



City of Manitowoc

Capital Improvement Project Review
November 7, 2019

Bradley D. Viegut, Managing Director

bviegut@rwbaird.com
777 East Wisconsin Avenue
Milwaukee, WI 53202
Phone 414.765.3827
rwbaird.com/publicfinance

2017 Refunding

City of Manitowoc

Illustration of Refinancing

BEFORE REFINANCING								
Calendar Year	\$8,220,000 G.O. Corporate Purp. Bonds* Dated April 9, 2007			\$2,955,000 G.O. Promissory Notes Dated February 17, 2009			OTHER NET G.O. DEBT SERVICE ⁽²⁾	TOTAL NET G.O. DEBT SERVICE
	PRINCIPAL (2/1)	RATE	INTEREST (2/1 & 8/1)	PRINCIPAL (2/1)	RATE	INTEREST (2/1 & 8/1)		
2017	\$410,000	3.875%	\$24,606	\$155,000	3.000%	\$12,488	\$5,671,782	\$6,273,876
2018	\$430,000	3.875%	\$8,331	\$160,000	3.000%	\$7,763	\$6,344,308	\$6,950,402
2019	+++			\$165,000	3.250%	\$2,681	\$6,933,425	\$7,101,106
2020	+++						\$7,032,936	\$7,032,936
2021	+++						\$6,883,352	\$6,883,352
2022	+++						\$6,215,136	\$6,215,136
2023							\$5,440,844	\$5,440,844
2024							\$3,780,260	\$3,780,260
2025							\$2,849,455	\$2,849,455
2026							\$2,057,803	\$2,057,803
2027							\$588,700	\$588,700
	\$840,000		\$32,938	\$480,000		\$22,931	\$53,798,001	\$55,173,870

Maturities callable 2/1/2017 or any date thereafter.

Maturities callable 2/1/2017 or any date thereafter.

*General Fund Portion only

	CALLABLE MATURITIES
	Partially refunded with 2015 Bonds
	Refunded with 2015 Bonds

(1) Present value calculated using the All Inclusive Cost (AIC) of 2.39% as the discount rate.

(2) Includes bid premium offset of \$120,869 in 2017 from 2016 G.O. Promissory Notes & \$135,805 in 2018 from 2017 G.O. Promissory Notes.

Net of BABs Subsidy reduced by 6.9% in 2017 & 6.6% in 2018. Assumes 6.6% reduction 2019-2025.

2017 Refunding

City of Manitowoc

Illustration of Refinancing

AFTER REFINANCING									
Calendar Year	\$8,220,000 G.O. Corporate Purp. Bonds* Dated April 9, 2007		\$2,955,000 G.O. Promissory Notes Dated February 17, 2009		\$775,000 G.O. Promissory Notes (CR) Dated November 16, 2017		OTHER NET G.O. DEBT SERVICE ⁽²⁾	TOTAL NET G.O. DEBT SERVICE	DEBT SERVICE SAVINGS
	PRINCIPAL (2/1)	INTEREST (2/1 & 8/1)	PRINCIPAL (2/1)	INTEREST (2/1 & 8/1)	PRINCIPAL (2/1)	INTEREST (2/1 & 8/1) TIC= 2.17%			
2017	\$410,000	\$24,606	\$155,000	\$12,488			\$5,671,782	\$6,273,876	\$0
2018	***		***			\$11,672	\$6,344,308	\$6,355,980	\$594,422
2019	+++		***			\$16,478	\$6,933,425	\$6,949,903	\$151,203
2020	+++					\$16,478	\$7,032,936	\$7,049,414	(\$16,478)
2021	+++					\$16,478	\$6,883,352	\$6,899,830	(\$16,478)
2022	+++					\$16,478	\$6,215,136	\$6,231,614	(\$16,478)
2023					\$145,000	\$15,188	\$5,440,844	\$5,601,032	(\$160,188)
2024					\$150,000	\$12,427	\$3,780,260	\$3,942,687	(\$162,427)
2025					\$255,000	\$8,203	\$2,849,455	\$3,112,658	(\$263,203)
2026					\$110,000	\$4,162	\$2,057,803	\$2,171,965	(\$114,162)
2027					\$115,000	\$1,438	\$588,700	\$705,138	(\$116,438)
	\$410,000	\$24,606	\$155,000	\$12,488	\$775,000	\$119,001	\$53,798,001	\$55,294,096	(\$120,226)

