City of Carroll, Iowa

General Obligation Bonding Scenarios

PFM Financial Advisors LLC
801 Grand Avenue, Suite 3300
Des Moines, IA 50309

Susanne Gerlach
(515) 724-5734
E-mail: gerlachs@pfm.com

November 29, 2018

Summary of Bonding Options

Scenario	Year Issued	Term	Par Amount of Bonds	Total Interest	Total Debt Service	Maximum Levy Rate
Scenario 1a - Street Maint. Bldg & 2023 Rec Center	Series	Years	$ 11,865,000	$ 5,216,748	$ 17,081,748	$1.80
Street Maintenance Building & Fire Truck	Series 2019A	3.8	$ 1,140,000	$ 90,550	$ 1,230,550	$1.80
Rec Center Pool & Locker Room Improvements	Series 2023A	17.4	$ 10,725,000	$ 5,126,198	$ 15,851,198	$1.80
Scenario 1b - Street Imprvmt. & 2023 Rec Center	Series	Years	$ 12,170,000	$ 5,219,807	$ 17,389,807	$1.80
Street Improvements & Fire Truck	Series 2019A	4.8	$ 1,445,000	$ 139,239	$ 1,584,239	$1.80
Rec Center Pool, Locker Room & East Side Gym Improvements	Series 2023A	17.1	$ 10,725,000	$ 5,080,568	$ 15,805,568	$1.80
Scenario 2a - Street Maint. Bldg & 2021 Rec Center	Series	Years	$ 11,475,000	$ 4,509,862	$ 15,984,862	$1.80
Street Maintenance Building & Fire Truck	Series 2019A	3.8	$ 1,140,000	$ 90,550	$ 1,230,550	$1.80
Rec Center Pool & Locker Room Improvements	Series 2021A	16.7	$ 10,335,000	$ 4,419,312	$ 14,754,312	$1.80
Scenario 2b - Street Imprvmt. & 2021 Rec Center	Series	Years	$ 11,825,000	$ 4,664,476	$ 16,489,476	$1.80
Street Improvements & Fire Truck	Series 2019A	4.8	$ 1,445,000	$ 143,658	$ 1,588,658	$1.80
Rec Center Pool, Locker Room & East Side Gym Improvements	Series 2021A	16.7	$ 10,380,000	$ 4,520,818	$ 14,900,818	$1.80

Original Scenarios from February 2018

Scenario	Year Issued	Term	Par Amount of Bonds	Total Interest	Total Debt Service	Maximum Levy Rate
Scenario 4 - 2021 Rec Center (Without Gym)	Series	Years	$ 8,760,000	$ 3,963,752	$ 12,723,752	$1.76
Street Maintenance Building & Fire Truck	Series 2019A	5.7	$ 1,120,000	$ 138,266	$ 1,258,266	$1.76
Rec Center Pool & Locker Room	Series 2021A	19.1	$ 7,640,000	$ 3,825,486	$ 11,465,486	$1.76
Scenario 5a - $1.80 Tax Rate (2021 Rec & Gym)	Series	Years	$ 10,850,000	$ 4,450,902	$ 15,300,902	$1.80
Street Maintenance Building & Fire Truck	Series 2019A	5.7	$ 1,120,000	$ 138,266	$ 1,258,266	$1.80
Rec Center Pool, Locker Room & East Side Gym Improvements	Series 2021A	17.1	$ 9,730,000	$ 4,312,636	$ 14,042,636	$1.80

Scenario 1a:

Assumes $1.80 Max Tax Rate & 2023 Rec Center Bonds

- 2019A Bonds – Street Maintenance Building & Fire Truck
- 2023A Bonds – Rec Center Pool, Locker Room & East Gym Improvements

© PFM

CITY OF CARROLL, IOWA

Projection of Debt Service Levy & Tax Rate Impact

EXHIBIT 1a

$1.80 Maximum Tax Rate
Street Maintenance Garage & Firetruck
Rec Center, Locker Rooms & East Gym in 2023

TAX RATE IMPACT	
Fiscal Year 2018-19	($0.40)
Fiscal Year 2019-20	$0.92
Fiscal Year 2020-21	$0.00
Fiscal Year 2021-22	$0.01

					Abatements				*CIP*	*CIP*	*Ref & Streets*	*Adv Ref 2008*	*CIP*	*CIP*	*CIP*	*Library & CIP*	*Str Mnt Gar Fire Truck*	*East Gym** Rec Pool** Rec Addn***					
									Outstanding Debt Issues								Proposed	Proposed					
Fiscal Year Payable	Total Tax Valuation	Taxable Value Growth	Tax Rate Per $1,000	Current Taxes Levied	LOST Revenues	(1) 2006 Ashwood TIF	Other Sources	TOTAL Resources	GO Series 2008	GO Series 2010A/13	GO Series 2014	GO Series 2015A	GO Series 2016A	GO Series 2016B	GO Note 2018A	GO Bonds 2018B	GO Bonds 2019A	GO Series 2023A	Fiscal Fees	Other Uses	TOTAL Uses	Surplus (Deficit)	Ending Balance
2015 - 2016	505,407,544	(0.9%)	1.28846	651,197	399,730 *	34,318	35,328	1,120,573	170,953	236,293	308,848	0	386,070						2,500	1,746,128	2,850,790	(1,730,217)	95,412
2016 - 2017	507,314,135	0.4%	1.28762	653,228	352,736 *	32,207	21,996	1,060,167			312,170	179,990	268,933	298,745					2,500		1,062,337	(2,169)	93,243
2017 - 2018	515,496,419	1.6%	1.28014	659,908	379,255 *	32,731	27,508	1,099,402				283,828	262,210	340,058	210,280				3,000	(29,210)	1,070,165	29,237	122,480
2018 - 2019	550,295,467	6.8%	0.87898	483,699	400,694 *	32,552	52,302	969,247				281,228		292,223		397,035			1,500		971,985	(2,739)	119,741
2019 - 2020	558,935,984	1.6%	1.80083	1,006,550	373,802 *	32,552		1,412,904				282,978		294,523		529,360	304,044		2,000		1,412,904		119,741
2020 - 2021	553,099,286	(1.0%)	1.80275	997,099	374,302 *	32,552		1,403,953				284,400		291,498		526,295	299,761		2,000		1,403,953		119,741
2021 - 2022	562,014,460	1.6%	1.80933	1,016,870	374,302 *	32,552		1,423,724				290,080		298,060		532,895	300,689		2,000		1,423,724		119,741
2022 - 2023	555,140,897	(1.2%)	1.79297	995,351	374,302 *	32,552		1,402,205				285,180		299,070		323,825	326,057	166,073	2,000		1,402,205		119,741
2023 - 2024	563,058,293	1.4%	1.79493	1,010,649	374,302 *	32,552		1,417,503						299,720		326,288		789,495	2,000		1,417,503		119,741
2024 - 2025	555,365,189	(1.4%)	1.53181	850,712	374,302 *	32,552		1,257,566								323,415		932,651	1,500		1,257,566		119,741
2025 - 2026	560,909,132	1.0%	1.53150	859,030	374,302 *	32,552		1,265,884								325,375		939,509	1,000		1,265,884		119,741
2026 - 2027	566,518,224	1.0%	1.52890	866,152	374,302 *	32,552		1,273,006								327,000		945,006	1,000		1,273,006		119,741
2027 - 2028	572,183,406	1.0%	1.52773	874,142	374,302 *	0		1,248,444								323,290		924,154	1,000		1,248,444		119,741
2028 - 2029	577,905,240	1.0%	1.52109	879,049	374,302 *			1,253,351								324,413		927,938	1,000		1,253,351		119,741
2029 - 2030	583,684,292	1.0%	1.51147	882,219	374,302 *			1,256,521								325,200		930,321	1,000		1,256,521		119,741
2030 - 2031	589,521,135	1.0%	1.49887	883,617	374,302 *			1,257,919								325,653		931,267	1,000		1,257,919		119,741
2031 - 2032	595,416,347	1.0%	1.48325	883,150	374,302 *			1,257,452								325,770		930,682	1,000		1,257,452		119,741
2032 - 2033	601,370,510	1.0%	1.46461	880,776	374,302 *			1,255,078								325,553		928,526	1,000		1,255,078		119,741
2033 - 2034	607,384,215	1.0%	0.91533	555,957	374,302 *			930,259										929,759	500		930,259		119,741
2034 - 2035	613,458,057	1.0%	0.90533	555,379	374,302 *			929,681										929,181	500		929,681		119,741
2035 - 2036	619,592,638	1.0%	0.90062	558,020	374,302 *			932,322										931,822	500		932,322		119,741
2036 - 2037	625,788,564	1.0%	0.88478	553,684	374,302 *			927,986										927,486	500		927,986		119,741
2037 - 2038	632,046,450	1.0%	0.88229	557,648	374,302 *			931,950										931,450	500		931,950		119,741
2038 - 2039	638,366,915	1.0%	0.86836	554,335	374,302 *			928,637										928,137	500		928,637		119,741
2039 - 2040	644,750,584	1.0%	0.85916	553,944	374,302 *			928,246										927,746	500		928,246		119,741
																	1,230,550	15,851,198					

* - Reflects the 25% local option sales tax receipts plus some excess of the 75% portion.

** - Project is subject to voter approval.

(1) Incorporated TIF revenue from the Urban Renewal Area to abate a portion of the $515,000 General Obligation Capital Loan Notes, Series 2006

City of Carroll, Iowa

Proposed General Obligation Bonds, Series 2019A

EXHIBIT 2a

Street Maintenance Garage & Fire Truck

SOURCES & USES

SOURCES	
Par Amount of Bonds	1,140,000.00
Accrued Interest	
Other Monies	
Total Sources	1,140,000.00
USES	
Deposit to Construction Account	1,100,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($7.50 per bond)	8,550.00
Costs of Issuance	31,000.00
Accrued Interest	
Rounding Amount	450.00
Total Uses	1,140,000.00
ASSUMPTIONS	
Dated Date	9/1/2019
Delivery Date	9/1/2019
First Interest Date	6/1/2020
First Principal Date	6/1/2020
Last Principal Date	6/1/2023

Arbitrage Yield	3.43682%
TIC	3.78220%
AIC	5.06768%
Average Life	2.31 Years

PROJECTS FINANCED:	
Street Maintenance Garage	$ 700,000
Fire Truck	400,000
Reserved	-
Reserved	-
	$ 1,100,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
0.75	6/1/2020	275,000	3.260%	29,044	304,044	304,044
	12/1/2020			14,880	14,880	
1.75	6/1/2021	270,000	3.360%	14,880	284,880	299,761
	12/1/2021			10,344	10,344	
2.75	6/1/2022	280,000	3.440%	10,344	290,344	300,689
	12/1/2022			5,528	5,528	
3.75	6/1/2023	315,000	3.510%	5,528	320,528	326,057
	12/1/2023					
4.75	6/1/2024					
	12/1/2024					
5.75	6/1/2025					
	12/1/2025					
6.75	6/1/2026					
	12/1/2026					
7.75	6/1/2027					
	12/1/2027					
8.75	6/1/2028					
	12/1/2028					
9.75	6/1/2029					
	12/1/2029					
10.75	6/1/2030					
	12/1/2030					
11.75	6/1/2031					
	12/1/2031					
12.75	6/1/2032					
	12/1/2032					
13.75	6/1/2033					
	12/1/2033					
14.75	6/1/2034					
	12/1/2034					
15.75	6/1/2035					
	12/1/2035					
16.75	6/1/2036					
	12/1/2036					
17.75	6/1/2037					
	12/1/2037					
18.75	6/1/2038					
	12/1/2038					
19.75	6/1/2039					
	12/1/2039					
		1,140,000		90,550	1,230,550	1,230,550

Scale : MMD Aaa as of 11-26-2018 + NR/BQ credit + 100 bps timing.

City of Carroll, Iowa

Proposed G. O. Capital Loan Notes, Series 2023A

EXHIBIT 3a

Recreation Center Pool, Locker Rooms & East Side Gym

SOURCES & USES

SOURCES	
Par Amount of Bonds	10,725,000.00
Accrued Interest	
Premium	
Total Sources	10,725,000.00
USES	
Deposit to Construction Account	10,535,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($12.50 per bond)	134,062.50
Costs of Issuance	52,000.00
Accrued Interest	
Rounding Amount	3,937.50
Total Uses	10,725,000.00
ASSUMPTIONS	
Dated Date	1/25/2023
Delivery Date	1/25/2023
First Interest Date	6/1/2023
First Principal Date	6/1/2024
Last Principal Date	6/1/2040

Arbitrage Yield	4.54790%
TIC	4.70635%
AIC	4.76857%
Average Life	10.46 Years

PROJECTS FINANCED:

Rec Cntr Pool, Locker Rooms & E Gym	$ 10,535,000
Reserved	-
Reserved	-
Reserved	-
	$ 10,535,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
0.35	6/1/2023			166,073	166,073	166,073
	12/1/2023			237,248	237,248	
1.35	6/1/2024	315,000	3.760%	237,248	552,248	789,495
	12/1/2024			231,326	231,326	
2.35	6/1/2025	470,000	3.860%	231,326	701,326	932,651
	12/1/2025			222,255	222,255	
3.35	6/1/2026	495,000	3.940%	222,255	717,255	939,509
	12/1/2026			212,503	212,503	
4.35	6/1/2027	520,000	4.010%	212,503	732,503	945,006
	12/1/2027			202,077	202,077	
5.35	6/1/2028	520,000	4.080%	202,077	722,077	924,154
	12/1/2028			191,469	191,469	
6.35	6/1/2029	545,000	4.150%	191,469	736,469	927,938
	12/1/2029			180,160	180,160	
7.35	6/1/2030	570,000	4.220%	180,160	750,160	930,321
	12/1/2030			168,133	168,133	
8.35	6/1/2031	595,000	4.300%	168,133	763,133	931,267
	12/1/2031			155,341	155,341	
9.35	6/1/2032	620,000	4.380%	155,341	775,341	930,682
	12/1/2032			141,763	141,763	
10.35	6/1/2033	645,000	4.460%	141,763	786,763	928,526
	12/1/2033			127,379	127,379	
11.35	6/1/2034	675,000	4.530%	127,379	802,379	929,759
	12/1/2034			112,091	112,091	
12.35	6/1/2035	705,000	4.590%	112,091	817,091	929,181
	12/1/2035			95,911	95,911	
13.35	6/1/2036	740,000	4.640%	95,911	835,911	931,822
	12/1/2036			78,743	78,743	
14.35	6/1/2037	770,000	4.680%	78,743	848,743	927,486
	12/1/2037			60,725	60,725	
15.35	6/1/2038	810,000	4.730%	60,725	870,725	931,450
	12/1/2038			41,568	41,568	
16.35	6/1/2039	845,000	4.780%	41,568	886,568	928,137
	12/1/2039			21,373	21,373	
17.35	6/1/2040	885,000	4.830%	21,373	906,373	927,746
	12/1/2040					
18.35	6/1/2041					
	12/1/2041					
19.35	6/1/2042					
	12/1/2042					
		10,725,000		5,126,198	15,851,198	15,851,198

Scale : MMD Aaa as of 10-03-2018 + 35 bps for credit (Aa2/BQ) + 150 bps for timing.

