

**CITY OF VERONA**

**PUBLIC WORKS/SEWER & WATER COMMITTEE**

**TUESDAY, MAY 28, 2019 – 5:15 P.M.**

**VERONA CITY CENTER**

**111 LINCOLN STREET**

**VERONA, WI 53593**

**A G E N D A**

1. Call to order.
2. Roll call.
3. Approval of the minutes of the April 22, 2019 meeting of the Public Works/Sewer and Water Committee.
4. Discussion and action regarding Awarding Contract for Project 2016-123, CTH PD expansion from Woods Road to CTH M.
5. Discussion and action regarding Amendment No. 2 with MSA Professional Services for Land Acquisition in regards to Project 2016-123, CTH PD (Woods Road to CTH M).
6. Discussion and action regarding Verona waterworks rate study.
7. Discussion and action regarding Verona sanitary sewer rates.
8. Discussion and action regarding Tower 1 maintenance.
9. Discussion and action regarding on going public works and utility projects.
10. Adjourn.

Evan Touchett  
Chairperson

POSTED: Verona City Hall, Verona Public Library, Miller's Market

ALL AGENDAS ARE POSTED ON THE CITY'S WEBSITE AT [www.ci.verona.wi.us](http://www.ci.verona.wi.us)

IF YOU NEED AN INTERPRETER, MATERIALS IN ALTERNATIVE FORMATS, OR OTHER ACCOMMODATION TO ACCESS THE MEETINGS, PLEASE CONTACT THE CITY CLERK AT 845-6495 AT LEAST 48 HOURS PRECEDING THE MEETING. EVERY REASONABLE EFFORT WILL BE MADE TO ACCOMMODATE YOUR REQUEST.

## CITY OF VERONA

### MINUTES

### PUBLIC WORKS/SEWER & WATER COMMITTEE

MONDAY, APRIL 22, 2019

1. The meeting was called to order by Mr. Touchett at 5:21pm.
2. Roll Call: Present: Evan Touchett, Chad Kemp, and Sarah Gaskell. Also present: Theran Jacobson, Public Works Director; Jeff Montpas, City Engineer, AECOM; Adam Sayre, Interim City Administrator; Carla Fischer, AECOM; Bill Dunlop, JSD; Tomas Toro, JSD; Fred DeVillers, FDG.
3. MOVED by Touchett, seconded by Kemp, to approve the minutes of the April 8, 2019 meeting of the Public Works/Sewer and Water Committee. Motion carried 3-0.
4. Mr. Jacobson stated that Construction Related Services for transportation improvements adjacent to west side Verona High School campus was outside of the staff ability for the City to handle, and that the City would contract this out and act as a pass-through for this project, and pass the costs along to the VASD. Mr. Jacobson detailed the research the city has done to review the possible contractors and recommends KL Engineering. Mr. Jacobson informed the VASD last month and previous Friday that the City would be contracting this out, and he had not heard back from VASD regarding this.

MOVED by Gaskell, seconded by Kemp, to recommend approval of professional services agreement for Construction Related Services for transportation improvements adjacent to west side Verona High School campus with KL Engineering, contingent upon legal review by the council, and not to exceed \$293,884.00. Motion carried 3-0.

5. Mr. Jacobson listed a review of past discussion items concerning Whispering Coves Subdivision, including minimum right-of-way widths, school site location/traffic and road adjacent to the school and storm water management facilities.

Review of most current submittal from Mr. Dunlop:

- Only one retaining wall SE corner near pond between Kettle Creek North
- Working with landowner to south to combine basins
- East 40 basins resized larger to handle events so there is no requirement for individual lots; volume control, treatment and infiltration for back-to-back 100 year events can be handled by the basins
- Likely basins will be combined to circle the conservancy
- Includes control for school site and east 40
- Pump station operations three modes:
  - Continual flow to have an amenity.
  - Need for infiltrate because of a storm event, pump either into that amenity which would run through different infiltration ponds or into a specific filtration pond through valving. Valving would be controlled from the panel at the pump station.
  - After catastrophic event, after infiltrate for 48 hrs, give the basins a rest and pump excess to west to the dry trib.
- Currently doing a sensitivity analysis to determine how much of the development they can construct without having to construct a force main to the west
- Experience in Stoughton: they were able to do phase I and II before needing the emergency element
- No sense putting force main in before needed

Mr. Touchett: Will you cover insurance policy for basements that flood after first two phases are built?  
Mr. Dunlop: The analysis has been done that shows basement elevations are two feet above back-to-back 100 year events. Stoughton example increases confidence. Sensitivity analysis will provide force main construction information.

Mr. Jacobson: What storm event will get to within two feet of freeboard requirements without pumps? 4"?

Mr. Dunlop: We will do that sensitivity analysis with pumps running and with pumps failing.

There were several continued questions and clarifications by Committee members on timing.

Mr. Touchett: What's the impact on the Backus property? Will that be part of analysis?

Mr. Dunlop: Yes, that analysis has already been done and Carla Fischer can talk to that. Both 100 year event and back-to-back 100 year events stay under elevation of existing property.

Continued discussions on 500-year or worse events, number of pumps, pump noise levels. Public Works Committee indicated they would likely not support channel and continuous pumping. Costs of additional wear and tear on pumps and lift stations for a visual amenity should not be supported by rate payers.

Mr. Jacobson: In order to meet infiltration requirements, developers will have to move water around on-site.

Mr. Dunlop: Yes, we will have to. Eastern 40 of residential area drains to basins and there is no soil there that can infiltrate. We will have to pump it up to infiltrate.

Ms. Fischer: How big will the main infiltration basin have to be to meet the requirements without re-circulation? 4x? 2x?

Mr. Dunlop: Physically I don't see how that's going to work. If I remember from Cory's analysis, it's a function of topography of the lot and there's not enough area of soil to do what you want to do, and everything to the east is already downstream of that spot, so we already have to pump it there anyways just to get the infiltration requirements for that portion, which is roughly 80 acres.

Mr. Toro: What we are trying to do here is use a resource that we have that would otherwise be dry. Once a storm is over, the water that would naturally reach that area will dissipate, and instead of pumping excess water elsewhere to the dry trib, to pump it here instead.

Continued discussions on environmental waste of constant pumping, and not using more natural draining processes.

Ms. Gaskell: Amenity not needed. No need for the City to set a precedent of coming to an agreement with a developer for having an amenity.

- School road width did not change, right-of-way to stay within 66' minimum. School site is still in limbo.

Ms. Gaskell: From the trail perspective, can we run it from where it's popping into the school site on the north there, out to McKee as well?

Mr. Dunlop: There are some significant grade issues there, we could not get it ADA accessible. That's why we show the path along the roadway, the grades even out. It would be a more suitable route.

Continued discussion on switchbacks and kids on bikes, snowplowing operations, pathway networks, sidewalks maintained by PW must be at least 6'.

- Mr. Jacobson: Intersection approaches are still showing sweeps, that's a racetrack. Design standards that the FDM has that Montpas can provide, there should be a 13 degree skew  
Mr. Dunlop: We are trying to keep that feature in there to keep the traffic flowing.  
Mr. Jacobson: We use the standards on urban streets in Verona, and they slow people down. No one

will yield otherwise. It will accommodate pedestrian crossings.

Ms. Gaskell: We are more concerned with safety than keeping traffic moving, especially near schools. I have no problem with people stopping there.