*** REFINANCED WITH 2017 ISSUE.

ROUNDING AMOUNT..... \$851
 GROSS SAVINGS (LOSS)..... (\$119,375)

(1) PRESENT VALUE SAVINGS \$..... \$3,175
 (2) PRESENT VALUE SAVINGS %..... 0.421%

2018 Refunding

City of Manitowoc Illustration of Refinancing

BEFORE REFINANCING											
Calendar Year	\$5,600,000 G.O. Corp Purp. Bonds, 2008B Dated June 30, 2008			\$6,225,000 G.O. Corporate Purp. Bonds Dated February 17, 2009			\$1,605,000 G.O. Promissory Notes Dated April 25, 2011			OTHER NET G.O. SERVICE ⁽²⁾	TOTAL NET G.O. DEBT SERVICE
	PRINCIPAL (2/1)	RATE	INTEREST (2/1 & 8/1)	PRINCIPAL (2/1)	RATE	INTEREST (2/1 & 8/1)	PRINCIPAL (2/1)	RATE	INTEREST (2/1 & 8/1)		
2018	\$410,000	4.000%	\$36,000	\$425,000	4.000%	\$64,100	\$190,000	2.350%	\$19,040	\$4,941,676	\$6,085,816
2019	\$420,000	4.000%	\$19,400	\$445,000	4.000%	\$46,700	\$195,000	2.550%	\$14,321	\$5,160,472	\$6,300,894
2020	\$275,000	4.000%	\$5,500	\$460,000	4.000%	\$28,600	\$205,000	2.700%	\$9,068	\$5,596,778	\$6,579,945
2021	+++			\$485,000	4.000%	\$9,700	\$210,000	3.000%	\$3,150	\$5,871,199	\$6,579,049
2022	+++			+++						\$5,988,314	\$5,988,314
2023	+++			+++						\$5,304,454	\$5,304,454
2024				+++						\$3,973,085	\$3,973,085
2025										\$3,143,510	\$3,143,510
2026										\$2,202,512	\$2,202,512
2027										\$705,138	\$705,138
2028											
2029											
	\$1,105,000		\$60,900	\$1,815,000		\$149,100	\$800,000		\$45,579	\$42,887,137	\$46,862,716
	Maturities callable 2/1/2018 or any date thereafter.			Maturities callable 2/1/2019 or any date thereafter.			Maturities callable 2/1/2019 or any date thereafter.				
		CALLABLE MATURITIES									
		Partially refunded with 2015 Bonds									
	+++	Refunded with 2015 Bonds									