City of Carroll, Iowa

Projection of G.O. Debt Capacity

EXHIBIT 4a

$1.80 Maximum Tax Rate

Valuation Growth & Debt Limit Assumptions	
Legal Debt Limit	5.00%
Effective Limit	4.00%

Updated: 26-Nov-18

Beginning of Fiscal Year	Actual Valuation	Historical Valuation Growth	Gross Debt Limit	Effective Debt Limit	DEBT ISSUES SUBJECT TO DEBT LIMIT * G.O. - TAXES -	G.O. - TIF -	Sales Tax Bonds	*Str Mnt Gar Fire Truck* Proposed GO Bonds 2019A	*East Gym** Rec Pool** Rec Addn**</br>Proposed GO Bonds 2023A	TOTAL G.O. DEBT OUTST'NDG	Available Effective Capacity	% of Legal Limit Utilized	Beginning of Fiscal Year
2015 - 2016	757,631,838	0.7%	37,881,592	30,305,274	3,630,000					3,630,000	26,675,274	9.58%	2015
2016 - 2017	775,612,596	2.4%	38,780,630	31,024,504	8,380,000					8,380,000	22,644,504	21.61%	2016
2017 - 2018	781,063,284	0.7%	39,053,164	31,242,531	4,090,000					4,090,000	27,152,531	10.47%	2017
2018 - 2019	846,719,429	8.4%	42,335,971	33,868,777	7,520,000					7,520,000	26,348,777	17.76%	2018
2019 - 2020	850,584,226	0.5%	42,529,211	34,023,369	6,675,000			1,140,000		7,815,000	26,208,369	18.38%	2019
2020 - 2021	854,468,347	0.5%	42,723,417	34,178,734	5,745,000			865,000		6,610,000	27,568,734	15.47%	2020
2021 - 2022	858,371,889	0.5%	42,918,594	34,334,876	4,800,000			595,000		5,395,000	28,939,876	12.57%	2021
2022 - 2023	862,294,948	0.5%	43,114,747	34,491,798	3,815,000			315,000		4,130,000	30,361,798	9.58%	2022
2023 - 2024	866,237,622	0.5%	43,311,881	34,649,505	3,020,000				10,725,000	13,745,000	20,904,505	31.73%	2023
2024 - 2025	870,200,010	0.5%	43,510,001	34,808,000	2,490,000				10,410,000	12,900,000	21,908,000	29.65%	2024
2025 - 2026	874,182,210	0.5%	43,709,111	34,967,288	2,250,000				9,940,000	12,190,000	22,777,288	27.89%	2025
2026 - 2027	874,182,210		43,709,111	34,967,288	2,000,000				9,445,000	11,445,000	23,522,288	26.18%	2026
2027 - 2028	874,182,210		43,709,111	34,967,288	1,740,000				8,925,000	10,665,000	24,302,288	24.40%	2027
2028 - 2029	874,182,210		43,709,111	34,967,288	1,475,000				8,405,000	9,880,000	25,087,288	22.60%	2028
2029 - 2030	874,182,210		43,709,111	34,967,288	1,200,000				7,860,000	9,060,000	25,907,288	20.73%	2029
2030 - 2031	874,182,210		43,709,111	34,967,288	915,000				7,290,000	8,205,000	26,762,288	18.77%	2030
2031 - 2032	874,182,210		43,709,111	34,967,288	620,000				6,695,000	7,315,000	27,652,288	16.74%	2031
2032 - 2033	874,182,210		43,709,111	34,967,288	315,000				6,075,000	6,390,000	28,577,288	14.62%	2032
2033 - 2034	874,182,210		43,709,111	34,967,288					5,430,000	5,430,000	29,537,288	12.42%	2033
2034 - 2035	874,182,210		43,709,111	34,967,288					4,755,000	4,755,000	30,212,288	10.88%	2034
2035 - 2036	874,182,210		43,709,111	34,967,288					4,050,000	4,050,000	30,917,288	9.27%	2035
2036 - 2037	874,182,210		43,709,111	34,967,288					3,310,000	3,310,000	31,657,288	7.57%	2036
2037 - 2038	874,182,210		43,709,111	34,967,288					2,540,000	2,540,000	32,427,288	5.81%	2037
2038 - 2039	874,182,210		43,709,111	34,967,288					1,730,000	1,730,000	33,237,288	3.96%	2038
2039 - 2040	874,182,210		43,709,111	34,967,288					885,000	885,000	34,082,288	2.02%	2039

*** - Represents G.O. principal outstanding as of the BEGINNING of the fiscal year.**
**** - Project is subject to voter approval.**

Scenario 1b:

Assumes $1.80 Max Tax Rate & 2023 Rec Center Bonds

- 2019A Bonds – Street Improvements & Fire Truck
- 2023A Bonds – Rec Center Pool, Locker Room & East Gym Improvements

© PFM

CITY OF CARROLL, IOWA

Projection of Debt Service Levy & Tax Rate Impact

EXHIBIT 1b

$1.80 Maximum Tax Rate
Street Improvements & Firetruck
Rec Center, Locker Rooms & East Gym in 2023

TAX RATE IMPACT	
Fiscal Year 2018-19	($0.40)
Fiscal Year 2019-20	$0.93
Fiscal Year 2020-21	($0.00)
Fiscal Year 2021-22	($0.00)

Fiscal Year Payable	Total Tax Valuation	Taxable Value Growth	Tax Rate Per $1,000	Current Taxes Levied	Abatements: LOST Revenues	Abatements: (1) 2006 Ashwood TIF	Other Sources	TOTAL Resources	Outstanding Debt Issues: GO Series 2008 (CIP)	GO Series 2010A/13 (CIP)	GO Series 2014 (Ref & Streets)	GO Series 2015A (Adv Ref 2008)	GO Series 2016A (CIP)	GO Series 2016B (CIP)	GO Note 2018A (CIP)	GO Bonds 2018B (Library & CIP)	Proposed GO Bonds 2019A (Str Imprvmt Fire Truck)	Proposed GO Series 2023A (East Gym** Rec Pool** Rec Addn**)	Fiscal Fees	Other Uses	TOTAL Uses	Surplus (Deficit)	Ending Balance
2015 - 2016	505,407,544	(0.9%)	1.28846	651,197	399,730 *	34,318	35,328	1,120,573	170,953	236,293	308,848	0	386,070						2,500	1,746,128	2,850,790	(1,730,217)	95,412
2016 - 2017	507,314,135	0.4%	1.28762	653,228	352,736 *	32,207	21,996	1,060,167			312,170	179,990	268,933	298,745					2,500		1,062,337	(2,169)	93,243
2017 - 2018	515,496,419	1.6%	1.28014	659,908	379,255 *	32,731	27,508	1,099,402				283,828	262,210	340,058	210,280				3,000	(29,210)	1,070,165	29,237	122,480
2018 - 2019	550,295,467	6.8%	0.87898	483,699	400,694 *	32,552	52,302	969,247				281,228		292,223		397,035			1,500		971,985	(2,739)	119,741
2019 - 2020	558,935,984	1.6%	1.80647	1,009,700	373,802 *	32,552		1,416,054				282,978		294,523		529,360	307,194		2,000		1,416,054		119,741
2020 - 2021	553,099,286	(1.0%)	1.80461	998,128	374,302 *	32,552		1,404,982				284,400		291,498		526,295	300,790		2,000		1,404,982		119,741
2021 - 2022	562,014,460	1.6%	1.80286	1,013,235	374,302 *	32,552		1,420,089				290,080		298,060		532,895	297,054		2,000		1,420,089		119,741
2022 - 2023	555,140,897	(1.2%)	1.80343	1,001,159	374,302 *	32,552		1,408,013				285,180		299,070		323,825	497,938		2,000		1,408,013		119,741
2023 - 2024	563,058,293	1.4%	1.80771	1,017,847	374,302 *	32,552		1,424,701						299,720		326,288	181,265	615,429	2,000		1,424,701		119,741
2024 - 2025	555,365,189	(1.4%)	1.58469	880,082	374,302 *	32,552		1,286,936								323,415		962,021	1,500		1,286,936		119,741
2025 - 2026	560,909,132	1.0%	1.58248	887,628	374,302 *	32,552		1,294,482								325,375		968,107	1,000		1,294,482		119,741
2026 - 2027	566,518,224	1.0%	1.56917	888,962	374,302 *	32,552		1,295,816								327,000		967,816	1,000		1,295,816		119,741
2027 - 2028	572,183,406	1.0%	1.56654	896,350	374,302 *	0		1,270,652								323,290		946,362	1,000		1,270,652		119,741
2028 - 2029	577,905,240	1.0%	1.54981	895,645	374,302 *			1,269,947								324,413		944,534	1,000		1,269,947		119,741
2029 - 2030	583,684,292	1.0%	1.53919	898,400	374,302 *			1,272,702								325,200		946,502	1,000		1,272,702		119,741
2030 - 2031	589,521,135	1.0%	1.52560	899,376	374,302 *			1,273,678								325,653		947,026	1,000		1,273,678		119,741
2031 - 2032	595,416,347	1.0%	1.50899	898,479	374,302 *			1,272,781								325,770		946,011	1,000		1,272,781		119,741
2032 - 2033	601,370,510	1.0%	1.49769	900,667	374,302 *			1,274,969								325,553		948,417	1,000		1,274,969		119,741
2033 - 2034	607,384,215	1.0%	0.93874	570,179	374,302 *			944,481										943,981	500		944,481		119,741
2034 - 2035	613,458,057	1.0%	0.93592	574,148	374,302 *			948,450										947,950	500		948,450		119,741
2035 - 2036	619,592,638	1.0%	0.92173	571,100	374,302 *			945,402										944,902	500		945,402		119,741
2036 - 2037	625,788,564	1.0%	0.91293	571,300	374,302 *			945,602										945,102	500		945,602		119,741
2037 - 2038	632,046,450	1.0%	0.90114	569,562	374,302 *			943,864										943,364	500		943,864		119,741
2038 - 2039	638,366,915	1.0%	0.89412	570,776	374,302 *			945,078										944,578	500		945,078		119,741
2039 - 2040	644,750,584	1.0%	0.88355	569,668	374,302 *			943,970										943,470	500		943,970		119,741
																	1,584,239	15,805,568					

* - Reflects the 25% local option sales tax receipts plus some excess of the 75% portion.

** - Project is subject to voter approval.

(1) Incorporated TIF revenue from the Urban Renewal Area to abate a portion of the $515,000 General Obligation Capital Loan Notes, Series 2006

City of Carroll, Iowa

Proposed General Obligation Bonds, Series 2019A

EXHIBIT 2b

Street Improvements & Fire Truck

SOURCES & USES

SOURCES	
Par Amount of Bonds	1,445,000.00
Accrued Interest	
Other Monies	
Total Sources	1,445,000.00
USES	
Deposit to Construction Account	1,400,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($7.50 per bond)	10,837.50
Costs of Issuance	31,000.00
Accrued Interest	
Rounding Amount	3,162.50
Total Uses	1,445,000.00
ASSUMPTIONS	
Dated Date	9/1/2019
Delivery Date	9/1/2019
First Interest Date	6/1/2020
First Principal Date	6/1/2020
Last Principal Date	6/1/2024

Arbitrage Yield	3.47634%	
TIC	3.76704%	
AIC	4.61638%	
Average Life	2.77	Years

PROJECTS FINANCED:	
Street Improvements	$ 1,000,000
Fire Truck	400,000
Reserved	-
Reserved	-
	$ 1,400,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
0.75	6/1/2020	270,000	3.260%	37,194	307,194	307,194
	12/1/2020			20,395	20,395	
1.75	6/1/2021	260,000	3.360%	20,395	280,395	300,790
	12/1/2021			16,027	16,027	
2.75	6/1/2022	265,000	3.440%	16,027	281,027	297,054
	12/1/2022			11,469	11,469	
3.75	6/1/2023	475,000	3.510%	11,469	486,469	497,938
	12/1/2023			3,133	3,133	
4.75	6/1/2024	175,000	3.580%	3,133	178,133	181,265
	12/1/2024					
5.75	6/1/2025					
	12/1/2025					
6.75	6/1/2026					
	12/1/2026					
7.75	6/1/2027					
	12/1/2027					
8.75	6/1/2028					
	12/1/2028					
9.75	6/1/2029					
	12/1/2029					
10.75	6/1/2030					
	12/1/2030					
11.75	6/1/2031					
	12/1/2031					
12.75	6/1/2032					
	12/1/2032					
13.75	6/1/2033					
	12/1/2033					
14.75	6/1/2034					
	12/1/2034					
15.75	6/1/2035					
	12/1/2035					
16.75	6/1/2036					
	12/1/2036					
17.75	6/1/2037					
	12/1/2037					
18.75	6/1/2038					
	12/1/2038					
19.75	6/1/2039					
	12/1/2039					
		1,445,000		139,239	1,584,239	1,584,239

Scale : MMD Aaa as of 11-26-2018 + NR/BQ credit + 100 bps timing.

