insert the corporation stop into the water main while the main is in service and under pressure.
  - c. Don’t backfill the water service trench until after the service has been checked for leaks and the service piping thoroughly flushed.
2. Cover.
  - a. Install water service piping with 6 feet minimum cover.
3. Tapping Sleeves.
  - a. All live taps shall be done with stainless steel tapping sleeves and mechanical joint flanged tapping valves.

### B. Curb Valve Location.

1. Curb valves shall be placed one (1) foot from the right-of-way line, unless shown otherwise on the Plans or as directed by Engineer or Owner.

### C. Water Service/Sanitary Sewer (Lateral) Separation.

1. Horizontal Separation.
  - a. Install water services 2 inches or less in diameter at least 30 inches horizontally from sanitary sewer laterals.
    - (1) Water services may be installed closer than 30 inches from a sewer lateral if the bottom of the water piping is at least 12 inches above the sewer.
  - b. No water service may be installed within 6 inches of a storm sewer.
2. Vertical Separation.
  - a. Water main and water service piping crossing a sanitary sewer, including laterals, and located within 10 feet of the point of crossing shall be installed:

- (1) At least 12 inches above the top of the sewer, or
- (2) At least 18 inches below the bottom of the sewer from the top of the water piping, or
- (3) Within a waterproof sleeve, made of PVC (ASTM D3034 or ASTM D1785) or other acceptable material per Table 84.30-3 of the Plumbing Code - Department of Commerce.

D. Water Service Piping.

1. Polyethylene Tubing (New and Relaid Services).

- a. Water service piping for all new and relaid services from 3/4" through 2" diameter shall be polyethylene (PE) tubing (copper tube size) conforming to AWWA C-901 and ASTM D2737, PE 3408, DR 9.0 (200 psi working pressure).

- (1) Use 1-1/4" diameter standard residential service.

- b. Use compression type mechanical fittings for corporation stop and curb valve. Flared fittings shall not be used.
- c. Fittings shall be cast brass. Fittings shall have a uniform wall thickness and strength and free of defects. Unions shall be extra heavy 3-part type.
- d. All connections of polyethylene tubing to corporation stops and curb valves shall be reinforced with liner/insert stiffeners.

2. Tracer wire shall be installed with all services.

550. HYDROSTATIC TESTS

A. General Requirements.

1. All tests shall be performed as specified in Chapter 4.15.0 of the "Standard Specifications", except that the water main shall pass four (4) consecutive one-hour leakage tests. The Engineer or his representative shall be present at all times during testing.
  - a. Leakage shall not exceed 10 gallons per 24 hours per inch diameter per mile of pipe at a test pressure of 100 psi at the point of highest elevation of the main or as specified in Subsection 4.15.3.
2. The Contractor shall furnish all labor, equipment, and material to complete all testing.

3. Temporary Air-Release.
  - a. Trapped air shall be bled off (by tapping the main) when filling the main with water and/or removed by flushing through hydrants.
  - b. Temporary air-release may be provided by tapping 1 inch corporation stops into the high points of pipe or into the plug on dead end lines. After flushing and testing is completed, the temporary taps shall be abandoned in place.
  - c. All costs for providing temporary air-release, including tapping and temporary flushing hydrants, shall be paid for by the Contractor.

B. Test Sections.

1. The Contractor has the option to test the entire new water main as one continuous test section or in segments per his discretion.

C. Testing Costs.

1. The cost of all testing work shall be included in the unit price(s) bid for water main.

555. DISINFECTION

A. General Requirements.

1. The water main shall be disinfected in accordance with Section 4.3.12 and Chapter 4.16.0 of the "Standard Specifications".
  - a. Amend paragraph 4.16.5 of the "Standard Specifications" to read:

4.16.5 SAMPLING. The Contractor shall take all necessary samples of the water and provide any equipment necessary to take these samples at no cost to the Owner. The Jackson Water Utility will proceed with the disinfection of water main and taking the safe sample, upon the request by the Contractor.
2. During the installation of water main, only one connection will be allowed to the existing water system. The Jackson Water Utility will operate all valves and hydrants in order to fill the water main. The chemicals to disinfect the water main will be supplied by the Jackson Water Utility.
3. The Jackson Water Utility will conduct the filling, flushing, disinfecting, and water sample within 48 hours after the request by the Contractor is made. All costs occurred by filling, flushing, disinfecting, and water sample will be the expense of the developer or owner of the project.

4. The Contractor shall provide a sampling point at all ends of the installed water main. If no other means of flushing is available (hydrant), a temporary 2 inch galvanized pipe with a valve extending a minimum of 3 ft. above grade for sampling. The trench must be backfilled for easy access.

600. GENERAL CONSTRUCTION PROCEDURES

605. ROCK EXCAVATION

- A. Rock excavation shall be in accordance with Section 2.2.9. of the “Standard Specifications”. The payment width for rock excavation in open-cut shall be the actual width of excavated trench, but not to exceed the outside diameter of the pipe plus 24 inches. The bottom of rock shall be measured to no lower than 4 inches below the barrel of the pipe. The vertical limits of rock may be measured by stripping earth overburden prior to blasting or removal or by other methods mutually acceptable to both the Engineer and Contractor. One such method may be to measure the depth of rock exposed on trench walls after blasting and excavation have been completed.

606. PREVENTION OF PIPE FLOTATION

- A. The Contractor shall at all times prevent the possibility of pipe flotation, i.e.: the lifting of pipes by buoyancy as water rises in the trench by proper bracing or by loading to overcome buoyancy. All pipe damaged by flotation shall be removed and relaid at the Contractor’s expense.

607. PORTABLE TRENCH BOX

- A. The use of portable trench boxes and sliding trench shields shall conform to Section 2.3.6. of the “Standard Specifications”, as modified below:
  1. Trench boxes or shields used within trenches in which the pipe is installed with Class “B” or Equivalent Bedding, including flexible sewer pipes and PVC water main, shall ride on a shelf excavated in the trench to ensure that the proper bedding section is achieved and maintained.
    - a. 4” Through 16” I.D. Pipe. The shelf shall be located no lower than the top of the pipe, except that it shall not be placed more than 24 inches above the trench bottom.
    - b. 18” Through 30” I.D. Pipe. The shelf shall be located no lower than the springline of the pipe, except that it shall not be placed more than 24 inches above the trench bottom.
    - c. 36” Through 60” I.D. Pipe. The shelf shall be located no lower than 24 inches above the trench bottom.

B. Recomposition of Class B or Equivalent Bedding.

1. If a trench box or shield is supported or rides within bedding or cover material located below the top of a pipe in trenches in which the pipe is installed with Class "B" or Equivalent Bedding, including flexible sewer pipes and PVC water main, the Contractor shall recompact bedding and cover material to the top of the pipe after removing the box or shield as follows:
  - a. First, thoroughly compact bedding and cover material per the provisions of Paragraphs 201.A.1.a.(3) (sanitary sewer), 401.A.2.b (storm sewer), and 501.A.3.a.(1) (water main) of these Special Provisions before moving the trench shield; then
  - b. lift the trench shield so that it rides on top of the cover material;
  - c. recompact the bedding and cover material so that there are no voids between the pipe and trench walls; and
  - d. pull the trench shield ahead.
2. Alternate method(s) of recompacting bedding and cover material disturbed by the trench box or shield may be used if approved by the Engineer.

608. MANUFACTURER'S REPRESENTATIVE

- A. The pipe manufacturer shall have a representative available to the Contractor and Engineer for the purpose of advising them in the proper method of laying pipe and making watertight joints. It is the intent of this requirement that the representative spend only such time on the job as will accomplish the desired result of satisfactory installation practice. The presence of such representative, however, or the partial payment made for pipe as delivered, shall not relieve the Contractor of his responsibility under these Special Provisions. All pipe laying and making of all joints shall be done strictly in accordance with the manufacturer's directions, however, the Contractor shall be responsible for the watertightness specified.

609. HANDLING PIPE AND ACCESSORIES

- A. Proper equipment, tools and facilities shall be provided and used by the Contractor for the safe and convenient prosecution of the work. Pipe, fittings, valves and other accessories shall at all times be handled with care to avoid damage. In loading and unloading they shall be lifted by hoist or derrick or rolled on skidways in such manner as to avoid shock. Pipe unloaded by skidding shall be protected from bumping contact with other pipe or the ground. Under no circumstances shall pipe be dropped.

- B. The Contractor shall carefully examine all pipes and other materials immediately before placing in the trench, and if any such pipes or materials are found to be defective they shall be rejected and removed from the work site.

635. TRACER WIRE

- A. Tracer wire shall be installed with all underground utilities and storm sewers including laterals installed under this Contract, which are not identified by surface facilities such as manholes. Installation shall conform to Chapter 2.11.0, File No. 24A and File No. 24B of the “Standard Specifications” or as modified by the following Special Provisions.

- B. Material.

- 1. Tracer wire for use in open cut construction shall be 10 gauge multiple stranded copper wire insulated for underground installation.
- 2. Tracer wire insulation shall conform to the uniform color code adopted by the American National Standard Institute. Tracer wire for:
  - a. Sanitary sewer and laterals shall be green.
  - b. Water mains and services shall be blue.
  - c. Storm sewers and laterals shall be brown.

Note: If wire with identifying stripes as in c above is not readily available, the Contractor may identify coils at ends of laterals and “pig tails” in pullboxes with electrical “phase” marking tape of the same color as that called for stripes.

- 3. Splices.
  - a. Tracer wire shall be continuous between exposed connection points unless splicing is approved by the Engineer.
  - b. Wire splices shall be in accordance with standard electrical practices. Acceptable wire splices are brass split bolts, Dryconn Waterproof Connectors or Snap-loc Model LV 9500. Wire nuts are not acceptable.
    - (1) Branch connections utilizing split bolts. Splice branch tracer wire to the main tracer wire using the following procedure:
      - (a) Bare tracer wire on main line (do not cut).

(b) Connect branch wire to main line with brass split-bolt.

(c) Seal the connection with rubber electrical tape and overwrap with 2 layers of polyethylene adhesive tape 1-1/2" wide and 8 mils thick.

(2) Branch connections utilizing other approved connectors, follow manufacturers' recommendations.

C. Installation.

1. In open cut construction, place the tracer wire at the springline of the main or lateral and tape to the pipe at 5 foot intervals.
2. For horizontal directional drilling type construction, tape the tracer wire to the pipe at 5 foot intervals leaving sufficient slack to accommodate the stretching of the pipe during pull-back.

D. Electrical Connections.

1. Electrical connections to tracer wire identifying water main shall be provided by extending the tracer wire through 4 inch diameter by 18 inch long Schedule 40 PVC pipe "pull box" with screw cap located directly in back of all hydrants and securely taped thereto. Place the top of the pull box flush with the ground surface and leave 18 inches of slack in the wire for future connection.
2. Tracer wires identifying sanitary sewer and storm sewer laterals and water services shall be accessed in a pull box located adjacent to the water service curb stop box at each lateral location. The tracer wire shall extend to the end of the marked lateral or service. A detail of the pull box is included in the Appendix.
3. Tracer wires identifying force mains shall be accessed in pull boxes at approximately 500 foot intervals, at all angle points, and at other convenient locations as shown on the Plans.

E. Testing.

1. The Contractor shall test all tracer wire for electrical continuity prior to acceptance of the main or service lateral to which it is accessory.

F. Cost.

1. The cost of tracer wire, complete as specified herein, shall be included in the unit price(s) bid for the utility, storm sewer, or service lateral to which it is accessory to.

## 640. SUPPORT OF UNDERGROUND STRUCTURES

### A. General.

1. Delete Subsection 2.6.5 of the “Standard Specifications” and replace with the following requirements.
2. The Contractor shall support utilities crossing trenches. Utilities requiring support include: sanitary sewers and laterals, storm sewers including catch basin leads and sump pump leads, water mains including services greater than 2 inch size, field tile lines, gas lines and telephone conduits. Generally, only utilities greater than 2 inches in size require support.

### B. Means of Support.

1. The Contractor shall use Option One to support utilities unless the Engineer approves the use of Option Two.
2. Option One (Typical):
  - a. Backfill below the utility with compacted granular or slurry backfill conforming to Section 700 of these Special Provisions. Place granular or slurry backfill to one foot minimum beyond the edge of the crossing utility and place at a maximum 1:1 slope.
  - b. Place bedding and cover material in accordance with pertinent sections of the “Standard Specifications”.
3. Option Two (With Engineer’s Approval):
  - a. Support the utility using reinforced concrete beams conforming with File No. 2 of the “Standard Specifications”.
  - b. Place bedding and cover material in accordance with pertinent sections of the “Standard Specifications”.
4. Backfill trenches above utilities with the backfill material specified on the Plans.

### C. Payment.

1. The cost of supporting utilities in trenches where excavated material backfill is specified will be paid for at the unit price(s) bid for Support of Underground Structures and/or at the unit price(s) bid in the Schedule of Supplemental Unit Prices.

2. The cost of supporting utilities in trenches where granular or slurry backfill is specified will be considered incidental to the unit price(s) bid for utilities.

## 650. EROSION CONTROL

### A. General.

1. The Contractor shall take all measures necessary to minimize erosion, water pollution and siltation caused by construction of this project. Erosion control measures shall be in accordance with Chapter 2.8.0 of the "Standard Specifications", Subsection 107.20 and Section 628 of the "State Specifications", the details shown on the Plans and in the Appendix.

The Contractor shall use the standards prepared by the Wisconsin Department of Natural Resources as a reference and guide for erosion control practices. The standards are maintained and located on the Wisconsin Department of Natural Resources website at:

[www.dnr.wi.gov/runoff/stormwater/techstds.htm](http://www.dnr.wi.gov/runoff/stormwater/techstds.htm)

The Contractor shall comply with the provisions of local erosion control plans and/or ordinances.

2. Erosion Control Plan.
  - a. Prior to beginning work, the Contractor may be required to submit an erosion and sediment control plan, detailing specific measures that will be employed in the various stages of construction for approval by the Engineer.
3. Implementation.
  - a. The Contractor shall not begin work until after initial erosion and sediment control devices are in place and approved by the Engineer.
4. Costs.
  - a. All costs associated with erosion control measures and devices, unless bid separately in the Bid Form or listed in the Schedule of Supplemental Unit Prices, shall be included in the unit prices bid for other items.

### B. Erosion Control Measures.

1. Erosion control measures shall include, but not be limited to the following:
  - a. Divert upstream runoff from flowing through the construction site.

- b. Delay stripping topsoil and pavement removal until required for construction.
- c. Protect storm sewer inlets and the upstream end of culverts with erosion control bales or stone check dams.
- d. Prompt removal of excavated material.
- e. Proper storage of backfill and bedding materials including placing silt fence or erosion control bales on the downslope sides of spoil piles.
- f. Prompt (same-day) cleanup of material tracked onto adjacent streets.
- g. Timely restoration of damaged surface areas.