2018 Refunding

City of Manitowoc Illustration of Refinancing

AFTER REFINANCING											DEBT SERVICE SAVINGS (COSTS)	Calendar Year		
Calendar Year	\$5,600,000 G.O. Corp Purp. Bonds, 2008B Dated June 30, 2008		\$6,225,000 G.O. Corporate Purp. Bonds Dated February 17, 2009		\$1,605,000 G.O. Promissory Notes Dated April 25, 2011		\$1,760,000 G.O. Refunding Bonds (CR) Dated November 5, 2018			OTHER NET G.O. SERVICE (2)			TOTAL NET G.O. NEW DEBT SERVICE	
		PRINCIPAL (2/1)	INTEREST (2/1 & 8/1)	PRINCIPAL (2/1)	INTEREST (2/1 & 8/1)	PRINCIPAL (2/1)	INTEREST (2/1 & 8/1)	PRINCIPAL (2/1)	INTEREST (2/1 & 8/1)	TOTAL				
2018	\$410,000	\$36,000	\$425,000	\$64,100	\$190,000	\$19,040					\$4,941,676	\$6,085,816	\$0	2018
2019	***		\$445,000	\$27,800	\$195,000	\$11,171		\$54,013	\$54,013	\$5,160,472	\$5,893,456	\$5,877,645	\$407,437	2019
2020	***		***		\$205,000	\$2,768		\$73,100	\$73,100	\$5,596,778	\$5,877,645	\$5,877,645	\$702,300	2020
2021	+++		***		***			\$73,100	\$73,100	\$5,871,199	\$5,944,299	\$5,944,299	\$634,750	2021
2022	+++		+++					\$73,100	\$73,100	\$5,988,314	\$6,061,414	\$6,061,414	(\$73,100)	2022
2023	+++		+++				\$240,000	\$68,300	\$308,300	\$5,304,454	\$5,612,754	\$5,612,754	(\$308,300)	2023
2024			+++				\$245,000	\$58,600	\$303,600	\$3,973,085	\$4,276,685	\$4,276,685	(\$303,600)	2024
2025			+++				\$255,000	\$48,600	\$303,600	\$3,143,510	\$3,447,110	\$3,447,110	(\$303,600)	2025
2026							\$270,000	\$36,750	\$306,750	\$2,202,512	\$2,509,262	\$2,509,262	(\$306,750)	2026
2027							\$285,000	\$24,300	\$309,300	\$705,138	\$1,014,438	\$1,014,438	(\$309,300)	2027
2028							\$290,000	\$12,800	\$302,800		\$302,800	\$302,800	(\$302,800)	2028
2029							\$175,000	\$3,500	\$178,500		\$178,500	\$178,500	(\$178,500)	2029
	\$410,000	\$36,000	\$870,000	\$91,900	\$590,000	\$32,979	\$1,760,000	\$526,163	\$2,286,163	\$42,887,137	\$47,204,179	\$47,204,179	(\$341,463)	

*** REFINANCED WITH 2018 ISSUE.

ROUNDING AMOUNT..... \$1,031
GROSS SAVINGS (LOSS)..... (\$340,432)

(1) PRESENT VALUE SAVINGS..... \$5,930
PV SAVINGS %..... 0.321%

(1) Present value calculated using the AIC of 3.30% as the discount rate. Includes assumed investment earnings at 1.50%.

(2) Includes bid premium offset of \$135,805 in 2018 from 2017 G.O. Promissory Notes. Net of BABs subsidy and offsets provided by the City.

