City of Columbia, Missouri

Sewerage System Revenue Refunding Bonds Series 2020



Term Sheet

Purpose To current refund all of City's Series 2012 Bonds as shown below for economic savings

Tax Status Tax-exempt

Dated/Delivery Date October 8, 2020

Expected Pricing Date September 8, 2020

Call Feature Par call on 10/1/28

Estimated Cost of Issuance \$100,000 fixed cost of issuance plus \$15.00 per bond underwriter's discount

Coupon Payment Dates April 1 and October 1, beginning April 1, 2021

Principal Amortization October 1, 2021 through October 1, 2036

Pricing ScaleBased on current market conditions; however, par pricing is used for purposes of sizing

principal amounts for the offering document

Solution The refunding is structured for level annual savings to the extent possible

Debt Service Reserve Fund

A new debt service reserve account will be funded with bond proceeds at the lesser of (i)

maximum annual debt service (on a fiscal year basis), (ii) 10% of the principal amount issued or (ii) 125% of average annual debt service (on a fiscal year basis) per IRS guidelines. The Series 2012 reserve fund, currently funded at \$550,070.00 will be used as

a source of funds for this financing

Funding of Escrow Gross Funded

Rating Agency S&P Global

City of Columbia, Missouri Sewerage System Revenue Refunding Bonds Series 2020



Refunded Bonds

				Maturity	CUSIP	
Issue	Maturity	Type	Coupon	Value	Number	Redemption
Dated 3/29	9/2012					
2012	10/01/2021	Serial	3.000%	330,000	198054 KJ6	10/9/20
2012	10/01/2022	Serial	2.500%	335,000	198054 KK3	10/9/20
2012	10/01/2023	Serial	2.750%	345,000	198054 KL1	10/9/20
2012	10/01/2024	Serial	3.000%	355,000	198054 KM9	10/9/20
2012	10/01/2025	Serial	3.000%	365,000	198054 KN7	10/9/20
2012	10/01/2026	Serial	3.125%	380,000	198054 KP2	10/9/20
2012	10/01/2027	Serial	3.250%	390,000	198054 KQ0	10/9/20
2012	10/01/2028	Serial	3.300%	405,000	198054 KR8	10/9/20
2012	10/01/2029	Serial	3.375%	415,000	198054 KS6	10/9/20
2012	10/01/2030	Serial	3.500%	430,000	198054 KT4	10/9/20
2012	10/01/2031	Serial	3.500%	445,000	198054 KU1	10/9/20
2012	10/01/2032	Serial	3.500%	460,000	198054 KV9	10/9/20
2012	10/01/2033	Serial	3.625%	480,000	198054 KW7	10/9/20
2012	10/01/2034	Serial	3.625%	495,000	198054 KX5	10/9/20
2012	10/01/2035	Serial	3.700%	515,000	198054 KY3	10/9/20
2012	10/01/2036	Serial	3.750%	535,000	198054 KZ0	10/9/20
Subtotal				\$6,680,000		

City of Columbia, MO Sewerage System Revenue Refunding Bonds, Series 2020 Pro Forma Numbers

Table of Contents

Report

Sources & Uses	1
Debt Service Schedule	2
Gross Debt Service Comparison	5
Pricing Summary	6
Current Refunding Escrow	7
Debt Service To Maturity And To Call	8
Summary Of Bonds Refunded	10

City of Columbia, MO

Sewerage System Revenue Refunding Bonds, Series 2020

Pro Forma Numbers

Sources & Uses

Dated 10/08/2020 | Delivered 10/08/2020

Sources Of Funds

Par Amount of Bonds	\$6,830,000.00
Transfers from Prior Issue DSR Funds	550,070.00
Total Sources	\$7,380,070.00
Uses Of Funds	
Total Underwriter's Discount (1.500%)	102,450.00
Costs of Issuance	100,000.00
Deposit to Debt Service Reserve Fund (DSRF)	488,305.00
Deposit to Current Refunding Fund	6,684,943.78
Rounding Amount	4,371.22
Total Uses	\$7,380,070.00

City of Columbia, MO Sewerage System Revenue Refunding Bonds, Series 2020 Pro Forma Numbers