2. Temporary Erosion Control Measures.

- a. The Contractor shall construct temporary erosion control measures, where erosion is likely to be a problem, prior to beginning work on those section(s) of the project. Temporary erosion control measures shall be maintained until after permanent erosion control, such as seeding or sodding, has been established.
- b. In the event that permanent erosion control measures are not fully implemented in the current construction season, the Contractor shall be responsible for maintaining all necessary temporary erosion control measures until after permanent measures have been completed in the following year.

C. Construction Pit Dewatering.

- 1. The Contractor may be required to treat effluent from construction pit dewatering prior to the direct discharge to surface waters or wetlands.
- 2. Dewatering treatment practices shall be implemented in accordance with DNR Dewatering Technical Standard 1061.
- 3. Refer to Subsection 102.A of these Special Provisions for instructions for obtaining discharge permits.

D. Dust Control.

- 1. The Contractor shall minimize the dispersion of dust caused by construction operations in accordance with DNR Dust Control Technical Standard 1068.

- E. Installation, Inspection, Maintenance and Restoration of Erosion Control Devices.
1. General.
    - a. This subsection applies to all erosion control devices used on this project.
  2. Installation.
    - a. Install or place erosion control devices either (as appropriate):
      - (1) Prior to beginning construction activities;
      - (2) Immediately after grading of ditches or slopes is completed;
      - (3) Immediately after completing lawn restoration; and/or
      - (4) When so ordered by the Engineer.
  3. Inspection.
    - a. Inspect erosion control devices:
      - (1) Within 24 hours after each 0.5 inch or greater rainfall;
      - (2) At least daily during prolonged rainfall; and
      - (3) At least once every seven days.
  4. Maintenance.
    - a. Maintain erosion control devices for the duration of the project and until after slopes and ditches have been stabilized and turf developed to the extent that future erosion is unlikely, at which time the Contractor shall remove the temporary erosion control device(s).
    - b. Remove sediment deposits when the build-up exceeds approximately one-half the volume capacity of the erosion control device.
  5. Restoration.
    - a. Restore areas immediately after removing erosion control devices by reshaping or regrading and placing topsoil, fertilizer, seed and mulch. Place erosion mat, if required to control erosion.

F. Silt Fence.

1. The Contractor shall place silt fence as required to control erosion, including at the locations shown on the Plans. Silt fence shall be placed and maintained in accordance with Subsection 628.3.4 of the “State Specifications” and the Standard Detail Drawings shown in the Appendix of this Project Manual.
  - a. Furnish fabric with a top support cord.
  - b. Install tie backs in areas of heavy flow or where directed by the Engineer.
2. Ditches/Drainageways.
  - a. Do not use silt fence in ditches or drainageways.

G. Erosion Mat.

1. General.
  - a. The Contractor shall place erosion mat over all restored ditches (bottoms and side slopes), slopes greater than 10%, areas shown on the Plans or specified below. The Contractor may also place erosion mat to improve grass seed germination and growth.
2. Material.
  - a. Erosion mat materials shall be as specified herein and/or in the Wisconsin Department of Transportation’s Product Acceptability Lists (PAL) included in the Appendix.
    - (1) Low Flow (Ditches - Typical).
      - (a) Erosion mat shall be WisDOT Class I, Type B, double netted mat.
    - (2) High Flow (Specified on Plans).
      - (a) Erosion mat shall be WisDOT Class II, Type B, long lasting organic mat.
    - (3) Urban - Short Term (Residential Lawns).
      - (a) Erosion mat shall be WisDOT Class I, Urban, Type A, short term except the mat shall be double netted. Use biodegradable anchoring devices only per PAL.

3. Installation.

- a. Install erosion mat in accordance with Subsection 628.3.2 of the “State Specifications”, the details in the Appendix of this Project Manual and the manufacturer’s recommendations. The Contractor shall provide the Engineer with one (1) full set of manufacturer’s literature and installation instructions for each product prior to installing erosion mat.

4. Payment.

- a. The cost of erosion mat shall be included in the unit prices bid for other items of work.
- a. The cost of furnishing, installing and maintaining erosion mat shall be paid for at the unit price(s) bid per square yard for erosion mat.

H. Inlet Protection.

1. The Contractor shall install inlet protection on all existing and new catch basins and storm sewer inlets, both within the construction limits and downstream of the project as noted on the Plans, in accordance with Subsection 628.3.13 of the “State Specifications” and the Standard Detail Drawings in the Appendix.

2. Payment.

- a. The cost of furnishing, installing, maintaining and removing inlet protection shall be included in the unit price(s) bid for storm sewer.

700. BACKFILLING UTILITY TRENCHES

A. Granular Backfill.

1. Granular backfill, in accordance with Table 37 of Section 8.43.4 of the “Standard Specifications”, shall be used to backfill trenches as shown on the Plans, except as provided for below. The cost of furnishing and placing granular backfill and disposing of excavated material shall be included in the unit price(s) bid for utilities.

- a. If excavated material is suitable for use as granular backfill, trenches shall be backfilled with suitable excavated granular material when so ordered by the Engineer. A credit for using excavated material backfill in place of granular material will be figured based upon the price bid in the Schedule of Supplemental Unit Prices. The volume of material will be based upon field measurements of the trench.

2. Upon approval by the Village Engineer, 2/4-inch clean, washed, sound and durable crushed stone or 3/4-inch crushed stone chips as specified in Chapter 8.43.4 of the Standard Specifications can be used for water main pipe 18 inch or less in diameter.

B. Consolidation.

1. Amend Section 2.6.14 of the “Standard Specifications” to read in part:

“All granular and excavated material backfill shall be consolidated through mechanical compaction by means of a backhoe boom-mounted compactor. Either a vibratory compactor or compaction wheel is acceptable if it can meet the densities specified below. The backhoe used for compaction shall be equal in reach to the backhoe used for excavating the trench; i.e., capable of reaching the bottom of the trench with no additional shelf excavation. Backfill shall be compacted in eighteen (18) inch maximum lifts, before compaction, unless noted otherwise below, except that the first lift shall be two (2) feet in depth. The Contractor shall take all precautions necessary to protect utilities from being damaged during backfilling and compaction operations.”

- a. Granular backfill shall be compacted to a minimum of 95% Standard Proctor Density.
  - b. Excavated material backfill shall be compacted to a density equal to 100% of the density of the undisturbed material in adjacent trench walls.
  - c. Topsoil shall not be compacted.
2. If there is a question as to whether or not the specified density has been achieved, a soil testing firm selected by the Engineer will be brought in to determine the backfill density. The cost of this testing will be paid for by the Owner if the test results are satisfactory, however, if the backfill is found to be inadequately compacted, the Contractor shall pay all testing costs.
  3. If the Contractor desires to use alternate compaction equipment or backfill depths greater than those specified, documentation must be submitted to the Engineer substantiating the adequacy of the proposed compaction method. Alternate compaction methods shall not be used unless approved by the Engineer. The Engineer may require density testing by an approved soil testing firm to field verify backfill densities. All compaction testing costs for field verifying alternate compaction methods shall be paid for by the Contractor.
  4. The 9-inch crushed stone base course shall be placed one (1) week following trench consolidation.

5. At the end of the working day, open excavations shall not exceed 25 feet in length. All open trenches shall be barricaded off or steel plated.

C. Surplus Excavated Material.

1. Surplus excavated material shall be disposed of by the Contractor at his own option and cost in accordance with Section 2.2.11 of the "Standard Specifications" and these Special Provisions.
2. The Contractor shall be responsible for obtaining the use of all "off site" disposal sites and all necessary permits, unless the site is designated by the Owner. Disposal sites designated by the Owner shall be kept neat, leveled, and graded to drain. Material lost from trucks in transit shall be cleaned up immediately. Material not properly cleaned up will be removed by the Owner and the cost thereof charged to the Contractor.
3. Surplus excavated materials shall not be deposited within floodplains, marshes or other wetland areas.
4. All costs for disposal of surplus materials shall be included in the unit prices bid for other items.

900. TRAFFIC MAINTENANCE

A. Local Traffic Access.

1. The Contractor may close Georgetown Drive from Wilshire to Rideway Drive to through traffic, allowing local traffic only, during working hours. The Contractor shall at all times conduct his work in a manner to minimize obstruction to local traffic. Roads shall be maintained in a safe condition throughout the duration of the project. The Contractor shall take all precautions necessary to safely warn the public of the probable increased danger to travel due to construction of the work.
  - a. All streets shall be open to through (two-way) traffic after working hours and all day on weekends and holidays.
  - b. The Contractor shall notify police and fire departments prior to closing any street to through traffic.
  - c. The Contractor shall provide access for garbage collection and mail delivery on those streets closed to through traffic by his construction activities for the duration of the project.

C. Driveway Access.

1. If driveway access is to be blocked, then it shall be the Contractor's responsibility to notify all affected property owners prior to closing that section of the street to traffic.

2. The Contractor shall construct temporary ramps at all driveways to provide access during road construction.
3. The Contractor shall provide full-time access to residences of handicapped persons, nursing and retirement homes, hospitals, and other facilities, unless other satisfactory arrangements are approved.
4. Access to Businesses and Industries.
  - a. The Contractor shall provide full-time access to businesses and industries unless other satisfactory arrangements are approved. Access may be provided by constructing temporary drives and/or by placing steel plates over new concrete gutters.

D. Mail Delivery.

1. The Contractor is responsible for insuring that mail can be delivered to properties affected by his work operations in a reasonable and timely manner.
2. If the Contractor's operations unduly restrict or prohibit mail delivery, he shall take measures to provide alternate method(s) for mail pick-up. Alternate methods may include:
  - a. Temporarily relocating mailboxes removed by his operations.
  - b. Providing alternate/multiple delivery and collection boxes at a central location. See the delivery and collection box detail in the Appendix.
3. Alternate mail delivery methods shall be coordinated with both the post office and all affected properties.

F. Signing, Barricades and Flagmen.

1. Whenever the Contractor's activities obstruct through traffic, there shall be sufficient flagmen on duty to guide the traffic, and the Contractor shall furnish and install all temporary signing and barricades required to safely direct the traveling public around the obstructed area.
2. Suitable barriers shall be erected and maintained at each end of an obstructed section of roadway and at all affected roadway intersections.
3. Traffic control shall be done in accordance with the latest version of Part 6, Temporary Traffic Control of the FHWA "Manual on Uniform Traffic Control Devices" and the Wisconsin Supplement; the Traffic Control Plan

(if shown on the Plans or in the Appendix); and Section 643 of the “State Specifications”.

F. Payment.

1. All traffic control costs including signing, barricades, flagmen, detours, etc., shall be paid as lump sum at the price bid for “Traffic Control”.

1201.1. TREE ROOT REMOVAL

A. This work shall consist of removing tree roots from within the limits of excavation, including 6 to 12 inches behind proposed curb and gutter and from 6 to 12 inches beyond the edges of the proposed sidewalk. Remove tree roots to a depth of not less than 6 inches below the concrete base or finished ground grade.

B. Construction Method.

1. Cut roots utilizing mechanical root cutting equipment or by a hand method. Roots shall be cleanly cut in a vertical direction with as little damage to remaining roots as possible. Do not cut roots using backhoes or endloaders.
2. Cover exposed roots with burlap, straw or humus-bearing soil and keep moist until backfilling is completed.

C. Payment.

1. The cost of cutting and removing tree roots shall be included in the unit prices bid for other items.

1204. REMOVING MISCELLANEOUS STRUCTURES

1204.1. REMOVING PAVEMENT

A. The bid items for removing asphaltic and concrete pavements shall consist of removing asphaltic and concrete pavement, including asphaltic and concrete drives, as shown on the Plans and as ordered by the Engineer. This work shall be done in accordance with Section 204 of the “State Specifications”.

1. The cost for asphalt pavement removal within roadways, including areas of full reconstructions and full-depth asphalt removals will be measured and paid for at the unit price bid for common excavation.
  - a. The cost for pavement removal due to utility relays not within full reconstruct limits will be included in the cost for utilities.

B. Removal of pavement shall not be done prior to being required for utility work. A hard surface shall be kept and maintained as long as possible to limit exposure of the subgrade to rain which threatens subgrade stability.

C. Saw-Cutting Pavements.

1. All concrete and asphalt pavements (including butt joints), shoulders and driveways shall be saw-cut to a minimum depth of three (3) inches prior to being shattered and removed. Where concrete pavements are covered with an asphalt overlay, both the asphalt and concrete shall be saw-cut. Pavements shall be saw-cut in neat straight lines, at right angles to the street or drive, to produce a clean joint for pavement restoration. If the saw-cut edge is damaged during construction, the Contractor shall saw-cut the pavement again immediately prior to paving.
2. The cost of saw-cutting pavements, including butt joints and driveways, will be paid for at the unit price(s) bid for saw-cutting asphaltic and concrete pavement.

- D. Pavement removal will be paid for by the square yard irrespective of the depth or number of courses encountered.

1204.3. REMOVING CONCRETE STRUCTURES

- A. The bid items for removal of concrete curb and gutter, sidewalk and steps shall include removing and disposing of all concrete sections shown on the Plans and as ordered by the Engineer.
- B. Concrete removal work shall comply with Section 204 of the "State Specifications".
- C. Concrete structures shall be removed to existing joints or as marked in the field. If saw-cutting is necessary, it shall be done in accordance with Section 1204.1 of these Special Provisions.

1204.5. DISPOSAL OF PAVEMENT AND CONCRETE STRUCTURES

- A. All removed pavement material and miscellaneous structures, including curb and gutter and sidewalk shall be disposed of by the Contractor, at his option and cost, and in places provided by him outside of the right-of-way and/or project site.
- B. All other miscellaneous structures and materials shall be disposed of in accordance with Subsections 203.3.4, 204.3.1.3, and 204.3.2 of the "State Specifications".

1205. ROADWAY AND DRAINAGE EXCAVATION

1205.1. COMMON EXCAVATION

- A. The bid item for common excavation shall include all roadway, site grading and drainage excavation necessary to complete this project, including removal of all materials as specified herein and as shown on the Plans.

1. The Contractor shall remove all topsoil from within the proposed roadway or as shown on the Plans. Remove all topsoil within 1:1 slopes extending downward and out from the proposed edges of the base or subbase material.
  - a. Existing Roads.
    - (1) Topsoil removed below subgrade elevation of existing paved and shouldered areas of road reconstruction projects shall be paid for as excavation below subgrade (EBS). See Section 1205.2 - Excavation Below Subgrade of these Special Provisions.
- B. All excavation and grading work shall comply with the provisions of Sections 205 (Roadway and Drainage Excavation), 207 (Embankment), 211 (Preparing the Foundation), and 213 (Finishing Roadway) of the “State Specifications”.
- C. The costs of removing asphaltic and concrete pavements and concrete structures will be paid for at the prices bid for these items.
- D. Drainage During Construction.
  1. Drainage shall be provided during construction in accordance with Subsection 205.3.3 of the “State Specifications”.
- E. Dust Control.
  1. The Contractor shall minimize the dispersion of dust from the subgrade during grading operations, including maintenance operations until acceptance of the work.
  2. Dust control shall be in accordance with DNR Dust Control Technical Standard 1068.
- F. Quantities of Grading Work/Payment.
  1. Quantities.
    - a. The Contractor shall determine earthwork quantity(s) from cross-sections, grading plans, or other data provided with the bidding documents.
  2. Payment.
    - a. The lump sum price bid for common excavation shall be the final payment amount unless the project scope changes.