2019 Refunding

City of Manitowoc Illustration of Refinancing

Calendar Year	BEFORE REFINANCING				TOTAL DEBT SERVICE	AFTER REFINANCING						DEBT SERVICE SAVINGS	TID #16 DEBT SERVICE SAVINGS	LEVY DEBT SERVICE SAVINGS	
	\$5,850,000 Taxable G.O. Corp Purp Bonds, 2010A (BABs) Dated February 16, 2010					\$5,850,000 Taxable G.O. Corp Purp Bonds, 2010A (BABs) Dated February 16, 2010			\$2,375,000 G.O. Refunding Bonds (CR) Dated November 12, 2019						TOTAL NEW DEBT SERVICE
	PRINCIPAL (2/1)	RATE	INTEREST (2/1 & 8/1)	BABS SUBSIDY ⁽²⁾ -35%		PRINCIPAL (2/1)	INTEREST (2/1 & 8/1)	BABS SUBSIDY ^(2a) -35%	PRINCIPAL (2/1)	INTEREST (2/1 & 8/1)	TOTAL				
2019	\$420,000	4.150%	\$148,000	(\$48,588)	\$519,412	\$420,000	\$148,000	(\$48,588)				\$519,412	\$0	\$0	\$0
2020	\$435,000	4.450%	\$129,606	(\$42,686)	\$521,920	\$435,000	\$69,643	(\$22,937)		\$42,879	\$42,879	\$524,585	(\$2,664)	(\$1,601)	(\$1,063)
2021	\$455,000	4.650%	\$109,349	(\$36,014)	\$528,335	***			\$385,000	\$55,750	\$440,750	\$440,750	\$87,585	\$75,763	\$11,822
2022	\$465,000	5.000%	\$87,145	(\$28,701)	\$523,444	***			\$385,000	\$48,050	\$433,050	\$433,050	\$90,394	\$78,252	\$12,141
2023	\$480,000	5.000%	\$63,520	(\$20,920)	\$522,600	***			\$395,000	\$40,250	\$435,250	\$435,250	\$87,350	\$75,570	\$11,780
2024	\$500,000	5.000%	\$39,020	(\$12,851)	\$526,169	***			\$405,000	\$30,225	\$435,225	\$435,225	\$90,944	\$77,803	\$13,140
2025	\$520,000	5.100%	\$13,260	(\$4,367)	\$528,893	***			\$415,000	\$17,925	\$432,925	\$432,925	\$95,968	\$79,839	\$16,129
2026									\$75,000	\$10,575	\$85,575	\$85,575	(\$85,575)	(\$85,575)	
2027									\$75,000	\$8,325	\$83,325	\$83,325	(\$83,325)	(\$83,325)	
2028									\$80,000	\$6,000	\$86,000	\$86,000	(\$86,000)	(\$86,000)	
2029									\$80,000	\$3,600	\$83,600	\$83,600	(\$83,600)	(\$83,600)	
2030									\$80,000	\$1,200	\$81,200	\$81,200	(\$81,200)	(\$81,200)	
	<u>\$3,275,000</u>		<u>\$589,900</u>	<u>(\$194,128)</u>	<u>\$3,670,772</u>	<u>\$855,000</u>	<u>\$217,643</u>	<u>(\$71,525)</u>	<u>\$2,375,000</u>	<u>\$264,779</u>	<u>\$2,639,779</u>	<u>\$3,640,896</u>	<u>\$29,876</u>	<u>(\$34,073)</u>	<u>\$63,949</u>

Maturities callable 2/1/20 or any date thereafter.
*** CALLABLE MATURITIES

*** REFINANCED WITH 2019 ISSUE.

(1) Present value calculated using the All Inclusive Cost (AIC) of 2.34% as the discount rate. Inclusive of estimated interest earnings (2.00%).

(2) BABs subsidy reduced by 6.2% in 2019 and 5.9% in 2020 and thereafter (Sequestration).
 (2a) Assumes subsidy is received through 2/1/20.

ROUNDING AMOUNT..... **\$510** **\$1,638** **(\$1,129)**
 GROSS SAVINGS (LOSS)..... **\$30,385** **(\$32,435)** **\$62,820**

⁽¹⁾ PRESENT VALUE SAVINGS \$..... **\$70,409** **\$12,598** **\$57,811**
 PRESENT VALUE SAVINGS %..... **2.909%** **3.073%** **2.876%**

