

Ex.- FAWU - Selle – 1

Fort Atkinson Water Utility  
2018 and 2019 Water Main Construction Costs

Ex.-FAWU-Selle-1

ITEM			NOTES		
8" DI Main Replacement 2018 Bid - Rockwell	\$212.09	\$/LF	+/- 600 LF of Water Main		
12" DI Main Replacement 2018 Bid - Rockwell	\$194.71	\$/LF	+/- 4,000 LF of Water Main		
8" PVC Main Replacement 2019 Bid - Messmer/Roosevelt	\$178.61	\$/LF	+/- 2300 LF of water main		
	<b>AVG</b>	<b>\$195.14</b>			
2018 Rockwell Main Replacement Design	\$ 14.02	\$/LF			
2019 Main Replacement Design	\$ 3.62	\$/LF			
	<b>AVG</b>	<b>\$ 8.82</b>			
2018 Construction Oversight - Rockwell	\$ 18.79	\$/LF			
2019 Construction Oversight - Roosevelt/Messmer	\$ 13.09	\$/LF			
	<b>AVG</b>	<b>\$ 15.94</b>			
	<b>EXPECTED COST OF REPLACEMENT: 2020</b>	<b>\$ 219.90</b>	<b>/LF</b>		
	2021	\$ 224.30	/LF		
	2022	\$ 228.78	/LF		
	2023	\$ 233.36	/LF		
	2024	\$ 238.02	/LF		
	2025	\$ 242.78	/LF		