## 1205.2. EXCAVATION BELOW SUBGRADE (EBS)

- A. Deposits of frost-heave material, unstable silty soils, water-bearing soil, or other undesirable foundation materials shall be removed from the area within the existing roadway slopes to such depths as ordered by the Engineer. This work shall be done in accordance with Subsection 205.3.4 of the “State Specifications”.
- B. Payment.
  - 1. Payment for excavation below subgrade will be at the unit price bid in the Bid Form. Topsoil removal within the roadway, including topsoil removal below subgrade within the grading limits shown on the Plans, is included in the base bid quantity of common excavation. This bid item includes an estimated quantity of excavation, however, the Contractor will be paid for the actual volume of excavation below subgrade as measured in the field.
  - 2. Excavation Below Completed Base Course.
    - a. Should excavation below subgrade (EBS) be required in an area of completed base course construction, restoration of the base course in the area of EBS will be paid for at the unit price bid for base course.
- C. Granular Backfill for Excavation Below Subgrade.
  - 1. Granular backfill for excavation below subgrade shall comply with Section 209 of the “State Specifications”.
    - a. Pit run gravel will generally be acceptable as granular backfill.
    - b. Excavations below subgrade shall be filled with satisfactory materials, excavated from other sections of the project, if such materials are available.
  - 2. Payment.
    - a. Payment for granular backfill for excavation below subgrade will be at the unit price bid in the Bid Form. This bid item includes an estimated quantity of granular backfill. The Contractor will be paid for the actual weight of granular backfill used, as determined from weight tickets.
    - b. The cost of backfilling areas excavated below subgrade with suitable excavated material shall be included in the unit price bid for Excavation Below Subgrade.

D. Stone Backfill to Stabilize Subgrade

1. The item for stone backfill to stabilize subgrade listed in the Schedule of Supplemental Unit Prices, if required, shall comply with the following gradation requirements:

2 Inch Size (ASTM C-33 - Size No. 3)

<u>Sieve Sizes</u>	<u>Percentage Passing by Weight</u>
2-1/2 Inches	100
2 Inches	90 - 100
1-1/2 Inches	35 - 70
1 Inch	0 - 15
1/2 Inch	0 - 5

2. The Contractor may substitute base aggregate dense 3" for stone backfill.

1205.5. DISPOSAL OF MATERIALS

A. Surplus Excavated Material.

1. Surplus excavated material shall be disposed of by the Contractor, at his own option and cost, and in places provided by him outside of the right-of-way.
  - a. Contractor is responsible for obtaining all necessary off-site disposal permits.
2. The material shall be disposed of in a manner that will create a neat and trim appearance, and in a manner to neither create a nuisance nor cause pollution nor siltation of watercourses, streams, lakes and reservoirs. Disposal areas shall be leveled by the Contractor, graded to drain, and the surface restored.

1305. BASE AGGREGATE DENSE

A. Base aggregate dense shall be constructed in accordance with Section 305 of the "State Specifications", and the typical section(s) shown on the Plans. The Contractor shall furnish and place base material as required to construct the base to grade.

1. Moisture Content.
  - a. Base material shall have a maximum moisture content of seven (7) percent before being weighed. Moisture content in excess of 7 percent will be deducted from the measured weight. Moisture content will be expressed as a percent of dry weight.

B. Gradation.

1. Base aggregate dense shall conform to the following gradations; as specified in Subsection 305.2.2:
  - a. Top layer:
    - (1) 1-1/4-inch (4" minimum thickness).
  - b. Lower layer(s):
    - (1) 1-1/4-inch (4" minimum thickness per layer).
    - (2) 3-inch (6" minimum thickness per layer).
2. Aggregate shall be crushed limestone only.
3. Depth
  - a. Roadway: 9"
  - b. Concrete Driveways: 6"
  - c. 7" Concrete Sidewalk: 6"
  - d. 5" Concrete Sidewalk: 3"

C. Standard Compaction.

1. Base aggregate dense shall be compacted in accordance with Subsection 207.3.6.2 of the "State Specifications" for standard compaction, as modified below.
  - a. Base aggregate dense shall be placed and compacted in two (2) or more layers in accordance with Section 305.3 of the "State Specifications". Compacted layers shall be 6 inches or less, unless the Engineer approves thicker layers.
  - b. Moisture shall be added by tank wagon as required for maximum compaction.
  - c. Standard compaction shall consist of compacting each layer of the base course to the degree that no further appreciable consolidation is evidenced under the action of the compaction equipment.
  - d. Compaction shall be performed by specialized compaction equipment including tamping rollers, pneumatic-tire rollers, vibratory rollers or other approved compaction equipment.

D. Proofrolling.

1. Prior to placing asphaltic or concrete pavement, the Contractor shall test the base strength by proofrolling. Proofrolling shall involve running loaded trucks or scrapers over the entire roadway (pavement plus shoulders) width. Weak or soft spots in the base shall be removed, replaced with clean base aggregate dense, compacted in 6 inch maximum lifts and retested.

E. Dust Control.

1. The Contractor shall minimize the dispersion of dust from the base, including shoulders, during construction and maintenance operations until after placement of the surface course.
2. Dust control shall be in accordance with DNR Dust Control Technical Standard 1068.

1450. ASPHALTIC CONCRETE PAVEMENT

- A. Asphaltic concrete pavement shall comply with Sections 450, 455, and 460 of the “State Specifications” as modified below. The pavement mix shall be Type E-0.3 for roadways. The pavement mix shall be comprised of virgin and/or recycled aggregate and asphaltic materials unless otherwise specified.

1. Aggregate.

- a. Aggregate in the pavement mix shall conform to Subsection 460.2.2 of the “State Specifications”, including the gradation requirements of Subsection 460.2.2.3, and the gradations listed below.

	<u>Nominal Size</u>	<u>Minimum Layer Thickness</u>
Lower Layer	3/4" (19.0 mm)	2.25"
Upper Layer	1/2" (12.5 mm)	1.75"
Asphaltic Surface	3/8" (9.5 mm)	1.50"

2. Asphalt Cement.

- a. Asphalt cement shall conform to Subsection 455.2.4 of the “State Specifications” and shall be performance grade PG 58-28 or 64-22. Asphalt cement content shall be in accordance with approved mixes. The cost of asphaltic material shall be included in the unit price(s) bid for asphaltic concrete pavement.

3. Pavement Mix.

- a. Prior to beginning construction, the Contractor shall provide the Engineer with copies of current state approvals of design mixes for materials proposed to be used on this project.
- b. Asphaltic mixture shall be produced and incorporated in the work on the basis of a job-mix formula. The Contractor shall be responsible for the asphaltic job-mix design report, conforming to Subsection 460.2.7, and shall submit a signed copy of the report to the Engineer for review at least two weeks prior to plant start up for paving production.
- c. Pavement Mix.
  - (1) Pavement mixture shall be in accordance with Subsection 460.2 of the “State Specifications” and shall be the types noted above or as specified below:
    - (a) E-0.3: Residential streets and parking lots.
- d. Delete Subsection 460.2.8.3 from the “State Specifications”. Quality management program does not apply to this project.

B. Pavement Compaction.

1. All pavements shall be built in accordance with the Maximum Density Method per Subsection 460.3.3 of the “State Specifications”. The maximum specific gravity value shall be indicated on the asphaltic job-mix design report.
2. Pavements shall be compacted to a density not less than that shown in the table below:

Minimum Required Density:

LOCATION	LAYER	PERCENT OF TARGET MAXIMUM DENSITY		
		MIXTURE TYPE		
		E-0.3, E-1, and E-3	E-10, E-30, and E-30x	SMA
TRAFFIC LANES <sup>(1)</sup>	LOWER	91.5 <sup>(2)</sup>	92.0 <sup>(2)</sup>	94.0
	UPPER	91.5	92.0	94.0
SHOULDERS AND APPURTENANCES	LOWER	89.5	89.5	91.0 <sup>(3)</sup>
	UPPER	90.5	90.5	91.0 <sup>(3)</sup>

<sup>(1)</sup> Includes parking lanes as determined by the Engineer.

<sup>(2)</sup> Minimum reduced by 2 percent for < 3 million ESALs and one percent for > 3 million ESALs, when the first lift of lower layer constructed on base aggregate dense or recycled base courses.

<sup>(3)</sup> Minimum density will be 94.0 when the shoulders are paved integrally with the mainline pavement.

3. Delete Subsection 460.5.2.3 from the “State Specifications”. Pavement density incentives do not apply to this project.

C. Recycled Asphaltic Concrete Pavement.

1. The Contractor may use recycled asphaltic concrete pavement for all layers.
  - a. The recycled pavement shall consist of a mix of salvaged asphaltic pavement materials, presently stockpiled for use by the Contractor, and the required amounts of aggregate and asphalt cement. The recycled pavement shall be in accordance with a State approved mix calculated for the stockpiled material and comply with Section 460 of the “State Specifications”. The Contractor shall submit a copy of the job-mix formula to the Engineer.
  - b. The unit price bid for asphaltic concrete pavement shall be for all costs for the use of either virgin mix or recycled mix at Contractor’s option. No adjustment in unit price will be allowed for changes in use of virgin or recycled mixes.

D. Pavement Passes and Thickness.

1. Asphaltic concrete pavement shall be placed in passes as shown on the Plans. Lower layer and upper layer passes shall be staggered to prevent joints from extending through the entire asphaltic pavement.
  - a. Five inch thick asphaltic pavement shall consist of a 1-3/4 inch upper layer and a 3-1/4 inch lower layer.

2. The longitudinal joint(s) in the upper layer shall be located at the centerline of the pavement and/or at edges of traffic lanes.

E. Tack Coat.

1. A tack coat shall be applied to each lower layer prior to placing the succeeding layer. Apply the tack coat the same day that the next layer is placed.
  - a. Tack coat material shall be an asphalt emulsion, conforming to Subsection 455.2.5 of the “State Specifications”, diluted with an equal amount of water and applied at a rate of 0.025 gallons per square yard or at a rate required to effectively bond the overlying material.
2. The cost of applying tack coat shall be included in the unit price(s) bid for asphaltic concrete pavement.

F. Temperature of Asphalt Placed.

1. All asphalt (both upper and lower layers) shall be placed at a temperature of 250°F or higher.

G. Cold Weather Work.

1. Asphaltic pavement shall not be placed when the air temperature in the shade is less than 35°F unless approved by the Engineer.
2. Remove Subsections 450.3.2.1(3), 450.3.2.1(4), and 450.3.2.1(5) of the “State Specifications” and replace with the following:

“If the Engineer allows placing asphaltic mixtures below the specified minimum temperature, either at the Contractor’s request or to complete the work to the stage the contract requires, the work will be performed at the Contractor’s risk. Final inspection of the HMA paving or asphaltic surfacing work will be deferred until May of the following year. Before final acceptance, restore all pavement damage or defects the Engineer attributes to temperature or other weather conditions. Repair or replace areas of pavement as identified by the Engineer.”

H. Construction Equipment.

1. The paver shall have sufficient power and traction to operate on grades. Screenshot extensions with static extensions shall not exceed 12 inches. Automatic control systems shall be used unless otherwise determined by the Engineer.
2. Vibratory rollers shall conform to Subsection 450.3.1.5.

I. Construction Methods.

1. Prior to placing asphaltic base or surface courses, all required corrections of filling potholes, sags, and depressions shall be made.
2. All edges of existing abutting asphaltic pavements shall be saw-cut immediately prior to paving to form a straight firm joint, unless otherwise waived by the Owner.
3. All rolling shall be performed during daylight hours.
4. In the event of sudden or impending rain, material in transit will be permitted to be laid at the Contractor's risk providing the pavement is free of standing water and the proper temperature of the asphalt is maintained. Approval to unload the trucks in transit shall in no way relax the requirements of quality, density, or smoothness of the asphalt being placed.

J. Proofrolling.

1. Prior to placing the asphaltic pavement lower layer, the Contractor shall test the base strength by proofrolling. Proofrolling shall involve running loaded trucks or scrapers over the entire roadway (pavement plus shoulders) width. Weak or soft spots in the base or subbase course shall be removed, replaced with clean base or subbase course material, compacted in 6 inch maximum lifts and retested.

1501. CONCRETE MASONRY

A. Grade of Concrete

1. All concrete shall be Grade A, air-entrained, as specified in Subsection 501.3.2 of the "State Specifications".
  - a. All concrete shall be "ready-mixed".

B. Surface Finish.

1. All concrete shall receive a brush finish.

C. Curing.

1. Concrete pavement, curb and gutter and sidewalk shall be cured in accordance with the requirements of Subsection 415.3.12 of the "State Specifications", except that all concrete shall be cured by the Impervious Coating Method as specified in Subsection 415.3.12.2.

D. Test Specimens.

1. The Contractor shall take two representative concrete samples in accordance with ASTM C-31 for 7 day and 28 day compression testing in accordance with ASTM C-39 from approximately every 250 cubic yards of concrete placed for concrete pavement and approximately every 50 cubic yards of concrete placed for all other concrete masonry. This work shall conform to Subsection 501.3.10 of the "State Specifications".
2. Test cylinders shall be six inches in diameter by 12 inches in height.
3. The Contractor shall field cure, care for and ship the test cylinders to the testing laboratory. All costs of preparing the cylinders, shipping and testing shall be included in the unit prices bid for pertinent concrete items.
  - a. Copies of test results shall be provided to the Engineer.

1601. CONCRETE CURB AND GUTTER

A. Standard Section.

Concrete curb and gutter shall conform to the 30 inch Type "D" section of the Wisconsin Department of Transportation and shall be constructed in accordance with Section 601 of the "State Specifications" and the typical section(s) shown on Standard Detail Drawing for Concrete Curb, Concrete Curb and Gutter, and Pavement Ties in the Appendix.

1. Concrete masonry shall conform to Section 1501 of these Special Provisions.

B. Dense Graded Base.

1. Construct curb and gutter on a layer of compacted base aggregate dense base course, placed to a thickness matching the subgrade elevation of the curb and gutter to the subgrade elevation of the adjacent pavement.
2. Material.
  - a. The base material shall conform to Section 305 of the "State Specifications" and shall be base aggregate dense 1-1/4 inch and/or 3 inch.
3. Payment for base shall be included in the bid item for base aggregate dense.

C. Contraction Joints.

1. Spacing.

- a. Adjacent to Asphalt Pavement.
  - (1) Contraction joints in curb and gutter adjoining asphaltic pavement shall be spaced at intervals of 10 feet or as directed by the Engineer.
- 2. If the Contractor elects to saw-cut the joints, the joints shall be saw-cut the same day when normal or rapid concrete setting conditions prevail. If conditions exist that retard the setting of the concrete, the saw-cutting of the joints shall be delayed until the concrete has set sufficiently to preclude raveling during the sawing. If shrinkage cracks develop prior to saw-cutting, the cracked sections of concrete shall be removed to such an extent that the normal joint spacing will still exist. Contraction joints constructed by saw-cutting shall be a minimum of 2 inches in depth.