Mr. Jacobson: I still don't like the geographics of these intersections, I'd rather see less of a skew. This is probably more like 40 degrees. Less will slow drivers down.

No action taken. Touchett left the meeting at 6:00pm.

6. MOVED by Kemp, seconded by Gaskell, to adjourn at 6:16pm. Motion carried 2-0.

# **Public Works Committee**

May 28, 2019

## **Item (4) Awarding Contract for Project 2016-123, CTH PD expansion from Woods Road to CTH M.**

Two bids were received and are listed below in order lowest to highest:

- Low bidder, Payne and Dolan of Fitchburg, WI in the amount of \$1,479,552.75.
- Edgerton Contractors, Inc. of Oak Creek, WI in the amount of \$1,573,146.03

The estimate without contingencies was \$1,614,094.90. The following bid items provided a significant reduction as compared to the estimate:

- Hot mix asphalt
- Curb and gutter
- Mobilization

Payne and Dolan has provided work in the City of Verona as a subcontractor to other prime contractors in previous years' projects for the City of Verona with the most current being in 2018. Based on past work performed in the City of Verona and references checked, Public Works Staff is of the opinion that Payne and Dolan has the personnel, equipment and financial assets necessary to complete the 2016-123, CTH PD expansion project.

## **Item (5) Awarding Contract for Project 2019-102, Amendment No. 2 with MSA Professional Services for Land Acquisition in regards to Project 2016-123, CTH PD expansion from Woods Road to CTH M**

MSA professional services is under contract for providing land acquisition coordination and execution for the CTH PD road expansion project from Woods Road to CTH M. Amendment No. 2 is for additional services such as: extended duration of project; level of complexity; increased parcel count; negotiation time; coordination with property owners, legal counsel, and staff; and executing the final land negotiation. Contract is a time and materials not to exceed.

- Original contract value (approved 12/12/2016) = \$45,000
- Amendment No. 1 (approved 9/25/2017) = \$7,000
- Amendment No. 2 = \$15,000

Staff recommends approval of Amendment No. 2 with MSA.

**Item (6) Verona waterworks rate case update.**

Baker Tilly our City Auditors and City staff (Utility) submitted the water rate case to Wisconsin Public Service Commission in July of 2018 after recommendation for Public Works Committee on July 23, 2018. The rate case is nearing the final stages after multiple data requests from PSC staff, coordination with Auditors and PSC staff, and data request responses by staff and Auditors. Utility received a response from PSC staff on May 15, 2019 that PSC staff has analyzed the rate case based upon information provided by Utility and Auditors. Utility and Auditors reviewed the PSC letter. Utility responded on May 21, 2019 to the letter that the Utility is in agreement.

The next steps are within PSC staff control as they will develop the cost of service study and a proposed rate design. PSC commission will ultimately act of the case at a date to be determined and then Utility / City will act for any changes necessary to rates and codes.

**Item (7) Verona Sanitary Sewer Rates**

The City approved ordinance no. 16-876 amending Title 9 Chapter 2 of the Code of Ordinances on June 27, 2016. The significant cost to the utility each year is from Madison Metropolitan Sewerage District for the treatment of the City’s population raw wastewater. Language within the ordinance allows the Director of Public Works to automatically adjust the sewer rate for the annual increases from MMSD. The MMSD rate change is a complex calculation with multiple variables and inputs therefore staff engages with our Auditors with the rate change. Our Auditors recommend a rate change of 3.4% to satisfy the MMSD increases from 2017 base rates to 2019 new rates, therefore:

- Volume rate change from \$3.54 to \$3.71 per 1000 gallons
- ¾-inch residential quarterly meter charge from \$40.11 to \$40.35.
- Other meter sizes are identified below:

	<u>Units (A)</u>	<u>Current Rates</u>		<u>Calculated Rates</u>	
		<u>Rates</u>	<u>Revenues</u>	<u>Rates</u>	<u>Revenues</u>
Enter the Utility's annual billable gallons for the forecast period	345,132	\$3.54	\$1,221,767	\$3.71	\$1,281,505
Enter the Utility's annual billable meters for the forecast period					
3/4"	4,269	40.11	684,918	40.35	689,059
1"	86	70.68	24,314	72.19	24,832
1-1/2"	49	121.64	23,841	125.25	24,549
2"	62	181.79	45,084	187.93	46,607
3"	23	324.47	29,851	336.51	30,959
4"	10	527.30	21,092	547.76	21,911
6"	5	1,033.88	20,678	1,075.41	21,508
8"	3	1,642.37	19,708	1,709.17	20,510
	<u>4,507</u>		<u>\$2,091,254</u>		<u>\$2,161,440</u>

**Item (8) Tower 1 Maintenance**

Discussion and update for Tower 1 maintenance in regards to 2019 schedule of work.

**Item (9) On-going public works and utility projects**

Discussion and updates for ongoing public works and utility projects.

May 22, 2019

City Council Members  
111 Lincoln Street  
Verona, WI 53593

**Subject: Letter of Recommendation  
CTH PD Reconstruction 2016-123 Woods Road to CTH M  
AECOM PN 60530309  
City ID 2016-123**

Dear Council Members,

In accordance with the Official Notice to Bidders, sealed bids were received for the above subject project at the office of the Director of Public Works until 10:30 a.m. local time on May 22, 2019. Following the close of bidding, the bids received were publicly opened and read aloud. We have reviewed all of the bids received and have enclosed a copy of the Bid Tabulation for your information.

Two (2) sealed bids were received for the project. The low bid was submitted by Payne & Dolan, Inc. of Fitchburg, WI, in the amount of \$1,479,552.75. The high bid was submitted by Edgerton Contractors, Inc. in the amount of \$1,573,146.03. The engineer's estimate for this project was \$1,614,094.90. The bid of \$1,479,552.75 is approximately 8 percent below the engineer's estimate.

AECOM recommends that the City of Verona accept the bid of Payne & Dolan, Inc. for CTH PD Reconstruction 2016-123 Woods Road to CTH M and would recommend award of the contract in the amount of \$1,479,552.75.

We respectfully present these recommendations for review and consideration. Should the City Council accept the recommendations set forth herein, the award of the contract to Payne & Dolan, Inc. of Fitchburg, WI should be made by formal motion in the amount of \$1,479,552.75. Per the bidding documents, should the City Council so decide to award a contract for the work, the award must be made on or before May 28, 2019.

We will be pleased to answer any questions concerning the recommendation set forth herein.