Debt Service Schedule

Part 1 of 2

Date	Principal	Coupon	Interest	Total P+I
04/01/2021	-	-	45,407.69	45,407.69
10/01/2021	395,000.00	0.600%	47,245.00	442,245.00
04/01/2022	-	-	46,060.00	46,060.00
10/01/2022	390,000.00	0.700%	46,060.00	436,060.00
04/01/2023	-	-	44,695.00	44,695.00
10/01/2023	395,000.00	0.800%	44,695.00	439,695.00
04/01/2024	-	-	43,115.00	43,115.00
10/01/2024	400,000.00	0.950%	43,115.00	443,115.00
04/01/2025	-	-	41,215.00	41,215.00
10/01/2025	405,000.00	1.050%	41,215.00	446,215.00
04/01/2026	-	-	39,088.75	39,088.75
10/01/2026	410,000.00	1.150%	39,088.75	449,088.75
04/01/2027	-	-	36,731.25	36,731.25
10/01/2027	415,000.00	1.250%	36,731.25	451,731.25
04/01/2028	-	-	34,137.50	34,137.50
10/01/2028	420,000.00	1.350%	34,137.50	454,137.50
04/01/2029	-	-	31,302.50	31,302.50
10/01/2029	425,000.00	1.400%	31,302.50	456,302.50
04/01/2030	-	-	28,327.50	28,327.50
10/01/2030	430,000.00	1.550%	28,327.50	458,327.50
04/01/2031	-	-	24,995.00	24,995.00
10/01/2031	435,000.00	1.650%	24,995.00	459,995.00
04/01/2032	-	-	21,406.25	21,406.25
10/01/2032	445,000.00	1.700%	21,406.25	466,406.25
04/01/2033	-	-	17,623.75	17,623.75
10/01/2033	455,000.00	1.750%	17,623.75	472,623.75
04/01/2034	-	-	13,642.50	13,642.50
10/01/2034	460,000.00	1.800%	13,642.50	473,642.50
04/01/2035	-	-	9,502.50	9,502.50
10/01/2035	470,000.00	1.950%	9,502.50	479,502.50
04/01/2036	-	-	4,920.00	4,920.00
10/01/2036	480,000.00	2.050%	4,920.00	484,920.00
Total	\$6,830,000.00	-	\$966,177.69	\$7,796,177.69

Series 2020 Refunding | SINGLE PURPOSE | 7/ 1/2020 | 1:29 PM

Page 2

City of Columbia, MO

Sewerage System Revenue Refunding Bonds, Series 2020

Pro Forma Numbers

Debt Service Schedule

Part 2 of 2

Yield Statistics	
Bond Year Dollars	\$59,912.19
Average Life	8.772 Years
Average Coupon	1.6126562%
Net Interest Cost (NIC)	1.7836564%
True Interest Cost (TIC)	1.7905590%
Bond Yield for Arbitrage Purposes	1.6023831%
All Inclusive Cost (AIC)	1.9781111%
IRS Form 8038	
Net Interest Cost	1.6126562%
Weighted Average Maturity	8.772 Years

Series 2020 Refunding \parallel SINGLE PURPOSE \parallel 7/ 1/2020 \parallel 1:29 PM

City of Columbia, MO Sewerage System Revenue Refunding Bonds, Series 2020 Pro Forma Numbers

Debt Service Schedule

Date	Principal	Coupon	Interest	Total P+I
09/30/2021	-	-	45,407.69	45,407.69
09/30/2022	395,000.00	0.600%	93,305.00	488,305.00
09/30/2023	390,000.00	0.700%	90,755.00	480,755.00
09/30/2024	395,000.00	0.800%	87,810.00	482,810.00
09/30/2025	400,000.00	0.950%	84,330.00	484,330.00
09/30/2026	405,000.00	1.050%	80,303.75	485,303.75
09/30/2027	410,000.00	1.150%	75,820.00	485,820.00
09/30/2028	415,000.00	1.250%	70,868.75	485,868.75
09/30/2029	420,000.00	1.350%	65,440.00	485,440.00
09/30/2030	425,000.00	1.400%	59,630.00	484,630.00
09/30/2031	430,000.00	1.550%	53,322.50	483,322.50
09/30/2032	435,000.00	1.650%	46,401.25	481,401.25
09/30/2033	445,000.00	1.700%	39,030.00	484,030.00
09/30/2034	455,000.00	1.750%	31,266.25	486,266.25
09/30/2035	460,000.00	1.800%	23,145.00	483,145.00
09/30/2036	470,000.00	1.950%	14,422.50	484,422.50
09/30/2037	480,000.00	2.050%	4,920.00	484,920.00
Total	\$6,830,000.00	-	\$966,177.69	\$7,796,177.69