D. Expansion Joints.

- 1. Expansion joints shall be placed as outlined in Subsection 601.3.6 of the “State Specifications”. Joint filler shall be 3/4” expansion fiber material.
- 2. Place expansion joints at the locations shown on the Plans and/or in the Appendix and as detailed below:
  - a. Curb and Gutter Located Adjacent to Asphalt Pavement.
    - (1) At the PC and PT of horizontal curves.
    - (2) Three feet from each side of drainage structures.
    - (3) At 300 foot maximum spacing on both tangents and curves.

E. Opening to Traffic.

- 1. Traffic shall not be allowed on curb and gutter for a period of at least 7 days after placing or until the concrete has attained a compressive strength of at least 3,000 pounds per square inch in accordance with Subsection 415.3.17 of the “State Specifications”.

1602. CONCRETE SIDEWALK, STEPS, AND DRIVEWAYS

A. Standard Sections.

- 1. The construction of concrete sidewalks, steps, and driveways shall comply with Section 602 of the “State Specifications” and the standard detail(s) shown in the Appendix.
- 2. Concrete masonry shall conform to Section 1501 of these Special Provisions.

3. Sidewalks.
    - a. Standard sidewalks shall be 5 inches minimum thickness except at driveways where the sidewalk shall match the thickness of the adjacent concrete drive with a minimum thickness of 7 inches provided.
  4. Driveways.
    - a. Concrete driveways shall be 7 inch minimum thickness.
- B. Base Course.
1. Concrete sidewalk, steps, and driveways shall be constructed on a compacted gravel base. The gravel base shall be dense graded base conforming to base aggregate dense 3/4-inch (sidewalk and steps) and base aggregate dense 1-1/4-inch (driveways) of Subsection 305.2.2 of the "State Specifications". The cost of base course shall be included in the prices bid for concrete sidewalk, steps and driveways. The base shall be constructed to the following minimum thicknesses.
    - a. Concrete sidewalk and steps (excluding 7 inch sidewalk at drives) - 3 inches thick.
    - b. Concrete driveways (including 7 inch sidewalk at drives) - 6 inches thick.
- C. Joints.
1. Joints shall be placed and constructed in accordance with Subsection 602.3.2.5 of the "State Specifications" and these Special Provisions.
  2. Expansion Joints: Place one-half (1/2) inch expansion joints as directed below:
    - a. Through sidewalks at uniform intervals of not more than 96 feet.
    - b. At joints with intersecting sidewalks.
    - c. Between sidewalk and/or driveway and back of curb and gutter. Construct the sidewalk or driveway grade 1/4 inch higher than the back of curb elevation where they meet.
    - d. At the intersection of 5 inch sidewalk with (7 inch) drives.

3. Contraction Joints.

a. Sidewalks.

- (1) Place contraction joints at a 5 foot typical spacing. Contraction joint spacings shall typically match adjacent sidewalk sections.

b. Driveways.

- (1) Place contraction joints parallel to the curb line at a 6 foot maximum spacing.
- (2) Place contraction joints at right angles to the curb line at an 8 foot maximum spacing.
- (3) Center joints to create symmetrical sections.

D. Handicap Ramps.

1. Handicap ramps shall be constructed at locations shown on the Plans in accordance with the Standard Detail Drawings shown in the Appendix.
2. Curb ramp detectable warning fields are to be yellow in accordance with the Standard Detail Drawings shown in the Appendix.
  - a. Typical handicap ramp shall be Type 1 unless directed otherwise by Owner to match field conditions.
  - b. Detectable warning plates shall be Neenah, R-4984, and the coating shall be specified as federal yellow powder coating.
3. Handicap ramps shall be measured and paid for as 5-inch concrete sidewalk. Curb ramp detectable warning fields are incidental to the cost for 5 inch concrete sidewalk.

E. Opening to Traffic.

1. Pedestrian traffic shall not be allowed for a period of at least 3 days after placing concrete and vehicular traffic shall be excluded for a period of at least 7 days after placing or until the concrete has attained a compressive strength of at least 2,500 pounds per square inch.

## 1611.1. MANHOLE AND VALVE BOX ADJUSTMENTS

### 1611.1. SANITARY MANHOLE ADJUSTMENTS

#### A. Manhole Adjustments (Existing Manholes).

1. The Contractor shall adjust existing manhole castings on precast manholes to grade by adding or removing adjusting rings. After removing the manhole casting and rings, the Contractor shall clean the casting and manhole mating surfaces to remove all loose mortar and other substances. The Contractor shall take precautions to prevent gravel and other materials from entering the manhole. All materials falling into the manhole shall be removed by the Contractor. Manhole adjustments are shown on the Plans.
  - a. Adjusting rings shall be furnished by the Contractor and shall match the dimensions of existing rings and/or manhole castings.
    - (1) Concrete adjusting rings shall meet the requirements of Subsection 8.39.11 of the "Standard Specifications".
  - b. Adjusting rings and manhole frames shall be set with butyl rubber sealant troweled into a 1/4 inch thick layer over the entire surface areas of the top of cone and all adjusting rings. The butyl rubber sealant shall be EZ-Stik or Kent Seal butyl base sealant in trowelable grade.
    - (1) Manhole frames and rings on storm sewers may be set with either butyl sealant or a bed of mortar.
  - c. The exposed exterior surface of sanitary manholes adjusted to grade shall be sealed with a minimum 1/4 inch thick coating of butyl rubber sealant.
  - d. Payment.
    - (1) The cost of adjusting existing manholes to grade will be paid for at the unit price bid for adjusting manholes to grade. The cost of adjusting new manholes to grade (constructed by the Contractor) shall be included in the unit price(s) bid for manholes.
2. The Contractor shall adjust existing castings on concrete block manholes to grade by adding or removing adjusting rings, concrete brick, or concrete block as the case may be. After removing the manhole casting and adjusting devices, the Contractor shall clean the casting and manhole mating surfaces to remove all loose mortar and other substances. Should it be necessary to reach final grade, the Contractor shall remove the top four (4) inches of the top course of concrete block. This work shall result in a flat, smooth bearing surface to support the manhole casting.

- a. The Contractor shall take precautions to prevent gravel and other materials from entering the manhole. All materials falling into the manhole shall be removed by the Contractor. Manhole adjustments are shown on the Plans.
- b. Additional details of manhole adjustment shall be in accordance with 1.a, 1.b, and 1.c above.
- c. Payment.
  - (1) The cost of adjusting existing concrete block manholes to grade will be paid for at the unit price bid for adjusting existing concrete block manholes to grade.

B. Manhole Adjustment/Reconstruction.

1. Precast Concrete Manholes: Manholes that cannot be brought to final grade by adding or removing adjusting rings shall be adjusted to grade in accordance with the following procedure:
  - a. Remove casting, rings, cone section, and riser section(s) as required.
  - b. Place new riser section(s) and/or cone section, 3" to 18" of concrete adjusting rings and reset casting to grade in accordance with Subsection 1611.1.A above. Salvaged materials in satisfactory condition may be reused if approved by the Engineer. A flat-top slab may be substituted for the cone section.
2. Concrete Block Manholes: Manholes that cannot be brought to final grade by the methods described in Section 1611.1.A.2 above shall be adjusted to grade in accordance with the following procedure:
  - a. Remove casting, rings, bricks, and the concrete block cone section down to the top of the barrel section and remove all mortar. The Contractor shall take precautions to prevent gravel, mortar, and other material from entering the manhole. All material falling into the manhole shall be removed by the Contractor.
  - b. Using solid concrete barrel block and mortar conforming to the requirements of Chapter 3.5.0 of the "Standard Specifications", extend the manhole barrel up to an elevation between 17 inches and 32 inches below finished grade. Install new manhole steps in alignment with existing steps and at existing intervals. Place concrete cover with opening, adjusting rings, and manhole casting in accordance with paragraphs 3, 3.a, 3.b, 3.c, and 3.d below.

3. All manhole adjustments shall be constructed in accordance with Chapter 3.5.0 and File Nos. 11, 12, and 15 of the “Standard Specifications” and these Special Provisions.
  - a. Manhole steps shall be OSHA approved and fabricated using 3/8” minimum diameter steel reinforcing rod with molded plastic covering.
  - b. Joints for precast manhole riser sections shall be made with rubber “O”-ring gaskets or a continuous ring of butyl rubber sealant (EZ-Stik or Kent-Seal in rope form), except that joints for storm sewer manholes may also be made with mortar. The butyl sealant shall be 1 inch diameter equivalent or as recommended by the manhole manufacturer.
  - c. The entire outside surface of sanitary manhole chimneys, including all adjusting rings and overlapping both the manhole cone or flat-top slab (a minimum of 4 inches) and the manhole frame, shall be covered with a minimum 1/4 inch thick coating of butyl rubber sealant. The butyl rubber sealant shall be EZ-Stik or Kent-Seal butyl base sealant in trowelable grade.
  - d. Revise Chapter 8.38.0 of the “Standard Specifications” to require that concrete brick and block shall be colored “red or pink”, conforming to Subsection 519.2.2 of the “State Specifications”.
4. Payment.
  - a. The cost of adjusting manholes to grade will be paid for at the unit price bid for manhole adjustment/reconstruction.

C. Valve Box Adjustments.

1. The Contractor shall adjust valve boxes to grade by screwing or sliding the valve box top section to the required elevation. The cost of this work shall be included in the unit prices bid for base course or paving.

D. Finished Grade.

1. The top of valve boxes and manhole castings shall be set 1/4 inch below the finished asphaltic grade.

E. Protection of Projecting Structures.

1. The Contractor shall protect manholes and valve boxes projecting above the subbase or base material (prior to placement of base course and pavement) with barriers and flashing lights or (after the base course has

been constructed) by temporarily placing base course material around the projecting structure.

F. Misaligned Structures.

1. The Contractor shall take precautions to protect all manhole frames and valve boxes from being damaged or moved out of alignment. The Contractor shall adjust all misaligned manhole frames and valve boxes, disturbed by his operations, at no cost to the Owner.
  - a. The cost of aligning manhole frames and valve boxes disturbed by others will be paid for at the prices bid in the Schedule of Supplemental Unit Prices.

1611.2. CATCH BASIN ADJUSTMENTS

- A. Existing catch basins shall be adjusted, as required, to the required elevation by removing the castings and adjusting the top of the structure by removing or adding concrete, brick masonry or concrete brick or block masonry and resetting the casting on a bed of mortar.
  1. The cost of adjusting catch basins to line and grade shall be incidental to curb and gutter construction.

1617. DELIVERY TICKETS

- A. Delivery tickets shall be furnished by the Contractor for materials bid on a unit price per weight or volume: i.e., base aggregate dense, asphaltic concrete pavement. Tickets will only be considered for payment if received on the same day the material is placed. Scales are to be furnished by the Contractor and shall have been tested within the preceding 6 months to insure accuracy by an authorized testing firm. A copy of the test report shall be provided to the Engineer.

1625. TOPSOIL

- A. Topsoil shall comply with Section 625 of the "State Specifications".
  1. Topsoil shall consist of materials as specified in Subsection 625.2 of the "State Specifications".
- B. Topsoil Stripping.
  1. Strip all topsoil from within the grading limits of the entire site, except as shown otherwise on the Plans or as specified below, as directed by the Engineer.
  2. Stripped topsoil shall be hauled off site and disposed of by the Contractor.

- C. Placing Topsoil.
  - 1. Place four (4) inches minimum of topsoil over all excavated terrace areas and blend with existing lawns.
    - a. Topsoil shall be placed in accordance with Subsection 625.3.3 of the “State Specifications”.

- D. Payment.

- 1. Topsoil.
  - a. The cost of stripping, hauling, and stockpiling salvaged topsoil shall be included in the unit price bid for common excavation. The cost of furnishing, hauling, and placing new topsoil shall be included in the unit price bid for lawn restoration.

1630. LAWN RESTORATION

- A. The bid item for lawn restoration shall include stripping, stockpiling, hauling, and placing topsoil and furnishing and placing fertilizer, seed and mulch and the maintenance and monitoring of seeded areas.

- B. Fertilizer.

- 1. Fertilizer shall comply with Section 629 of the “State Specifications”. Apply Type A fertilizer at 7 pounds per 1,000 square feet.

- C. Seeding.

- 1. Seeding shall comply with Section 630 of the “State Specifications”.
- 2. Lawn Type Turf.
  - a. Grass seed shall meet the requirements of Subsection 630.2.1.5.1.1.1 (Seed Mixture No. 40), except that seed shall be distributed at a rate of four (4) pounds per 1,000 square feet.
- 3. The Contractor shall furnish all empty seed bags to the Owner.

- D. Mulching.

- 1. Mulching shall comply with Section 627 of the “State Specifications”. All seeded areas shall be mulched.
  - a. The Contractor may use either Method A, B or C of Subsection 627.3 when placing mulch.

E. Lawn Restoration Timetable.

1. Seeding may be done at any time during the growing season when soil conditions are suitable.
2. Weather permitting, lawn restoration shall be completed within 7 calendar days after topsoil has been placed.

F. Maintenance and Monitoring.

1. The Contractor shall maintain all seeded areas performed under this contract which includes the destroying of noxious weeds within the seeded areas by cutting or by other means and prevent the weed plants from maturing to the bloom or flower stage. The term “noxious weeds” as defined here shall constitute plant life other than those included within the seed mixture specified. The Contractor shall maintain and monitor seeded areas upon initial seeding and throughout the Correction Period to assure uniform and consistent growth of the specified seed as determined by the Owner. The cost for providing maintenance will be considered incidental to the lawn restoration item.

G. Watering.

1. The Contractor shall be responsible for daily watering all restored areas for a minimum of two weeks, as needed to obtain dense growth, following the final completion. Upon approval from the Owner, the Village will be responsible for additional watering.