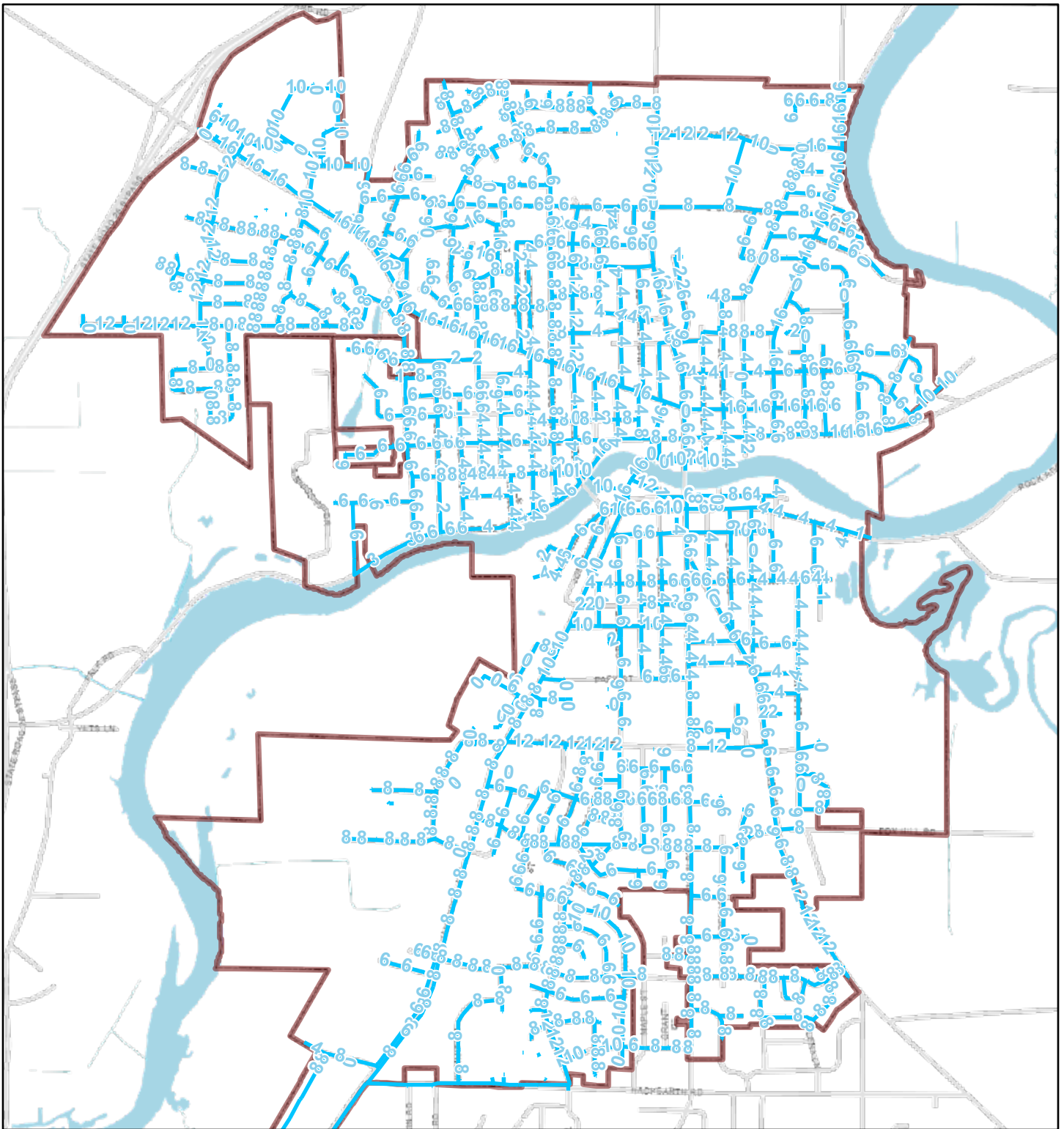
Ex.- FAWU - Selle – 2

Fort Atkinson Water Utility  
Map of all Water Utility Mains and Data Table

Ex.-FAWU-Selle-2



2020 STATS					
				REPLACEMENT @ 1% LIMIT	
Total Main	72.6	miles			
Spuncast Main (1944-1972)	18.3	miles	25.2	Years to replace all	
Main >100 YEARS (1920 older)	6.4	miles	8.8	Years to replace	
>100 YEARS and >75 YEARS (1921-1946)	10.2	miles	14.1	Years to replace	
>75 YEARS and >50 YEARS (1947 - 1972)	18.2	miles	25.1	Years to replace	
>50 YEARS and >25 YEARS (1973 - 1998)	17.9	miles	24.6	Years to replace	
< 25 YEARS	19.9	miles	27.4	Years to replace	
1% Main of Main	0.725651	miles			
	3831	feet			

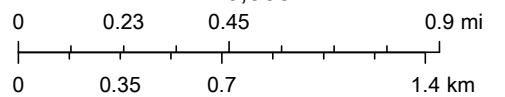
# ArcGIS Web Map



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-  Water Mains
-  Municipal Boundary



Ex.- FAWU - Selle – 3

Fort Atkinson Water Utility  
W-13 Schedule from PSC Report

Ex.-FAWU-Selle-3

### Age of Water Mains

- If asset management, capital improvement, or other infrastructure-related documents are not available, the utility should consult other potential sources of information: the year the utility was formed, year of initial build-out area, year in which new developments, subdivisions, etc. were added. This information can be used to develop estimated figures.
- If pipe diameter value is between those offered in the column, choose the diameter that is closest to the actual value.
- Report all pipe larger than 72" in diameter in the 72" category.

Pipe Size (a)	Feet of Main										Total (l)		
	pre-1900 (b)	1901-1920 (c)	1920-1940 (d)	1941-1960 (e)	1961-1970 (f)	1971-1980 (g)	1981-1990 (h)	1991-2000 (i)	2001-2010 (j)	2011-2020 (k)			
1.000				773	180	155						<b>1,108</b>	1
1.500			721	200	100	200						<b>1,221</b>	2
2.000					2,736		3,500					<b>6,236</b>	3
3.000			1,452									<b>1,452</b>	4
4.000		18,787	16,235	3,500	200	450						<b>39,172</b>	5
6.000		14,619	21,305	27,275	23,180	13,425	10,625	6,250		920		<b>117,599</b>	6
8.000			16,298	4,851	19,573	17,790	6,075	24,150	26,564	4,794		<b>120,095</b>	7
10.000		1,891	5,980	2,870		775	3,975	3,675		1,412		<b>20,578</b>	8
12.000			5,574	680	1,025	625	3,050	4,775	10,045	4,081		<b>29,855</b>	9
16.000							1,754	14,241	15,570			<b>31,565</b>	10
18.000									490			<b>490</b>	11
<b>Total</b>	<b>0</b>	<b>35,297</b>	<b>67,565</b>	<b>40,149</b>	<b>46,994</b>	<b>33,420</b>	<b>28,979</b>	<b>53,091</b>	<b>52,669</b>	<b>11,207</b>		<b>369,371</b>	12

