

January 13, 2021

Adam T. Freihoefer
Water Use Section Chief
Wisconsin Department of Natural Resources
101 South Webster Street
Madison, WI 53703

Subject: Village of Somers Water Diversion – Response to 12-15-21 Questions

Dear Mr. Freihoefer:

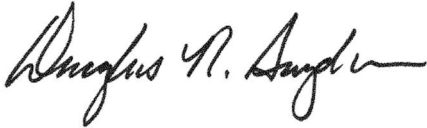
On behalf of the Village of Somers, we are responding to your enclosed December 15, 2021 letter; the numbering format below matches your letter.

1. Updated customer information: Page 24 (Appendix C) of the Water Conservation and Efficiency Plan contains a table of the historical customers served by customer class from 2006-2019. The following data is for 2020:
 - Residential – 1,010
 - Commercial – 76
 - Industrial – 2
 - Public Authority – 22
 - Multifamily Residential – 114
 - Total = 1,224 Customers
2. Enclosed is a concept plan and a cost for a groundwater supply and treatment system for the City of Elkhorn, Wisconsin, similar to what would be required to serve the area west of the Divide in Somers; the concept is from year 2012; the costs are updated to year 2022. The Village of Somers would need to use this same aquifer and would likely need to treat for similar contaminants including radium, arsenic, hydrogen sulfide, iron and manganese. The current capital cost of this type of groundwater supply and treatment system is \$27,000,000. The operational cost would increase by approximately \$300,000 per year to cover the additional labor, salt, waste treatment, and chemicals. This concept provides three wells (each 1000 gallons per minute) with a treatment system containing 8 filter units, 3 softener units, two clearwells, two booster pumps, and emergency power; the firm capacity of the system is 2000 gallons per minute (2.88 MGD). See Response 3 below; both this groundwater supply option and the Lake Michigan supply option require the same distribution system, therefore we removed the distribution system from the comparison.
3. The total cost to provide Lake Michigan water to the Diversion Area is the cost of the water transfer station on 18th Street and the connections to the system, which is expected to be \$1.4M.
4. The onsite work for the Sheridan Road Water Main Replacement is complete; the last water main went into service in late November of 2021. See the enclosed summary sheet.

Please call if you have any questions.

Sincerely,

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS



Douglas R. Snyder

DRS:lrj

Attachment

C: Jason J. Peters JD/MPA, Administrator (email)

I:\Burlington\SOMEV\161104-Water Diversion\30-ReportStudy\Work\Letter to DNR.docx



December 15, 2021

Jason Peters
Village Administrator
P.O. Box 197
Somers WI 53171

Subject: Great Lakes Diversion Application – Request for Additional Information

Dear Mr. Peters:

The Department of Natural Resources (DNR) is reviewing the Village of Somers (Village) diversion application. The DNR held a public hearing and a public comment on the Village diversion application. Our goal of this review continues to be to determine if the Village's application and supplemental information meets the Great Lakes Compact and state statutory criteria for a diversion to a straddling community. The DNR is requesting additional information in response to the public comments that were received.

We require the following information:

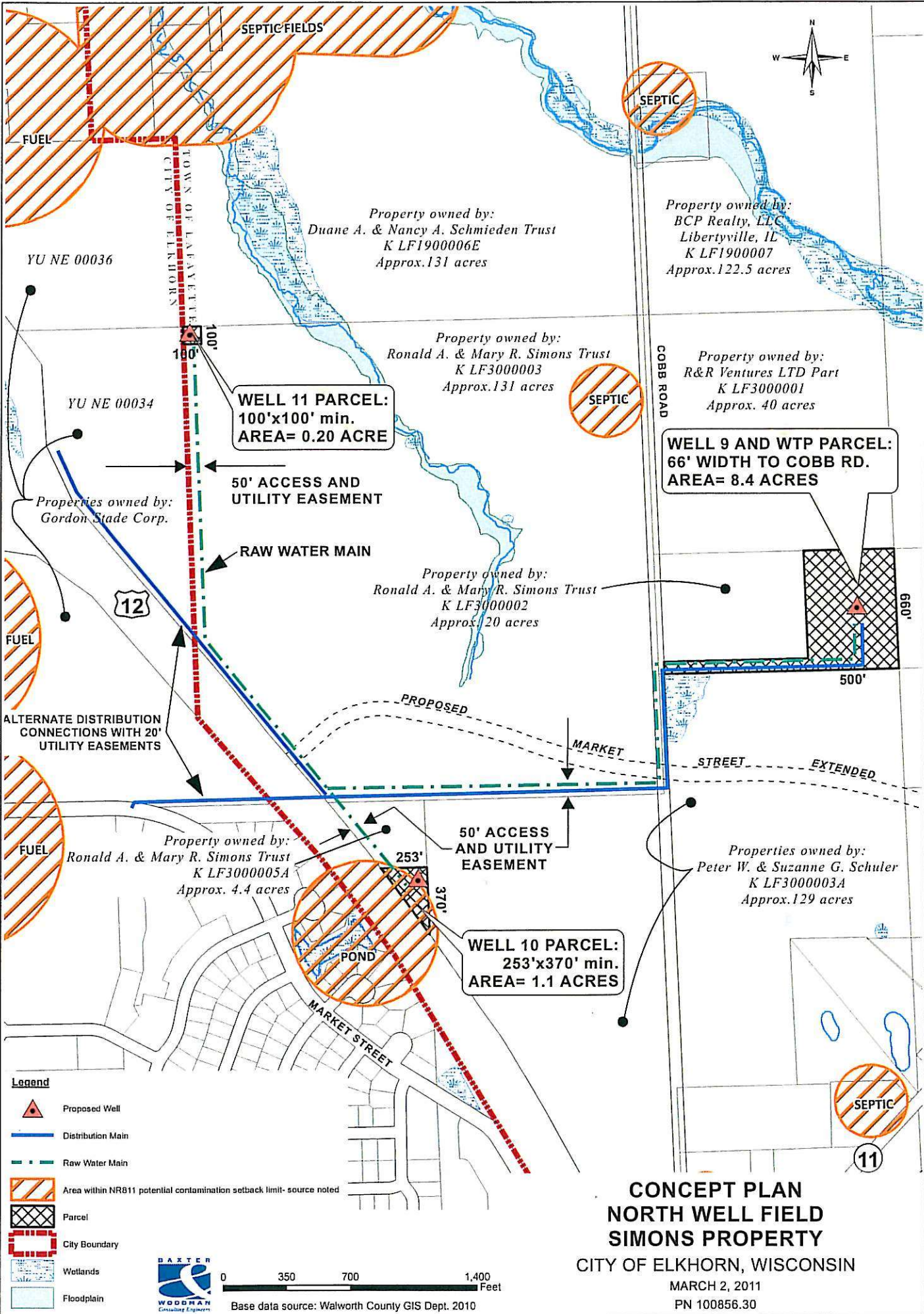
1. The number of customers of the Somers Water Utility by PSC customer class.
2. Additional information on the cost of groundwater wells to provide the water to the diversion area including estimated costs for construction, operation, and maintenance.
3. Additional parallel information for costs to implement the proposed diversion.
4. An update on the project to replace water main on Sheridan Road, including the timeline for completion of the project and the length of water main replaced.

Thank you for providing the requested information. Please contact me if you have questions related to this request.

Sincerely,

Adam Freihoefer
Chief, Water Use Section
Bureau of Drinking Water and Groundwater

cc. Steve Elmore, Director, Bureau of Drinking Water and Groundwater Bureau (email only)
Jim Zellmer, Deputy Director, Environmental Management Division (email only)
Doug Snyder, Baxter and Woodman (email only)



WELL 11 PARCEL:
100'x100' min.
AREA= 0.20 ACRE

WELL 9 AND WTP PARCEL:
66' WIDTH TO COBB RD.
AREA= 8.4 ACRES

WELL 10 PARCEL:
253'x370' min.
AREA= 1.1 ACRES

Property owned by:
Duane A. & Nancy A. Schmieden Trust
K LF1900006E
Approx. 131 acres

Property owned by:
BCP Realty, LLC
Libertyville, IL
K LF1900007
Approx. 122.5 acres

Property owned by:
Ronald A. & Mary R. Simons Trust
K LF3000003
Approx. 131 acres

Property owned by:
R&R Ventures LTD Part
K LF3000001
Approx. 40 acres

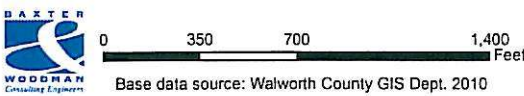
Property owned by:
Ronald A. & Mary R. Simons Trust
K LF3000002
Approx. 20 acres

Properties owned by:
Gordon Stade Corp.