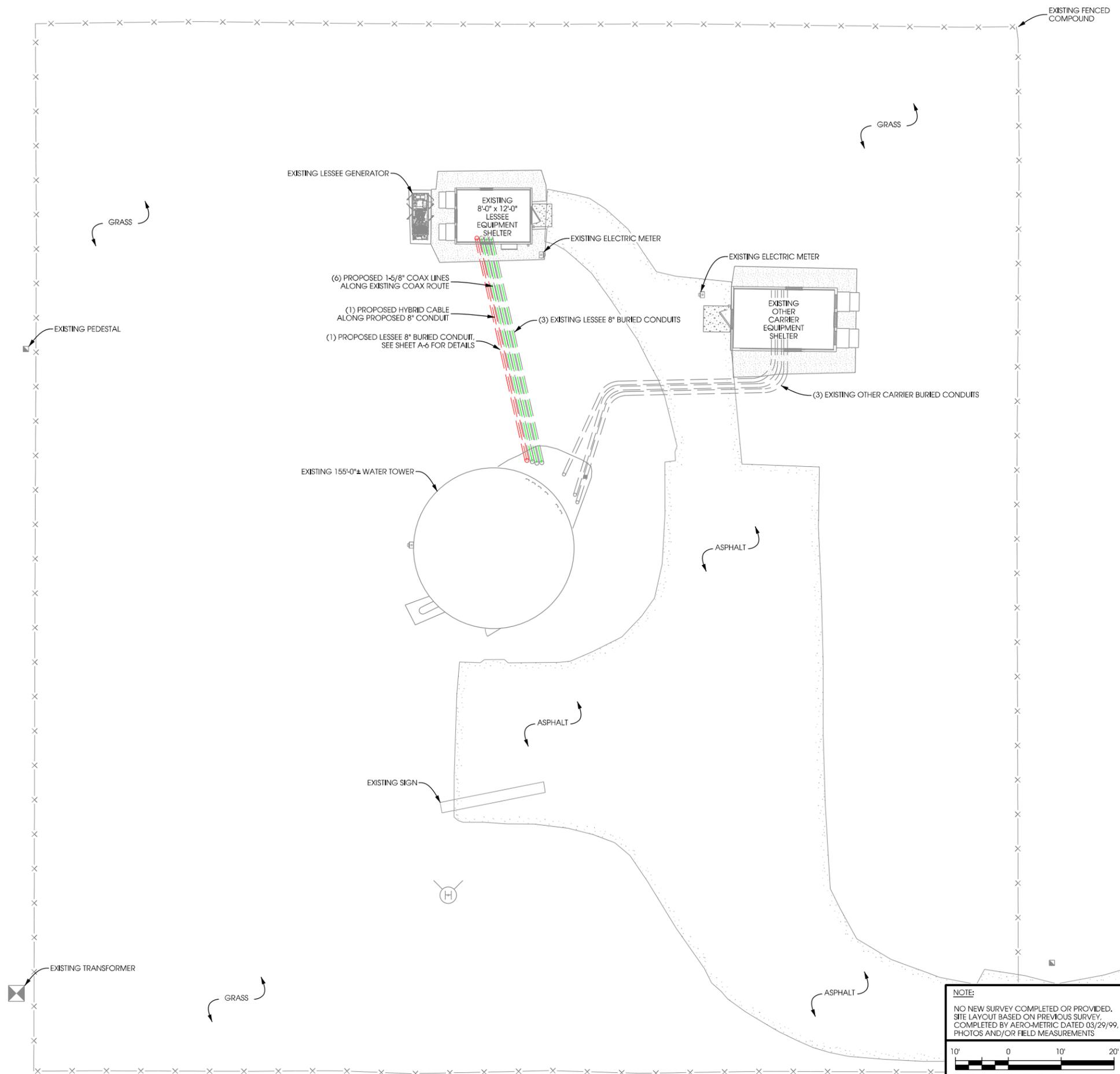




**AERIAL OVERVIEW OF SITE**



**SITE OVERVIEW (LOOKING NORTH)**



**NOTE:**  
 NO NEW SURVEY COMPLETED OR PROVIDED.  
 SITE LAYOUT BASED ON PREVIOUS SURVEY,  
 COMPLETED BY AEROMETRIC DATED 03/29/99,  
 PHOTOS AND/OR FIELD MEASUREMENTS

SCALE: 11" x 17" - 1" = 20'  
 22" x 34" - 1" = 10'

**COMPOUND PLAN  
 JACKSON WT (113385)  
 JACKSON VILLAGE, WISCONSIN**

SHEET TITLE:	
PRELIMINARY CDs:	
PRELIM. ANTENNA MOD. - 08/29/14	
COAX ROUTING - 03/09/15	
STAMPED FINALS:	
FINAL ANTENNA MOD. - 03/10/15	
DRAWN BY:	CJS
CHECKED BY:	DAB, BDK
PLOT DATE:	3/10/2015
PROJECT #:	10996
FILE NAME:	C-1.dgn
SHEET NUMBER:	<b>C-1</b>

I:\10996\10996\CAD\PHOTO\C-1.dgn





EQUIPMENT CHANGE REQUEST FORM- ECR										
Cell Name		Jackson WT			Cell ID			748		
Location Number		113385			RF Engineer			Chris Jennings		
Date of Request		7/9/2014			Market			Milwaukee		
					Address			/227 N16551 Cedar Parkwa		
					City/State/Zip			Jackson, WI		
EXISTING CONFIGURATION										
Sector	Pos	Port	RF Path	Antenna Manufacturer	Antenna Model	Centerline	Azimuth	Variable Tilt	Mechanical Tilt	
Alpha	A1	L1	Unused at this time	Scala	P1790_4	159	10		3	
		L2	Unused at this time							
		H1	PCS - RxTx0							
		H2	Unused at this time							
	A2	L1	LTE C - RxTx0	Andrew	DBQNH-6565B	159	0	0	0	
		L2	LTE C - RxTx1							
		H1	PCS - RxTx1							
		H2	Unused at this time							
	A3	L1	Unused at this time							
		L2	Unused at this time							
		H1	Unused at this time							
		H2	Unused at this time							
A4	L1	Unused at this time								
	L2	Unused at this time								
	H1	Unused at this time								
	H2	Unused at this time								
Beta	B1	L1	Unused at this time	Scala	P1790_4	159	105		1	
		L2	Unused at this time							
		H1	PCS - RxTx0							
		H2	Unused at this time							
	B2	L1	LTE C - RxTx0	Andrew	DBQNH-6565B	159	105	0	0	
		L2	LTE C - RxTx1							
		H1	PCS - RxTx1							
		H2	Unused at this time							
	B3	L1	Unused at this time							
		L2	Unused at this time							
		H1	Unused at this time							
		H2	Unused at this time							
B4	L1	Unused at this time								
	L2	Unused at this time								
	H1	Unused at this time								
	H2	Unused at this time								
Gamma	G1	L1	Unused at this time	Scala	P1790_4	159	230		3	
		L2	Unused at this time							
		H1	PCS - RxTx0							
		H2	Unused at this time							
	G2	L1	LTE C - RxTx0	Andrew	DBQNH-6565B	159	230	0	0	
		L2	LTE C - RxTx1							
		H1	PCS - RxTx1							
		H2	Unused at this time							
	G3	L1	Unused at this time							
		L2	Unused at this time							
		H1	Unused at this time							
		H2	Unused at this time							
G4	L1	Unused at this time								
	L2	Unused at this time								
	H1	Unused at this time								
	H2	Unused at this time								

NOTES:

RF DESIGN AND DETAIL ON THIS PAGE PROVIDED BY VERIZON AND ARE INCLUDED FOR CONVENIENCE. FINAL RF DESIGN TO BE VERIFIED WITH VERIZON. IF SIGNIFICANT CHANGES OR DISCREPANCIES ARE IDENTIFIED, CONTACT ENGINEER PRIOR TO INSTALLATION.

EXISTING ANTENNA CONFIGURATION

Existing					
Diplexer	Location	Diplexer Manufacturer	Diplexer Model	Count	
Top (Platform)		CSS	DBC-7CAP	6	
	Bottom (Shelter)	Andrew	CBC-721DF (Diplexer)	6	
Coax	Sector	Coax Manufacturer	Type	Size	Count
	Alpha			1 5/8	2
	Beta			1 5/8	2
	Gamma			1 5/8	2
Proposed					
Passive Components	Location	Manufacturer	Component Model	Count	Action
	Top (Platform)		RRUS 12 - AWS	3	Install
	Top (Platform)	Ericsson	A2	3	Install
	Top (Platform)	Westell	AWC-TMA-700C-VG	6	Install
	Top (Platform)	Raycap	RCMDC-3315-PF-48	1	Install
	Top (Platform)	Andrew	CBC-721DF (Diplexer)	6	Install
	Bottom (Shelter)	Raycap	RCMDC-3315-PF-48	1	Install
	Bottom (Shelter)	Andrew	CBC-721DF (Diplexer)	6	Existing
Coax	Sector	Coax Manufacturer	Type	Size	Count
	Alpha	Andrew	AVA7-50	1 5/8	4
	Beta	Andrew	AVA7-50	1 5/8	4
	Gamma	Andrew	AVA7-50	1 5/8	4
	AWS	Andrew	HFT1206-24S26	1	1

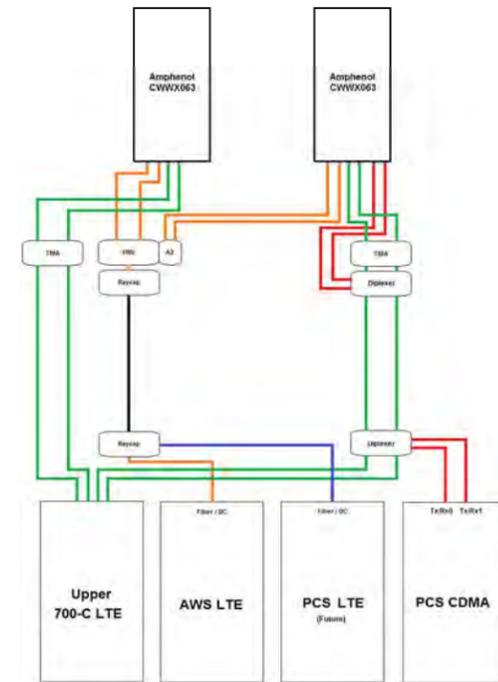
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COMBINER CABLE DATA INFORMATION

CONTRACTOR TO VERIFY W/ VERIZON MANAGER FOR A MORE RECENT ECR IS AVAILABLE IS NOT

EQUIPMENT CHANGE REQUEST FORM- ECR											
Cell Name		Jackson WT			Cell ID			748			
Location Number		113385			RF Engineer			Chris Jennings			
Date of Request		7/9/2014			Market			Milwaukee			
					Address			/227 N16551 Cedar Parkwa			
					City/State/Zip			Jackson, WI			
PROPOSED CONFIGURATION										Equipment Layout Link	
Sector	Pos	Port	RF Path	Antenna Manufacturer	Antenna Model	Centerline	Azimuth	Variable Tilt	Mechanical Tilt	Action	
Alpha	A1	H1 (-45)	Unused at this time	Amphenol	CWWX063X19G00	159	0	-	0	Change-Install	
		H2 (+45)	Unused at this time								
		L1 (-45)	LTE C - RxTx0								
		L2 (+45)	LTE C - RxTx1								
	A2	H1 (-45)	AWS - RxTx0	Amphenol	CWWX063X19G00	159	0	0	2	0	Change-Install
		H2 (+45)	AWS - RxTx1								
		L1 (-45)	PCS - RxTx0								
		L2 (+45)	PCS - RxTx1								
	Beta	B1	H1 (-45)	Unused at this time	Amphenol	CWWX063X19G00	159	120	-	0	Change-Install
			H2 (+45)	Unused at this time							
			L1 (-45)	LTE C - RxTx0							
			L2 (+45)	LTE C - RxTx1							
B2		H1 (-45)	AWS - RxTx0	Amphenol	CWWX063X19G00	159	120	0	2	0	Change-Install
		H2 (+45)	AWS - RxTx1								
		L1 (-45)	PCS - RxTx0								
		L2 (+45)	PCS - RxTx1								
Gamma		G1	H1 (-45)	Unused at this time	Amphenol	CWWX063X19G00	159	240	-	0	Change-Install
			H2 (+45)	Unused at this time							
			L1 (-45)	LTE C - RxTx0							
			L2 (+45)	LTE C - RxTx1							
	G2	H1 (-45)	AWS - RxTx0	Amphenol	CWWX063X19G00	159	240	0	2	0	Change-Install
		H2 (+45)	AWS - RxTx1								
		L1 (-45)	PCS - RxTx0								
		L2 (+45)	PCS - RxTx1								



NOTES:

RF DESIGN AND DETAIL ON THIS PAGE PROVIDED BY VERIZON AND ARE INCLUDED FOR CONVENIENCE. FINAL RF DESIGN TO BE VERIFIED WITH VERIZON. IF SIGNIFICANT CHANGES OR DISCREPANCIES ARE IDENTIFIED, CONTACT ENGINEER PRIOR TO INSTALLATION.

PROPOSED ANTENNA CONFIGURATION

SHEET TITLE:

PRELIMINARY CDs:  
 PRELIM. ANTENNA MOD. - 08/29/14  
 COAX ROUTING - 03/09/15

STAMPED FINALS:  
 FINAL ANTENNA MOD. - 03/10/15

DRAWN BY:  
 CJS  
 CHECKED BY:  
 DAB, BDK  
 PLOT DATE:  
 3/10/2015  
 PROJECT #:  
 10996  
 FILE NAME:  
 A-2.dgn

SHEET NUMBER:











### **THIRD AMENDMENT TO TOWER/LAND LEASE AGREEMENT**

**THIS THIRD AMENDMENT TO TOWER/LAND LEASE AGREEMENT** ("Amendment") is made this \_\_\_\_ day of \_\_\_\_\_, 2015, between the Village of Jackson, a Wisconsin corporation, ("Lessor") and Verizon Wireless Personal Communications LP, d/b/a Verizon Wireless, with its principal offices located at One Verizon Way, Mailstop 4AW100, Basking Ridge, New Jersey 07920 ("Lessee").

**WHEREAS**, there is now in full force and effect a Tower/Land Lease Agreement between Lessor and Lessee dated March 11, 1997, as amended by the Amendment to Land Lease Agreement ("First Amendment") dated June 12, 2008; and as amended by the Amendment to Land Lease Agreement ("Second Amendment") dated January 28, 2013 (collectively the "Lease") that provides for the location, installation and operation of Lessee's communications equipment at the real property and on the water tower ("Tower") owned by Lessor and located at W227 N16551 Cedar Parkway, Jackson, Wisconsin ("Property"); and

**WHEREAS**, the Lease is currently in the third (3rd) five (5) year extension term; and

**WHEREAS**, Lessee wishes to modify and/or add antennas, cables, and ancillary equipment to the Tower and an external Coax Enclosure at the Shelter ("Additional Equipment"); and

**WHEREAS**, Lessor and Lessee wish to amend the Lease in order to address the above equipment modifications at the Property; and

**NOW THEREFORE**, for good and valuable consideration including the mutual covenants and agreements hereinafter set forth, Lessor and Lessee agree as follows:

1. **Recitals.** The recitals set forth above are incorporated herein by reference.
2. **Additional Equipment.** Exhibit B of the Lease is hereby supplemented with the attached Exhibit B-3 which depicts Lessee's equipment on the Tower. Exhibits B-4 and B-5 reference the manner of installation of the Additional Equipment which Lessee may install. Provided that Lessee has received all necessary permits and approvals from appropriate governing bodies, Lessee may immediately commence installation of the Additional Equipment as depicted on Exhibit B-3. Lessor agrees that the installation plan in the attached Exhibits B-3, B-4, and B-5, depicting the location and manner of Lessee's installation, is acceptable. The facilities described in Exhibit A, Exhibit B, Exhibit B-3, Exhibit B-4, and Exhibit B-5 together shall constitute the Antenna Facilities as that term is used within the Lease and its Amendments.
3. **Rent.** The current annual rent due under the Lease is \$19,785.60, which amount shall be increased by an additional \$2,400.00 per year ("Rent Increase") to be added to the next annual payment due. Lessee further agrees to pay a lump sum payment as additional rent, which shall be

equal to the Rent Increase prorated from the date of full execution of this Amendment to the next payment of annual rent (“Lump Sum”), with such prorated portion due within thirty (30) days of the full execution of this Amendment. The Lump Sum will be paid as additional rent and not as capital. Rent shall increase each successive term pursuant to the terms of the Lease.