Yield Statistics

Net Interest Cost

Weighted Average Maturity

Bond Year Dollars	\$59,912.19
Average Life	8.772 Years
Average Coupon	1.6126562%
Net Interest Cost (NIC)	1.7836564%
True Interest Cost (TIC)	1.7905590%
Bond Yield for Arbitrage Purposes	1.6023831%
All Inclusive Cost (AIC)	1.9781111%

Series 2020 Refunding | SINGLE PURPOSE | 7/ 1/2020 | 1:29 PM

1.6126562%

8.772 Years

City of Columbia, MO Sewerage System Revenue Refunding Bonds, Series 2020 Pro Forma Numbers

Gross Debt Service Comparison

Date	Principal	Coupon	Interest	New D/S	OLD D/S	Savings
09/30/2021	-	-	45,407.69	45,407.69	111,235.00	65,827.31
09/30/2022	395,000.00	-	93,305.00	488,305.00	547,520.00	59,215.00
09/30/2023	390,000.00	-	90,755.00	480,755.00	543,382.50	62,627.50
09/30/2024	395,000.00	-	87,810.00	482,810.00	544,451.25	61,641.25
09/30/2025	400,000.00	-	84,330.00	484,330.00	544,382.50	60,052.50
09/30/2026	405,000.00	-	80,303.75	485,303.75	543,582.50	58,278.75
09/30/2027	410,000.00	-	75,820.00	485,820.00	547,170.00	61,350.00
09/30/2028	415,000.00	-	70,868.75	485,868.75	544,895.00	59,026.25
09/30/2029	420,000.00	-	65,440.00	485,440.00	546,875.00	61,435.00
09/30/2030	425,000.00	-	59,630.00	484,630.00	543,189.38	58,559.38
09/30/2031	430,000.00	-	53,322.50	483,322.50	543,661.26	60,338.76
09/30/2032	435,000.00	-	46,401.25	481,401.25	543,348.76	61,947.51
09/30/2033	445,000.00	-	39,030.00	484,030.00	542,511.26	58,481.26
09/30/2034	455,000.00	-	31,266.25	486,266.25	545,761.26	59,495.01
09/30/2035	460,000.00	-	23,145.00	483,145.00	543,089.38	59,944.38
09/30/2036	470,000.00	-	14,422.50	484,422.50	544,590.00	60,167.50
09/30/2037	480,000.00	-	4,920.00	484,920.00	545,031.25	60,111.25
Total	\$6,830,000.00	-	\$966,177.69	\$7,796,177.69	\$8,824,676.30	\$1,028,498.61

PV Analysis Summary (Gross to Gross)

Gross PV Debt Service Savings	878,961.63
Transfers from Prior Issue DSR Fund	(550,070.00)
Amount deposited into new DSR Fund	488,305.00
Contingency or Rounding Amount	4,371.22
Net Present Value Benefit	\$821,567.85
Net PV Benefit / \$6,680,000 Refunded Principal	12.299%
Net PV Benefit / \$6,830,000 Refunding Principal	12.029%
Refunding Bond Information	
Refunding Dated Date	10/08/2020
Refunding Delivery Date	10/08/2020

City of Columbia, MO Sewerage System Revenue Refunding Bonds, Series 2020 Pro Forma Numbers