City of Carroll, Iowa

Proposed G. O. Capital Loan Notes, Series 2023A

EXHIBIT 3b

Recreation Center Pool, Locker Rooms & East Side Gym

SOURCES & USES

SOURCES	
Par Amount of Bonds	10,725,000.00
Accrued Interest	
Premium	

Total Sources	10,725,000.00
USES	
Deposit to Construction Account	10,535,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($12.50 per bond)	134,062.50
Costs of Issuance	52,000.00
Accrued Interest	
Rounding Amount	3,937.50

Total Uses	10,725,000.00
ASSUMPTIONS	
Dated Date	5/1/2023
Delivery Date	5/1/2023
First Interest Date	12/1/2023
First Principal Date	6/1/2024
Last Principal Date	6/1/2040

Arbitrage Yield	4.55217%	
TIC	4.71158%	
AIC	4.77419%	
Average Life	10.36	Years

PROJECTS FINANCED:

Rec Cntr Pool, Locker Rooms & E Gym	$ 10,535,000
Reserved	-
Reserved	-
Reserved	-
	$ 10,535,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
	12/1/2023			277,539	277,539	0
1.08	6/1/2024	100,000	3.760%	237,890	337,890	615,429
	12/1/2024			236,010	236,010	
2.08	6/1/2025	490,000	3.860%	236,010	726,010	962,021
	12/1/2025			226,553	226,553	
3.08	6/1/2026	515,000	3.940%	226,553	741,553	968,107
	12/1/2026			216,408	216,408	
4.08	6/1/2027	535,000	4.010%	216,408	751,408	967,816
	12/1/2027			205,681	205,681	
5.08	6/1/2028	535,000	4.080%	205,681	740,681	946,362
	12/1/2028			194,767	194,767	
6.08	6/1/2029	555,000	4.150%	194,767	749,767	944,534
	12/1/2029			183,251	183,251	
7.08	6/1/2030	580,000	4.220%	183,251	763,251	946,502
	12/1/2030			171,013	171,013	
8.08	6/1/2031	605,000	4.300%	171,013	776,013	947,026
	12/1/2031			158,005	158,005	
9.08	6/1/2032	630,000	4.380%	158,005	788,005	946,011
	12/1/2032			144,208	144,208	
10.08	6/1/2033	660,000	4.460%	144,208	804,208	948,417
	12/1/2033			129,490	129,490	
11.08	6/1/2034	685,000	4.530%	129,490	814,490	943,981
	12/1/2034			113,975	113,975	
12.08	6/1/2035	720,000	4.590%	113,975	833,975	947,950
	12/1/2035			97,451	97,451	
13.08	6/1/2036	750,000	4.640%	97,451	847,451	944,902
	12/1/2036			80,051	80,051	
14.08	6/1/2037	785,000	4.680%	80,051	865,051	945,102
	12/1/2037			61,682	61,682	
15.08	6/1/2038	820,000	4.730%	61,682	881,682	943,364
	12/1/2038			42,289	42,289	
16.08	6/1/2039	860,000	4.780%	42,289	902,289	944,578
	12/1/2039			21,735	21,735	
17.08	6/1/2040	900,000	4.830%	21,735	921,735	943,470
	12/1/2040					
18.08	6/1/2041					
	12/1/2041					
19.08	6/1/2042					
	12/1/2042					
20.08	6/1/2043					
		10,725,000		5,080,568	15,805,568	15,805,568

Scale : MMD Aaa as of 11-26-2018 + 35 bps for credit (Aa2/BQ) + 150 bps for timing.

City of Carroll, Iowa

Projection of G.O. Debt Capacity

EXHIBIT 4a

$1.80 Maximum Tax Rate

Valuation Growth & Debt Limit Assumptions	
Legal Debt Limit	5.00%
Effective Limit	4.00%

Updated: 26-Nov-18

Beginning of Fiscal Year	Actual Valuation	Historical Valuation Growth	Gross Debt Limit	Effective Debt Limit	DEBT ISSUES SUBJECT TO DEBT LIMI G.O. - TAXES -	G.O. - TIF -	Sales Tax Bonds	*Str Imprvmt Fire Truck* Proposed GO Bonds 2019A	*East Gym** Rec Pool** Rec Addn*** Proposed GO Bonds 2023A	Reserved	TOTAL G.O. DEBT OUTST'NDG	Available Effective Capacity	% of Legal Limit Utilized	Beginning of Fiscal Year
2015 - 2016	757,631,838	0.7%	37,881,592	30,305,274	3,630,000						3,630,000	26,675,274	9.58%	2015
2016 - 2017	775,612,596	2.4%	38,780,630	31,024,504	8,380,000						8,380,000	22,644,504	21.61%	2016
2017 - 2018	781,063,284	0.7%	39,053,164	31,242,531	4,090,000						4,090,000	27,152,531	10.47%	2017
2018 - 2019	846,719,429	8.4%	42,335,971	33,868,777	7,520,000						7,520,000	26,348,777	17.76%	2018
2019 - 2020	850,584,226	0.5%	42,529,211	34,023,369	6,675,000			1,445,000			8,120,000	25,903,369	19.09%	2019
2020 - 2021	854,468,347	0.5%	42,723,417	34,178,734	5,745,000			1,175,000			6,920,000	27,258,734	16.20%	2020
2021 - 2022	858,371,889	0.5%	42,918,594	34,334,876	4,800,000			915,000			5,715,000	28,619,876	13.32%	2021
2022 - 2023	862,294,948	0.5%	43,114,747	34,491,798	3,815,000			650,000			4,465,000	30,026,798	10.36%	2022
2023 - 2024	866,237,622	0.5%	43,311,881	34,649,505	3,020,000			175,000	10,725,000		13,920,000	20,729,505	32.14%	2023
2024 - 2025	870,200,010	0.5%	43,510,001	34,808,000	2,490,000				10,625,000		13,115,000	21,693,000	30.14%	2024
2025 - 2026	874,182,210	0.5%	43,709,111	34,967,288	2,250,000				10,135,000		12,385,000	22,582,288	28.34%	2025
2026 - 2027	874,182,210		43,709,111	34,967,288	2,000,000				9,620,000		11,620,000	23,347,288	26.58%	2026
2027 - 2028	874,182,210		43,709,111	34,967,288	1,740,000				9,085,000		10,825,000	24,142,288	24.77%	2027
2028 - 2029	874,182,210		43,709,111	34,967,288	1,475,000				8,550,000		10,025,000	24,942,288	22.94%	2028
2029 - 2030	874,182,210		43,709,111	34,967,288	1,200,000				7,995,000		9,195,000	25,772,288	21.04%	2029
2030 - 2031	874,182,210		43,709,111	34,967,288	915,000				7,415,000		8,330,000	26,637,288	19.06%	2030
2031 - 2032	874,182,210		43,709,111	34,967,288	620,000				6,810,000		7,430,000	27,537,288	17.00%	2031
2032 - 2033	874,182,210		43,709,111	34,967,288	315,000				6,180,000		6,495,000	28,472,288	14.86%	2032
2033 - 2034	874,182,210		43,709,111	34,967,288					5,520,000		5,520,000	29,447,288	12.63%	2033
2034 - 2035	874,182,210		43,709,111	34,967,288					4,835,000		4,835,000	30,132,288	11.06%	2034
2035 - 2036	874,182,210		43,709,111	34,967,288					4,115,000		4,115,000	30,852,288	9.41%	2035
2036 - 2037	874,182,210		43,709,111	34,967,288					3,365,000		3,365,000	31,602,288	7.70%	2036
2037 - 2038	874,182,210		43,709,111	34,967,288					2,580,000		2,580,000	32,387,288	5.90%	2037
2038 - 2039	874,182,210		43,709,111	34,967,288					1,760,000		1,760,000	33,207,288	4.03%	2038
2039 - 2040	874,182,210		43,709,111	34,967,288					900,000		900,000	34,067,288	2.06%	2039

*** - Represents G.O. principal outstanding as of the BEGINNING of the fiscal year.**
**** - Project is subject to voter approval.**

Scenario 2a:

Assumes $1.80 Max Tax Rate & 2021 Rec Center Bonds

- 2019A Bonds – Street Maintenance Building & Fire Truck
- 2021A Bonds – Rec Center Pool, Locker Room & East Gym Improvements

© PFM

CITY OF CARROLL, IOWA

Projection of Debt Service Levy & Tax Rate Impact

EXHIBIT 2a-1

$1.80 Maximum Tax Rate
Street Maintenance Garage & Firetruck
Rec Center, Locker Rooms & East Gym in 2021

TAX RATE IMPACT	
Fiscal Year 2018-19	($0.40)
Fiscal Year 2019-20	$0.92
Fiscal Year 2020-21	$0.00
Fiscal Year 2021-22	$0.01

					Abatements				Outstanding Debt Issues								Proposed	Proposed					
									CIP	*CIP*	*Ref & Streets*	*Adv Ref 2008*	*CIP*	*CIP*	*CIP*	*Library & CIP*	*Str Mnt Gar Fire Truck*	*East Gym** Rec Pool** Rec Addn****					
Fiscal Year Payable	**Total Tax Valuation**	**Taxable Value Growth**	**Tax Rate Per $1,000**	**Current Taxes Levied**	**LOST Revenues**	**(1) 2006 Ashwood TIF**	**Other Sources**	**TOTAL Resources**	**GO Series 2008**	**GO Series 2010A/13**	**GO Series 2014**	**GO Series 2015A**	**GO Series 2016A**	**GO Series 2016B**	**GO Note 2018A**	**GO Bonds 2018B**	**GO Bonds 2019A**	**GO Series 2021A**	**Fiscal Fees**	**Other Uses**	**TOTAL Uses**	**Surplus (Deficit)**	**Ending Balance**
2015 - 2016	505,407,544	(0.9%)	1.28846	651,197	399,730 *	34,318	35,328	1,120,573	170,953	236,293	308,848	0	386,070						2,500	1,746,128	2,850,790	(1,730,217)	95,412
2016 - 2017	507,314,135	0.4%	1.28762	653,228	352,736 *	32,207	21,996	1,060,167			312,170	179,990	268,933	298,745					2,500		1,062,337	(2,169)	93,243
2017 - 2018	515,496,419	1.6%	1.28014	659,908	379,255 *	32,731	27,508	1,099,402				283,828	262,210	340,058	210,280				3,000	(29,210)	1,070,165	29,237	122,480
2018 - 2019	550,295,467	6.8%	0.87898	483,699	400,694 *	32,552	52,302	969,247				281,228		292,223		397,035			1,500		971,985	(2,739)	119,741
2019 - 2020	558,935,984	1.6%	1.80083	1,006,550	373,802 *	32,552		1,412,904				282,978		294,523		529,360	304,044		2,000		1,412,904		119,741
2020 - 2021	553,099,286	(1.0%)	1.80275	997,099	374,302 *	32,552		1,403,953				284,400		291,498		526,295	299,761		2,000		1,403,953		119,741
2021 - 2022	562,014,460	1.6%	1.80933	1,016,870	374,302 *	32,552		1,423,724				290,080		298,060		532,895	300,689	0	2,000		1,423,724		119,741
2022 - 2023	555,140,897	(1.2%)	1.80663	1,002,936	374,302 *	32,552		1,409,790				285,180		299,070		323,825	326,057	173,658	2,000		1,409,790		119,741
2023 - 2024	563,058,293	1.4%	1.80131	1,014,243	374,302 *	32,552		1,421,097						299,720		326,288		793,089	2,000		1,421,097		119,741
2024 - 2025	555,365,189	(1.4%)	1.65323	918,148	374,302 *	32,552		1,325,002								323,415		1,000,087	1,500		1,325,002		119,741
2025 - 2026	560,909,132	1.0%	1.62692	912,553	374,302 *	32,552		1,319,407								325,375		993,032	1,000		1,319,407		119,741
2026 - 2027	566,518,224	1.0%	1.62594	921,126	374,302 *	32,552		1,327,980								327,000		999,980	1,000		1,327,980		119,741
2027 - 2028	572,183,406	1.0%	1.62583	930,276	374,302 *	0		1,304,578								323,290		980,288	1,000		1,304,578		119,741
2028 - 2029	577,905,240	1.0%	1.61113	931,078	374,302 *			1,305,380								324,413		979,968	1,000		1,305,380		119,741
2029 - 2030	583,684,292	1.0%	1.60188	934,991	374,302 *			1,309,293								325,200		983,093	1,000		1,309,293		119,741
2030 - 2031	589,521,135	1.0%	1.58053	931,754	374,302 *			1,306,056								325,653		979,404	1,000		1,306,056		119,741
2031 - 2032	595,416,347	1.0%	1.56452	931,544	374,302 *			1,305,846								325,770		979,076	1,000		1,305,846		119,741
2032 - 2033	601,370,510	1.0%	1.55339	934,163	374,302 *			1,308,465								325,553		981,913	1,000		1,308,465		119,741
2033 - 2034	607,384,215	1.0%	1.00252	608,915	374,302 *			983,217										982,717	500		983,217		119,741
2034 - 2035	613,458,057	1.0%	0.99065	607,723	374,302 *			982,025										981,525	500		982,025		119,741
2035 - 2036	619,592,638	1.0%	0.98384	609,581	374,302 *			983,883										983,383	500		983,883		119,741
2036 - 2037	625,788,564	1.0%	0.97340	609,140	374,302 *			983,442										982,942	500		983,442		119,741
2037 - 2038	632,046,450	1.0%	0.95936	606,359	374,302 *			980,661										980,161	500		980,661		119,741
																	1,230,550	14,754,312					

* - Reflects the 25% local option sales tax receipts plus some excess of the 75% portion.