4. **Extension Rent.** Section 3(c) of the Lease is hereby amended to provide that the annual rent for the fourth (4th) five (5) year extension term (March 14, 2017 to March 13, 2022) shall be \$26,622.72.

5. **Reimbursement.** Lessee shall reimburse Lessor for all costs and expenses of any type that Lessor incurs in connection with any aspect of work conducted in relation to this Third Amendment, which amount in total may not exceed \$9000.00, including the costs of professional services incurred by Lessor (including engineering, legal, planning, and other consulting fees), for preparation of the Third Amendment, for review of plans and specifications necessary for installing the Additional Equipment as well as all on-site inspections and written approvals necessary to ensure the Additional Equipment does not conflict with Lessor’s use of the tower, or attendance at meetings or other related professional services for this application, as well as for any actions Lessor is required to take to enforce the conditions of this Third Amendment due to a violation of these conditions. Village Staff time shall be reimbursed at the staff hourly rate, plus thirty percent (30%) for overhead and benefits, and Village Consultant charges shall be reimbursed at actual cost to the Village. Such reimbursement payments shall be made within thirty (30) days of detailed billing by Lessor, and failure to make timely payment shall constitute a breach of the Lease that is subject to all remedies available to Lessor, including possible cause for termination of the Lease.

6. Other than as specifically amended herein, all other terms and conditions of the Lease shall remain in full force and effect. Where there is conflict between the terms of the Lease and this Amendment, the terms of this Amendment shall control. Unless otherwise indicated or introduced in this Amendment, all defined terms referenced in the Amendment shall have the same meaning as those found in the Lease.

(Signatures continue on next page)

**IN WITNESS WHEREOF**, the parties hereto have executed in duplicate this lease Amendment on the day and year first above written.

**Lessor:**

**Village of Jackson**

By: \_\_\_\_\_

Name: John M. Walther

Title: Administrator

Date: \_\_\_\_\_

**Lessee:**

**Verizon Wireless Personal Communications LP,  
d/b/a Verizon Wireless**

By: \_\_\_\_\_

Name: Lynn Ramsey

Title: Area Vice President Network

Date: \_\_\_\_\_

EXHIBIT B-3

(See Attached)



EXHIBIT B-4

(See Attached)



EXHIBIT B-5

(See Attached)



# Memo

**To:** John M. Walther, Village Administrator  
**From:** Brian W. Kober, P. E., Director of Public Works  
**Subject:** Village Internet Expenses  
**Date:** September 5, 2013  
**CC:** Village Board; Sue Rank, Clerk/Treasurer

In order to justify the net worth of internet service provided by Ethoplex, a comparison was made with purchasing the same internet service from Charter or AT&T. The Village of Jackson receives a point to point connection with bandwidth size of 10 Meg down and up loading. This is equivalent to a fiber line to each building. The Village has currently four buildings (Village Hall, Fire Department, Community Center, and Waste Water Treatment Plant) using the point to point connection. The following is a breakdown of costs if a fiber connection is made to each building:

## Charter

Monthly Cost per building is \$950.00

This does not include installation fee since all buildings would need the fiber installed.

Up to five IP Addresses are free.

**Total Cost: 4 (buildings) X \$950.00 X 12 (months) = \$45,600.00**

## AT&T

Monthly Cost per building is \$1,800.00

This does not include installation fee since all buildings would need the fiber installed.

One free IP Address, the rest have to be purchased.

**Total Cost: 4 (buildings) X \$1,800.00 X 12 (months) = \$86,400.00**

## Ethoplex (If we had to pay for service)

Monthly Cost per building would be \$550.00

No installation fee.

Unlimited IP Addresses

**Total Cost: 4 (buildings) X \$550.00 X 12 (months) = \$26,400.00**

We are receiving a true benefit of internet connection based on size of bandwidth and speed. We could downgrade to a lesser internet connection, and the cost would be less, although, the current speed and bandwidth allows the Village Departments to be on the cutting edge of internet technology.

If you have any questions please let me know.

Brian W. Kober, P.E.

## ASSIGNMENT AND ASSUMPTION OF CONTRACTS

THIS ASSIGNMENT AND ASSUMPTION OF CONTRACTS ("Assignment") is entered into as of December 29, 2010, by and between VILLAGE OF JACKSON ("Assignor") and TECHWARE TELECOM, LLC for TECHWARE PC, LLC ("Assignee").

### RECITALS

A. Assignor owns and is today leasing to Assignee wireless and fiber optic networks used to provides broadband Internet services to the public ("Jackson Network").

B. Assignor desires to assign to Assignee and Assignee dsires to accept as of this date all of Assignor's rights, obligations, title and interest in, to and under those certain customer contracts, leases and other agreements pertaining to the Jackson Network as more fully described on attached **Schedule 2** (the "Contracts").

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged:

1. Assignor hereby assigns and transfers to Assignee, all of Assignor's rights, obligations, title and interest in, to and under, the Contracts. Assignee accepts the assignment made hereby, and agrees to assume all of Assignor's obligations under the Contracts arising on or after the date hereof.

2. Assignor hereby agrees to defend and indemnify Assignee from and against any and all claims, costs, liabilities, damages and expenses (including related reaosnable attorneys' fees) arising under or in connection with the Contracts and accruing before the closing. Assignee hereby agrees to defend and indemnify Assignor from and against any and all claims, costs, liabilities, damages and expenses (including related reasonable attorneys' fees) arising under or in connection with the Contracts and accruing after the closing.

3. In the event of any litigation between Assignor and Assignee arising under this Assignment or concerning the meaning or interpretation of any provision hereof, the losing party shall pay the prevailing party's costs and expenses of litigation, including, without limitation, reasonable attorneys' fees. This Assignment and the rights and obligations of the parties arising hereunder shall be construed in accordance with the laws of the State of Wisconsin.

4. This Assignment shall be binding on and inure to the benefit of the parties hereto and their successors in interest and assigns.

5. No Waiver. No provision of this Agreement is intended, or shall be construed, to be a waiver for any purpose by Jackson of any provision of Wis. Stat. §§ 893.80, 895.52, or 345.05 or any other notice requirements, governmental immunities, or damages limitations that may apply to Jackson or any of its departments, employees, officers, elected officials, board members, commissioners, or agents.

IN WITNESS WHEREOF, the Parties have caused their duly authorized representatives to execute this Agreement as of the date first above written.

ASSIGNOR:  
Village of Jackson

ASSIGNEE:  
Techware Telecom, for Techware PC, LLC

By: Wendy A. Kannenberg  
Wendy A. Kannenberg  
Village of Jackson

By: \_\_\_\_\_  
Keefe John, \_\_\_\_\_  
Techware Telecom

By: John Walther  
John Walther, Village Administrator  
Village of Jackson

Date: \_\_\_\_\_

Date: 12/21/2010

**Consent to Assignment**

Wisconsin Electric Power Company d/b/a We Energies ("Licensor"), licensor under Pole Attachment Agreement dated October 11, 2004 ("Pole Agreement"), hereby consents to assignment from Assignor to Assignee of Assignor's interest in the Pole Agreement. Licensor acknowledges that currently there is no default under the Pole Agreement that is known to Licensor. Any further assignment or other transfer of the Pole Agreement shall require Licensor's prior written consent.

LICENSOR:  
Wisconsin Electric Power Company  
d/b/a We Energies

By: \_\_\_\_\_  
Print name: \_\_\_\_\_  
Title: \_\_\_\_\_

IN WITNESS WHEREOF, the Parties have caused their duly authorized representatives to execute this Agreement as of the date first above written.

ASSIGNOR:  
Village of Jackson

ASSIGNEE:  
Techware Telecom, LLC, for Techware PC, LLC

By: \_\_\_\_\_  
Wendy A. Kannenberg  
Village of Jackson

By: [Signature]  
Keefe John  
Techware Telecom, LLC

Date: 12/29/2010

By: \_\_\_\_\_  
John Walther, Village Administrator  
Village of Jackson

Date: \_\_\_\_\_

**Consent to Assignment**

Wisconsin Electric Power Company d/b/a We Energies ("Licensor"), licensor under Pole Attachment Agreement dated October 11, 2004 ("Pole Agreement"), hereby consents to assignment from Assignor to Assignee of Assignor's interest in the Pole Agreement. Licensor acknowledges that currently there is no default under the Pole Agreement that is known to Licensor. Any further assignment or other transfer of the Pole Agreement shall require Licensor's prior written consent.

LICENSOR:  
Wisconsin Electric Power Company  
d/b/a We Energies

By: \_\_\_\_\_  
Print name: \_\_\_\_\_  
Title: \_\_\_\_\_

IN WITNESS WHEREOF, the Parties have caused their duly authorized representatives to execute this Agreement as of the date first above written.

ASSIGNOR:  
Village of Jackson

ASSIGNEE:  
Techware Telecom, for Techware PC, LLC

By: \_\_\_\_\_  
Wendy A. Kannenberg  
Village of Jackson

By: \_\_\_\_\_  
Keefe John, \_\_\_\_\_  
Techware Telecom

Date: \_\_\_\_\_

By: \_\_\_\_\_  
John Walther, Village Administrator  
Village of Jackson

Date: \_\_\_\_\_

**Consent to Assignment**

Wisconsin Electric Power Company d/b/a We Energies ("Licensor"), licensor under Pole Attachment Agreement dated October 11, 2004 ("Pole Agreement"), hereby consents to assignment from Assignor to Assignee of Assignor's interest in the Pole Agreement. Licensor acknowledges that currently there is no default under the Pole Agreement that is known to Licensor. Any further assignment or other transfer of the Pole Agreement shall require Licensor's prior written consent.

LICENSOR:  
Wisconsin Electric Power Company  
d/b/a We Energies

By:           *Ch Cole*            
Print name:           Charles R. Cole            
Title:           SVP

## SCHEDULE 2

### List of Assigned Contracts

1. Village of Jackson Fiber Optic Internet Service Agreements, as attached as Schedule 2A of the Agreement.
2. Village of Jackson Fiber Optic Internet Service Agreements, as attached as Schedule 2B of the Agreement.
3. Pole Attachment Agreement dated October 11, 2004 with Wisconsin Electric Power Company d/b/a We Energies, as attached hereto. For purposes of this Pole Attachment Agreement, the Assignor's rights, obligations, title and interest in the agreement shall be assigned to Techware PC, LLC, via a first assignment to Techware Telecom. Techware PC, LLC shall enter into an agreement, as necessary, with Techware Telecom, to ensure that the Assignor's right, obligations, title and interest in the agreement flow to Techware PC, LLC.
4. Application/Permit to Construct, Operate and Maintain Utility Facilities on Wisconsin Department of Transportation Railroad Property, as attached as Schedule 2E of the Agreement .
5. Koch Pipeline Company Encroachment Permit Number 52653 WPL, as attached as Schedule 2F of the Agreement.
6. AT&T Master Agreement for Internet Services, as attached as Schedule 2G of the Agreement.

## ASSIGNMENT AND ASSUMPTION OF CONTRACTS

THIS ASSIGNMENT AND ASSUMPTION OF CONTRACTS ("Assignment") is entered into as of December 29, 2010, by and between VILLAGE OF JACKSON ("Assignor") and TECHWARE PC, LLC ("Assignee").

### RECITALS

A. Assignor owns and is today leasing to Assignee wireless and fiber optic networks used to provides broadband Internet services to the public ("Jackson Network").

B. Assignor desires to assign to Assignee and Assignee desires to accept as of this date all of Assignor's rights, obligations, title and interest in, to and under those certain customer contracts, leases and other agreements pertaining to the Jackson Network as more fully described on attached **Schedule 2** (the "Contracts").

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged:

1. Assignor hereby assigns and transfers to Assignee, all of Assignor's rights, obligations, title and interest in, to and under, the Contracts. Assignee accepts the assignment made hereby, and agrees to assume all of Assignor's obligations under the Contracts arising on or after the date hereof.

2. Assignor hereby agrees to defend and indemnify Assignee from and against any and all claims, costs, liabilities, damages and expenses (including related reasonable attorneys' fees) arising under or in connection with the Contracts and accruing before the closing. Assignee hereby agrees to defend and indemnify Assignor from and against any and all claims, costs, liabilities, damages and expenses (including related reasonable attorneys' fees) arising under or in connection with the Contracts and accruing after the closing.

3. In the event of any litigation between Assignor and Assignee arising under this Assignment or concerning the meaning or interpretation of any provision hereof, the losing party shall pay the prevailing party's costs and expenses of litigation, including, without limitation, reasonable attorneys' fees. This Assignment and the rights and obligations of the parties arising hereunder shall be construed in accordance with the laws of the State of Wisconsin.

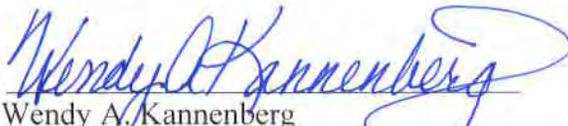
4. This Assignment shall be binding on and inure to the benefit of the parties hereto and their successors in interest and assigns.

5. No Waiver. No provision of this Agreement is intended, or shall be construed, to be a waiver for any purpose by Jackson of any provision of Wis. Stat. §§ 893.80, 895.52, or 345.05 or any other notice requirements, governmental immunities, or damages limitations that may apply to Jackson or any of its departments, employees, officers, elected officials, board members, commissioners, or agents.

IN WITNESS WHEREOF, the Parties have caused their duly authorized representatives to execute this Agreement as of the date first above written.

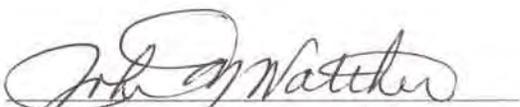
ASSIGNOR:  
Village of Jackson

ASSIGNEE:  
Techware PC, LLC

By:   
Wendy A. Kannenberg  
President, Village of Jackson Board

By: \_\_\_\_\_  
Keefe John, President  
Techware PC, LLC

Date: \_\_\_\_\_

By:   
John Walther, Village Administrator  
Village of Jackson

Date: 12/29/2010

IN WITNESS WHEREOF, the Parties have caused their duly authorized representatives to execute this Agreement as of the date first above written.