City of Manitowoc Example Financing Plan

New Debt Issued 2019-2022 = \$23,900,000																
2019 - FINAL			2020 ^(B)			2021 ^(B)			2022 ^(B)			FUTURE BORROWINGS (B) (C)	TOTAL DEBT PAYMENTS (Levy Supported) (C)	YEAR DUE	TOTAL PRINCIPAL OUTSTANDING Year End (All G.O. Debt)	
\$5,900,000			\$6,000,000			\$6,000,000			\$6,000,000							
G.O. PROMISSORY NOTES			G.O. PROMISSORY NOTES			G.O. PROMISSORY NOTES			G.O. PROMISSORY NOTES							
Dated September 9, 2019			Dated August 1, 2020			Dated August 1, 2021			Dated August 1, 2022							
(First interest 2/1/20)			(First interest 2/1/21)			(First interest 2/1/22)			(First interest 2/1/23)							
LEVY YEAR	YEAR DUE	EXISTING DEBT	ADDITIONAL OFFSETS	EXISTING DEBT	PRINCIPAL	INTEREST	BID PREMIUM	PRINCIPAL	INTEREST	PRINCIPAL	INTEREST	PRINCIPAL	INTEREST			
		(Net of TID Offsets)	(Provided by City)	(Levy Supported)	(2/1)	(2/1 & 8/1)	(2/1 & 8/1)	(2/1)	(2/1 & 8/1)	(2/1)	(2/1 & 8/1)	(2/1)	(2/1 & 8/1)			
				(A)		TIC=			AVG=		AVG=		AVG=			
						1.84%			3.00%		3.00%		3.00%			
2018	2019	\$7,025,499	(\$922,383)	\$6,080,201												
2019	2020	\$6,787,327	(\$626,068)	\$6,161,259	\$840,000	\$127,690	(\$127,690)									
2020	2021	\$6,701,649	(\$473,715)	\$6,227,934		\$135,350	(\$108,896)	\$575,000	\$171,375							
2021	2022	\$6,697,411	(\$352,338)	\$6,345,072		\$135,350			\$162,750	\$180,000	\$177,300					
2022	2023	\$6,243,933	(\$347,495)	\$5,896,438		\$135,350			\$162,750		\$174,600	\$460,000	\$173,100			
2023	2024	\$5,019,145	(\$12,851)	\$5,006,294	\$790,000	\$123,500			\$162,750		\$174,600	\$435,000	\$159,675	\$150,000	\$6,988,679	2024
2024	2025	\$4,177,613	(\$4,367)	\$4,173,246	\$815,000	\$103,500		\$835,000	\$150,225		\$174,600	\$300,000	\$148,650	\$300,000	\$6,984,092	2025
2025	2026	\$3,238,637		\$3,238,637	\$830,000	\$87,050		\$865,000	\$124,725	\$900,000	\$161,100	\$205,000	\$141,075	\$450,000	\$7,002,587	2026
2026	2027	\$1,741,138		\$1,741,138	\$850,000	\$66,000		\$890,000	\$98,400	\$925,000	\$133,725	\$710,000	\$127,350	\$1,461,875	\$7,003,488	2027
2027	2028	\$1,028,500		\$1,028,500	\$875,000	\$40,125		\$915,000	\$71,325	\$955,000	\$105,525	\$730,000	\$105,750	\$2,176,625	\$7,002,850	2028
2028	2029	\$726,000		\$726,000	\$900,000	\$13,500		\$945,000	\$43,425	\$985,000	\$76,425	\$755,000	\$83,475	\$2,474,450	\$7,002,275	2029
2029	2030	\$547,200		\$547,200				\$975,000	\$14,625	\$1,010,000	\$46,500	\$780,000	\$60,450	\$3,569,200	\$7,002,975	2030
2030	2031	\$546,300		\$546,300						\$1,045,000	\$15,675	\$800,000	\$36,750	\$4,559,775	\$7,003,500	2031
2031	2032	\$544,800		\$544,800								\$825,000	\$12,375	\$5,152,925	\$6,535,100	2032
2032	2033	\$542,700		\$542,700										\$5,990,300	\$6,533,000	2033
2033	2034	\$544,900		\$544,900										\$5,990,300	\$6,535,200	2034
2034	2035	\$546,300		\$546,300										\$5,990,300	\$6,536,600	2035
2035	2036	\$546,900		\$546,900										\$5,990,300	\$6,537,200	2036
2036	2037	\$546,700		\$546,700										\$5,990,300	\$6,537,000	2037
2037	2038	\$545,700		\$545,700										\$5,990,300	\$6,536,000	2038
		\$54,298,351	(\$2,739,218)	\$51,536,218	\$5,900,000	\$967,415	(\$236,586)	\$6,000,000	\$1,162,350	\$6,000,000	\$1,240,050	\$6,000,000	\$1,048,650	\$56,236,650	\$135,790,799	

(A) Bid premium from 2018 issue applied to interest due in 2019. Net of BABs subsidy.
 (B) This information is provided for information purposes only. It does not recommend any future issuances and is not intended to be, and should not be regarded as, advice.
 (C) Assumes \$5,000,000 issued annually. 10 year repayment at 3.00% interest rate.