** - Project is subject to voter approval.

(1) Incorporated TIF revenue from the Urban Renewal Area to abate a portion of the $515,000 General Obligation Capital Loan Notes, Series 2006

City of Carroll, Iowa

Proposed General Obligation Bonds, Series 2019A

EXHIBIT 2a-2

Street Maintenance Garage & Fire Truck

SOURCES & USES

SOURCES	
Par Amount of Bonds	1,140,000.00
Accrued Interest	
Other Monies	
Total Sources	1,140,000.00
USES	
Deposit to Construction Account	1,100,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($7.50 per bond)	8,550.00
Costs of Issuance	31,000.00
Accrued Interest	
Rounding Amount	450.00
Total Uses	1,140,000.00
ASSUMPTIONS	
Dated Date	9/1/2019
Delivery Date	9/1/2019
First Interest Date	6/1/2020
First Principal Date	6/1/2020
Last Principal Date	6/1/2023

Arbitrage Yield	3.43682%
TIC	3.78220%
AIC	5.06768%
Average Life	2.31 Years

PROJECTS FINANCED:	
Street Maintenance Garage	$ 700,000
Fire Truck	400,000
Reserved	-
Reserved	-
	$ 1,100,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
0.75	6/1/2020	275,000	3.260%	29,044	304,044	304,044
	12/1/2020			14,880	14,880	
1.75	6/1/2021	270,000	3.360%	14,880	284,880	299,761
	12/1/2021			10,344	10,344	
2.75	6/1/2022	280,000	3.440%	10,344	290,344	300,689
	12/1/2022			5,528	5,528	
3.75	6/1/2023	315,000	3.510%	5,528	320,528	326,057
	12/1/2023					
4.75	6/1/2024					
	12/1/2024					
5.75	6/1/2025					
	12/1/2025					
6.75	6/1/2026					
	12/1/2026					
7.75	6/1/2027					
	12/1/2027					
8.75	6/1/2028					
	12/1/2028					
9.75	6/1/2029					
	12/1/2029					
10.75	6/1/2030					
	12/1/2030					
11.75	6/1/2031					
	12/1/2031					
12.75	6/1/2032					
	12/1/2032					
13.75	6/1/2033					
	12/1/2033					
14.75	6/1/2034					
	12/1/2034					
15.75	6/1/2035					
	12/1/2035					
16.75	6/1/2036					
	12/1/2036					
17.75	6/1/2037					
	12/1/2037					
18.75	6/1/2038					
	12/1/2038					
19.75	6/1/2039					
	12/1/2039					
		1,140,000		90,550	1,230,550	1,230,550

Scale : MMD Aaa as of 11-26-2018 + NR/BQ credit + 100 bps timing.

City of Carroll, Iowa

Proposed G. O. Capital Loan Notes, Series 2021A

EXHIBIT 2a-3

Recreation Center Pool, Locker Rooms & East Side Gym

SOURCES & USES

SOURCES	
Par Amount of Bonds	10,335,000.00
Accrued Interest	
Premium	
Total Sources	10,335,000.00
USES	
Deposit to Construction Account	9,553,000.00
Deposit to Reserve Account	
Capitalized Interest Account	598,156.63
Municipal Bond Insurance	
Underwriters' Discount ($12.50 per bond)	129,187.50
Costs of Issuance	52,000.00
Accrued Interest	
Rounding Amount	2,655.88
Total Uses	10,335,000.00
ASSUMPTIONS	
Dated Date	10/1/2021
Delivery Date	10/1/2021
First Interest Date	6/1/2022
First Principal Date	6/1/2022
Last Principal Date	6/1/2038

Arbitrage Yield	4.56866%
TIC	4.72432%
AIC	4.78773%
Average Life	10.58 Years

PROJECTS FINANCED:	
Rec Cntr Pool, Locker Rooms & E Gym	$ 9,535,000
Reserved	-
Reserved	-
Reserved	-
	$ 10,535,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Capitalized Interest	Annual Debt Service
0.67	6/1/2022	0	3.760%	308,726	308,726	(308,726)	0
	12/1/2022			231,545	231,545	(173,658)	
1.67	6/1/2023	0	3.860%	231,545	231,545	(115,772)	173,658
	12/1/2023			231,545	231,545		
2.67	6/1/2024	330,000	3.940%	231,545	561,545		793,089
	12/1/2024			225,044	225,044		
3.67	6/1/2025	550,000	4.010%	225,044	775,044		1,000,087
	12/1/2025			214,016	214,016		
4.67	6/1/2026	565,000	4.080%	214,016	779,016		993,032
	12/1/2026			202,490	202,490		
5.67	6/1/2027	595,000	4.150%	202,490	797,490		999,980
	12/1/2027			190,144	190,144		
6.67	6/1/2028	600,000	4.220%	190,144	790,144		980,288
	12/1/2028			177,484	177,484		
7.67	6/1/2029	625,000	4.300%	177,484	802,484		979,968
	12/1/2029			164,046	164,046		
8.67	6/1/2030	655,000	4.380%	164,046	819,046		983,093
	12/1/2030			149,702	149,702		
9.67	6/1/2031	680,000	4.460%	149,702	829,702		979,404
	12/1/2031			134,538	134,538		
10.67	6/1/2032	710,000	4.530%	134,538	844,538		979,076
	12/1/2032			118,456	118,456		
11.67	6/1/2033	745,000	4.590%	118,456	863,456		981,913
	12/1/2033			101,359	101,359		
12.67	6/1/2034	780,000	4.640%	101,359	881,359		982,717
	12/1/2034			83,263	83,263		
13.67	6/1/2035	815,000	4.680%	83,263	898,263		981,525
	12/1/2035			64,192	64,192		
14.67	6/1/2036	855,000	4.730%	64,192	919,192		983,383
	12/1/2036			43,971	43,971		
15.67	6/1/2037	895,000	4.780%	43,971	938,971		982,942
	12/1/2037			22,580	22,580		
16.67	6/1/2038	935,000	4.830%	22,580	957,580		980,161
	12/1/2038						
17.67	6/1/2039						
	12/1/2039						
18.67	6/1/2040						
	12/1/2040						
19.67	6/1/2041						
	12/1/2041						
		10,335,000		5,017,469	15,352,469	(598,157)	14,754,312

Scale : MMD Aaa as of 10-03-2018 + 35 bps for credit (Aa2/BQ) + 150 bps for timing.

City of Carroll, Iowa

Projection of G.O. Debt Capacity

EXHIBIT 2a-4

$1.80 Maximum Tax Rate
Street Maintenance Garage & Firetruck
Rec Center, Locker Rooms & East Gym in 2021

Valuation Growth & Debt Limit Assumptions	
Legal Debt Limit	5.00%
Effective Limit	4.00%

Updated: 28-Nov-18

Beginning of Fiscal Year	Actual Valuation	Historical Valuation Growth	Gross Debt Limit	Effective Debt Limit	DEBT ISSUES SUBJECT TO DEBT LIMIT * G.O. - TAXES -	G.O. - TIF -	Sales Tax Bonds	Proposed GO Bonds 2019A (*Str Mnt Gar Fire Truck*)	Proposed GO Bonds 2021A (*East Gym** Rec Pool** Rec Addn**)	TOTAL G.O. DEBT OUTST'NDG	Available Effective Capacity	% of Legal Limit Utilized	Beginning of Fiscal Year
2015 - 2016	757,631,838	0.7%	37,881,592	30,305,274	3,630,000					3,630,000	26,675,274	9.58%	2015
2016 - 2017	775,612,596	2.4%	38,780,630	31,024,504	8,380,000					8,380,000	22,644,504	21.61%	2016
2017 - 2018	781,063,284	0.7%	39,053,164	31,242,531	4,090,000					4,090,000	27,152,531	10.47%	2017
2018 - 2019	846,719,429	8.4%	42,335,971	33,868,777	7,520,000					7,520,000	26,348,777	17.76%	2018
2019 - 2020	850,584,226	0.5%	42,529,211	34,023,369	6,675,000			1,140,000		7,815,000	26,208,369	18.38%	2019
2020 - 2021	854,468,347	0.5%	42,723,417	34,178,734	5,745,000			865,000		6,610,000	27,568,734	15.47%	2020
2021 - 2022	858,371,889	0.5%	42,918,594	34,334,876	4,800,000			595,000	10,335,000	15,730,000	18,604,876	36.65%	2021
2022 - 2023	862,294,948	0.5%	43,114,747	34,491,798	3,815,000			315,000	10,335,000	14,465,000	20,026,798	33.55%	2022
2023 - 2024	866,237,622	0.5%	43,311,881	34,649,505	3,020,000				10,335,000	13,355,000	21,294,505	30.83%	2023
2024 - 2025	870,200,010	0.5%	43,510,001	34,808,000	2,490,000				10,005,000	12,495,000	22,313,000	28.72%	2024
2025 - 2026	874,182,210	0.5%	43,709,111	34,967,288	2,250,000				9,455,000	11,705,000	23,262,288	26.78%	2025
2026 - 2027	874,182,210		43,709,111	34,967,288	2,000,000				8,890,000	10,890,000	24,077,288	24.91%	2026
2027 - 2028	874,182,210		43,709,111	34,967,288	1,740,000				8,295,000	10,035,000	24,932,288	22.96%	2027
2028 - 2029	874,182,210		43,709,111	34,967,288	1,475,000				7,695,000	9,170,000	25,797,288	20.98%	2028
2029 - 2030	874,182,210		43,709,111	34,967,288	1,200,000				7,070,000	8,270,000	26,697,288	18.92%	2029
2030 - 2031	874,182,210		43,709,111	34,967,288	915,000				6,415,000	7,330,000	27,637,288	16.77%	2030
2031 - 2032	874,182,210		43,709,111	34,967,288	620,000				5,735,000	6,355,000	28,612,288	14.54%	2031
2032 - 2033	874,182,210		43,709,111	34,967,288	315,000				5,025,000	5,340,000	29,627,288	12.22%	2032
2033 - 2034	874,182,210		43,709,111	34,967,288					4,280,000	4,280,000	30,687,288	9.79%	2033
2034 - 2035	874,182,210		43,709,111	34,967,288					3,500,000	3,500,000	31,467,288	8.01%	2034
2035 - 2036	874,182,210		43,709,111	34,967,288					2,685,000	2,685,000	32,282,288	6.14%	2035
2036 - 2037	874,182,210		43,709,111	34,967,288					1,830,000	1,830,000	33,137,288	4.19%	2036
2037 - 2038	874,182,210		43,709,111	34,967,288					935,000	935,000	34,032,288	2.14%	2037

*** - Represents G.O. principal outstanding as of the BEGINNING of the fiscal year.**
**** - Project is subject to voter approval.**

Scenario 2b:

Assumes $1.80 Max Tax Rate & 2021 Rec Center Bonds

- 2019A Bonds – Street Improvements & Fire Truck
- 2021A Bonds – Rec Center Pool, Locker Room & East Gym Improvements

© PFM

CITY OF CARROLL, IOWA

Projection of Debt Service Levy & Tax Rate Impact

EXHIBIT 2b-1

$1.80 Maximum Tax Rate
Street Improvements & Firetruck
Rec Center, Locker Rooms & East Gym in 2021

TAX RATE IMPACT	
Fiscal Year 2018-19	($0.40)
Fiscal Year 2019-20	$0.93
Fiscal Year 2020-21	($0.00)
Fiscal Year 2021-22	($0.00)

Fiscal Year Payable	Total Tax Valuation	Taxable Value Growth	Tax Rate Per $1,000	Current Taxes Levied	Abatements: LOST Revenues	Abatements: (1) 2006 Ashwood TIF	Other Sources	TOTAL Resources	Outstanding Debt Issues: GO Series 2008 (CIP)	GO Series 2010A/13 (CIP)	GO Series 2014 (Ref & Streets)	GO Series 2015A (Adv Ref 2008)	GO Series 2016A (CIP)	GO Series 2016B (CIP)	GO Note 2018A (CIP)	GO Bonds 2018B (Library & CIP)	Proposed GO Bonds 2019A (Str Imprvmt Fire Truck)	Proposed GO Series 2021A (East Gym** Rec Pool** Rec Addn**)	Fiscal Fees	Other Uses	TOTAL Uses	Surplus (Deficit)	Ending Balance
2015 - 2016	505,407,544	(0.9%)	1.28846	651,197	399,730 *	34,318	35,328	1,120,573	170,953	236,293	308,848	0	386,070						2,500	1,746,128	2,850,790	(1,730,217)	95,412
2016 - 2017	507,314,135	0.4%	1.28762	653,228	352,736 *	32,207	21,996	1,060,167			312,170	179,990	268,933	298,745					2,500		1,062,337	(2,169)	93,243
2017 - 2018	515,496,419	1.6%	1.28014	659,908	379,255 *	32,731	27,508	1,099,402				283,828	262,210	340,058	210,280				3,000	(29,210)	1,070,165	29,237	122,480
2018 - 2019	550,295,467	6.8%	0.87898	483,699	400,694 *	32,552	52,302	969,247				281,228		292,223		397,035			1,500		971,985	(2,739)	119,741
2019 - 2020	558,935,984	1.6%	1.80658	1,009,760	373,802 *	32,552		1,416,114				282,978		294,523		529,360	307,254		2,000		1,416,114		119,741
2020 - 2021	553,099,286	(1.0%)	1.80475	998,209	374,302 *	32,552		1,405,063				284,400		291,498		526,295	300,870		2,000		1,405,063		119,741
2021 - 2022	562,014,460	1.6%	1.80301	1,013,315	374,302 *	32,552		1,420,169				290,080		298,060		532,895	297,134	0	2,000		1,420,169		119,741
2022 - 2023	555,140,897	(1.2%)	1.80679	1,003,024	374,302 *	32,552		1,409,878				285,180		299,070		323,825	383,018	116,785	2,000		1,409,878		119,741
2023 - 2024	563,058,293	1.4%	1.75590	988,674	374,302 *	32,552		1,395,528						299,720		326,288	300,382	467,138	2,000		1,395,528		119,741
2024 - 2025	555,365,189	(1.4%)	1.69294	940,199	374,302 *	32,552		1,347,053								323,415		1,022,138	1,500		1,347,053		119,741
2025 - 2026	560,909,132	1.0%	1.68370	944,404	374,302 *	32,552		1,351,258								325,375		1,024,883	1,000		1,351,258		119,741
2026 - 2027	566,518,224	1.0%	1.66343	942,365	374,302 *	32,552		1,349,219								327,000		1,021,219	1,000		1,349,219		119,741
2027 - 2028	572,183,406	1.0%	1.69754	971,307	374,302 *	0		1,345,609								323,290		1,021,319	1,000		1,345,609		119,741
2028 - 2029	577,905,240	1.0%	1.68895	976,054	374,302 *			1,350,356								324,413		1,024,944	1,000		1,350,356		119,741
2029 - 2030	583,684,292	1.0%	1.66816	973,677	374,302 *			1,347,979								325,200		1,021,779	1,000		1,347,979		119,741
2030 - 2031	589,521,135	1.0%	1.65277	974,345	374,302 *			1,348,647								325,653		1,021,995	1,000		1,348,647		119,741
2031 - 2032	595,416,347	1.0%	1.64221	977,797	374,302 *			1,352,099								325,770		1,025,329	1,000		1,352,099		119,741
2032 - 2033	601,370,510	1.0%	1.61935	973,831	374,302 *			1,348,133								325,553		1,021,580	1,000		1,348,133		119,741
2033 - 2034	607,384,215	1.0%	1.06556	647,206	374,302 *			1,021,508										1,021,008	500		1,021,508		119,741
2034 - 2035	613,458,057	1.0%	1.05895	649,622	374,302 *			1,023,924										1,023,424	500		1,023,924		119,741
2035 - 2036	619,592,638	1.0%	1.04882	649,842	374,302 *			1,024,144										1,023,644	500		1,024,144		119,741
2036 - 2037	625,788,564	1.0%	1.03509	647,745	374,302 *			1,022,047										1,021,547	500		1,022,047		119,741
2037 - 2038	632,046,450	1.0%	1.02570	648,291	374,302 *			1,022,593										1,022,093	500		1,022,593		119,741
																	1,588,658	14,900,819					

* - Reflects the 25% local option sales tax receipts plus some excess of the 75% portion.