Describe source of information used to develop data:

**Utility was organized in 1901. Information was summarized from current GI system. The accuracy should improve as GIS is continuously updated.**

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## Age of Water Mains

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- If pipe diameter value is between those offered in the column, choose the diameter that is closest to the actual value.
- Report all pipe larger than 72" in diameter in the 72" category.

**Age of Water Mains (Page W-13)**

**General Footnote**

In 2019, installed 1790' of 8" plastic replacing 533' of 6" DI from 1957 and 1257' of 8" DI from 1957.

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Ex.- FAWU - Selle – 4

Fort Atkinson Water Utility  
W-21 Schedule from PSC Report

Ex.-FAWU-Selle-4

## Water Mains

- Report mains separately by pipe material, function, diameter and either within or outside the municipal boundaries.
- Explain all reported adjustments as a schedule footnote.
- For main additions reported in column (e), as a schedule footnote:
  - Explain how the additions were funded.
  - Also report the amount assessed and the feet of main recorded under this method.
  - If installed by a developer, explain the basis of recording the cost of the additions, the total amount, and the feet of main recorded under this method.
- Report all pipe larger than 72" in diameter in the 72" category.

Pipe Material (a)	Main Function (b)	Diameter (inches) (c)	Number of Feet			Adjustments Increase or (Decrease) (g)	End of Year (h)	
			First of Year (d)	Added During Year (e)	Retired During Year (f)			
Other Metal	Distribution	1	1,108				<b>1,108</b>	1
Other Metal	Distribution	1 1/2	1,221				<b>1,221</b>	2
Other Metal	Distribution	2	6,236				<b>6,236</b>	3
Other Metal	Distribution	3	1,452				<b>1,452</b>	4
Other Metal	Distribution	4	39,172				<b>39,172</b>	5
Asbestos-Cement (Transite)	Distribution	6	1,999				<b>1,999</b>	6
Other Metal	Distribution	6	115,533		533		<b>115,000</b>	7
Other Plastic	Distribution	6	600				<b>600</b>	8
Other Metal	Distribution	8	118,442		1,257		<b>117,185</b>	9
Other Plastic	Distribution	8	1,120	1,790			<b>2,910</b>	10
Asbestos-Cement (Transite)	Distribution	10	325				<b>325</b>	11
Other Metal	Distribution	10	20,253				<b>20,253</b>	12
Asbestos-Cement (Transite)	Supply	12	1,000				<b>1,000</b>	13
Other Metal	Distribution	12	28,855				<b>28,855</b>	14
Other Metal	Distribution	16	31,565				<b>31,565</b>	15
Other Plastic	Distribution	18	490				<b>490</b>	16
<b>Total Within Municipality</b>			<b>369,371</b>	<b>1,790</b>	<b>1,790</b>		<b>369,371</b>	17
<b>Total Utility</b>			<b>369,371</b>	<b>1,790</b>	<b>1,790</b>		<b>369,371</b>	18

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## Water Mains

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  - Explain how the additions were funded.
  - Also report the amount assessed and the feet of main recorded under this method.
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- Report all pipe larger than 72" in diameter in the 72" category.

### Water Mains (Page W-21)

**Added During Year total is greater than zero, please explain financing following the criteria listed in the schedule headnotes.**

Additions to mains were financed by utility rates and replaced mains previously contributed by developers.