Pricing Summary

Maturity	Type of Bond	Coupon	Yield	Maturity Value	Price	Dollar Price
10/01/2021	Serial Coupon	0.600%	0.600%	395,000.00	100.000%	395,000.00
10/01/2022	Serial Coupon	0.700%	0.700%	390,000.00	100.000%	390,000.00
10/01/2023	Serial Coupon	0.800%	0.800%	395,000.00	100.000%	395,000.00
10/01/2024	Serial Coupon	0.950%	0.950%	400,000.00	100.000%	400,000.00
10/01/2025	Serial Coupon	1.050%	1.050%	405,000.00	100.000%	405,000.00
10/01/2026	Serial Coupon	1.150%	1.150%	410,000.00	100.000%	410,000.00
10/01/2027	Serial Coupon	1.250%	1.250%	415,000.00	100.000%	415,000.00
10/01/2028	Serial Coupon	1.350%	1.350%	420,000.00	100.000%	420,000.00
10/01/2029	Serial Coupon	1.400%	1.400%	425,000.00	100.000%	425,000.00
10/01/2030	Serial Coupon	1.550%	1.550%	430,000.00	100.000%	430,000.00
10/01/2031	Serial Coupon	1.650%	1.650%	435,000.00	100.000%	435,000.00
10/01/2032	Serial Coupon	1.700%	1.700%	445,000.00	100.000%	445,000.00
10/01/2033	Serial Coupon	1.750%	1.750%	455,000.00	100.000%	455,000.00
10/01/2034	Serial Coupon	1.800%	1.800%	460,000.00	100.000%	460,000.00
10/01/2035	Serial Coupon	1.950%	1.950%	470,000.00	100.000%	470,000.00
10/01/2036	Serial Coupon	2.050%	2.050%	480,000.00	100.000%	480,000.00
Total	-	-	-	\$6,830,000.00	-	\$6,830,000.00

Bid Information

Par Amount of Bonds	\$6,830,000.00
Gross Production	\$6,830,000.00
Total Underwriter's Discount (1.500%)	\$(102,450.00)
Bid (98.500%)	6,727,550.00
Total Purchase Price	\$6,727,550.00
Bond Year Dollars	\$59,912.19
Average Life	8.772 Years
Average Coupon	1.6126562%
Net Interest Cost (NIC)	1.7836564%
True Interest Cost (TIC)	1.7905590%

City of Columbia, MO Sewerage System Revenue Refunding Bonds, Series 2020 Pro Forma Numbers

Current Refunding Escrow

Date	Rate	Receipts	Disbursements	Cash Balance
10/08/2020	-	6,684,943.78	-	6,684,943.78
10/09/2020	-	- -	6,684,943.78	-
Total	-	\$6,684,943.78	\$6,684,943.78	-
Investment Para	meters			
Investment Model [PV	V, GIC, or Securities]			Securities
Default investment yi	eld target			Unrestricted
Cash Deposit				6,684,943.78
Total Cost of Investm	ents			\$6,684,943.78
Target Cost of Investr	nents at bond yield			\$6,684,647.42
Actual positive or (ne	gative) arbitrage			(296.36)
Yield to Receipt				-
Yield for Arbitrage Pu	urposes			1.6023831%