** - Project is subject to voter approval.

(1) Incorporated TIF revenue from the Urban Renewal Area to abate a portion of the $515,000 General Obligation Capital Loan Notes, Series 2006

City of Carroll, Iowa

Proposed General Obligation Bonds, Series 2019A

EXHIBIT 2b-2

Street Improvements & Fire Truck

SOURCES & USES

SOURCES	
Par Amount of Bonds	1,445,000.00
Accrued Interest	
Other Monies	
Total Sources	1,445,000.00
USES	
Deposit to Construction Account	1,400,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($7.50 per bond)	10,837.50
Costs of Issuance	31,000.00
Accrued Interest	
Rounding Amount	3,162.50
Total Uses	1,445,000.00
ASSUMPTIONS	
Dated Date	9/1/2019
Delivery Date	9/1/2019
First Interest Date	6/1/2020
First Principal Date	6/1/2020
Last Principal Date	6/1/2024

Arbitrage Yield	3.48629%	
TIC	3.76959%	
AIC	4.59747%	
Average Life	2.85	Years

PROJECTS FINANCED:	
Street Improvements	$ 1,000,000
Fire Truck	400,000
Reserved	-
Reserved	-
	$ 1,400,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
0.75	6/1/2020	270,000	3.260%	37,254	307,254	307,254
	12/1/2020			20,435	20,435	
1.75	6/1/2021	260,000	3.360%	20,435	280,435	300,870
	12/1/2021			16,067	16,067	
2.75	6/1/2022	265,000	3.440%	16,067	281,067	297,134
	12/1/2022			11,509	11,509	
3.75	6/1/2023	360,000	3.510%	11,509	371,509	383,018
	12/1/2023			5,191	5,191	
4.75	6/1/2024	290,000	3.580%	5,191	295,191	300,382
	12/1/2024					
5.75	6/1/2025					
	12/1/2025					
6.75	6/1/2026					
	12/1/2026					
7.75	6/1/2027					
	12/1/2027					
8.75	6/1/2028					
	12/1/2028					
9.75	6/1/2029					
	12/1/2029					
10.75	6/1/2030					
	12/1/2030					
11.75	6/1/2031					
	12/1/2031					
12.75	6/1/2032					
	12/1/2032					
13.75	6/1/2033					
	12/1/2033					
14.75	6/1/2034					
	12/1/2034					
15.75	6/1/2035					
	12/1/2035					
16.75	6/1/2036					
	12/1/2036					
17.75	6/1/2037					
	12/1/2037					
18.75	6/1/2038					
	12/1/2038					
19.75	6/1/2039					
	12/1/2039					
		1,445,000		143,658	1,588,658	1,588,658

Scale : MMD Aaa as of 11-26-2018 + NR/BQ credit + 100 bps timing.

City of Carroll, Iowa

Proposed G. O. Capital Loan Notes, Series 2021A

EXHIBIT 2b-3

Recreation Center Pool, Locker Rooms & East Side Gym

SOURCES & USES

SOURCES	
Par Amount of Bonds	10,380,000.00
Accrued Interest	
Premium	
Total Sources	10,380,000.00
USES	
Deposit to Construction Account	9,535,000.00
Deposit to Reserve Account	
Capitalized Interest Account	661,778.83
Municipal Bond Insurance	
Underwriters' Discount ($12.50 per bond)	129,750.00
Costs of Issuance	52,000.00
Accrued Interest	
Rounding Amount	1,471.17
Total Uses	10,380,000.00
ASSUMPTIONS	
Dated Date	10/1/2021
Delivery Date	10/1/2021
First Interest Date	6/1/2022
First Principal Date	6/1/2022
Last Principal Date	6/1/2038

Arbitrage Yield	4.57587%
TIC	4.72782%
AIC	4.78944%
Average Life	10.87 Years

PROJECTS FINANCED:

Rec Cntr Pool, Locker Rooms & E Gym	$ 9,535,000
Reserved	-
Reserved	-
Reserved	-
	$ 9,535,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Capitalized Interest	Annual Debt Service
0.67	6/1/2022	0	3.760%	311,425	311,425	(311,425)	0
	12/1/2022			233,569	233,569	(233,569)	
1.67	6/1/2023	0	3.860%	233,569	233,569	(116,785)	116,785
	12/1/2023			233,569	233,569		
2.67	6/1/2024	0	3.940%	233,569	233,569		467,138
	12/1/2024			233,569	233,569		
3.67	6/1/2025	555,000	4.010%	233,569	788,569		1,022,138
	12/1/2025			222,441	222,441		
4.67	6/1/2026	580,000	4.080%	222,441	802,441		1,024,883
	12/1/2026			210,609	210,609		
5.67	6/1/2027	600,000	4.150%	210,609	810,609		1,021,219
	12/1/2027			198,159	198,159		
6.67	6/1/2028	625,000	4.220%	198,159	823,159		1,021,319
	12/1/2028			184,972	184,972		
7.67	6/1/2029	655,000	4.300%	184,972	839,972		1,024,944
	12/1/2029			170,889	170,889		
8.67	6/1/2030	680,000	4.380%	170,889	850,889		1,021,779
	12/1/2030			155,997	155,997		
9.67	6/1/2031	710,000	4.460%	155,997	865,997		1,021,995
	12/1/2031			140,164	140,164		
10.67	6/1/2032	745,000	4.530%	140,164	885,164		1,025,329
	12/1/2032			123,290	123,290		
11.67	6/1/2033	775,000	4.590%	123,290	898,290		1,021,580
	12/1/2033			105,504	105,504		
12.67	6/1/2034	810,000	4.640%	105,504	915,504		1,021,008
	12/1/2034			86,712	86,712		
13.67	6/1/2035	850,000	4.680%	86,712	936,712		1,023,424
	12/1/2035			66,822	66,822		
14.67	6/1/2036	890,000	4.730%	66,822	956,822		1,023,644
	12/1/2036			45,773	45,773		
15.67	6/1/2037	930,000	4.780%	45,773	975,773		1,021,547
	12/1/2037			23,546	23,546		
16.67	6/1/2038	975,000	4.830%	23,546	998,546		1,022,093
	12/1/2038						
17.67	6/1/2039						
	12/1/2039						
18.67	6/1/2040						
	12/1/2040						
19.67	6/1/2041						
	12/1/2041						
		10,380,000		5,182,597	15,562,597	(661,779)	14,900,819

Scale : MMD Aaa as of 11-26-2018 + 35 bps for credit (Aa2/BQ) + 150 bps for timing.

City of Carroll, Iowa

Projection of G.O. Debt Capacity

EXHIBIT 2b-4

$1.80 Maximum Tax Rate
Street Improvements & Firetruck
Rec Center, Locker Rooms & East Gym in 2021

Updated: 28-Nov-18

Valuation Growth & Debt Limit Assumptions	
Legal Debt Limit	5.00%
Effective Limit	4.00%

Beginning of Fiscal Year	Actual Valuation	Historical Valuation Growth	Gross Debt Limit	Effective Debt Limit	DEBT ISSUES SUBJECT TO DEBT LIMI G.O. - TAXES -	G.O. - TIF -	Sales Tax Bonds	Str Imprvmt Fire Truck Proposed GO Bonds 2019A	East Gym** Rec Pool** Rec Addn** Proposed GO Bonds 2021A	Reserved	TOTAL G.O. DEBT OUTST'NDG	Available Effective Capacity	% of Legal Limit Utilized	Beginning of Fiscal Year
2015 - 2016	757,631,838	0.7%	37,881,592	30,305,274	3,630,000						3,630,000	26,675,274	9.58%	2015
2016 - 2017	775,612,596	2.4%	38,780,630	31,024,504	8,380,000						8,380,000	22,644,504	21.61%	2016
2017 - 2018	781,063,284	0.7%	39,053,164	31,242,531	4,090,000						4,090,000	27,152,531	10.47%	2017
2018 - 2019	846,719,429	8.4%	42,335,971	33,868,777	7,520,000						7,520,000	26,348,777	17.76%	2018
2019 - 2020	850,584,226	0.5%	42,529,211	34,023,369	6,675,000			1,445,000			8,120,000	25,903,369	19.09%	2019
2020 - 2021	854,468,347	0.5%	42,723,417	34,178,734	5,745,000			1,175,000			6,920,000	27,258,734	16.20%	2020
2021 - 2022	858,371,889	0.5%	42,918,594	34,334,876	4,800,000			915,000	10,380,000		16,095,000	18,239,876	37.50%	2021
2022 - 2023	862,294,948	0.5%	43,114,747	34,491,798	3,815,000			650,000	10,380,000		14,845,000	19,646,798	34.43%	2022
2023 - 2024	866,237,622	0.5%	43,311,881	34,649,505	3,020,000			290,000	10,380,000		13,690,000	20,959,505	31.61%	2023
2024 - 2025	870,200,010	0.5%	43,510,001	34,808,000	2,490,000				10,380,000		12,870,000	21,938,000	29.58%	2024
2025 - 2026	874,182,210	0.5%	43,709,111	34,967,288	2,250,000				9,825,000		12,075,000	22,892,288	27.63%	2025
2026 - 2027	874,182,210		43,709,111	34,967,288	2,000,000				9,245,000		11,245,000	23,722,288	25.73%	2026
2027 - 2028	874,182,210		43,709,111	34,967,288	1,740,000				8,645,000		10,385,000	24,582,288	23.76%	2027
2028 - 2029	874,182,210		43,709,111	34,967,288	1,475,000				8,020,000		9,495,000	25,472,288	21.72%	2028
2029 - 2030	874,182,210		43,709,111	34,967,288	1,200,000				7,365,000		8,565,000	26,402,288	19.60%	2029
2030 - 2031	874,182,210		43,709,111	34,967,288	915,000				6,685,000		7,600,000	27,367,288	17.39%	2030
2031 - 2032	874,182,210		43,709,111	34,967,288	620,000				5,975,000		6,595,000	28,372,288	15.09%	2031
2032 - 2033	874,182,210		43,709,111	34,967,288	315,000				5,230,000		5,545,000	29,422,288	12.69%	2032
2033 - 2034	874,182,210		43,709,111	34,967,288					4,455,000		4,455,000	30,512,288	10.19%	2033
2034 - 2035	874,182,210		43,709,111	34,967,288					3,645,000		3,645,000	31,322,288	8.34%	2034
2035 - 2036	874,182,210		43,709,111	34,967,288					2,795,000		2,795,000	32,172,288	6.39%	2035
2036 - 2037	874,182,210		43,709,111	34,967,288					1,905,000		1,905,000	33,062,288	4.36%	2036
2037 - 2038	874,182,210		43,709,111	34,967,288					975,000		975,000	33,992,288	2.23%	2037

*** - Represents G.O. principal outstanding as of the BEGINNING of the fiscal year.**
**** - Project is subject to voter approval.**

Scenario 4: Assumes 2021 Rec Center Bonds

- 2018B Bonds – Library & FY19 CIP
- 2019A Bonds – Street Maintenance Building & Fire Truck
- 2021A Bonds - Rec Center Pool & Locker Room

NOTE: Original Scenarios from February 2018

© PFM

CITY OF CARROLL, IOWA

Projection of Debt Service Levy & Tax Rate Impact

EXHIBIT 4-1

Assumes 20 Year Bonds

2021 Rec Center Projects (No East Gym)

TAX RATE IMPACT	
Fiscal Year 2018-19	($0.41)
Fiscal Year 2019-20	$0.89
Fiscal Year 2020-21	($0.00)
Fiscal Year 2021-22	($0.16)