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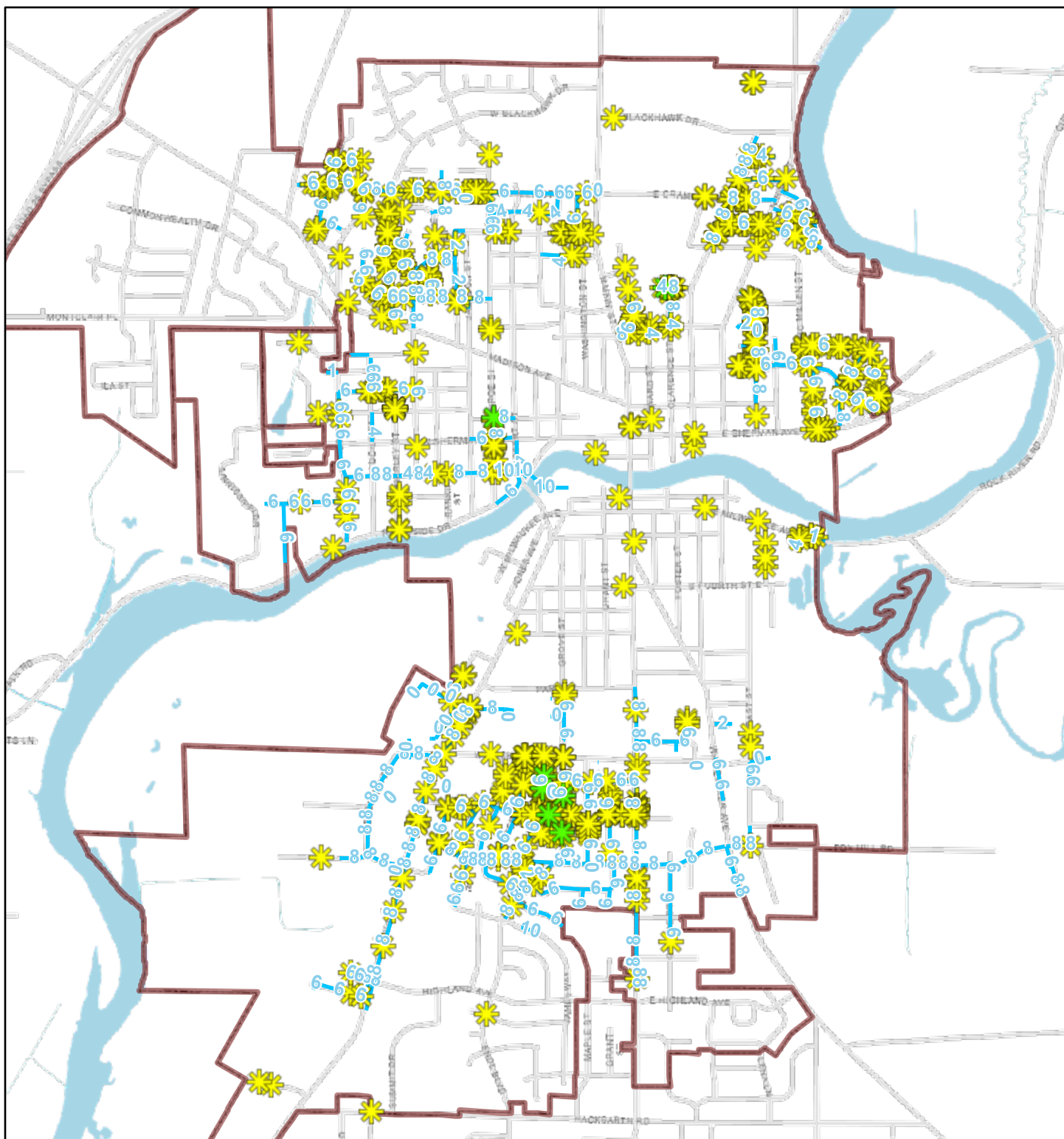
Ex.- FAWU - Selle – 5

Fort Atkinson Water Utility

Map of Main Installed 1942-1972 and ALL Main Breaks 1976-present

Ex.-FAWU-Selle-5

MAIN INSTALLED 1942-1972 IN FORT ATKINSON  
ALL MAIN BREAKS SHOWN 1976-PRESENT



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Water - Main Breaks

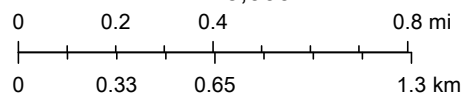
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 MAIN REPLACE