Property owned by:
Ronald A. & Mary R. Simons Trust
K LF3000005A
Approx. 4.4 acres

Properties owned by:
Peter W. & Suzanne G. Schuler
K LF3000003A
Approx. 129 acres

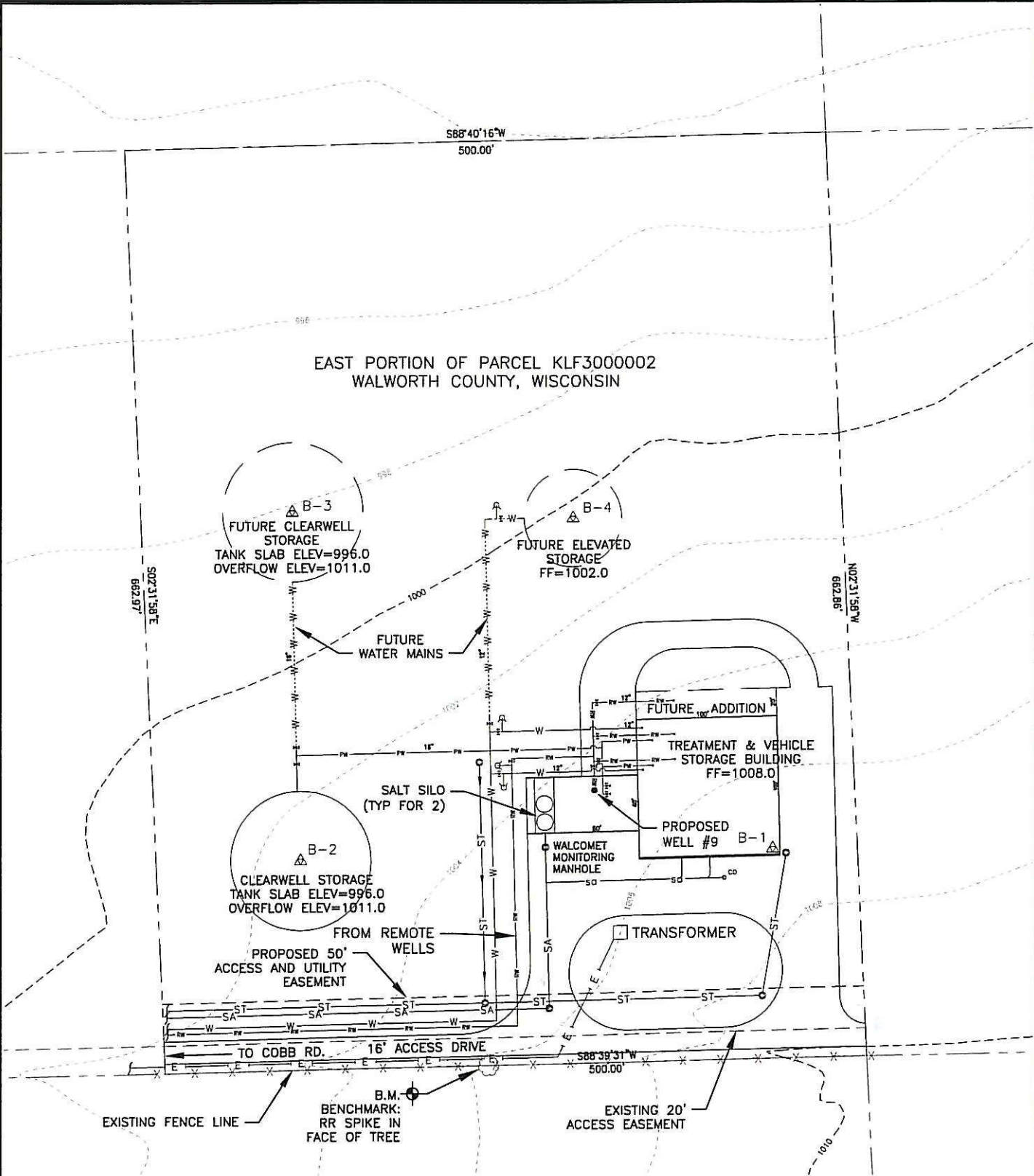
- Legend**
- Proposed Well
 - Distribution Main
 - Raw Water Main
 - Area within NR811 potential contamination setback limit- source noted
 - Parcel
 - City Boundary
 - Wetlands
 - Floodplain



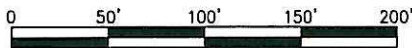
**CONCEPT PLAN
NORTH WELL FIELD
SIMONS PROPERTY**
CITY OF ELKHORN, WISCONSIN
MARCH 2, 2011
PN 100856.30

I:\Burlington\ELKHORN\031509\GIS\Map\Concept Plan - Well No 9 North Well Field.mxd 02 March 2011 - DWG

EAST PORTION OF PARCEL KLF3000002
WALWORTH COUNTY, WISCONSIN



- = SOIL BORING DESIGNATION
- RW = RAW WATER
- PW = PLANT WATER
- SA = SANITARY SEWER
- Sa = SANITARY LATERAL
- W = DISTRIBUTION WATER
- E = ELECTRIC SERVICE
- CO = CLEAN OUT