FY18 Pre-Levy => *$ 209,778*

Fiscal Year Payable	Total Tax Valuation	Historical Taxable Valuation Growth	Tax Rate Per $1,000	Current Taxes Levied	LOST Revenues	Abatements: (1) 2006 Ashwood TIF	Abatements: 2007 & 2008 Westfield TIF	Abatements: 2008 Assisted Living TIF	Other Sources	TOTAL Resources	Outstanding Debt Issues: TIF Series 2006	TIF/Taxes Series 2008	Series 2010A/13	Ref & Streets Series 2014	Advance Ref 2008 Series 2015A	GO Series 2016A	GO Series 2016B	Proposed GO Note 2018A (Trails)	Proposed GO Bonds 2018B (Library & FY19 CIP)	Proposed GO Bonds 2019A (Str Mnt Gar Fire Truck)	Proposed GO Series 2021A (Rec Pool** Rec Addn**)	Fiscal Fees	Other Uses	TOTAL Uses	Surplus (Deficit)	Ending Balance
2011 - 2012	400,172,509	4.0%	1.32429	529,944	388,173 *		151,876	3,369	118,638	1,192,000	52,738	399,723	93,150									2,500		1,193,608	(1,608)	44,913
2012 - 2013	423,107,377	5.7%	1.31815	557,719	304,449 *		118,512	54,924	11,806	1,047,410	51,338	451,168	91,710									2,000		1,035,585	11,825	56,738
2013 - 2014	436,313,737	3.1%	1.31482	573,673	375,661 *	31,660		53,413	84,224	1,118,631	54,938	385,518	580,107									2,000	27,033	1,049,595	69,035	125,773
2014 - 2015	509,745,241	16.8%	1.31502	670,325	346,694 *	35,439		56,838	16,285	1,125,581	2,922	231,068	428,205	509,710								1,500	(1,747,680)	(574,275)	1,699,856	1,825,629
2015 - 2016	505,407,544	(0.9%)	1.28846	651,197	399,730 *	34,318			35,328	1,120,573	0	170,953	236,293	308,848	0	386,070						2,500	1,746,128	2,850,790	(1,730,217)	95,412
2016 - 2017	507,314,135	0.4%	1.28762	653,228	352,736 *	32,207			21,996	1,060,167	0			312,170	179,990	268,933	298,745					2,500		1,062,337	(2,169)	93,243
2017 - 2018	515,496,419	1.6%	1.28014	659,908	379,255 *	32,731			27,508	1,099,402	0				283,828	262,210	340,058	210,280				3,000	(29,210)	1,070,165	29,237	122,480
2018 - 2019	550,295,467	6.8%	0.87058	479,077	400,694 *	32,552			52,302	964,625	0				281,228		292,223		389,675			1,500		964,625		122,480
2019 - 2020	560,507,303	1.9%	1.76481	989,188	373,802 *	32,552				1,395,542	0				282,978		294,523		638,127	177,915		2,000		1,395,542		122,480
2020 - 2021	554,452,445	(1.1%)	1.76416	978,144	374,302 *	32,552				1,384,998	0				284,400		291,498		619,561	187,540		2,000		1,384,998		122,480
2021 - 2022	562,597,960	1.5%	1.60680	903,983	374,302 *	32,552				1,310,837					290,080		298,060		210,926	182,487	327,285	2,000		1,310,837		122,480
2022 - 2023	544,711,687	(3.2%)	1.59128	866,789	374,302 *	32,552				1,273,643					285,180		299,070		227,912	157,372	302,109	2,000		1,273,643		122,480
2023 - 2024	540,107,495	(0.8%)	1.43330	774,136	374,302 *	32,552				1,180,990							299,720		229,298	247,863	402,109	2,000		1,180,990		122,480
2024 - 2025	522,752,576	(3.2%)	1.42301	743,885	374,302 *	32,552				1,150,739									270,491	305,089	573,659	1,500		1,150,739		122,480
2025 - 2026	521,962,440	(0.2%)	1.06045	553,514	374,302 *	32,552				960,368									300,307		659,062	1,000		960,368		122,480
2026 - 2027	521,962,440		1.06163	554,132	374,302 *	32,552				960,986									303,986		656,001	1,000		960,986		122,480
2027 - 2028	521,962,440		1.05629	551,346	374,302 *	0				925,648									267,213		657,435	1,000		925,648		122,480
2028 - 2029	521,962,440		1.05563	551,001	374,302 *					925,303									266,207		658,096	1,000		925,303		122,480
2029 - 2030	521,962,440		1.06251	554,592	374,302 *					928,894									269,927		657,967	1,000		928,894		122,480
2030 - 2031	521,962,440		1.06692	556,892	374,302 *					931,194									273,207		656,987	1,000		931,194		122,480
2031 - 2032	521,962,440		1.05913	552,824	374,302 *					927,126									270,991		655,135	1,000		927,126		122,480
2032 - 2033	521,962,440		1.06825	557,587	374,302 *					931,889									273,454		657,436	1,000		931,889		122,480
2033 - 2034	521,962,440		1.06489	555,835	374,302 *					930,137									270,464		658,673	1,000		930,137		122,480
2034 - 2035	521,962,440		1.05875	552,630	374,302 *					926,932									267,208		658,725	1,000		926,932		122,480
2035 - 2036	521,962,440		1.04991	548,014	374,302 *					922,316									263,706		657,610	1,000		922,316		122,480
2036 - 2037	521,962,440		0.68407	357,061	374,302 *					731,363									74,956		655,407	1,000		731,363		122,480
2037 - 2038	521,962,440		0.68268	356,336	374,302 *					730,638									72,485		657,153	1,000		730,638		122,480
2038 - 2039	521,962,440		0.54386	283,875	374,302 *					658,177											657,677	500		658,177		122,480
																			5,760,096	1,258,266	10,808,522					

* - Reflects the 25% local option sales tax receipts plus some excess of the 75% portion.

** - Project is subject to voter approval.

(1) Incorporated TIF revenue from the Urban Renewal Area to abate a portion of the $515,000 General Obligation Capital Loan Notes, Series 2006

City of Carroll, Iowa

Proposed G. O. Capital Loan Notes, Series 2018B

EXHIBIT 4-2

Library (20 Year Bonds) & FY 2019 CIP

SOURCES & USES

SOURCES	
Par Amount of Notes	4,480,000.00
Cash on Hand	45,000.00
Premium	
Total Sources	4,525,000.00
USES	
Deposit to Construction Account	4,435,000.00
Deposit to Reserve Account	
Capitalized Interest Account	(0.00)
Municipal Bond Insurance	0.00
Underwriters' Discount ($10.00 per bond)	44,800.00
Costs of Issuance	45,000.00
Accrued Interest	
Rounding Amount	200.00
Total Uses	4,525,000.00
ASSUMPTIONS	
Dated Date	10/31/2018
Delivery Date	10/31/2018
First Interest Date	6/1/2019
First Principal Date	6/1/2019
Last Principal Date	6/1/2038

Yield Calculations:

Arbitrage Yield	3.23558%
TIC	3.37523%
AIC	3.51784%
Average Life	8.78 Years

PROJECTS FINANCED:

Library	$ 3,765,000
Youth Complex Lighting	375,000
Pickleball Courts	175,000
Trails	120,000
	$ 4,435,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
0.6	6/1/2019	310,000	2.520%	79,675	389,675	389,675
	12/1/2019			64,063	64,063	
1.6	6/1/2020	510,000	2.660%	64,063	574,063	638,127
	12/1/2020			57,280	57,280	
2.6	6/1/2021	505,000	2.700%	57,280	562,280	619,561
	12/1/2021			50,463	50,463	
3.6	6/1/2022	110,000	2.740%	50,463	160,463	210,926
	12/1/2022			48,956	48,956	
4.6	6/1/2023	130,000	2.780%	48,956	178,956	227,912
	12/1/2023			47,149	47,149	
5.6	6/1/2024	135,000	2.820%	47,149	182,149	229,298
	12/1/2024			45,245	45,245	
6.6	6/1/2025	180,000	2.880%	45,245	225,245	270,491
	12/1/2025			42,653	42,653	
7.6	6/1/2026	215,000	2.940%	42,653	257,653	300,307
	12/1/2026			39,493	39,493	
8.6	6/1/2027	225,000	3.010%	39,493	264,493	303,986
	12/1/2027			36,107	36,107	
9.6	6/1/2028	195,000	3.080%	36,107	231,107	267,213
	12/1/2028			33,104	33,104	
10.6	6/1/2029	200,000	3.140%	33,104	233,104	266,207
	12/1/2029			29,964	29,964	
11.6	6/1/2030	210,000	3.200%	29,964	239,964	269,927
	12/1/2030			26,604	26,604	
12.6	6/1/2031	220,000	3.280%	26,604	246,604	273,207
	12/1/2031			22,996	22,996	
13.6	6/1/2032	225,000	3.350%	22,996	247,996	270,991
	12/1/2032			19,227	19,227	
14.6	6/1/2033	235,000	3.400%	19,227	254,227	273,454
	12/1/2033			15,232	15,232	
15.6	6/1/2034	240,000	3.440%	15,232	255,232	270,464
	12/1/2034			11,104	11,104	
16.6	6/1/2035	245,000	3.470%	11,104	256,104	267,208
	12/1/2035			6,853	6,853	
17.6	6/1/2036	250,000	3.500%	6,853	256,853	263,706
	12/1/2036			2,478	2,478	
18.6	6/1/2037	70,000	3.530%	2,478	72,478	74,956
	12/1/2037			1,243	1,243	
19.6	6/1/2038	70,000	3.550%	1,243	71,243	72,485
	12/1/2038					
		4,480,000		1,280,096	5,760,096	5,760,096

Scale : MMD Aaa as of 01-02-2018 + 35 bps for credit (Aa2/BQ) + 75 bps for timing.

City of Carroll, Iowa

Proposed General Obligation Bonds, Series 2019A

EXHIBIT 4-3

Street Maintenance Garage & Fire Truck

SOURCES & USES

SOURCES	
Par Amount of Bonds	1,120,000.00
Accrued Interest	
Other Monies	
Total Sources	1,120,000.00
USES	
Deposit to Construction Account	1,075,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($7.50 per bond)	8,400.00
Costs of Issuance	33,000.00
Accrued Interest	
Rounding Amount	3,600.00
Total Uses	1,120,000.00
ASSUMPTIONS	
Dated Date	9/1/2019
Delivery Date	9/1/2019
First Interest Date	6/1/2020
First Principal Date	6/1/2020
Last Principal Date	6/1/2025

Arbitrage Yield	3.36376%
TIC	3.58687%
AIC	4.48711%
Average Life	3.67 Years

PROJECTS FINANCED:

Street Maintenance Garage	$ 700,000
Fire Truck	375,000
Reserved	-
Reserved	-
	$ 1,075,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
0.75	6/1/2020	150,000	3.120%	27,915	177,915	177,915
	12/1/2020			16,270	16,270	
1.75	6/1/2021	155,000	3.260%	16,270	171,270	187,540
	12/1/2021			13,744	13,744	
2.75	6/1/2022	155,000	3.300%	13,744	168,744	182,487
	12/1/2022			11,186	11,186	
3.75	6/1/2023	135,000	3.340%	11,186	146,186	157,372
	12/1/2023			8,932	8,932	
4.75	6/1/2024	230,000	3.380%	8,932	238,932	247,863
	12/1/2024			5,045	5,045	
5.75	6/1/2025	295,000	3.420%	5,045	300,045	305,089
	12/1/2025					
6.75	6/1/2026					
	12/1/2026					
7.75	6/1/2027					
	12/1/2027					
8.75	6/1/2028					
	12/1/2028					
9.75	6/1/2029					
	12/1/2029					
10.75	6/1/2030					
	12/1/2030					
11.75	6/1/2031					
	12/1/2031					
12.75	6/1/2032					
	12/1/2032					
13.75	6/1/2033					
	12/1/2033					
14.75	6/1/2034					
	12/1/2034					
15.75	6/1/2035					
	12/1/2035					
16.75	6/1/2036					
	12/1/2036					
17.75	6/1/2037					
	12/1/2037					
18.75	6/1/2038					
	12/1/2038					
19.75	6/1/2039					
	12/1/2039					
		1,120,000		138,266	1,258,266	1,258,266

Scale : MMD Aaa as of 01-02-2018 + NR/BQ credit + 125 bps for timing.

City of Carroll, Iowa

Proposed G. O. Capital Loan Notes, Series 2021A

EXHIBIT 4-4

Recreation Center Pool & Locker Rooms

SOURCES & USES

SOURCES	
Par Amount of Bonds	7,640,000.00
Accrued Interest	
Premium	

Total Sources	7,640,000.00
USES	
Deposit to Construction Account	7,491,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($12.50 per bond)	95,500.00
Costs of Issuance	52,000.00
Accrued Interest	
Rounding Amount	1,500.00

Total Uses	7,640,000.00
ASSUMPTIONS	
Dated Date	5/1/2021
Delivery Date	5/1/2021
First Interest Date	12/1/2021
First Principal Date	6/1/2022
Last Principal Date	6/1/2040

Arbitrage Yield	4.03444%	
TIC	4.16810%	
AIC	4.24183%	
Average Life	12.36	Years

FY 2018 PROJECTS FINANCED:

Rec Cntr Pool & Locker Rooms	$ 7,491,000
Reserved	-
Reserved	-
Reserved	-
	$ 7,491,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
	12/1/2021			176,230	176,230	0
1.08	6/1/2022	0	3.270%	151,055	151,055	327,285
	12/1/2022			151,055	151,055	
2.08	6/1/2023	0	3.410%	151,055	151,055	302,109
	12/1/2023			151,055	151,055	
3.08	6/1/2024	100,000	3.450%	151,055	251,055	402,109
	12/1/2024			149,330	149,330	
4.08	6/1/2025	275,000	3.490%	149,330	424,330	573,659
	12/1/2025			144,531	144,531	
5.08	6/1/2026	370,000	3.530%	144,531	514,531	659,062
	12/1/2026			138,000	138,000	
6.08	6/1/2027	380,000	3.570%	138,000	518,000	656,001
	12/1/2027			131,217	131,217	
7.08	6/1/2028	395,000	3.630%	131,217	526,217	657,435
	12/1/2028			124,048	124,048	
8.08	6/1/2029	410,000	3.690%	124,048	534,048	658,096
	12/1/2029			116,484	116,484	
9.08	6/1/2030	425,000	3.760%	116,484	541,484	657,967
	12/1/2030			108,494	108,494	
10.08	6/1/2031	440,000	3.830%	108,494	548,494	656,987
	12/1/2031			100,068	100,068	
11.08	6/1/2032	455,000	3.890%	100,068	555,068	655,135
	12/1/2032			91,218	91,218	
12.08	6/1/2033	475,000	3.950%	91,218	566,218	657,436
	12/1/2033			81,837	81,837	
13.08	6/1/2034	495,000	4.030%	81,837	576,837	658,673
	12/1/2034			71,862	71,862	
14.08	6/1/2035	515,000	4.100%	71,862	586,862	658,725
	12/1/2035			61,305	61,305	
15.08	6/1/2036	535,000	4.150%	61,305	596,305	657,610
	12/1/2036			50,204	50,204	
16.08	6/1/2037	555,000	4.190%	50,204	605,204	655,407
	12/1/2037			38,576	38,576	
17.08	6/1/2038	580,000	4.220%	38,576	618,576	657,153
	12/1/2038			26,338	26,338	
18.08	6/1/2039	605,000	4.250%	26,338	631,338	657,677
	12/1/2039			13,482	13,482	
19.08	6/1/2040	630,000	4.280%	13,482	643,482	656,964
	12/1/2040					
20.08	6/1/2041					
		7,640,000		3,825,486	11,465,486	11,465,486

Scale : MMD Aaa as of 01-02-2018 + 35 bps for credit (Aa2/BQ) + 150 bps for timing.