Sincerely,



Zach Larson, PE  
Project Manager  
AECOM  
T: 608-828-8165  
M: 715-340-3796  
E: Zachary.Larson@aecom.com

enclosures: Bid Tally



**Bid Tally**  
**The City of Verona**  
**CTH PD Reconstruction 2016-123 Woods Road to CTH M**  
**May 22, 2019**

Item #	Item	Quantity	Units	Engineer's Estimate		Payne & Dolan, Inc.		Difference From Eng. Est.	Edgerton Contractors, Inc.		Difference From Eng. Est.
				Unit Cost	Total	Unit Cost	Total		Unit Cost	Total	
204.0115	Removing Asphaltic Surface Butt Joints	200	SY	\$ 25.00	\$ 5,000.00	\$ 30.00	\$ 6,000.00	\$ 1,000.00	\$ 30.00	\$ 6,000.00	\$ 1,000.00
416.0170	Concrete Driveway 7-Inch	130	SY	\$ 60.00	\$ 7,800.00	\$ 55.00	\$ 7,150.00	\$ (650.00)	\$ 55.00	\$ 7,150.00	\$ (650.00)
455.0605	Tack Coat	2000	Gal	\$ 3.00	\$ 6,000.00	\$ 2.25	\$ 4,500.00	\$ (1,500.00)	\$ 2.25	\$ 4,500.00	\$ (1,500.00)
460.6223	HMA Pavement 3 MT 58-28 S	6500	Ton	\$ 75.00	\$ 487,500.00	\$ 69.95	\$ 454,675.00	\$ (32,825.00)	\$ 69.95	\$ 454,675.00	\$ (32,825.00)
460.6224	HMA Pavement 4 MT 58-28 S	400	Ton	\$ 90.00	\$ 36,000.00	\$ 79.85	\$ 31,940.00	\$ (4,060.00)	\$ 79.85	\$ 31,940.00	\$ (4,060.00)
460.6424	HMA Pavement 4 MT 58-28 H	4100	Ton	\$ 80.00	\$ 328,000.00	\$ 76.65	\$ 314,265.00	\$ (13,735.00)	\$ 76.65	\$ 314,265.00	\$ (13,735.00)
465.0105	Asphaltic Surface	1300	Ton	\$ 80.00	\$ 104,000.00	\$ 87.90	\$ 114,270.00	\$ 10,270.00	\$ 87.90	\$ 114,270.00	\$ 10,270.00
465.0125	Asphaltic Surface Temporary	30	Ton	\$ 200.00	\$ 6,000.00	\$ 152.00	\$ 4,560.00	\$ (1,440.00)	\$ 152.00	\$ 4,560.00	\$ (1,440.00)
465.0315	Asphaltic Flumes	25	SY	\$ 70.00	\$ 1,750.00	\$ 125.00	\$ 3,125.00	\$ 1,375.00	\$ 125.00	\$ 3,125.00	\$ 1,375.00
601.0411	Concrete Curb & Gutter 30-Inch Type D	8700	LF	\$ 16.00	\$ 139,200.00	\$ 13.25	\$ 115,275.00	\$ (23,925.00)	\$ 13.25	\$ 115,275.00	\$ (23,925.00)
602.0420	Concrete Sidewalk 7-Inch	600	SF	\$ 9.00	\$ 5,400.00	\$ 9.50	\$ 5,700.00	\$ 300.00	\$ 9.50	\$ 5,700.00	\$ 300.00
605.0515	Curb Ramp Detectable Warning Field Natural Patina	60	SF	\$ 50.00	\$ 3,000.00	\$ 46.00	\$ 2,760.00	\$ (240.00)	\$ 46.00	\$ 2,760.00	\$ (240.00)
620.0300	Concrete Median Sloped Nose	400	SF	\$ 10.00	\$ 4,000.00	\$ 8.80	\$ 3,520.00	\$ (480.00)	\$ 8.80	\$ 3,520.00	\$ (480.00)
632.0101	Trees	98	Each	\$ 625.00	\$ 61,250.00	\$ 800.00	\$ 78,400.00	\$ 17,150.00	\$ 570.00	\$ 55,860.00	\$ (5,390.00)
632.0201	Shrubs	46	Each	\$ 75.00	\$ 3,450.00	\$ 200.00	\$ 9,200.00	\$ 5,750.00	\$ 90.00	\$ 4,140.00	\$ 690.00
632.9101	Landscape Planting Surveillance and Care Cycles	1	LS	\$ 10,000.00	\$ 10,000.00	\$ 7,500.00	\$ 7,500.00	\$ (2,500.00)	\$ 17,600.00	\$ 17,600.00	\$ 7,600.00
634.0612	Posts Wood 4x6-Inch 12-FT	1	Each	\$ 65.00	\$ 65.00	\$ 80.00	\$ 80.00	\$ 15.00	\$ 65.00	\$ 65.00	\$ -
634.0614	Posts Wood 4x6-Inch 14-FT	39	Each	\$ 75.00	\$ 2,925.00	\$ 80.00	\$ 3,120.00	\$ 195.00	\$ 65.00	\$ 2,535.00	\$ (390.00)
634.0616	Posts Wood 4x6-Inch 16-FT	2	Each	\$ 85.00	\$ 170.00	\$ 80.00	\$ 160.00	\$ (10.00)	\$ 65.00	\$ 130.00	\$ (40.00)
637.2210	Signs Type II Reflective H	225.39	SF	\$ 20.00	\$ 4,507.80	\$ 25.00	\$ 5,634.75	\$ 1,126.95	\$ 22.50	\$ 5,071.28	\$ 563.48
637.2230	Signs Type II Reflective F	18	SF	\$ 30.00	\$ 540.00	\$ 25.00	\$ 450.00	\$ (90.00)	\$ 25.00	\$ 450.00	\$ (90.00)
646.1020	Marking Line Epoxy 4-Inch	15255	LF	\$ 0.75	\$ 11,441.25	\$ 0.50	\$ 7,627.50	\$ (3,813.75)	\$ 0.50	\$ 7,627.50	\$ (3,813.75)
646.3020	Marking Line Epoxy 8-Inch	2517	LF	\$ 1.00	\$ 2,517.00	\$ 1.30	\$ 3,272.10	\$ 755.10	\$ 1.30	\$ 3,272.10	\$ 755.10
646.5020	Marking Arrow Epoxy	17	Each	\$ 250.00	\$ 4,250.00	\$ 215.00	\$ 3,655.00	\$ (595.00)	\$ 215.00	\$ 3,655.00	\$ (595.00)
646.5120	Marking Word Epoxy	3	Each	\$ 300.00	\$ 900.00	\$ 225.00	\$ 675.00	\$ (225.00)	\$ 225.00	\$ 675.00	\$ (225.00)
646.5220	Marking Symbol Epoxy	12	Each	\$ 225.00	\$ 2,700.00	\$ 110.00	\$ 1,320.00	\$ (1,380.00)	\$ 110.00	\$ 1,320.00	\$ (1,380.00)
646.6120	Marking Stop Line Epoxy 18-Inch	45	LF	\$ 11.50	\$ 517.50	\$ 15.00	\$ 675.00	\$ 157.50	\$ 15.00	\$ 675.00	\$ 157.50
646.7120	Marking Diagonal Epoxy 12-Inch	95	LF	\$ 8.75	\$ 831.25	\$ 7.50	\$ 712.50	\$ (118.75)	\$ 7.50	\$ 712.50	\$ (118.75)
646.7220	Marking Chevron Epoxy 24-Inch	127	LF	\$ 12.50	\$ 1,587.50	\$ 8.50	\$ 1,079.50	\$ (508.00)	\$ 8.50	\$ 1,079.50	\$ (508.00)
646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	110	LF	\$ 9.50	\$ 1,045.00	\$ 10.00	\$ 1,100.00	\$ 55.00	\$ 10.00	\$ 1,100.00	\$ 55.00
646.8120	Marking Curb Epoxy	235	LF	\$ 10.00	\$ 2,350.00	\$ 5.50	\$ 1,292.50	\$ (1,057.50)	\$ 5.50	\$ 1,292.50	\$ (1,057.50)
647.0606	Marking Island Nose Epoxy	5	Each	\$ 200.00	\$ 1,000.00	\$ 175.00	\$ 875.00	\$ (125.00)	\$ 175.00	\$ 875.00	\$ (125.00)
652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	1722	LF	\$ 6.50	\$ 11,193.00	\$ 6.00	\$ 10,332.00	\$ (861.00)	\$ 6.00	\$ 10,332.00	\$ (861.00)
652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	746	LF	\$ 7.50	\$ 5,595.00	\$ 7.00	\$ 5,222.00	\$ (373.00)	\$ 7.00	\$ 5,222.00	\$ (373.00)
653.0164	Pull Boxes Non-Conductive 24x42-Inch	3	Each	\$ 1,500.00	\$ 4,500.00	\$ 1,300.00	\$ 3,900.00	\$ (600.00)	\$ 1,300.00	\$ 3,900.00	\$ (600.00)
654.0105	Concrete Bases Type 5	10	Each	\$ 700.00	\$ 7,000.00	\$ 600.00	\$ 6,000.00	\$ (1,000.00)	\$ 600.00	\$ 6,000.00	\$ (1,000.00)
654.0230	Concrete Control Cabinet Base Type L30	1	Each	\$ 1,500.00	\$ 1,500.00	\$ 1,300.00	\$ 1,300.00	\$ (200.00)	\$ 1,300.00	\$ 1,300.00	\$ (200.00)
655.0610	Electrical Wire Lighting 12 AWG	3144	LF	\$ 0.65	\$ 2,043.60	\$ 0.85	\$ 2,672.40	\$ 628.80	\$ 0.85	\$ 2,672.40	\$ 628.80
655.0620	Electrical Wire Lighting 8 AWG	9420	LF	\$ 0.80	\$ 7,536.00	\$ 1.00	\$ 9,420.00	\$ 1,884.00	\$ 1.00	\$ 9,420.00	\$ 1,884.00
656.0200.01	Electrical Service Meter Breaker Pedestal CTH PD Lighting	1	LS	\$ 1,800.00	\$ 1,800.00	\$ 1,300.00	\$ 1,300.00	\$ (500.00)	\$ 1,300.00	\$ 1,300.00	\$ (500.00)
659.1120	Luminaires Utility LED B	20	Each	\$ 350.00	\$ 7,000.00	\$ 225.00	\$ 4,500.00	\$ (2,500.00)	\$ 225.00	\$ 4,500.00	\$ (2,500.00)
SPV.0060.006	Mobilization and Contract Administration (Contract B)	1	Each	\$ 115,000.00	\$ 115,000.00	\$ 58,500.00	\$ 58,500.00	\$ (56,500.00)	\$ 202,094.88	\$ 202,094.88	\$ 87,094.88
SPV.0060.007	Landmark Reference Monuments	2	Each	\$ 1,000.00	\$ 2,000.00	\$ 400.00	\$ 800.00	\$ (1,200.00)	\$ 1,580.10	\$ 3,160.20	\$ 1,160.20
SPV.0060.008	Raze Dwellings	2	Each	\$ 20,000.00	\$ 40,000.00	\$ 14,400.00	\$ 28,800.00	\$ (11,200.00)	\$ 0.01	\$ 0.02	\$ (39,999.98)
SPV.0090.002	Concrete Curb & Gutter 24-Inch Type D	8050	LF	\$ 15.00	\$ 120,750.00	\$ 12.75	\$ 102,637.50	\$ (18,112.50)	\$ 12.75	\$ 102,637.50	\$ (18,112.50)
SPV.0090.003	Concrete Curb & Gutter Special 24-Inch Type D	410	LF	\$ 18.00	\$ 7,380.00	\$ 18.00	\$ 7,380.00	\$ -	\$ 18.00	\$ 7,380.00	\$ -
SPV.0090.004	36-Inch Concrete Gutter	170	LF	\$ 30.00	\$ 5,100.00	\$ 21.00	\$ 3,570.00	\$ (1,530.00)	\$ 21.00	\$ 3,570.00	\$ (1,530.00)
SPV.0105.002	Survey (Contract B)	1	LS	\$ 20,000.00	\$ 20,000.00	\$ 30,150.00	\$ 30,150.00	\$ 10,150.00	\$ 25,281.65	\$ 25,281.65	\$ 5,281.65
SPV.0105.003	Transport and Install Corridor Lighting Materials	1	LS	\$ 10,000.00	\$ 10,000.00	\$ 8,500.00	\$ 8,500.00	\$ (1,500.00)	\$ 8,500.00	\$ 8,500.00	\$ (1,500.00)
<b>Project Total</b>				<b>\$ 1,614,094.90</b>		<b>\$ 1,479,552.75</b>			<b>\$ 1,573,146.03</b>		