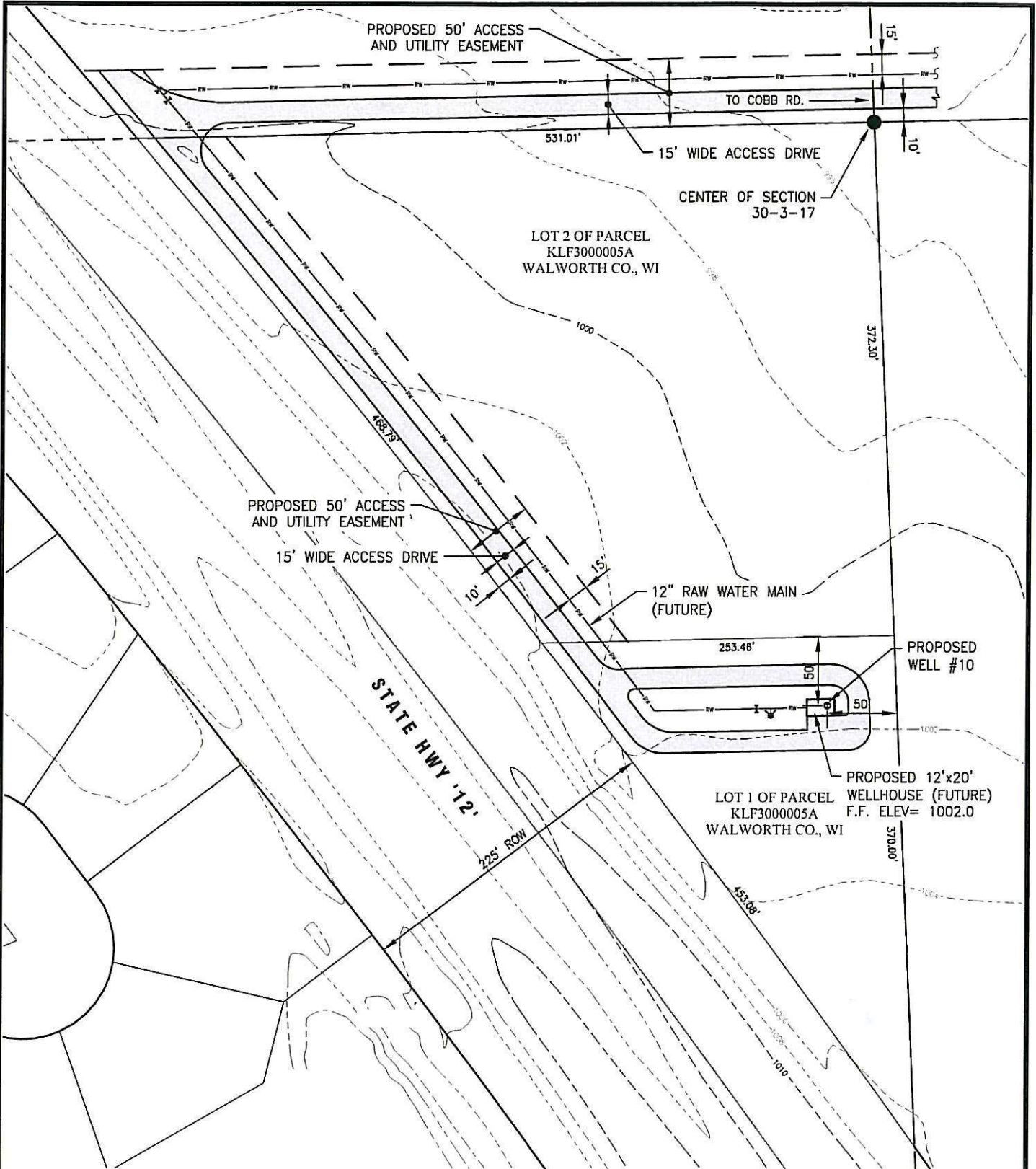


TOPOGRAPHIC DATA TAKEN FROM WALWORTH CO. GIS
PARCEL SURVEY DATA TAKEN FROM RECORDED ALTA SURVEY OF
THE PAUL GOLITZ PROPERTY DATED JUNE 13, 2005

CONCEPT SITE PLAN
NORTH WATER TREATMENT FACILITY
CITY OF ELKHORN, WISCONSIN

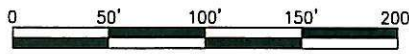
July 15, 2010
PN 100856.30

11/15/10 11:00 AM - PLANNING WELLS @ 11/15/10 - 11/15/10 - SURVEY/ENGINEERING/DESIGN/CONTRACT - SITE BORING LOCATIONS 05/11
 PAGES: 2/7/2011 9:22 AM - JASD