 Water Mains

 Municipal Boundary

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Ex.- FAWU - Selle – 6

Fort Atkinson Water Utility  
10+ Year History of Main Replacement

Ex.-FAWU-Selle-6

**The feet and costs of mains replaced in the last 10 years, broken out by year.**

YEAR	LENGTH	\$/LF WATER*	\$/LF 1/3 ROAD	TOTAL COST	DESCRIPTION	6"	8"	10"	12"	ROAD
2008					NO WATER WORK					
2009	1263	\$ 70.31	\$ 21.92	\$ 92.22	63 FT OF 6" AND 1263 FT OF 8" - TALCOTT / HALCYON. REPLACEMENT MAIN.	\$ 2,851.00	\$ 85,945.00			\$ 83,043.00
2010	286	\$ 87.43	\$ 17.76	\$ 105.19	274 FT OF 8" and 12 FT OF 6". NEW - DEVELOPER FUNDED. MEMORIAL DR EXTENSION. NEW MAIN		\$ 25,005.00			\$ 15,239.00
2011					NO WATER WORK					
2012	1300	\$ 79.08	\$ 20.48	\$ 99.57	106 FT OF 6" AND 1300 FT OF 8". TALCOTT - GROVE TO S MAIN. REPLACEMENT MAIN		\$ 102,807.68			\$ 79,891.00
2013					NO WATER WORK					
2014	5	\$ 613.67	\$ -	\$ 613.67	5 FT OF 8" AND 5 FT OF 6". S MAIN ST		\$ 3,068.37			
2015	1047	\$ 129.58	\$ 9.17	\$ 138.75	69 FT OF 6", 1031 FT OF 8", 16 FT OF 12". SPLIT BETWEEN JAMES PLACE AND METHA LN. BOTH NEW		\$ 123,481.00		\$ 12,191.00	\$ 28,797.00
2016	2050	\$ 109.37	\$ 32.37	\$ 141.74	81 FT OF 6", 2050 FT OF 8", CHARLES ST (REPLACE), WILSON AVE (NEW), TALCOTT AVE (REPLACE).		\$ 224,218.00			\$ 199,066.00
2017					NO WATER WORK					
2018	7270	\$ 92.24	\$ 51.89	\$ 144.14	900 FT 6", 893 FT 8", 1412 FT OF 10", 4065 FT OF 12" - RADLOFF (NEW), ELSIE (REPLACE), DORIS DR (NEW), ROCKWELL (REPLACE)	\$ 70,000.00	\$ 33,117.00	\$ 168,122.00	\$ 399,366.00	\$ 1,131,790.00
2019	1815	\$ 117.74	\$ 61.07	\$ 178.81	CONSTRUCTION JULY 2019 - MESSMER, ROOSEVELT (REPLACE)		\$ 213,700.00			\$ 332,544.00