**AMENDMENT NO 2 (2/21/19)**  
**to the**  
**Agreement for Professional Services**  
**between**  
**City of Verona, Wisconsin (CITY)**  
**and**  
**MSA Professional Services, Inc. (MSA)**  
**for**  
**Reconstruction of CTH PD (Woods Road –CTH M)**

This Agreement, made and entered into on December 19, 2016, is hereby amended as follows and is made part of the original AGREEMENT.

**Amendment is required because:**

- a. When the original agreement was signed, the schedule for the real estate acquisition work was assumed to be from July – December 2017 with an April 2018 construction schedule. The City of Verona was pursuing a possible alternative funding source for construction of the project. The actual timing of the acquisitions was delayed and the majority of the Offering Price Reports were approved in January 19, 2018. The duration of the project increased by approximately 6-8 months.
- b. The level of complexity for the parcels has increased since the time of the original agreement for the Right of Way required for the project. Significant amount of additional negotiation time due to increased development in the project area, resulting in higher land values from the time the appraisals were prepared, landowners not responding in a timely manner to continued follow up on the project, and attorney involvement on many of the parcels.
- c. The City of Verona's desire to reach a negotiated settlement without using the Eminent Domain process extended the negotiation and increased offer approval time.
- d. Due to a change in WisDOT policy and to the process for lending institutions involved, the number and complexity of obtaining the Partial Releases of Mortgages required more time than the assumed requirements in the original agreement.
- e. The original contract included up to one meeting per parcel owner. The actual number of meetings per parcel owner was significantly higher.
- f. Parcel 8-Integra Investments, LLC sold part of their land to Parcel 10-North Neighborhood, LLC, requiring a plat revision, additional title reports, coordination with the City of Verona, City of Verona Attorney & representative and AECOM.
- g. Annexation Agreement-extended the acquisition process for Parcels 8 & 10. Parcel 8-continued tenant relocation follow-up due to the land not being transferred to the City of Verona, therefore not requiring a notice to vacate to be provided to the tenants.
- h. Added litigation work relating to Parcel 11-Gerald & Linda Endres parcel. The City of Verona desires to reach a Negotiated Settlement for the land previously acquired by an Award of Damages for the CTH M project and the land rights required for the CTH PD project. If a negotiated settlement is not achieved, Parcel 11 on the CTH PD project will be acquired through the Eminent Domain process by an Award of Damages. Legal counsel will need litigation assistance to defend the City of Verona as court proceedings continue. (Time & Materials).