City of Carroll, Iowa

Projection of G.O. Debt Capacity

EXHIBIT 4-5

Assumes 20 Year Bonds

2021 Rec Center Projects (No East Gym)

Updated: 2-Feb-18

Valuation Growth & Debt Limit Assumptions	
Legal Debt Limit	5.00%
Effective Limit	4.00%

Beginning of Fiscal Year	Actual Valuation	Historical Valuation Growth	Gross Debt Limit	Effective Debt Limit	DEBT ISSUES SUBJECT TO DEBT LIMIT * G.O. - TAXES -	G.O. - TIF -	Sales Tax Bonds	*$3.8 M Library* Proposed GO Bonds 2018B	*Str Mnt Gar Fire Truck* Proposed GO Bonds 2019A	*Rec Pool** Rec Addn*** Proposed GO Bonds 2021A	Reserved	TOTAL G.O. DEBT OUTST'NDG	Available Effective Capacity	Percent /Debt Gross Debt Limit	Beginning of Fiscal Year
2011 - 2012	632,429,951	1.9%	31,621,498	25,297,198	4,235,000	945,000	1,650,000					6,830,000	18,467,198	21.60%	2011
2012 - 2013	648,166,368	2.5%	32,408,318	25,926,655	3,520,000	655,000	1,110,000					5,285,000	20,641,655	16.31%	2012
2013 - 2014	654,646,146	1.0%	32,732,307	26,185,846	3,400,000	455,000	560,000					4,415,000	21,770,846	13.49%	2013
2014 - 2015	752,235,898	14.9%	37,611,795	30,089,436	3,750,000	55,000						3,805,000	26,284,436	10.12%	2014
2015 - 2016	757,631,838	0.7%	37,881,592	30,305,274	3,630,000							3,630,000	26,675,274	9.58%	2015
2016 - 2017	775,612,596	2.4%	38,780,630	31,024,504	5,105,000							5,105,000	25,919,504	13.16%	2016
2017 - 2018	781,063,284	0.7%	39,053,164	31,242,531	4,090,000							4,090,000	27,152,531	10.47%	2017
2018 - 2019	846,719,429	8.4%	42,335,971	33,868,777	3,045,000			4,480,000				7,525,000	26,343,777	17.77%	2018
2019 - 2020	850,584,226	0.5%	42,529,211	34,023,369	2,515,000			4,170,000	1,120,000			7,805,000	26,218,369	18.35%	2019
2020 - 2021	854,468,347	0.5%	42,723,417	34,178,734	1,975,000			3,660,000	970,000	7,640,000		14,245,000	19,933,734	33.34%	2020
2021 - 2022	858,371,889	0.5%	42,918,594	34,334,876	1,430,000			3,155,000	815,000	7,640,000		13,040,000	21,294,876	30.38%	2021
2022 - 2023	862,294,948	0.5%	43,114,747	34,491,798	865,000			3,045,000	660,000	7,640,000		12,210,000	22,281,798	28.32%	2022
2023 - 2024	866,237,622	0.5%	43,311,881	34,649,505	295,000			2,915,000	525,000	7,640,000		11,375,000	23,274,505	26.26%	2023
2024 - 2025	870,200,010	0.5%	43,510,001	34,808,000				2,780,000	295,000	7,540,000		10,615,000	24,193,000	24.40%	2024
2025 - 2026	874,182,210	0.5%	43,709,111	34,967,288				2,600,000		7,265,000		9,865,000	25,102,288	22.57%	2025
2026 - 2027	874,182,210		43,709,111	34,967,288				2,385,000		6,895,000		9,280,000	25,687,288	21.23%	2026
2027 - 2028	874,182,210		43,709,111	34,967,288				2,160,000		6,515,000		8,675,000	26,292,288	19.85%	2027
2028 - 2029	874,182,210		43,709,111	34,967,288				1,965,000		6,120,000		8,085,000	26,882,288	18.50%	2028
2029 - 2030	874,182,210		43,709,111	34,967,288				1,765,000		5,710,000		7,475,000	27,492,288	17.10%	2029
2030 - 2031	874,182,210		43,709,111	34,967,288				1,555,000		5,285,000		6,840,000	28,127,288	15.65%	2030
2031 - 2032	874,182,210		43,709,111	34,967,288				1,335,000		4,845,000		6,180,000	28,787,288	14.14%	2031
2032 - 2033	874,182,210		43,709,111	34,967,288				1,110,000		4,390,000		5,500,000	29,467,288	12.58%	2032
2033 - 2034	874,182,210		43,709,111	34,967,288				875,000		3,915,000		4,790,000	30,177,288	10.96%	2033
2034 - 2035	874,182,210		43,709,111	34,967,288				635,000		3,420,000		4,055,000	30,912,288	9.28%	2034
2035 - 2036	874,182,210		43,709,111	34,967,288				390,000		2,905,000		3,295,000	31,672,288	7.54%	2035
2036 - 2037	874,182,210		43,709,111	34,967,288				140,000		2,370,000		2,510,000	32,457,288	5.74%	2036
2037 - 2038	874,182,210		43,709,111	34,967,288				70,000		1,815,000		1,885,000	33,082,288	4.31%	2037
2038 - 2039	874,182,210		43,709,111	34,967,288						1,235,000		1,235,000	33,732,288	2.83%	2038
2039 - 2040	874,182,210		43,709,111	34,967,288						630,000		630,000	34,337,288	1.44%	2039
2040 - 2041	874,182,210		43,709,111	34,967,288									34,967,288		2040
2041 - 2042	874,182,210		43,709,111	34,967,288									34,967,288		2041
2042 - 2043	874,182,210		43,709,111	34,967,288									34,967,288		2042
2043 - 2044	874,182,210		43,709,111	34,967,288									34,967,288		2043

*** - Represents G.O. principal outstanding as of the BEGINNING of the fiscal year.**
**** - Project is subject to voter approval.**

Scenario 5a:

Assumes $1.80 Max Tax Rate & 2021 Rec Center Bonds

- 2018B Bonds – Library & FY19 CIP
- 2019A Bonds – Street Maintenance Building & Fire Truck
- 2021A Bonds – Rec Center Pool, Locker Room & East Gym Improvements

NOTE: Original Scenarios from February 2018

© PFM

CITY OF CARROLL, IOWA

Projection of Debt Service Levy & Tax Rate Impact

EXHIBIT 5a-1

Assumes 20 Year Bonds
2021 Rec Center Projects
$1.80 Maximum Tax Rate

TAX RATE IMPACT	
Fiscal Year 2018-19	($0.41)
Fiscal Year 2019-20	$0.93
Fiscal Year 2020-21	($0.00)
Fiscal Year 2021-22	$0.00

Fiscal Year Payable	Total Tax Valuation	Historical Taxable Valuation Growth	Tax Rate Per $1,000	Current Taxes Levied	LOST Revenues	Abatements: (1) 2006 Ashwood TIF	Abatements: 2007 & 2008 Westfield TIF	Abatements: 2008 Assisted Living TIF	Other Sources	TOTAL Resources	Outstanding Debt Issues: TIF Series 2006	TIF/Taxes Series 2008	Series 2010A/13	Ref & Streets Series 2014	Advance Ref 2008 Series 2015A	GO Series 2016A	GO Series 2016B	Proposed GO Note 2018A	Proposed GO Bonds 2018B	Proposed GO Bonds 2019A	Proposed GO Series 2021A	Fiscal Fees	Other Uses	TOTAL Uses	Surplus (Deficit)	Ending Balance
																		FY18 Pre-Levy =>	*$ 209,778*	*Library & FY19 CIP*	*Str Mnt Gar Fire Truck*	*East Gym** Rec Pool** Rec Addn****				
																			Trails							
2011 - 2012	400,172,509	4.0%	1.32429	529,944	388,173 *		151,876	3,369	118,638	1,192,000	52,738	399,723	93,150									2,500		1,193,608	(1,608)	44,913
2012 - 2013	423,107,377	5.7%	1.31815	557,719	304,449 *		118,512	54,924	11,806	1,047,410	51,338	451,168	91,710									2,000		1,035,585	11,825	56,738
2013 - 2014	436,313,737	3.1%	1.31482	573,673	375,661 *	31,660		53,413	84,224	1,118,631	54,938	385,518	580,107									2,000	27,033	1,049,595	69,035	125,773
2014 - 2015	509,745,241	16.8%	1.31502	670,325	346,694 *	35,439		56,838	16,285	1,125,581	2,922	231,068	428,205	509,710								1,500	(1,747,680)	(574,275)	1,699,856	1,825,629
2015 - 2016	505,407,544	(0.9%)	1.28846	651,197	399,730 *	34,318			35,328	1,120,573	0	170,953	236,293	308,848	0	386,070						2,500	1,746,128	2,850,790	(1,730,217)	95,412
2016 - 2017	507,314,135	0.4%	1.28762	653,228	352,736 *	32,207			21,996	1,060,167	0			312,170	179,990	268,933	298,745					2,500		1,062,337	(2,169)	93,243
2017 - 2018	515,496,419	1.6%	1.28014	659,908	379,255 *	32,731			27,508	1,099,402	0				283,828	262,210	340,058	210,280				3,000	(29,210)	1,070,165	29,237	122,480
2018 - 2019	550,295,467	6.8%	0.87018	478,857	400,694 *	32,552			52,302	964,405	0				281,228		292,223		389,455			1,500		964,405		122,480
2019 - 2020	559,110,056	1.6%	1.80432	1,008,812	373,802 *	32,552				1,415,166	0				282,978		294,523		657,751	177,915		2,000		1,415,166		122,480
2020 - 2021	553,078,152	(1.1%)	1.80307	997,237	374,302 *	32,552				1,404,091	0				284,400		291,498		638,653	187,540		2,000		1,404,091		122,480
2021 - 2022	562,014,460	1.6%	1.80701	1,015,567	374,302 *	32,552				1,422,421					290,080		298,060		199,478	182,487	450,316	2,000		1,422,421		122,480
2022 - 2023	555,140,897	(1.2%)	1.80306	1,000,952	374,302 *	32,552				1,407,806					285,180		299,070		226,738	157,372	437,446	2,000		1,407,806		122,480
2023 - 2024	563,058,293	1.4%	1.59176	896,253	374,302 *	32,552				1,303,107							299,720		228,124	247,863	525,400	2,000		1,303,107		122,480
2024 - 2025	555,365,189	(1.4%)	1.55623	864,277	374,302 *	32,552				1,271,131									269,317	305,089	695,225	1,500		1,271,131		122,480
2025 - 2026	560,909,132	1.0%	1.42119	797,161	374,302 *	32,552				1,204,015									284,133		918,882	1,000		1,204,015		122,480
2026 - 2027	560,909,132		1.42004	796,513	374,302 *	32,552				1,203,367									283,253		919,114	1,000		1,203,367		122,480
2027 - 2028	560,909,132		1.47473	827,189	374,302 *	0				1,201,491									282,083		918,408	1,000		1,201,491		122,480
2028 - 2029	560,909,132		1.47785	828,941	374,302 *					1,203,243									285,615		916,628	1,000		1,203,243		122,480
2029 - 2030	560,909,132		1.47823	829,155	374,302 *					1,203,457									283,707		918,750	1,000		1,203,457		122,480
2030 - 2031	560,909,132		1.47564	827,703	374,302 *					1,202,005									281,507		919,498	1,000		1,202,005		122,480
2031 - 2032	560,909,132		1.47884	829,498	374,302 *					1,203,800									283,963		918,837	1,000		1,203,800		122,480
2032 - 2033	560,909,132		1.46980	824,422	374,302 *					1,198,724									280,923		916,802	1,000		1,198,724		122,480
2033 - 2034	560,909,132		1.47555	827,652	374,302 *					1,201,954									282,593		918,362	1,000		1,201,954		122,480
2034 - 2035	560,909,132		1.47734	828,655	374,302 *					1,202,957									283,821		918,137	1,000		1,202,957		122,480
2035 - 2036	560,909,132		1.47525	827,480	374,302 *					1,201,782									284,625		916,157	1,000		1,201,782		122,480
2036 - 2037	560,909,132		0.97028	544,240	374,302 *					918,542											917,542	1,000		918,542		122,480
2037 - 2038	560,909,132		0.96956	543,834	374,302 *					918,136											917,136	1,000		918,136		122,480
																			5,725,735	1,258,266	14,042,636					

* - Reflects the 25% local option sales tax receipts plus some excess of the 75% portion.