\*6" MAIN (UNLESS USED FOR STUBS TO EXISTING), HYDRANTS, SERVICES, NOT INCLUDED IN THE COST/LF WATER

     = indicates year of replacement of failed main

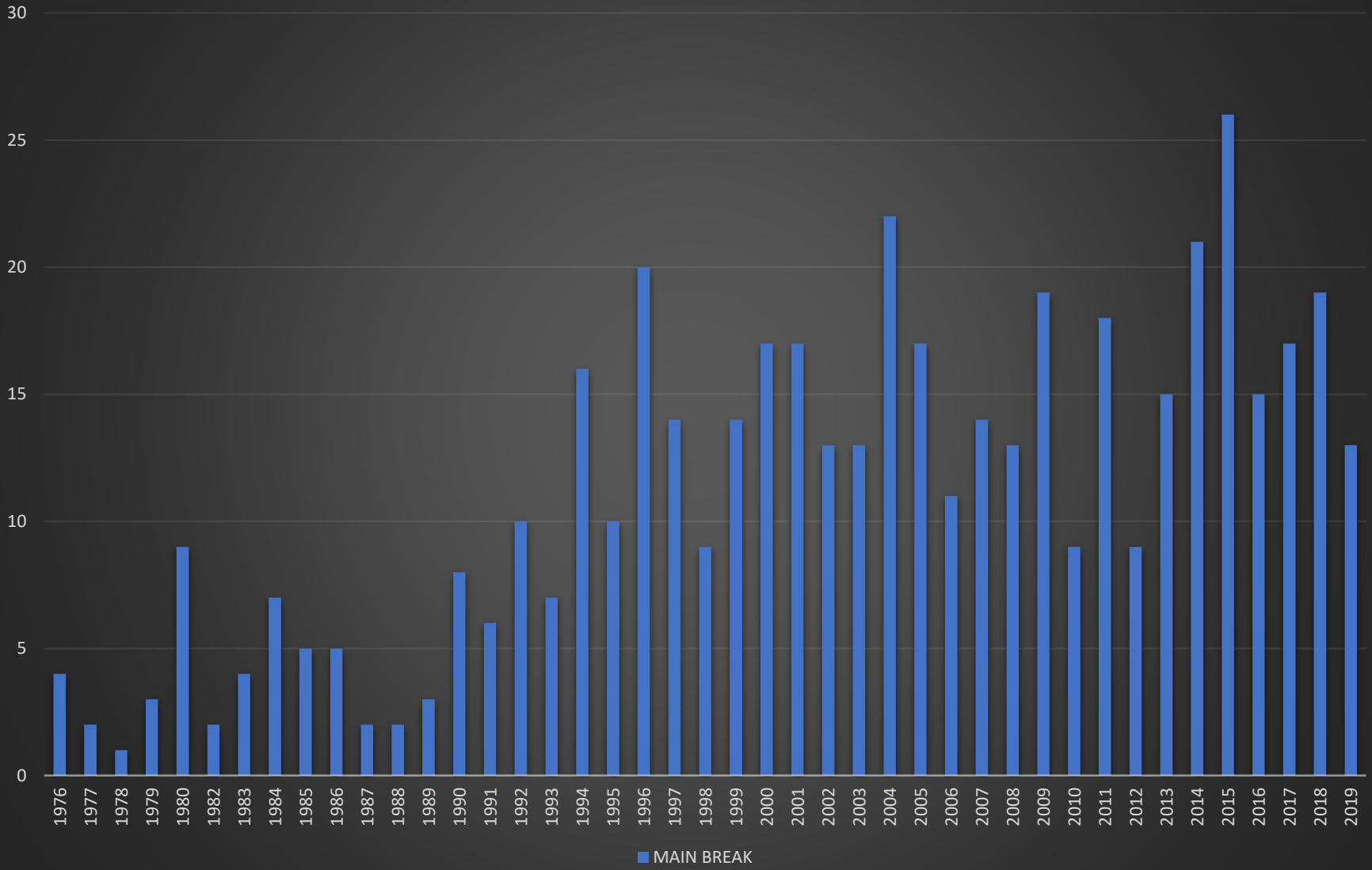
Ex.- FAWU - Selle – 7

Fort Atkinson Water Utility  
Main Breaks in Fort Atkinson 1976 – 2019

Ex.-FAWU-Selle-7



# MAIN BREAKS 1976 - PRESENT



Ex.- FAWU - Selle – 8

Fort Atkinson Water Utility  
DRAFT 10+ Year Main Replacement Plan

Ex.-FAWU-Selle-8

Main Cost/LF	\$ 220.00	LF													
Service/Hydrants/LF	\$ 40.00	LF													
Road (2/3) Cost/LF	\$ 122.00	LF													
YEAR	Street	From	To	LF	Services	PASER	# Breaks	Est Cost Main	Est Cost Serv/Hyd	Est Cost Road	TOTAL		Breakout		
1	Wilcox	High	4th St	1200	13	4	27	\$ 264,000	\$ 48,000	\$ 146,400	\$ 458,400	Main	\$ 801,900.00		
1	Rogers St	High St	Jefferson	645	13	3	10	\$ 141,900	\$ 25,800	\$ 78,690	\$ 246,390	Services	\$ 145,800.00		
1	Florence	ALL		1800	32	4	17	\$ 396,000	\$ 72,000	\$ 219,600	\$ 687,600	Road	\$ 444,690.00		
2	Gail Pl	ALL		530	10	4	14	\$ 116,600	\$ 21,200	\$ 64,660	\$ 202,460	Main	\$ 880,000.00		
2	Grove	Rockwell	Talcott	770	10	7	10	\$ 169,400	\$ 30,800	\$ 93,940	\$ 294,140	Services	\$ 160,000.00		
2	Maple	Talcott	Hilltop	700	13	2	9	\$ 154,000	\$ 28,000	\$ 85,400	\$ 267,400	Road	\$ 488,000.00		
2	Peterson	ALL		800	16	3	8	\$ 176,000	\$ 32,000	\$ 97,600	\$ 305,600				
2	Grant	Spry	Talcott	500	5	2	7	\$ 110,000	\$ 20,000	\$ 61,000	\$ 191,000				
2	Erick	ALL		700	11	2	4	\$ 154,000	\$ 28,000	\$ 85,400	\$ 267,400				
3	Cloute	ALL		1300	21	3	12	\$ 286,000	\$ 52,000	\$ 158,600	\$ 496,600	Main	\$ 679,800.00		
3	Zaffke	Messmer	Caswell	540	6	2	6	\$ 118,800	\$ 21,600	\$ 65,880	\$ 206,280	Services	\$ 123,600.00		