**BY THIS AMENDMENT:**

1. For items a – g above, this Amendment #2 changes the total contract amount from the Original Contract and Amendment #1 from \$56,200 to \$61,500 (increase of \$5,300).
2. For item h above, this Amendment #2 adds a Time and Material cost item for litigation assistance work relating to the (Endres parcel) as requested by the City. Compensation will be Time and Material basis. Estimated fee of \$10,000 is based on approximately 80

- 90 hours. As the work progresses, MSA will notify the City if the work required is projected to extend beyond this amount.

3. TOTAL cost of this Amendment #2 is \$15,300.

In witness whereof, the parties hereto have caused this Amendment to be executed and approved by their authorized officers or representatives, effective on the date written herein.

**CITY OF VERONA**

**MSA PROFESSIONAL SERVICES**

By:

By:

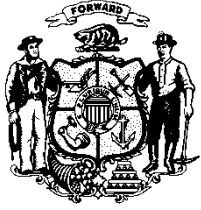


\_\_\_\_\_  
Luke Diaz  
Mayor

\_\_\_\_\_  
Quirin R. Klink  
Transportation Team Leader

Date \_\_\_\_\_

Date February 21, 2019



# Public Service Commission of Wisconsin

Rebecca Cameron Valcq, Chairperson  
Ellen Nowak, Commissioner  
Mike Huebsch, Commissioner

4822 Madison Yards Way  
P.O. Box 7854  
Madison, WI 53707-7854

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May 15, 2019

Mr. Theran Jacobson, P.E.  
Verona Water Utility  
410 Investment Court  
Verona WI 53593

Ms. Kate Hanson, Staff Attorney  
Citizens Utility Board  
6401 Odana Road, Suite 24  
Madison, WI 53719

Re: Application of the City of Verona, Dane County,  
Wisconsin, as a Water Public Utility, for Authority to  
Adjust Water Rates

6100-WR-103

Dear Mr. Jacobson and Ms. Hanson:

Public Service Commission (Commission) staff has analyzed the Verona Water Utility's (Utility) application for a water rate increase. The application was received on July 31, 2018. On November 30, 2018, the Utility requested an extension to January 9, 2019, to respond to Commission staff's initial data request, mainly due to Utility staff back log and its transition of accounting software packages. ([PSC REF#: 354055](#).) On January 11, 2019, the Utility proposed several adjusting entries to address the accounting for impact fees along with several other PSC Annual Report adjustments. ([PSC REF#: 357384](#).) A reconciliation of the proposed adjustments was e-mailed to Commission staff on May 1, 2019 and filed on May 7, 2019. ([PSC REF#: 366124](#).) This document summarizes all adjustments to Utility Plant and related accounts that were proposed in this rate proceeding. After all proposed adjustments are made the net contributed plant variance is \$221,446, which Commission staff considers reasonable. This difference is similar to the amount that is still expected in impact fee collections. Commission staff also reviewed each of the proposed adjustments in this rate proceeding and reflected these adjustments in the proposed revenue requirement for the 2018 test year.

The attached contains Commission staff's proposed 2018 test year revenue requirement exhibit (Exhibit) and will serve as the basis for the cost of service study. Alex Hanna, Rate Analyst, will soon develop the cost of service study and a proposed rate design. A copy of that exhibit will be sent separately upon completion. Commission staff will submit both proposals at the public hearing, which will be scheduled at a later date.

Please note the Commission staff proposal is based on a 5.30 percent return on net investment rate base. This rate of return is the current benchmark for municipal rate cases at the time the revenue requirement was finalized. Based on the Utility's capital structure and debt payment schedules, 5.30 percent return provides adequate debt service coverage.

Attached as Schedule 4 is the list of depreciation rates that is the basis of Commission staff's estimated depreciation expense for the test year. Please note that some rates may be different than previously authorized. When the final decision is issued in this docket, these depreciation rates will be certified for use by the Utility effective January 1, 2019. Please note that the general service and public fire protection rates are typically effective within 90 days of the final decision.

During the review of the Utility's rate application, several items that resulted in additional review are important to note.

- In 2001, the Utility constructed the water tower, booster station, and mains and recorded the entire \$2,403,676 as Utility Financed Plant. The Utility transferred \$1,273,574 of these capital assets from Utility Financed to Contributed Plant from 2001-2010. Based on the 1995 Impact Fees – Public Facilities Needs Assessment (Assessment), the Utility intended to construct these assets partially to serve new development. ([PSC REF#: 357421.](#)) However, the Assessment was updated in a letter dated April 28, 1997 from Mr. Robert E. Gundlach, P.E. with Rust Environment and Infrastructure Inc. ([PSC REF#: 364566](#)). These changes were reflected in the 1997 Report on Water Impact Fees ([PSC REF#: 357383](#)). Facilities that are based on impact fee studies and constructed to serve growth shall be recorded as Contributed Plant.

The Utility proposed adjusting entries in this rate proceeding to correct the accounting for impact fees along with the associated adjustment to Accumulated Depreciation and Unappropriated Earned Surplus (216.2). The summary of the adjustments that were made are as follows.

- Adjustment 1 reclassified \$1,130,102 from Utility Financed Plant to Contributed Plant based on capital assets that were financed by impact fees.
- Adjustment 2 reclassified \$1,034,037 from Contributed Plant to Utility Financed Plant to move projects that were not funded by impact fees.
- Adjustments 4 and 5 reclassified \$393,887 from Capital Paid-In to Unappropriated Earned Surplus - Contributed Plant for 2005 developer contributed projects.
- Adjustments were also made to Accumulated Depreciation and Unappropriated Earned Surplus associated with these above adjustments.

The Utility shall also make these proposed adjustments in the books that were closed for 2018, report the adjustments in the 2018 PSC Annual Report, and refile that report. ([PSC REF#: 366124.](#))

- In 2010, the Utility was reclassified from a Class C to a Class AB utility. Pursuant to PSC § 185.43(2), Class AB utilities are required by the Uniform System of Accounts to institute a perpetual inventory of their assets known as Continuing Property Records (CPR). The Utility's CPR shall maintain:
  - a system of plant accounts as prescribed by the Uniform System of Accounts
  - that all property units will be described in sufficient detail to permit identification and will have the location information to allow verification of their physical existence;
  - that all property units will be identified with construction costs to establish their original cost for capitalization and retirement accounting
  - that the age and service life of property units will be calculable for depreciation studies (original cost, description, age, and proper retirement unit);
  - that source documents supporting the original cost and quantities of property units will be preserved for a period of 6 years after plant is retired;
  - that maps may be part of the CPR if they contain a description of the unit, their location, and the year of construction.

Commission staff recently requested additional information about the condition of the Utility's CPR in this rate proceeding and noted that the Utility's CPR has not been fully developed. Commission staff recommend that a requirement be added to the final decision in this rate proceeding regarding improvements to the CPR and timelines for the Utility to make such improvements.

- The Utility included capital assets of \$2,500,000 in the 2018 test year for the Well No. 6 project, approved by the Commission in docket 6100-CW-105. Commission staff removed this project from the revenue requirement due to updated information from the Utility indicating that construction will not begin until 2019 and be completed in 2020. Only those projects which are expected to be in service within the test year are included in the 2018 test year revenue requirement.
- Several other smaller adjustments were also discussed through the data request process. The adjustments include several expense adjustments, including tower painting, membership dues, and labor. All other adjustments are described in further detail in the Exhibit.