Debt Service To Maturity And To Call

Part 1 of 2

Date	Refunded Bonds	Interest to Call	D/S To Call	Principal	Coupon	Interest	Refunded D/S
	Bollus	Call	D/S TO Call	Principal	Coupon	interest	D/3
10/08/2020	-	-	-	-	-	-	-
10/09/2020	6,680,000.00	4,943.78	6,684,943.78	-	-	-	-
04/01/2021	-	-	-	-	.	111,235.00	111,235.00
10/01/2021	-	-	-	330,000.00	3.000%	111,235.00	441,235.00
04/01/2022	-	-	-	-	-	106,285.00	106,285.00
10/01/2022	-	-	-	335,000.00	2.500%	106,285.00	441,285.00
04/01/2023	-	-	-	-	-	102,097.50	102,097.50
10/01/2023	-	-	-	345,000.00	2.750%	102,097.50	447,097.50
04/01/2024	-	-	-	-	-	97,353.75	97,353.75
10/01/2024	-	-	-	355,000.00	3.000%	97,353.75	452,353.75
04/01/2025	-	-	-	-	-	92,028.75	92,028.75
10/01/2025	-	-	-	365,000.00	3.000%	92,028.75	457,028.75
04/01/2026	-	-	-	-	-	86,553.75	86,553.75
10/01/2026	-	-	-	380,000.00	3.125%	86,553.75	466,553.75
04/01/2027	-	-	-	-	-	80,616.25	80,616.25
10/01/2027	-	=	-	390,000.00	3.250%	80,616.25	470,616.25
04/01/2028	-	-	-	-	-	74,278.75	74,278.75
10/01/2028	-	-	-	405,000.00	3.300%	74,278.75	479,278.75
04/01/2029	-	-	-	-	-	67,596.25	67,596.25
10/01/2029	-	-	-	415,000.00	3.375%	67,596.25	482,596.25
04/01/2030	-	-	-	-	-	60,593.13	60,593.13
10/01/2030	-	-	-	430,000.00	3.500%	60,593.13	490,593.13
04/01/2031	-	-	-	-	-	53,068.13	53,068.13
10/01/2031	-	-	-	445,000.00	3.500%	53,068.13	498,068.13
04/01/2032	-	-	-	-	-	45,280.63	45,280.63
10/01/2032	-	-	-	460,000.00	3.500%	45,280.63	505,280.63
04/01/2033	-	-	-	-	-	37,230.63	37,230.63
10/01/2033	-	-	-	480,000.00	3.625%	37,230.63	517,230.63
04/01/2034	-	-	-	-	-	28,530.63	28,530.63
10/01/2034	-	-	-	495,000.00	3.625%	28,530.63	523,530.63
04/01/2035	-	-	-	-	-	19,558.75	19,558.75
10/01/2035	_	-	-	515,000.00	3.700%	19,558.75	534,558.75
04/01/2036	_	-	_	-	_	10,031.25	10,031.25
10/01/2036	-	-	-	535,000.00	3.750%	10,031.25	545,031.25
Total	\$6,680,000.00	\$4,943.78	\$6,684,943.78	\$6,680,000.00	-	\$2,144,676.30	\$8,824,676.30

Series 2012 | SINGLE PURPOSE | 7/ 1/2020 | 1:29 PM

Debt Service To Maturity And To Call

Part 2 of 2

9.177 Year
9.177 Year
3.4913084%
10/08/202
10/08/202

Series 2012 | SINGLE PURPOSE | 7/ 1/2020 | 1:29 PM

City of Columbia, MO Sewerage System Revenue Refunding Bonds, Series 2020 Pro Forma Numbers

Summary Of Bonds Refunded

Issue	Maturity	Туре	of Bond	Coupon	Maturity Value	Call Date	Call Price
Dated 3/29/2012	Delivered 3/29/20						
Series 2012	10/01/2021	Serial	Coupon	3.000%	330,000	10/09/2020	100.000%
Series 2012	10/01/2022	Serial	Coupon	2.500%	335,000	10/09/2020	100.000%
Series 2012	10/01/2023	Serial	Coupon	2.750%	345,000	10/09/2020	100.000%
Series 2012	10/01/2024	Serial	Coupon	3.000%	355,000	10/09/2020	100.000%
Series 2012	10/01/2025	Serial	Coupon	3.000%	365,000	10/09/2020	100.000%
Series 2012	10/01/2026	Serial	Coupon	3.125%	380,000	10/09/2020	100.000%
Series 2012	10/01/2027	Serial	Coupon	3.250%	390,000	10/09/2020	100.000%
Series 2012	10/01/2028	Serial	Coupon	3.300%	405,000	10/09/2020	100.000%
Series 2012	10/01/2029	Serial	Coupon	3.375%	415,000	10/09/2020	100.000%
Series 2012	10/01/2030	Serial	Coupon	3.500%	430,000	10/09/2020	100.000%
Series 2012	10/01/2031	Serial	Coupon	3.500%	445,000	10/09/2020	100.000%
Series 2012	10/01/2032	Serial	Coupon	3.500%	460,000	10/09/2020	100.000%
Series 2012	10/01/2033	Serial	Coupon	3.625%	480,000	10/09/2020	100.000%
Series 2012	10/01/2034	Serial	Coupon	3.625%	495,000	10/09/2020	100.000%
Series 2012	10/01/2035	Serial	Coupon	3.700%	515,000	10/09/2020	100.000%
Series 2012	10/01/2036	Serial	Coupon	3.750%	535,000	10/09/2020	100.000%
Subtotal	-			-	\$6,680,000	-	_
Total	-			-	\$6,680,000	-	_