3	Caswell	end	Zafke	1250	18	2	6	\$ 275,000	\$ 50,000	\$ 152,500	\$ 477,500	Road	\$ 376,980.00		
4	White St	ALL		450	6	8	4	\$ 99,000	\$ 18,000	\$ 54,900	\$ 171,900	Main	\$ 668,800.00		
4	Memorial Drive	ALL		1250	13	4	4	\$ 275,000	\$ 50,000	\$ 152,500	\$ 477,500	Services	\$ 121,600.00		
4	McMillen	Sherman	Florence	1340	12	3 and 2	8	\$ 294,800	\$ 53,600	\$ 163,480	\$ 511,880	Road	\$ 370,880.00		
5	E Cramer	Jefferson	High St	700	9	3	9	\$ 154,000	\$ 28,000	\$ 85,400	\$ 267,400	Main	\$ 788,040.00		
5	Clover Ln	ALL		922	10	3	4	\$ 202,840	\$ 36,880	\$ 112,484	\$ 352,204	Services	\$ 143,280.00		
5	Oak St	ALL		1400	11	2	10	\$ 308,000	\$ 56,000	\$ 170,800	\$ 534,800	Road	\$ 437,004.00		
5	Lorman St	ALL		560	3	2	11	\$ 123,200	\$ 22,400	\$ 68,320	\$ 213,920				
6	Jefferson St	White	Hake	1100	6	3	7	\$ 242,000	\$ 44,000	\$ 134,200	\$ 420,200	Main	\$ 712,800.00		
6	McCoy Pk Rd	Laurie	Old MSN Rd	1200	9	4	8	\$ 264,000	\$ 48,000	\$ 146,400	\$ 458,400	Services	\$ 129,600.00		
6	Laurie Dr	ALL		500	13	4	3	\$ 110,000	\$ 20,000	\$ 61,000	\$ 191,000	Road	\$ 395,280.00		
6	Dorian Pl	Blackhawk	Cramer	440	6	2	2	\$ 96,800	\$ 17,600	\$ 53,680	\$ 168,080				
7	S Main St	Spry	Talcott Ct	525	7	4	10	\$ 115,500	\$ 21,000	\$ 64,050	\$ 200,550	Main	\$ 858,000.00		
7	Morrison St	ALL		420	7	2	3	\$ 92,400	\$ 16,800	\$ 51,240	\$ 160,440	Services	\$ 156,000.00		
7	East St	Converse	Bark River Dr	860	16	7	3	\$ 189,200	\$ 34,400	\$ 104,920	\$ 328,520	Road	\$ 475,800.00		
7	Zida	Milwaukee	S 4th St	875	14	6	3	\$ 192,500	\$ 35,000	\$ 106,750	\$ 334,250				
7	Meadow Ct	ALL		255	4	4	3	\$ 56,100	\$ 10,200	\$ 31,110	\$ 97,410				