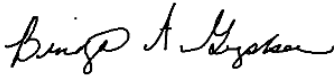
After reviewing, please confirm by Electronic Records Filing (ERF) that the Utility and the Citizens Utility Board (CUB) respectively are in agreement with Commission staff's revenue requirement proposal as set forth in the Exhibit within 14 days of the date of this letter. Please

Mr. Theran Jacobon, P.E.  
Docket 6100-WR-103  
Page 4

identify the document type in ERF as “Exhibit Offered.” If the Utility or CUB are not in agreement with any individual component(s), please contact Commission staff for further discussion.

If you have any questions regarding the above, please contact me. If you have any questions regarding the status of the rate case, please contact Alex Hanna at (608) 267-2336 or by e-mail at [Alex.Hanna@wisconsin.gov](mailto:Alex.Hanna@wisconsin.gov).

Sincerely,



Bridgot Gysbers  
Public Utility Auditor – Advanced  
Public Service Commission of Wisconsin  
Division of Water, Telecommunications, and Consumer Affairs  
608.267.0637 | [Bridgot.Gysbers@wisconsin.gov](mailto:Bridgot.Gysbers@wisconsin.gov)

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cc: Vicky Lawry, Verona Water Utility  
Gwen Zech, Baker Tilly Virchow Krause, LLP  
Jodi Dobson, Baker Tilly Virchow Krause LLP

**Ex.-PSC-Revenue Requirement**

**Verona Water Utility**

Estimated 2018 Operating Income Statement

Net Investment Rate Base

and 2018 Estimated Revenue Requirement



Verona Water Utility  
6100-WR-103

Estimated Operating Income Statement  
and Net Investment Rate Base  
2018 Test Year

	Utility Estimate	Adjustments		Staff Estimate
		No.	Amount	
Total Operating Revenues:	\$2,016,445	1	(\$31,262)	\$1,985,183
Operating Expenses:				
Source of Supply	\$0		\$0	\$0
Pumping	116,500		0	116,500
Water Treatment	48,700		0	48,700
Transmission and Distribution	245,500	2	97,600	343,100
Customer Accounts	10,200	3	6,800	17,000
Sales	0		0	0
Administrative and General	261,600	4	10,180	271,780
Total Operation & Maintenance Expenses	\$682,500		\$114,580	\$797,080
Depreciation	564,326	5	(72,644)	491,682
Amortization	0		0	0
Taxes	797,902	6	(59,702)	738,200
Total Operating Expenses	\$2,044,728		(\$17,766)	\$2,026,962
Net Operating Income (Loss)	<u>(28,283)</u>		<u>(\$13,496)</u>	<u>(41,779)</u>
Net Investment Rate Base:				
Utility Plant in Service	\$19,524,680	7a	(\$2,691,283)	\$16,833,397
Less:				
Accumulated Provision for Depreciation	4,793,068	7b	(462,356)	4,330,712
Net Plant in Service	\$14,731,612		(\$2,228,927)	\$12,502,685
Add: Materials and Supplies	37,928		0	37,928
Less: Regulatory Liability - pre-2003 Depreciation on Contributed Plant	206,339		0	206,339
Net Investment Rate Base	<u>\$14,563,201</u>		<u>(\$2,228,927)</u>	<u>\$12,334,274</u>
Rate of Return	-0.19%			-0.34%

Verona Water Utility  
6100-WR-103

Estimated Operating Income Statement  
Average Net Investment Rate Base and  
Revenue Requirement to Yield the Proposed Rate of Return  
2018 Test Year

	Staff Estimate	Increase Required	Proposed Rate Level
Total Operating Revenues:	\$1,985,183	\$695,496	\$2,680,679
Operating Expenses:			
Source of Supply	\$0		\$0
Pumping	116,500		116,500
Water Treatment	48,700		48,700
Transmission and Distribution	343,100		343,100
Customer Accounts	17,000		17,000
Sales	0		0
Administrative and General	<u>271,780</u>		<u>271,780</u>
Total Operation & Maintenance Expenses	\$797,080		\$797,080
Depreciation	491,682		491,682
Amortization	0		0
Taxes	<u>738,200</u>		<u>738,200</u>
Total Operating Expenses	<u>\$2,026,962</u>		<u>\$2,026,962</u>
Net Operating Income (Loss)	<u>(41,779)</u>		<u>653,717</u>
Net Investment Rate Base:			
Utility Plant in Service	\$16,833,397		\$16,833,397
Less:			
Accumulated Provision for Depreciation	<u>4,330,712</u>		<u>4,330,712</u>
Net Plant in Service	\$12,502,685		\$12,502,685
Add: Materials and Supplies	37,928		37,928
Less: Regulatory Liability - pre-2003 Depreciation on Contributed Plant	<u>206,339</u>		<u>206,339</u>
Net Investment Rate Base	<u>\$12,334,274</u>		<u>\$12,334,274</u>
Rate of Return	-0.34%		5.30%

Verona Water Utility  
6100-WR-103

Explanation of Staff Adjustments in Schedules 1

Particulars	Amount
<u>Adjustment No. 1</u>	
To decrease Residential revenues based upon:	(\$31,262)
- the staff estimated average customer count of 4,022 which is mainly due to removing Am-1 meters	
- estimated volume of 204,208 mgals based on the 2015-2018 average usage per customer per quarter.	
<u>Adjustment No. 2</u>	
To increase the utility's estimate for Account 672, Maintenance of Distribution Reservoirs and Standpipes to the 2018 PSC estimate of \$157,300 based on a 15-year normalization for tower painting costs.	\$97,600
<u>Adjustment No. 3</u>	
To increase the utility's estimate for Account 902, Meter Reading Labor, to the 2018 PSC estimate of \$6,800. PSC estimate was based on an amount similar to actual 2018 which was reclassified from Account 920, Administrative and General Salaries.	\$6,800
<u>Adjustment No. 4</u>	
To adjust the utility's estimated Administrative and General Expense to the 2018 PSC estimate as follows:	\$10,180
a. To decrease the utility's estimate for Account 921, Office Supplies and Expenses to the 2018 PSC estimate of \$22,400 based on a portion of membership dues that were disallowed due to lobbying activities.	(\$700)
b. To increase the utility's estimate for Account 926, Employee Pensions and Benefits expense to the 2018 PSC estimate of \$114,680 based on actual 2018 as reported in the 2018 PSC Annual Report. The increase in 2018 is mainly due to additional staff in 2018 where time is now being allocated to the water utility, which would also increase Pensions and Benefits expense.	\$10,880
Total Increase	<u>\$10,180</u>
<u>Adjustment No. 5</u>	
To decrease the utility's estimated Depreciation Expense to the 2018 PSC estimate based upon the items noted below:	(\$72,644)
- actual Utility Financed Plant in Service balances as reported in the 2018 PSC Annual Report for the test year	
- proposed depreciation rates per Schedule 5	
- an allocation of a portion of depreciation on meters to the sewer department	
The primary reasons for the adjustment is the Well No. 6 project of \$2,500,000 was removed from this case. The utility provided updated information on April 23, 2019, that construction is not expected to be completed until 2020, which is outside the 2018 test year. In addition, \$165,260 in capital assets was reclassified from Utility Financed to Contributed Plant for costs that were financed by impact fees.	