ASSIGNOR:  
Village of Jackson

ASSIGNEE:  
Techware PC, LLC

By: \_\_\_\_\_  
Wendy A. Kannenberg  
President, Village of Jackson Board

By:  \_\_\_\_\_  
Keefe John, President  
Techware PC, LLC

Date: 12/29/2010

By: \_\_\_\_\_  
John Walther, Village Administrator  
Village of Jackson

Date: \_\_\_\_\_

## SCHEDULE 2

### List of Assigned Contracts

1. **Village of Jackson Fiber Optic Internet Service Agreements, as attached as Schedule 2A of the Agreement.**
2. **Village of Jackson Fiber Optic Internet Service Agreements, as attached as Schedule 2B of the Agreement.**
3. **Pole Attachment Agreement dated October 11, 2004 with Wisconsin Electric Power Company d/b/a We Energies, as attached hereto. For purposes of this Pole Attachment Agreement, the Assignor's rights, obligations, title and interest in the agreement shall be assigned to Techware PC, LLC, via a first assignment to Techware Telecom. Techware PC, LLC shall enter into an agreement, as necessary, with Techware Telecom, to ensure that the Assignor's right, obligations, title and interest in the agreement flow to Techware PC, LLC.**
4. **Application/Permit to Construct, Operate and Maintain Utility Facilities on Wisconsin Department of Transportation Railroad Property, as attached as Schedule 2E of the Agreement .**
5. **Koch Pipeline Company Encroachment Permit Number 52653 WPL, as attached as Schedule 2F of the Agreement.**
6. **AT&T Master Agreement for Internet Services, as attached as Schedule 2G of the Agreement.**

CERTIFICATE OF REPRESENTATIONS AND WARRANTIES

To: Village of Jackson

From: ETHOPLEX LLC (formerly known as Techware PC LLC)

Please take notice that TECHWARE PC, LLC has undergone a name change and is now known as ETHOPLEX LLC.

ETHOPLEX LLC (formerly known as Techware PC LLC) and the VILLAGE OF JACKSON are parties to that certain Lease and Option to Purchase Agreement between VILLAGE OF JACKSON and TECHWARE PC, LLC, now known as ETHOPLEX LLC, dated as of August 19, 2010 (the "Agreement"). The Agreement provides for lease by the VILLAGE OF JACKSON to TECHWARE PC, LLC of certain wireless and fiber optic networks used to provide broadband Internet services to the public (collectively, the "Jackson Network"). The Agreement further provides an option to purchase the Jackson Network.

In connection with the closing of the transaction described in the Agreement, ETHOPLEX LLC, formerly known as TECHWARE PC LLC, certifies to the Village of Jackson that the representations and warranties made by TECHWARE PC LLC in the Agreement are true and correct as of the date of this certificate, but subject to all the conditions and limitations stated in the Agreement. ETHOPLEX LLC further certifies that it has complied with all pre-closing obligations as set forth in the Agreement.

Dated this 29<sup>th</sup> day of December, 2010.

**ETHOPLEX LLC** (formerly known as TECHWARE PC LLC)

By:   
Keele, John  
Managing Member

**CERTIFICATE OF REPRESENTATIONS AND WARRANTIES**

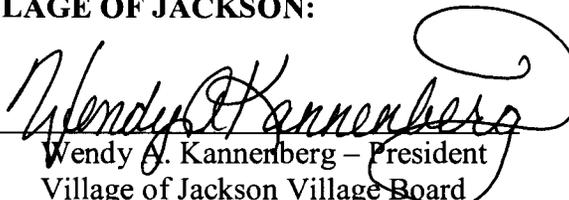
To: Techware PC, LLC ("Techware")

From: Village of Jackson ("Jackson").

Techware and Jackson are parties to a Lease and Option to Purchase Agreement between Village of Jackson and Techware PC, LLC, dated as of August 19, 2010 (the "Agreement"). The Agreement provides for Jackson's lease to Techware of certain wireless and fiber optic networks used to provide broadband Internet services to the public (collectively, the "Jackson Network"). The Agreement further provides Techware with an option to purchase the Jackson Network.

In connection with the closing of the transaction described in the Agreement, Jackson certifies to Techware that the representations and warranties made by Jackson in the Agreement are true and correct as of the date of this certificate, but subject to all the conditions and limitations stated in the Agreement. Jackson further certifies that it has complied with all pre-closing obligations as set forth in the Agreement.

**VILLAGE OF JACKSON:**

By:  Date: 11/29/10  
Wendy A. Kannenberg – President  
Village of Jackson Village Board



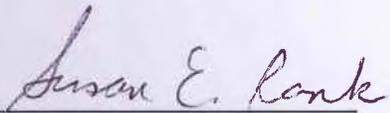
*Taking the lead in Washington County.*

STATE of WISCONSIN  
WASHINGTON COUNTY

I, Susan E. Rank, the duly appointed Village Clerk for the Village of Jackson, County of Washington, State of Wisconsin, do hereby certify that the following Referendum Question was on the November 2, 2010 ballot for the voters of the Village of Jackson:

"Shall the Village of Jackson lease and grant an option to purchase its telecommunications utility assets to Techware PC, LLC at the price and upon the terms as approved by the Public Service Commission of Wisconsin? Answer: Yes or No."

The results of the election were: Yes - 1,535  
No - 672

  
Susan E. Rank

Dated: November 4, 2010

N168 W20733  
Main Street  
Jackson, WI 53037  
Phone: 262-677-9001  
Fax: 262-677-1710

Mailing Address:  
P.O. Box 637

[www.villageofjackson.com](http://www.villageofjackson.com)



*Taking the lead in Washington County.*

March 21, 2011

Mr. Keefe John  
President  
Ethoplex/TechWare PC, LLC  
N115 W19006 Edison Dr  
Germantown, WI 53020

Dear Keefe:

As you know, the Lease/Purchase of the Jackson Telecommunications Utility by TechWare PC, LLC (hereinafter referred to as "Ethoplex") was officially considered 'closed' on December 29, 2010. The Village of Jackson (hereinafter referred to as "Jackson") is pleased that we have finally been able to complete this transaction with Ethoplex and we look forward to a mutually profitable future.

Jackson needs to finally exit from any remaining day-to-day business operations and responsibilities for the Jackson Telecommunications Utility. We believe that both Jackson and Ethoplex should be able to complete the majority of the transition steps that remain by March 31, 2011. It is therefore the expectation of Jackson that Ethoplex will completely take over control of all remaining business operations of the Jackson Telecommunications Utility no later than March 31, 2011. This letter serves as our notice to Ethoplex of the important items that are still open between us.

**TRANSITION ITEMS** – The following items still need to be transitioned to Ethoplex:

- 1) The 'jacksonwired.com' website - Ethoplex should already have complete access and control of this website, but Jackson wants to make sure that the contents of this website are changed and updated with current and correct information (i.e., services being offered, contact information for support, user sign-up, the ability to make payments, etc.) on or before March 31, 2011.

Note: Ethoplex may choose to completely replace this website with its own branded website, as long as users going to the 'jacksonwired.com' domain are properly forwarded to the correct website where they can obtain sales and support information about the services offered by the Jackson network.

- 2) The 'villageofjackson.com' website will also be updated to reflect the change to Ethoplex as the new operator of the Jackson Telecommunications Utility.

N168 W20733  
Main Street  
Jackson, WI 53037  
Phone: 262-677-9001  
Fax: 262-677-1710

Mailing Address:  
P.O. Box 637

[www.villageofjackson.com](http://www.villageofjackson.com)

The language is provided below, but could be changed with mutual approval:

“On December 29, 2010, the Village of Jackson officially transitioned all business and technical operations of the Jackson Telecommunication Utility to Ethoplex of Germantown, Wisconsin under a Lease/Purchase Agreement that was authorized by the Public Service Commission of Wisconsin and approved by Village of Jackson residents in a referendum vote on November 2, 2010.

“All customers of the Jackson Telecommunications Utility, including all Jackson Wi-Fi customers, are now customers of Ethoplex and will work directly with Ethoplex going forward. The website link for the Ethoplex Internet services in the Village of Jackson can be found by clicking on the link below, or by calling Ethoplex directly at 1-800-957-WIFI (9434).”

- 3) Authorize.net – The use of the ‘Authorize.net’ service for Wi-Fi user payments needs to be transitioned to a payment process that Ethoplex chooses no later than March 31, 2011, or at a minimum, the existing service must be legally and completely transitioned to Ethoplex by this date. This specifically includes removing the Village’s bank account from this process and redirecting payments elsewhere.
- 4) Waste Water Treatment Plant (WWTP) – The existing equipment of the Jackson Telecommunications Utility that is stored at the WWTP, including the fiber optic cable reels stored outside at the WWTP must be removed from that location no later than April 30, 2011. The space occupied by this equipment needs to be reclaimed for use by the WWTP. Anything that remains at the WWTP in that space related to the Jackson Telecommunications Utility after April 30, 2011 will be considered as having no value. All Items will be removed from the site and/or properly disposed.
- 5) We Energies Pole Attachment Agreement and Related Bills – This agreement has been re-assigned to Techware Telecom (on behalf of Ethoplex), but the billing of We Energies accounts #8037-945-401, #9240-898-087, and #1009-833-766 were only changed to Ethoplex in mid February. To avoid an interruption of service, Jackson paid these bills up until the billing transition was completed but needs to be reimbursed by Ethoplex for all amounts paid from December 30, 2010 up to and including the last day of service billed on the final We Energies bills sent to Jackson. A detailed accounting of the costs paid to We Energies after December 29, 2010 and up to the final bill date is provided in the attached January and February Reconciliation Spreadsheet documents developed to track the mutual financial obligations between Ethoplex and Jackson.
- 6) Village Owned Light Poles – Currently there are fourteen (14) Village-owned light poles with Wi-Fi radios attached to them. The monthly cost of the electricity is not metered separately and the cost of doing so would likely not be cost effective for either party. Therefore, Jackson will use the same \$4.87 per month charge per light pole that We Energies charges under the We Energies Pole Attachment Agreement as the monthly reimbursement cost for the electricity used. Jackson will therefore assess Ethoplex a total charge of \$68.32 per month to compensate for electricity used by the radios on Village-owned light poles.

Note: Ethoplex will need to inform Jackson of any changes in the We Energies monthly charge and if there are any changes in the number of Village-owned light poles with Wi-Fi radios attached.

- 7) AT&T Internet Service – The AT&T 10MB Managed Internet Service (MIS) on AT&T Account #831-000-1463 734 became the responsibility of Ethoplex after December 29, 2010, but the billing cannot easily be transitioned to Ethoplex. Jackson will therefore continue to pay these monthly AT&T bills, but will need to recover these costs from Ethoplex until such time as the agreement with AT&T expires and the circuit is terminated. Therefore, Jackson will provide a detailed accounting of all costs paid to AT&T for the MIS services provided by AT&T after December 29, 2010. Jackson will include this amount in a reconciliation spreadsheet developed by the Village to track the financial obligations of the parties to each other.
- 8) Fiber Optic and Direct Bill Customers – As of February 1, 2011 Ethoplex began invoicing the direct bill customers (instead of Jackson doing the invoicing as had been the case up through and including January 2011). The revenue from these direct customers belongs to Ethoplex starting with the January billing. Since Jackson invoiced this revenue for January, we will include the January total in the January Reconciliation Spreadsheet as a credit due to Ethoplex.

**FINANCIAL RECONCILIATION** - We will also need to address the monthly financial reconciliation between Jackson and Ethoplex as outlined below:

- 1) **Management Services Agreement (MSA)** - This Agreement was terminated on December 29, 2010 when the new Lease/Purchase Agreement (LPA) was signed. The financial accounting for the MSA has been reconciled and can be closed out (except for a potential audit to verify reported results) upon acceptance of the MSA Reconciliation Report by both parties.
  - a. Ethoplex has provided the Village of Jackson with basic information about amounts invoiced by Ethoplex for services on or related to the Jackson Network for all of 2010. Copies of documentation are still needed for these transactions in order to complete the report.
  - b. This information was added to our 2010 MSA reconciliation spreadsheet, which will be shared with Ethoplex for their approval.
- 2) **Lease/Purchase Agreement (LPA)** – The LPA replaced the MSA on December 29, 2010 and has many more transactions that need to be reconciled every month. We are establishing a new monthly process for reconciling the finances between the parties. We welcome your feedback on the following details on how we intend to handle this reconciliation:
  - a. **Monthly Reconciliation Spreadsheet** - Jackson has developed and will provide Ethoplex with a reconciliation spreadsheet beginning with January 2011, with a separate spreadsheet for each subsequent month.

- i. Ethoplex will need to provide information regarding Jackson Network related revenues by the 15<sup>th</sup> of the month following the month for which the revenues were invoiced.
  - ii. Jackson will document in the Reconciliation Spreadsheet the information received from Ethoplex, plus other details about Jackson Network related revenues and expenses.
  - iii. Reconciliation Spreadsheets for January and February 2011 will be provided by Jackson to Ethoplex with this letter.
  - iv. Subsequent Reconciliation Spreadsheets (beginning with March 2011) will be provided by the 15<sup>th</sup> day of the month following the month end.
- b. **Monthly Invoices and Credit Memos** - Jackson will also provide Ethoplex with a monthly invoice for any amount due to Jackson including the monthly minimum, any commissions above that amount, and any expenses incurred by Jackson that are the responsibility of Ethoplex. If in a rare case that a credit is due to Ethoplex, Jackson will issue a credit memo to Ethoplex for the credit amount.
  - i. Ethoplex must pay all invoices within 30 days of issuance.
  - ii. Jackson will apply any credit memos against future invoices, thereby reducing the future invoice by the amount of the credit memo.
- c. **Monthly Revenue Reconciliation Specifics** – The parties will provide each other with the following revenue information each month:
  - i. Ethoplex needs to provide Jackson with all revenue amounts it has invoiced related to the Jackson Network, which include, but may not be limited to the following:
    1. Formerly billed by Jackson – Fiber and Point-to-Point Wireless customers that Ethoplex took over invoicing on February 1, 2011 (Jackson has already accounted for the invoices that Jackson sent out in January 2011)
    2. Billed Directly by Ethoplex – Customers billed by Ethoplex since installation but not ever invoiced directly by Jackson. As of the date of this letter, Jackson believes that this is only the \$608 per month invoice to Rytec Corporation for service installed back in August 2010.
    3. Wi-Fi Customer Revenues – Ethoplex will need to provide information on revenues for the Jackson Wi-Fi network that are primarily paid via the web once these revenues are transitioned to Ethoplex. As of the date of this letter, Jackson is still collecting these revenues via their Authorize.net account. Jackson is unaware of any plan to transition these revenues directly to Ethoplex.
  - ii. Jackson needs to provide Ethoplex with information about all amounts collected by Jackson that are Jackson Network revenues.
    1. Only the Wi-Fi Customer Revenues collected via their Authorized.net account meet this criterion.
    2. Once transitioned to Ethoplex, Jackson will have no further revenue reporting obligations.
  - iii. Documentation of the above revenues must be available upon request for review by either party.
- d. **Monthly Expense Reconciliation Specifics** - The parties will provide each other with the following expense information each month:

- i. Currently, there are no expenses incurred by Ethoplex that need to be reported to Jackson for reconciliation purposes.
- ii. Jackson will report the following reconciliation related expense amounts until these expenses are completely transitioned to Ethoplex or until these expenses no longer exist:
  1. Village-Owned Light Pole Electricity Expense Recovery
    - a. Jackson will need to recover a monthly charge of \$4.87 per light pole for the electricity used by Wi-Fi radios mounted on Village owned light poles. Currently, there are a total of 14 light poles in use.
    - b. Jackson will synchronize this cost with the monthly cost charged on the WE Energies bills related to the Pole Attachment Agreement.
    - c. Ethoplex must keep Jackson informed as to the correct quantity of Village-owned light poles that have Wi-Fi radios or other equipment attached.
  2. AT&T Account 831-000-1463 734 for the 10Mbps Internet circuit. This contract cannot be easily reassigned, so Jackson will continue to pay the bill and Ethoplex will need to reimburse Jackson via the monthly Reconciliation Spreadsheet until contract expiration or circuit termination.
  3. WE Energies Accounts – The following accounts should have already been moved to Ethoplex. Jackson should no longer have to reconcile these expenses beginning with the March 2011 Reconciliation Spreadsheet:
    - a. Account 8037-945-401 for the electric service for the Jackson POP Hut. This billing was moved to Ethoplex on February 17, 2011.
    - b. Account 9240-898-087 for electric service under the Pole Attachment Agreement. This billing was moved to Ethoplex on February 09, 2011.
    - c. Account 1009-833-766 for electric service under the Pole Attachment Agreement. This billing was moved to Ethoplex on February 23, 2011.
  4. Jackson will provide documentation of the above expenses to Ethoplex with the monthly Reconciliation Spreadsheet.