YEAR	Street	From	To	LF	Services	PASER	# Breaks	Est Cost Main	Est Cost Serv/Hyd	Est Cost Road	TOTAL		Breakout
7	Fireside	ALL		600	4	NA	4	\$ 132,000	\$ 24,000	\$ 73,200	\$ 229,200		
7	E Milwaukee Ave	Meadow Ct	End	365	5	8	3	\$ 80,300	\$ 14,600	\$ 44,530	\$ 139,430		
8	Farmco Ln	ALL		935	2	6	2	\$ 205,700	\$ 37,400	\$ 114,070	\$ 357,170	Main	\$ 784,300.00
8	Jones Ave/8th St	ALL		1120	2	3 and 7	4	\$ 246,400	\$ 44,800	\$ 136,640	\$ 427,840	Services	\$ 142,600.00
8	Halcyon Pl	ALL		450	7	8	4	\$ 99,000	\$ 18,000	\$ 54,900	\$ 171,900	Road	\$ 434,930.00
8	S Main St	Hilltop	Krause	760	8	4	4	\$ 167,200	\$ 30,400	\$ 92,720	\$ 290,320		
8	Adrian	Hilltop	Endl	300	4	4	3	\$ 66,000	\$ 12,000	\$ 36,600	\$ 114,600		
9	Cramer	Banker	Monroe	2900	37	6	13	\$ 638,000	\$ 116,000	\$ 353,800	\$ 1,107,800	Main	\$ 990,000.00
9	Frederick	Monroe	N Main	1600	25	8	10	\$ 352,000	\$ 64,000	\$ 195,200	\$ 611,200	Services	\$ 180,000.00
												Road	\$ 549,000.00
10	Monroe	Barrie	Van Buren	800	9	3 and 8	8	\$ 176,000	\$ 32,000	\$ 97,600	\$ 305,600	Main	\$ 880,000.00
10	Harriette	Roosevelt	Wilson	1150	12	8	7	\$ 253,000	\$ 46,000	\$ 140,300	\$ 439,300	Services	\$ 148,000.00
10	Shirley	Van Ruren	Riverside	800	15	8	5	\$ 176,000	\$ 32,000	\$ 97,600	\$ 305,600	Road	\$ 488,000.00
10	Wilson	ALL		950	20	9	3	\$ 209,000	\$ 38,000	\$ 115,900	\$ 362,900		
10	Shirley	Janette	Harriette	300	6	8	8	\$ 66,000	\$ 12,000	\$ 36,600	\$ 114,600		
11	Janesville Ave	Park	Highland	4500	8	6	17	\$ 990,000	\$ 180,000	\$ 549,000	\$ 1,719,000		

Ex.- FAWU - Selle -9

Fort Atkinson Water Utility  
Costs of Water Main Breaks 2009-2019

Ex.-FAWU-Selle-9

<b>YEAR</b>	<b># BREAKS</b>	<b>TOTAL COST</b>	<b>AVG COST/BREAK</b>	<b>WATER LOSS</b>	<b>COST OF WATER</b>
2009	19	\$ 52,034.00	\$ 2,738.63	1800	\$ 4,259.36
2010	9	\$ 55,524.00	\$ 6,169.33	1000	\$ 2,366.31
2011	18	\$ 67,936.00	\$ 3,774.22	1901	\$ 4,498.36
2012	9	\$ 34,703.00	\$ 3,855.89	1138	\$ 2,692.86
2013	15	\$ 66,501.00	\$ 4,433.40	2111	\$ 4,995.28
2014	21	\$ 97,269.00	\$ 4,631.86	2893	\$ 6,845.74
2015	26	\$ 122,173.00	\$ 4,698.96	1047	\$ 2,477.53
2016	15	\$ 109,058.00	\$ 7,270.53	1976	\$ 4,675.83
2017	17	\$ 78,455.00	\$ 4,615.00	2921	\$ 6,911.99
2018	19	\$ 130,970.00	\$ 6,893.16	4002	\$ 9,469.97
2019	13	\$ 85,570.00	\$ 6,582.31	12500	\$ 29,578.88