LEGEND

- RW = RAW WATER
- - - = EASEMENT



TOPOGRAPHIC DATA TAKEN FROM WALWORTH CO. GIS
 PARCEL SURVEY DATA TAKEN FROM RECORDED CSM NO.
 DATED MARCH 8, 2011



CONCEPT SITE PLAN
 WATER SUPPLY WELL NO. 10
 CITY OF ELKHORN, WISCONSIN

July 15, 2011
 PN 100857.40

I:\Users\BAXTER\Documents\Projects - WELLS & PDS\10 DESIGN\CONCEPT SITE PLAN - WELLS & PDS\10 CONCEPT SITE PLAN - WELLS & PDS.dwg
 PLOT DATE: 7/15/2011 9:18 AM BY: BAXTER

**North Well Field
City of Elkhorn, WI**

<u>ITEM</u>	<u>UNIT</u>	<u>QUANTITY</u>	<u>UNIT COST</u>	<u>AMOUNT</u>
Land Acquisition	EA	3	\$80,000	\$240,000
Well Construction	EA	3	\$1,100,000	\$3,300,000
Remote Well Building	EA	2	\$800,000	\$1,600,000
Raw Water Main	LF	10,000	\$120	\$1,200,000
Boring & Jacking	LF	500	\$1,000	\$500,000
Treatment Equipment	EA	2	\$1,600,000	\$3,200,000
Treatment Equipment Installation	EA	2	\$500,000	\$1,000,000
Reservoir / Backwash Tank	EA	3	\$800,000	\$2,400,000
Treatment Building	EA	1	\$2,000,000	\$2,000,000
Well / Booster Pumps / Piping	EA	3	\$800,000	\$2,400,000
Chemical Feed	EA	3	\$200,000	\$600,000
Site Work	EA	3	\$200,000	\$600,000
Sanitary Sewer Service	EA	1	\$150,000	\$150,000
HVAC & Electric	EA	3	\$300,000	\$900,000
Generator	EA	3	\$300,000	\$900,000
Water Main/Hydrants/Valves	LF	4,400	\$140	\$616,000

Construction Cost = \$21,606,000

Engineering & Contingency (25%) = \$5,394,000

Project Cost = \$27,000,000

Note: This study was originally done in 2012; the individual costs were updated to 2022.

Summary Sheet

Sheridan Road Area Water Main Improvements
Village of Somers

Segment	Total Water Main Length (feet)	Length Replaced in 2006 (feet)	New Length (feet)	Estimated Number of Services	Existing Services Size (inch)	Main Size (inch)	Proposed Size (inch)	No. Hydrants		Abandon only length
								Final	No. Exist.	
6th Place	680	188	492	9	1 1/4	3	8	2	2	N/A
6th Street	524	167	357	7	1 1/4	6	8	3	2	N/A
7th Place	252	100	152	5	1 1/4	6	8	2	2	N/A
7th St to 8th St	0	0	0	0	N/A	6	N/A	1	1	1590
8th Place	706	203	503	14	1 1/4	6	8	3	3	N/A
8th Street	766	194	572	15	1 1/4	6	8	3	2	N/A
9th Place	784	150	634	13	1 1/4	6	8	3	2	N/A
9th Street	770	203	567	15	1 1/4	3	8	2	3	N/A
10th Place	787	177	610	11	1 1/4	3	8	3	2	N/A
10th Street	851	269	582	12	1 1/4	6	8	4	3	N/A
10th St to 11th Pl	0	0	0	0	N/A	6	N/A	0	0	1175
11th Place	873	164	709	17	1 1/4	6	8	3	2	N/A
11th Street	865	182	683	13	1 1/4	3	8	3	2	N/A
12th Place	456	77	379	7	1 1/4	6	8	3	3	N/A
12th Street	1011	141	870	12	1 1/4	8	12	2	1	N/A
13th Street	386	122	264	10	1 1/4	6	8	2	2	N/A
13th Place	629	150	479	13	1 1/4	6	8	3	3	N/A
14th Place	744	152	592	20	1 1/4	6	8	3	3	N/A
15th Place	813	142	671	16	1 1/4	6	8	3	2	N/A
16th Street	775	0	775	26	1 1/4	6	8	4	3	N/A
16th Place	756	0	756	23	1 1/4	3	8	4	3	N/A
17th Street	754	0	754	28	1 1/4	3	8	4	3	N/A
Total			11401	286				60	49	2765