** - Project is subject to voter approval.

(1) Incorporated TIF revenue from the Urban Renewal Area to abate a portion of the $515,000 General Obligation Capital Loan Notes, Series 2006

City of Carroll, Iowa

Proposed G. O. Capital Loan Notes, Series 2018B

EXHIBIT 5a-2

Library (17 Year Bonds) & FY 2019 CIP

SOURCES & USES

SOURCES	
Par Amount of Notes	4,480,000.00
Cash on Hand	45,000.00
Premium	
Total Sources	4,525,000.00
USES	
Deposit to Construction Account	4,435,000.00
Deposit to Reserve Account	
Capitalized Interest Account	(0.00)
Municipal Bond Insurance	0.00
Underwriters' Discount ($10.00 per bond)	44,800.00
Costs of Issuance	45,000.00
Accrued Interest	
Rounding Amount	200.00
Total Uses	4,525,000.00
ASSUMPTIONS	
Dated Date	10/31/2018
Delivery Date	10/31/2018
First Interest Date	6/1/2019
First Principal Date	6/1/2019
Last Principal Date	6/1/2036

Yield Calculations:

Arbitrage Yield	3.22356%
TIC	3.36575%
AIC	3.51094%
Average Life	8.58 Years

PROJECTS FINANCED:

Library	$ 3,765,000
Youth Complex Lighting	375,000
Pickleball Courts	175,000
Trails	120,000
	$ 4,435,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
0.6	6/1/2019	310,000	2.520%	79,455	389,455	389,455
	12/1/2019			63,876	63,876	
1.6	6/1/2020	530,000	2.660%	63,876	593,876	657,751
	12/1/2020			56,827	56,827	
2.6	6/1/2021	525,000	2.700%	56,827	581,827	638,653
	12/1/2021			49,739	49,739	
3.6	6/1/2022	100,000	2.740%	49,739	149,739	199,478
	12/1/2022			48,369	48,369	
4.6	6/1/2023	130,000	2.780%	48,369	178,369	226,738
	12/1/2023			46,562	46,562	
5.6	6/1/2024	135,000	2.820%	46,562	181,562	228,124
	12/1/2024			44,659	44,659	
6.6	6/1/2025	180,000	2.880%	44,659	224,659	269,317
	12/1/2025			42,067	42,067	
7.6	6/1/2026	200,000	2.940%	42,067	242,067	284,133
	12/1/2026			39,127	39,127	
8.6	6/1/2027	205,000	3.010%	39,127	244,127	283,253
	12/1/2027			36,041	36,041	
9.6	6/1/2028	210,000	3.080%	36,041	246,041	282,083
	12/1/2028			32,807	32,807	
10.6	6/1/2029	220,000	3.140%	32,807	252,807	285,615
	12/1/2029			29,353	29,353	
11.6	6/1/2030	225,000	3.200%	29,353	254,353	283,707
	12/1/2030			25,753	25,753	
12.6	6/1/2031	230,000	3.280%	25,753	255,753	281,507
	12/1/2031			21,981	21,981	
13.6	6/1/2032	240,000	3.350%	21,981	261,981	283,963
	12/1/2032			17,961	17,961	
14.6	6/1/2033	245,000	3.400%	17,961	262,961	280,923
	12/1/2033			13,796	13,796	
15.6	6/1/2034	255,000	3.440%	13,796	268,796	282,593
	12/1/2034			9,410	9,410	
16.6	6/1/2035	265,000	3.470%	9,410	274,410	283,821
	12/1/2035			4,813	4,813	
17.6	6/1/2036	275,000	3.500%	4,813	279,813	284,625
	12/1/2036					
18.6	6/1/2037					
	12/1/2037					
19.6	6/1/2038					
	12/1/2038					
		4,480,000		1,245,735	5,725,735	5,725,735

Scale : MMD Aaa as of 01-02-2018 + 35 bps for credit (Aa2/BQ) + 75 bps for timing.

City of Carroll, Iowa

Proposed General Obligation Bonds, Series 2019A

EXHIBIT 5a-3

Street Maintenance Garage & Fire Truck

SOURCES & USES

SOURCES	
Par Amount of Bonds	1,120,000.00
Accrued Interest	
Other Monies	
Total Sources	1,120,000.00
USES	
Deposit to Construction Account	1,075,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($7.50 per bond)	8,400.00
Costs of Issuance	33,000.00
Accrued Interest	
Rounding Amount	3,600.00
Total Uses	1,120,000.00
ASSUMPTIONS	
Dated Date	9/1/2019
Delivery Date	9/1/2019
First Interest Date	6/1/2020
First Principal Date	6/1/2020
Last Principal Date	6/1/2025

Arbitrage Yield	3.36376%
TIC	3.58687%
AIC	4.48711%
Average Life	3.67 Years

PROJECTS FINANCED:

Street Maintenance Garage	$ 700,000
Fire Truck	375,000
Reserved	-
Reserved	-
	$ 1,075,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
0.75	6/1/2020	150,000	3.120%	27,915	177,915	177,915
	12/1/2020			16,270	16,270	
1.75	6/1/2021	155,000	3.260%	16,270	171,270	187,540
	12/1/2021			13,744	13,744	
2.75	6/1/2022	155,000	3.300%	13,744	168,744	182,487
	12/1/2022			11,186	11,186	
3.75	6/1/2023	135,000	3.340%	11,186	146,186	157,372
	12/1/2023			8,932	8,932	
4.75	6/1/2024	230,000	3.380%	8,932	238,932	247,863
	12/1/2024			5,045	5,045	
5.75	6/1/2025	295,000	3.420%	5,045	300,045	305,089
	12/1/2025					
6.75	6/1/2026					
	12/1/2026					
7.75	6/1/2027					
	12/1/2027					
8.75	6/1/2028					
	12/1/2028					
9.75	6/1/2029					
	12/1/2029					
10.75	6/1/2030					
	12/1/2030					
11.75	6/1/2031					
	12/1/2031					
12.75	6/1/2032					
	12/1/2032					
13.75	6/1/2033					
	12/1/2033					
14.75	6/1/2034					
	12/1/2034					
15.75	6/1/2035					
	12/1/2035					
16.75	6/1/2036					
	12/1/2036					
17.75	6/1/2037					
	12/1/2037					
18.75	6/1/2038					
	12/1/2038					
19.75	6/1/2039					
	12/1/2039					
		1,120,000		138,266	1,258,266	1,258,266

Scale : MMD Aaa as of 01-02-2018 + NR/BQ credit + 125 bps for timing.

City of Carroll, Iowa

Proposed G. O. Capital Loan Notes, Series 2021A

EXHIBIT 5a-4

Recreation Center Pool, Locker Rooms & East Side Gym

SOURCES & USES

SOURCES	
Par Amount of Bonds	9,730,000.00
Accrued Interest	
Premium	

Total Sources	9,730,000.00
USES	
Deposit to Construction Account	9,553,000.00
Deposit to Reserve Account	
Capitalized Interest Account	0.00
Municipal Bond Insurance	
Underwriters' Discount ($12.50 per bond)	121,625.00
Costs of Issuance	52,000.00
Accrued Interest	
Rounding Amount	3,375.00

Total Uses	9,730,000.00
ASSUMPTIONS	
Dated Date	5/1/2021
Delivery Date	5/1/2021
First Interest Date	12/1/2021
First Principal Date	6/1/2022
Last Principal Date	6/1/2038

Arbitrage Yield	3.96900%
TIC	4.11323%
AIC	4.17564%
Average Life	11.13 Years

FY 2018 PROJECTS FINANCED:

Rec Cntr Pool, Locker Rooms & E Gym	$ 9,553,000
Reserved	-
Reserved	-
Reserved	-
	$ 9,553,000

DEBT SERVICE SCHEDULE

	Date	Principal	Coupon	Interest	Debt Service	Annual Debt Service
	12/1/2021			220,940	220,940	0
1.08	6/1/2022	40,000	3.270%	189,377	229,377	450,316
	12/1/2022			188,723	188,723	
2.08	6/1/2023	60,000	3.410%	188,723	248,723	437,446
	12/1/2023			187,700	187,700	
3.08	6/1/2024	150,000	3.450%	187,700	337,700	525,400
	12/1/2024			185,112	185,112	
4.08	6/1/2025	325,000	3.490%	185,112	510,112	695,225
	12/1/2025			179,441	179,441	
5.08	6/1/2026	560,000	3.530%	179,441	739,441	918,882
	12/1/2026			169,557	169,557	
6.08	6/1/2027	580,000	3.570%	169,557	749,557	919,114
	12/1/2027			159,204	159,204	
7.08	6/1/2028	600,000	3.630%	159,204	759,204	918,408
	12/1/2028			148,314	148,314	
8.08	6/1/2029	620,000	3.690%	148,314	768,314	916,628
	12/1/2029			136,875	136,875	
9.08	6/1/2030	645,000	3.760%	136,875	781,875	918,750
	12/1/2030			124,749	124,749	
10.08	6/1/2031	670,000	3.830%	124,749	794,749	919,498
	12/1/2031			111,919	111,919	
11.08	6/1/2032	695,000	3.890%	111,919	806,919	918,837
	12/1/2032			98,401	98,401	
12.08	6/1/2033	720,000	3.950%	98,401	818,401	916,802
	12/1/2033			84,181	84,181	
13.08	6/1/2034	750,000	4.030%	84,181	834,181	918,362
	12/1/2034			69,068	69,068	
14.08	6/1/2035	780,000	4.100%	69,068	849,068	918,137
	12/1/2035			53,078	53,078	
15.08	6/1/2036	810,000	4.150%	53,078	863,078	916,157
	12/1/2036			36,271	36,271	
16.08	6/1/2037	845,000	4.190%	36,271	881,271	917,542
	12/1/2037			18,568	18,568	
17.08	6/1/2038	880,000	4.220%	18,568	898,568	917,136
	12/1/2038					
18.08	6/1/2039					
	12/1/2039					
19.08	6/1/2040					
	12/1/2040					
20.08	6/1/2041					
		9,730,000		4,312,636	14,042,636	14,042,636

Scale : MMD Aaa as of 01-02-2018 + 35 bps for credit (Aa2/BQ) + 150 bps for timing.

City of Carroll, Iowa

Projection of G.O. Debt Capacity

EXHIBIT 5a-5

Assumes 20 Year Bonds
2021 Rec Center Projects
$1.80 Maximum Tax Rate

Valuation Growth & Debt Limit Assumptions	
Legal Debt Limit	5.00%
Effective Limit	4.00%

Updated: 2-Feb-18

Beginning of Fiscal Year	Actual Valuation	Historical Valuation Growth	Gross Debt Limit	Effective Debt Limit	DEBT ISSUES SUBJECT TO DEBT LIMIT * G.O. - TAXES -	G.O. - TIF -	Sales Tax Bonds	*$3.8 M Library* Proposed GO Bonds 2018B	*Str Mnt Gar Fire Truck* Proposed GO Bonds 2019A	*East Gym** Rec Pool** Rec Addn*** Proposed GO Bonds 2021A	Reserved	TOTAL G.O. DEBT OUTST'NDG	Available Effective Capacity	Percent /Debt Gross Debt Limit	Beginning of Fiscal Year
2011 - 2012	632,429,951	1.9%	31,621,498	25,297,198	4,235,000	945,000	1,650,000					6,830,000	18,467,198	21.60%	2011
2012 - 2013	648,166,368	2.5%	32,408,318	25,926,655	3,520,000	655,000	1,110,000					5,285,000	20,641,655	16.31%	2012
2013 - 2014	654,646,146	1.0%	32,732,307	26,185,846	3,400,000	455,000	560,000					4,415,000	21,770,846	13.49%	2013
2014 - 2015	752,235,898	14.9%	37,611,795	30,089,436	3,750,000	55,000						3,805,000	26,284,436	10.12%	2014
2015 - 2016	757,631,838	0.7%	37,881,592	30,305,274	3,630,000							3,630,000	26,675,274	9.58%	2015
2016 - 2017	775,612,596	2.4%	38,780,630	31,024,504	5,105,000							5,105,000	25,919,504	13.16%	2016
2017 - 2018	781,063,284	0.7%	39,053,164	31,242,531	4,090,000							4,090,000	27,152,531	10.47%	2017
2018 - 2019	846,719,429	8.4%	42,335,971	33,868,777	3,045,000			4,480,000				7,525,000	26,343,777	17.77%	2018
2019 - 2020	850,584,226	0.5%	42,529,211	34,023,369	2,515,000			4,170,000	1,120,000			7,805,000	26,218,369	18.35%	2019
2020 - 2021	854,468,347	0.5%	42,723,417	34,178,734	1,975,000			3,640,000	970,000	9,730,000		16,315,000	17,863,734	38.19%	2020
2021 - 2022	858,371,889	0.5%	42,918,594	34,334,876	1,430,000			3,115,000	815,000	9,730,000		15,090,000	19,244,876	35.16%	2021
2022 - 2023	862,294,948	0.5%	43,114,747	34,491,798	865,000			3,015,000	660,000	9,690,000		14,230,000	20,261,798	33.00%	2022
2023 - 2024	866,237,622	0.5%	43,311,881	34,649,505	295,000			2,885,000	525,000	9,630,000		13,335,000	21,314,505	30.79%	2023
2024 - 2025	870,200,010	0.5%	43,510,001	34,808,000				2,750,000	295,000	9,480,000		12,525,000	22,283,000	28.79%	2024
2025 - 2026	874,182,210	0.5%	43,709,111	34,967,288				2,570,000		9,155,000		11,725,000	23,242,288	26.83%	2025
2026 - 2027	874,182,210		43,709,111	34,967,288				2,370,000		8,595,000		10,965,000	24,002,288	25.09%	2026
2027 - 2028	874,182,210		43,709,111	34,967,288				2,165,000		8,015,000		10,180,000	24,787,288	23.29%	2027
2028 - 2029	874,182,210		43,709,111	34,967,288				1,955,000		7,415,000		9,370,000	25,597,288	21.44%	2028
2029 - 2030	874,182,210		43,709,111	34,967,288				1,735,000		6,795,000		8,530,000	26,437,288	19.52%	2029
2030 - 2031	874,182,210		43,709,111	34,967,288				1,510,000		6,150,000		7,660,000	27,307,288	17.52%	2030
2031 - 2032	874,182,210		43,709,111	34,967,288				1,280,000		5,480,000		6,760,000	28,207,288	15.47%	2031
2032 - 2033	874,182,210		43,709,111	34,967,288				1,040,000		4,785,000		5,825,000	29,142,288	13.33%	2032
2033 - 2034	874,182,210		43,709,111	34,967,288				795,000		4,065,000		4,860,000	30,107,288	11.12%	2033
2034 - 2035	874,182,210		43,709,111	34,967,288				540,000		3,315,000		3,855,000	31,112,288	8.82%	2034
2035 - 2036	874,182,210		43,709,111	34,967,288				275,000		2,535,000		2,810,000	32,157,288	6.43%	2035
2036 - 2037	874,182,210		43,709,111	34,967,288						1,725,000		1,725,000	33,242,288	3.95%	2036
2037 - 2038	874,182,210		43,709,111	34,967,288						880,000		880,000	34,087,288	2.01%	2037
2038 - 2039	874,182,210		43,709,111	34,967,288									34,967,288		2038
2039 - 2040	874,182,210		43,709,111	34,967,288									34,967,288		2039
2040 - 2041	874,182,210		43,709,111	34,967,288									34,967,288		2040
2041 - 2042	874,182,210		43,709,111	34,967,288									34,967,288		2041
2042 - 2043	874,182,210		43,709,111	34,967,288									34,967,288		2042
2043 - 2044	874,182,210		43,709,111	34,967,288									34,967,288		2043

*** - Represents G.O. principal outstanding as of the BEGINNING of the fiscal year.**
**** - Project is subject to voter approval.**