Verona Water Utility  
6100-WR-103

Explanation of Staff Adjustments in Schedules 1

<u>Particulars</u>	<u>Amount</u>
<u>Adjustment No. 6</u>	
To decrease the utility's estimated Tax and Tax Equivalent to the 2018 PSC estimate of \$738,200. The primary reason for the adjustment is staff used a 3-year average effective tax rate to estimate PILOT.	(\$59,702)
<u>Adjustment No. 7</u>	
To adjust the utility's estimated Net Investment Rate Base to the 2018 PSC estimate as follows:	(\$2,228,927)
a. To decrease Plant in Service to the 2018 PSC estimate based upon actual 2017 and 2018 plant additions and retirements. The adjustment is mainly due to Well No. 6 project of \$2,500,000 which was removed from this case. The utility provided updated information on April 23, 2019, that construction is not expected to be completed until 2020, which is outside the test year. In addition, a reclassification adjustment was also made of \$165,260 in capital assets from Utility Financed Plant to Contributed Plant for costs that were financed by impact fees.	(2,691,283)
b. To increase the utility's estimated Net Investment Rate Base to the 2018 PSC estimate by decreasing Accumulated Provision for Depreciation based upon:	
- estimated 2017 and 2018 depreciation accruals using authorized rates	
- actual retirements in 2017 and 2018	
- an adjustment of \$414,186 in Accumulated Depreciation associated with the impact fee adjustment.	<u>462,356</u>
Total Decrease	<u><u>(\$2,228,927)</u></u>

## Verona Water Utility

**Schedule of Water Depreciation Rates**  
**Effective January 1, 2019**

Account Number	Account Title	Depreciation Rate
	<b>SOURCE OF SUPPLY PLANT</b>	
314	Wells and Springs	2.90%
	<b>PUMPING PLANT</b>	
321	Structures and Improvements	3.20%
325	Electric Pumping Equipment	4.40%
328	Other Pumping Equipment	4.40%
	<b>WATER TREATMENT PLANT</b>	
334	Other Water Treatment Equipment	6.00%
	<b>TRANSMISSION AND DISTRIBUTION PLANT</b>	
342	Distribution Reservoirs and Standpipes	1.90%
343	Transmission and Distribution Mains	1.30%
345	Services	2.90%
346	Meters	5.50%
348	Hydrants	2.20%
349	Other Transmission and Distribution Plant	5.00%
	<b>GENERAL PLANT</b>	
390	Structures and Improvements	2.90%
391	Office Furniture and Equipment	5.80%
391.1	Computer Equipment	26.70%
392	Transportation Equipment	13.30%
394	Tools, Shop and Garage Equipment	5.80%
396	Power Operated Equipment	7.50%
397.1	SCADA Equipment	9.20%

**Verona Sewer Utility**

MMSD Adjustment Clause - Updated User Charge  
 Projected 2019

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Recalculate to obtain Verona Sewer Utility's  
 updated user charges

Number of billings 4

	<u>Current Rates</u>	<u>MMSD Rate Change</u>	<u>Calculated Rates</u>
Volume	\$3.54 per 1,000 gals	0.173	\$3.71 per 1,000 gals
<u>High Strength Surcharges</u>			
BOD	0.221 per lb	0.010	0.231 per lb
SS	0.298 per lb	0.027	0.325 per lb
TKN	0.703 per lb	0.030	0.733 per lb
P	3.325 per lb	0.333	3.658 per lb
 <u>Meters</u>			
3/4"	\$40.11 per quarter	0.24	\$40.35 per quarter
1"	70.68 per quarter	1.51	72.19 per quarter
1-1/2"	121.64 per quarter	3.61	125.25 per quarter
2"	181.79 per quarter	6.14	187.93 per quarter
3"	324.47 per quarter	12.04	336.51 per quarter
4"	527.30 per quarter	20.46	547.76 per quarter
6"	1,033.88 per quarter	41.53	1,075.41 per quarter
8"	1,642.37 per quarter	66.80	1,709.17 per quarter

**Verona Sewer Utility**

MMSD Adjustment Clause - Input Sheet  
 Projected 2019

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	2019 New <u>Rates (NR)</u>	2017 Base <u>Rates (BR)</u>
Enter MMSD's volume and loading charge rate for the forecast and current period		
Volume (V)	\$0.65536 per 1,000 gals.	\$0.59315 per 1,000 gals.
CBOD (BOD)	0.15905 per lb	0.14870 per lb
Suspended Solids (SS)	0.26775 per lb	0.24099 per lb
Nitrogen (TKN)	0.40279 per lb	0.37271 per lb
Phosphorus (TP)	4.18724 per lb	3.85410 per lb
Enter MMSD's equivalent meter and customer rates for the forecast and current period		
Equivalent Meters (E) Rate	\$36.45 per year	\$33.08 per year
Customer (C) Rate	\$36.38 per year	\$38.78 per year

**Verona Sewer Utility**

MMSD Adjustment Clause - Calculation Sheet  
 Projected 2019

Calculation of Adjusted Domestic Strength Charge:

Formula           NVR = AVR + CVR  
                     AVR = (V)VRC+ (BOD)VRC + (SS)VRC + (TKN)VRC + (TP)VRC  
 General Calculation  
                     RC = NR - BR  
                     6500 RC \* CG \* DS  
 Component Calculation  
                     53700 (V)RC  
                     (BOD)VRC = (BOD)RC \* (BOD)CG \* (BOD)DS  
                     (SS)VRC = (SS)RC \* (SS)CG \* (SS)DS  
                     (TKN)VRC = (TKN)RC \* (TKN)CG \* (TKN)DS  
                     (TP)VRC = (TP)RC \* (TP)CG \* (TP)DS

<u>Components</u>	<u>Current Rates (CVR)</u>	<u>New Rates (NR)</u>	<u>Base Rates(BR)</u>	<u>Rate Change (RC)</u>	<u>Convert to Gallon (CG)</u>	<u>Domestic Strength (DS)</u>	<u>Rate Change (VRC)</u>	
Volume	\$3.540000	\$0.655360	\$0.593150	\$0.062210	N/A	N/A	\$0.062210	= (V)VRC
BOD	0.221000	0.159050	0.148700	0.010350	0.00834	200	0.017264	= (BOD)VRC
SS	0.298000	0.267750	0.240990	0.026760	0.00834	250	0.055795	= (SS)VRC
TKN	0.703000	0.402790	0.372710	0.030080	0.00834	40	0.010035	= (TKN)VRC
TP	3.325000	4.187240	3.854100	0.333140	0.00834	10	<u>0.027784</u>	= (TP)VRC
							AVR = 0.173087	
							CVR = <u>3.54</u>	
							NVR = <u>\$3.71</u>	

Calculation of the Adjusted Quarterly Service Charge:

Formula:           C = BMRC + MOR  
                     BMRC = MRC / B  
                     MRC = DC + CC

Calculation of the Demand and Customer Change:

Formula:           DC = (EN - EB) \* DR  
                     CC = CN - CB

		<u>Demand Ratio (DR)</u>	<u>Demand Change (DC)</u>	<u>Customer Change (CC)</u>	<u>Annual Meter Rate Change (MRC)</u>	<u>Quarterly Meter Rate Change (BMRC)</u>	<u>Current Meter Rate (MOR)</u>	<u>Adjusted New Meter Rate (C)</u>	<u>Proposed New Meter Rate</u>
3/4"	=	1.0	3.37	(2.40)	0.97	0.24	40.11	40.35	<b>40.35</b>
1"	=	2.5	8.43	(2.40)	6.03	1.51	70.68	72.19	<b>72.19</b>
1-1/2"	=	5.0	16.85	(2.40)	14.45	3.61	121.64	125.25	<b>125.25</b>
2"	=	8.0	26.96	(2.40)	24.56	6.14	181.79	187.93	<b>187.93</b>
3"	=	15.0	50.55	(2.40)	48.15	12.04	324.47	336.51	<b>336.50</b>
4"	=	25.0	84.25	(2.40)	81.85	20.46	527.30	547.76	<b>547.80</b>
6"	=	50.0	168.50	(2.40)	166.10	41.53	1,033.88	1,075.41	<b>1,075.40</b>
8"	=	80.0	269.60	(2.40)	267.20	66.80	1,642.37	1,709.17	<b>1,709.20</b>



**Verona Sewer Utility**

MMSD Adjustment Clause - Description Sheet  
 Projected 2019

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## DESCRIPTION OF THE ADJUSTED DOMESTIC STRENGTH VOLUME CHARGE:

Formula:  $NVR = AVR + CVR$   
 $AVR = (V)VRC + (BOD)VRC + (SS)VRC + (TKN)VRC + (TP)VRC$   
 $RC = NR - BR$   
 $VRC = RC * CG * DS$

Where:  $NVR$  = Calculated new domestic strength utility volume rate per 1,000 gallons

$AVR$  = Calculated domestic strength volume rate adjustment to the current utility domestic strength volume rate

$CVR$  = Current utility domestic strength volume rate per 1,000 gallons

$(V)VRC$  = Adjustment to domestic volume rate per 1,000 gallons  
 MMSD new volume rate less MMSD current volume rate

$(BOD)VRC$  = Adjustment to domestic BOD rate component per 1,000 gallons  
 MMSD new BOD rate less MMSD current BOD rate  
 multiplied by the domestic strength multiplied by conversion to gallons

$(SS)VRC$  = Adjustment to domestic SS rate component per 1,000 gallons  
 MMSD new SS rate less MMSD current SS rate  
 multiplied by the domestic strength multiplied by conversion to gallons

$(TKN)VRC$  = Adjustment to domestic TKN rate component per 1,000 gallons  
 MMSD new TKN rate less MMSD current TKN rate  
 multiplied by the domestic strength multiplied by conversion to gallons

$(TP)VRC$  = Adjustment to domestic TP rate component per 1,000 gallons  
 MMSD new TP rate less MMSD current TP rate  
 multiplied by the domestic strength multiplied by conversion to gallons

$RC$  = New MMSD service rate less current MMSD service rate

$NR$  = New MMSD service rate

$BR$  = Current MMSD service rate

$CG$  = Conversion factor from per pound to per gallon

$DS$  = Utility domestic strength by component

## DESCRIPTION OF ADJUSTED METER CHARGE:

Formula:  $C = BMRC + MOR$   
 $BMRC = MRC / B$   
 $MRC = DC + CC$   
 $DC = (EN - EB) * DR$   
 $CC = CN - CB$

Where:  $C$  = Adjusted utility meter rate (to nearest one cent)

$BMRC$  = Semi-annual utility meter rate change

$MOR$  = Current utility meter rate

$B$  = Number of annual utility billings (currently 2 times a year)

$MRC$  = Change in utility annual service rate per meter

$DR$  = Demand ratio per meter size

$DC$  = MMSD new equivalent meter service rate less current equivalent meter service rate  
 multiplied by demand ratio

$CC$  = MMSD new customer service rate less current customer service rate

$EN$  = MMSD new annual equivalent meter service rate

$EB$  = MMSD current annual equivalent meter service rate

$CN$  = MMSD new annual customer service rate

$CB$  = MMSD current annual customer service rate

**Verona Sewer Utility**

Quarterly Bill Comparison - Proposed Rates  
 Projected 2019

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<u>Customer</u>	Quarterly <u>Volume (A) (gallons)</u>	<u>Meter</u>	<u>Quarterly Charge</u>		<u>Inc. / (Dec.)</u>	<u>%</u>
			<u>Present</u>	<u>Proposed</u>		
Small Residential	10,000	5/8"	\$75.51	\$77.48	\$1.97	2.6%
Average Residential	13,000	5/8"	\$86.13	\$88.62	2.49	2.9%
Large Residential	30,000	5/8"	\$146.31	\$151.74	5.43	3.7%
Multifamily Residential	114,000	1 1/2"	\$525.20	\$548.54	23.34	4.4%
Commercial	27,000	5/8"	\$135.69	\$140.60	4.91	3.6%
Commercial	150,000	1"	\$601.68	\$629.15	27.47	4.6%
Industrial	1,160,000	4"	\$4,633.70	\$4,854.94	221.24	4.8%
Average Industrial	38,000	2"	\$316.31	\$329.03	12.72	4.0%
Public Authority	500,000	2"	\$1,951.79	\$2,044.47	92.68	4.7%
Public Authority	155,000	4"	\$1,076.00	\$1,123.29	47.29	4.4%

(A) numbers above based on TY 2016 Sewer Rate Study

**Verona Sewer Utility**  
 Calculation of Total Revenues  
 Projected 2019

	<u>Units (A)</u>	<u>Current Rates</u>		<u>Calculated Rates</u>	
		<u>Rates</u>	<u>Revenues</u>	<u>Rates</u>	<u>Revenues</u>
Enter the Utility's annual billable gallons for the forecast period	345,132	\$3.54	\$1,221,767	\$3.71	\$1,281,505
Enter the Utility's annual billable meters for the forecast period					
3/4"	4,269	40.11	684,918	40.35	689,059
1"	86	70.68	24,314	72.19	24,832
1-1/2"	49	121.64	23,841	125.25	24,549
2"	62	181.79	45,084	187.93	46,607
3"	23	324.47	29,851	336.51	30,959
4"	10	527.30	21,092	547.76	21,911
6"	5	1,033.88	20,678	1,075.41	21,508
8"	3	1,642.37	19,708	1,709.17	20,510
	<u>4,507</u>		<u>\$2,091,254</u>		<u>\$2,161,440</u>
					<u>\$70,186</u>
					<u>3.4%</u>

(A) - Based on data used in the the 2018 Five Year Forecast

**Verona Sewer Utility**

Calculation of Current Year Rates over Prior Year Units  
 Projected 2019

	<u>2019 MMSD Charges</u>		<u>2017 MMSD</u>	<u>2019 MMSD charges</u>	<u>2019 Units Using</u>
	<u>2019 units</u>	<u>2019 Rates</u>	<u>Rates</u>	<u>Calculated</u>	<u>2017 Rates</u>
Volume (V)	419,750	0.65536	0.59315	\$275,087	\$248,975
CBOD (BOD)	1,113,250	0.15905	0.1487	177,062	165,540
Suspended Solids (SS)	803,000	0.26775	0.24099	215,003	193,515
Nitrogen (TKN)	182,500	0.40279	0.37271	73,509	68,020
Phosphorus (TP)	24,455	4.18724	3.8541	102,399	94,252
Equivalent Meters (E) Rate	5,945	36.45	33.08	216,695	196,661
Customer (C) Rate	4,475	36.38	38.78	162,801	173,541
Total				<u>\$1,222,557</u>	<u>\$1,140,503</u>
Increase in rates required					<u>\$82,054</u>