**QUARTERLY AUDIT REQUIREMENTS** – We also need to establish and coordinate a quarterly audit process for both parties to ensure accuracy and compliance. Here is our format for the audit process under the LPA:

- 1) Audits will be performed once per quarter, no sooner than 30 days, but no later than 60 days after the close of a quarter to provide both parties with adequate time to complete and review the reconciliation spreadsheets and to provide any updates of additional information.

- 2) Jackson will provide and bear the cost of their auditing resource(s). One or more individuals will come to Ethoplex at a mutually agreed upon time and date to examine all necessary records and data.
- 3) Ethoplex will provide access to all accounting records and sales transactions to Jackson's auditor(s) so that the auditor(s) can verify the proper accounting of all sales related to the Jackson network.
- 4) Within approximately 30 days after of the completion of the audit, Jackson will present Ethoplex with an audit report showing any discrepancies or differences found during the audit process. Jackson will also provide Ethoplex with an invoice for any additional amounts due, or Jackson will issue a credit memo for any amounts overpaid by Ethoplex.
- 5) Ethoplex will have 30 days to dispute the results of the audit or pay the invoice. Any credits due to Ethoplex will be applied against the next month's payment by Ethoplex to Jackson.
- 6) Both parties will execute a sign-off document at the conclusion of the quarterly audit process to indicate acceptance of the results of the quarterly audit report.

This concludes what we believe to be the open issues remaining between Jackson and Ethoplex. Please let us know if we have missed anything or if you have issues with any of these items or timeframes.

Sincerely,



John M. Walther  
Village Administrator

Encl: January & February Reconciliation Spreadsheets

# Public Works Report

May 26, 2015

**Treatment Plant -**     Designed Capacity – 1.25 million gallons per day  
*Peak Flow Capacity – 6.0 million gallons per day*

## Year 2013

January	Avg. Flow 944,193 g.p.d.	Min. Flow 699,000 g.p.d.	Max. 2.054 MGD
February	Avg. Flow 845,179 g.p.d.	Min. Flow 697,000 g.p.d.	Max. 1.394 MGD
March	Avg. Flow 1.028 MGD	Min. Flow 637,000 g.p.d.	Max. 1.028 MGD
April	Avg. Flow 1.473 MGD	Min. Flow 934,000 g.p.d.	Max. 3.042 MGD
May	Avg. Flow 1.167 MGD	Min. Flow 932,000 g.p.d.	Max. 1.908 MGD
June	Avg. Flow 1.1207 MGD	Min. Flow 859,000 g.p.d.	Max. 1.791 MGD
July	Avg. Flow 777,097 g.p.d.	Min. Flow 643,000 g.p.d.	Max. 1.337 MGD
August	Avg. Flow 673,677 g.p.d.	Min. Flow 551,000 g.p.d.	Max. 1.148 MGD
September	Avg. Flow 629,533 g.p.d.	Min. Flow 532,000 g.p.d.	Max. 761,000 g.p.d.
October	Avg. Flow 688,064 g.p.d.	Min. Flow 600,000 g.p.d.	Max. 884,000 g.p.d.
November	Avg. Flow 763,800 g.p.d.	Min. Flow 660,000 g.p.d.	Max. 1.122 MGD
December	Avg. Flow 697,677 g.p.d.	Min. Flow 564,000 g.p.d.	Max. 802,000 g.p.d.

## Year 2014

January	Avg. Flow 695,355 g.p.d.	Min. Flow 626,000 g.p.d.	Max. 822,000 g.p.d.
February	Avg. Flow 659,286 g.p.d.	Min. Flow 581,000 g.p.d.	Max. 874,000 g.p.d.
March	Avg. Flow 941,613 g.p.d.	Min. Flow 611,000 g.p.d.	Max. 1.285 MGD
April	Avg. Flow 1.172 MGD	Min. Flow 814,000 g.p.d.	Max. 3.188 MGD
May	Avg. Flow 947,322 g.p.d.	Min. Flow 688,000 g.p.d.	Max. 1.474 MGD
June	Avg. Flow 1.199 MGD	Min. Flow 732,000 g.p.d.	Max. 2.223 MGD
July	Avg. Flow 846,226 g.p.d.	Min. Flow 670,000 g.p.d.	Max. 1.646 MGD
August	Avg. Flow 743,322 g.p.d.	Min. Flow 603,000 g.p.d.	Max. 1.039 MGD
September	Avg. Flow 646,567 g.p.d.	Min. Flow 532,000 g.p.d.	Max. 759,000 g.p.d.
October	Avg. Flow 707,484 g.p.d.	Min. Flow 584,000 g.p.d.	Max. 898,000 g.p.d.
November	Avg. Flow 698,267 g.p.d.	Min. Flow 581,000 g.p.d.	Max. 1.086 MGD
December	Avg. Flow 788,065 g.p.d.	Min. Flow 658,000 g.p.d.	Max. 1.228 MGD

## Year 2015

January	Avg. Flow 667,774 g.p.d.	Min. Flow 617,000 g.p.d.	Max. 713,000 g.p.d.
February	Avg. Flow 620,893 g.p.d.	Min. Flow 591,000 g.p.d.	Max. 662,000 g.p.d.
March	Avg. Flow 753,484 g.p.d.	Min. Flow 597,000 g.p.d.	Max. 885,000 g.p.d.
April	Avg. Flow 1.203 MGD	Min. Flow 705,000 g.p.d.	Max. 3.759 MGD

## Years Summary of Water Consumption

2000 Total Pumpage 180,485,400 gallons	2001 Total Pumpage 184,613,300 gallons
2002 Total Pumpage 200,630,000 gallons	2003 Total Pumpage 278,246,000 gallons
2004 Total Pumpage 216,055,000 gallons	2005 Total Pumpage 223,215,000 gallons
2006 Total Pumpage 207,719,000 gallons	2007 Total Pumpage 217,224,000 gallons
2008 Total Pumpage 229,613,000 gallons	2009 Total Pumpage 231,160,000 gallons
2010 Total Pumpage 239,326,000 gallons	2011 Total Pumpage 240,268,000 gallons
2012 Total Pumpage 253,492,000 gallons	2013 Total Pumpage 228,371,000 gallons
2014 Total Pumpage 230,973,000 gallons	

### Year 2013

Jan.	Avg.	562,000 g.p.d.	Highest Day 837,000 gal.	Total	17,422,000 gallons
Feb	Avg	549,820 g.p.d.	Highest Day 718,000 gal	Total	15,395,000 gallons
March	Avg.	540,520 g.p.d.	Highest Day 725,000 gal	Total	16,756,000 gallons
April	Avg.	585,170 g.p.d.	Highest Day 981,000 gal	Total	17,555,000 gallons
May	Avg.	595,810 g.p.d.	Highest Day 752,000 gal.	Total	18,470,000 gallons
June	Avg.	681,400 g.p.d.	Highest Day 914,000 gal.	Total	20,442,000 gallons
July	Avg.	787,230 g.p.d.	Highest Day 1.039 MGD	Total	24,404,000 gallons
August	Avg.	796,580 g.p.d.	Highest Day 1.107 MGD	Total	24,694,000 gallons
Sept	Avg.	631,500 g.p.d.	Highest Day 838,000 gal.	Total	18,945,000 gallons
Oct	Avg.	850,000 g.p.d.	Highest Day 1.13 MGD	Total	26,310,000 gallons
Nov	Avg.	568,600 g.p.d.	Highest Day 731,000 gals.	Total	17,058,000 gallons
Dec	Avg.	588,230 g.p.d.	Highest Day 701,000 gals.	Total	18,235,000 gallons

### Year 2014

Jan.	Avg.	620,550 g.p.d.	Highest Day 789,000 gals.	Total	19,237,000 gallons
Feb.	Avg.	612,390 g.p.d.	Highest Day 717,000 gals.	Total	17,147,000 gallons
March	Avg.	603,710 g.p.d.	Highest Day 678,000 gals.	Total	18,715,000 gallons
April	Avg.	602,600 g.p.d.	Highest Day 1.037 MGD	Total	18,078,000 gallons
May	Avg.	599,290 g.p.d.	Highest Day 729,000 gals.	Total	18,578,000 gallons
June	Avg.	658,000 g.p.d.	Highest Day 815,000 gals.	Total	19,740,000 gallons
July	Avg.	684,320 g.p.d.	Highest Day 881,000 gals.	Total	21,214,000 gallons
August	Avg.	703,320 g.p.d.	Highest Day 1.019 MGD	Total	21,803,000 gallons
Sept	Avg.	639,170 g.p.d.	Highest Day 747,000 gals.	Total	19,275,000 gallons
October	Avg.	658,940 g.p.d.	Highest Day 1.042 MGD	Total	20,427,000 gallons
Nov	Avg.	595,800 g.p.d.	Highest Day 733,000 gals.	Total	17,874,000 gallons
Dec	Avg.	610,970 g.p.d.	Highest Day 742,000 gals.	Total	18,940,000 gallons

### Year 2015

Jan.	Avg.	599,680 g.p.d.	Highest Day 719,000 gals.	Total	18,590,000 gallons
Feb	Avg.	587,040 g.p.d.	Highest Day 736,000 gals.	Total	16,437,000 gallons
March	Avg.	582,970 g.p.d.	Highest Day 698,000 gals.	Total	18,072,000 gallons
April	Avg.	601,370 g.p.d.	Highest Day 928,000 gals.	Total	18,041,000 gallons

**Pump Capacity** - Well #1- 400 g.p.m. Well #2 - abandon; Well #3 -900 g.p.m. Well #4 - 1200 g.p.m. Well #5 – 1,100 g.p.m. Well #6 – 800 g.p.m.

**WWTP – Holding & Septage Receiving**

<b>2005</b>	\$ 87,562.01	<b>2007</b>	\$152,201.07	<b>2009</b>	\$183,815.34	<b>2011</b>	\$220,576.28
<b>2006</b>	\$101,115.11	<b>2008</b>	\$210,441.47	<b>2010</b>	\$197,653.66	<b>2012</b>	\$236,224.70
<b>2013</b>	\$235,336.46	<b>2014</b>	\$203,938.32				

<b>2013</b>	<b>Holdings (gals)</b>	<b>Grease (gals)</b>	<b>G Decant (gals)</b>	<b>Septage (gals)</b>	<b>S Decant (gals)</b>	<b>Total Billings</b>
Jan	1,573,249	44,300	8,000	8,050	52,800	\$15,821.33
Feb	1,403,100	47,400		6,450	46,300	\$14,142.85
March	1,518,450	43,800	28,500	7,250	84,100	\$16,957.58
April	1,764,000	68,200	28,500	38,300	294,900	\$26,445.80
May	1,666,950	17,700	9,800	74,900	182,000	\$21,263.19
June	1,432,600	11,400	4,000	85,750	193,200	\$19,694.61
July	1,549,200	19,800		71,300	166,750	\$19,560.46
August	1,483,850	13,900	24,000	64,300	170,100	\$19,559.73
September	1,306,600	33,200	8,000	69,750	208,200	\$19,658.31
October	1,441,750	52,900	17,000	95,550	335,550	\$26,163.73

<b>2014</b>	<b>Holdings (gals)</b>	<b>Grease (gals)</b>	<b>G Decant (gals)</b>	<b>Septage (gals)</b>	<b>S Decant (gals)</b>	<b>Total Billings</b>
Jan	1,298,100	26,700	8,000	2,000	40,000	\$12,377.30
Feb	1,214,100	42,400	8,000	9,450	16,250	\$12,181.61
March	1,411,000	43,200	5,000	10,300	57,200	\$14,633.31
April	1,634,000	21,800		39,350	191,100	\$19,620.21
May	1,451,750			63,500	199,450	\$18,414.39
June	1,553,200			30,900	253,600	\$19,225.00
July	1,474,650			40,400	205,450	\$17,812.13
August	1,344,650			35,250	187,250	\$16,176.13
September	1,308,700		3,500	54,650	246,050	\$18,292.51
October	1,431,150			89,350	351,950	\$23,106.38
November	1,078,600			66,100	251,214	\$17,013.86
December	1,400,900			12,650	162,910	\$15,085.50

<b>2015</b>	<b>Holdings (gals)</b>	<b>Grease (gals)</b>	<b>G Decant (gals)</b>	<b>Septage (gals)</b>	<b>S Decant (gals)</b>	<b>Total Billings</b>
Jan	1,326,850			10,2500	52,100	\$11,663.89
Feb	1,191,500			2,500	45,400	\$10,171.26

**Cranberry Creek Phase 4**

The utility plans have been finalized, and approved by the DNR. Scheduling of the pre-construction meeting is next. The Developer has notified the Village that the Development has been placed on hold.

**Stonewall Ridge Development**

The Village is waiting for the developer to propose a new site plan. The Village has notified the Developer to install the final lift of asphalt in 2015.

**Rosewood Drive/TIF #4 Expansion Project**

The property is being advertised for sale. Staff meetings are being held with potential Developers.

**Laurel Springs Subdivision**

The Village has notified the Developer to install the final lift of asphalt in 2015. The Developer (Bielinski Homes) has requested an extension to pave in 2016 when phase 2 of the subdivision is in construction. The request is under review.

**English Oaks Subdivision**

The Village has notified the Developer to install the final lift of asphalt in 2015.

**GIS Program**

Mpower is helping the Jackson Utilities with upgrading the mapping program with working out the details in merging the database to the map.

**Digester Upgrade project**

Digester tank #1 has been completed and placed online. Digester tank #2 has been cleaned and inspection of the roof is being completed. Early indications is that the roof will need to be structurally repaired in order to place back in service.

**West Shore Pipeline Break**

The punch list items for the Town of Jackson Water Expansion project are being corrected by PTS Contractors. The Jackson Water Utility has reviewed some of the correction and has created a new punch list for the necessary corrections to complete the project. Both flushing station still have water leaks, and are not online. The leaks have been turned over to the supplier and manufacturer for correction. Paving of the roads has started and will continue until completed. Final completion of the project is scheduled for June 26<sup>th</sup>.

Respectfully submitted, Brian W. Kober, P.E.