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MICHIGAN CITY SANITARY DISTRICT
Michigan City, Indiana

Town of Long Beach - Lake Shore Drive Sanitary Sewer Project

Preliminary Sewer User Charge Report

February 11, 2020

Cender & **C**ompany
L.L.C.

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MICHIGAN CITY SANITARY DISTRICT
Michigan City, Indiana

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Preliminary Sewer User Charge Report

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MICHIGAN CITY SANITARY DISTRICT
Michigan City, Indiana

Town of Long Beach – Lake Shore Drive Sanitary Sewer Project

INTRODUCTION

Pursuant to our engagement by the Board of Commissions of the Michigan City Sanitary District (the “District”), we have made a study and analysis of the operating and financial reports, budgets and other data pertaining to the Town of Long Beach – Lake Shore Drive Sanitary Sewer Project. The results of our analysis are contained in the attached Sewer User Charge Report (Report) which is attached.

The purpose of this study was to determine the sewer user charge rates and charges necessary to meet the revenue requirements of operations, maintenance, and to make debt service payments on the proposed Town of Long Beach – Lake Shore Drive Sanitary Sewer Project.

This Report is based on data obtained from information provided by Haas & Associates, Inc., Consulting Engineer, and information provided by the Indiana Finance Authority - State Revolving Loan department. We have calculated the local capital charges assuming the sanitary sewer pipes are eligible for a 35 year, SRF Loan at 2.3% and the lift stations can be financed over the standard 20 years, SRF Loan at 2%.

In the course of preparing this Report, we have not conducted an audit of any financial or supplemental data used in the accompanying exhibits and schedules. We have made certain projections of revenues and expenses, based on management’s representations and estimates, which may vary from actual results and such variances, may be material.

MICHIGAN CITY SANITARY DISTRICT
Town of Long Beach - Lake Shore Drive Sanitary Sewer Project

Schedule of Estimated Equivalent Dwelling Units

For Assumed SRF Financing

	Estimated <u>Number</u>	Annual Equivalent <u>Units</u>
North Side Residences - 100% Mandatory	140	1,680
South Side Residences - 44% yes & 1% Maybe	<u>68</u>	<u>816</u>
Total	<u><u>208</u></u>	<u><u>2,496</u></u>
Total Residences on Lake Shore Drive	<u><u>290</u></u>	<u><u>3,480</u></u>

Note: The above was provided by Haas & Associates, Inc., consulting engineers.

MICHIGAN CITY SANITARY DISTRICT
Town of Long Beach - Lake Shore Drive Sanitary Sewer Project

Schedule of Estimated Sources & Uses of Funds

For Assumed SRF Financing

Sources of Funds	Sewer Mains Series 2020-A	Lift Stations Series 2020-B	Combined Total
SRF Revenue Bonds	\$ 5,110,000	\$ 2,200,000	\$ 7,310,000
Total Sources of Funds	\$ 5,110,000	\$ 2,200,000	\$ 7,310,000
Uses of Funds	Sewer Mains Series 2020-A	Lift Stations Series 2020-B	Combined Total
A. New Sewer Mains	\$ 2,319,400		\$ 2,319,400
B. New Sanitary Sewer Laterals	1,041,800		1,041,800
C. New Wastewater Lift Stations	160,200	\$ 956,900	1,117,100
D. Milling and Resurfacing of Street Pave MCSD Lift Sanitary Improvements (Alt. 3)	152,000	-	152,000
Subtotal	<u>3,673,400</u>	<u>1,593,900</u>	<u>5,267,300</u>
Construction Related Constructor Costs	231,000	99,000	330,000
Construction Contingency	346,990	148,710	495,700
Bond Issuance Costs	84,000	36,000	120,000
Associate Project Costs	610,400	261,600	872,000
Capitalized Interest During Construction	<u>156,707</u>	<u>58,667</u>	<u>215,374</u>
Subtotal	5,102,497	2,197,877	7,300,374
Rounding	<u>7,503</u>	<u>2,123</u>	<u>9,626</u>
Total Uses of Funds	\$ 5,110,000	\$ 2,200,000	\$ 7,310,000

Michigan City Sanitary District

Town of Long Beach - Lake Shore Drive Sanitary Sewer Project
Proposed Sewage Works Revenue Bonds, Series 2020A \$5.110 M

Debt Service Schedule

Part 1 of 2

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
09/15/2020	-	-	-	-	-
01/15/2021	-	-	39,176.67	39,176.67	39,176.67 (1)
07/15/2021	-	-	58,765.00	58,765.00	-
01/15/2022	-	-	58,765.00	58,765.00	117,530.00 (1)
07/15/2022	50,000.00	2.300%	58,765.00	108,765.00	-
01/15/2023	50,000.00	2.300%	58,190.00	108,190.00	216,955.00
07/15/2023	50,000.00	2.300%	57,615.00	107,615.00	-
01/15/2024	50,000.00	2.300%	57,040.00	107,040.00	214,655.00
07/15/2024	50,000.00	2.300%	56,465.00	106,465.00	-
01/15/2025	50,000.00	2.300%	55,890.00	105,890.00	212,355.00
07/15/2025	50,000.00	2.300%	55,315.00	105,315.00	-
01/15/2026	50,000.00	2.300%	54,740.00	104,740.00	210,055.00
07/15/2026	50,000.00	2.300%	54,165.00	104,165.00	-
01/15/2027	55,000.00	2.300%	53,590.00	108,590.00	212,755.00
07/15/2027	55,000.00	2.300%	52,957.50	107,957.50	-
01/15/2028	55,000.00	2.300%	52,325.00	107,325.00	215,282.50
07/15/2028	55,000.00	2.300%	51,692.50	106,692.50	-
01/15/2029	55,000.00	2.300%	51,060.00	106,060.00	212,752.50
07/15/2029	55,000.00	2.300%	50,427.50	105,427.50	-
01/15/2030	55,000.00	2.300%	49,795.00	104,795.00	210,222.50
07/15/2030	60,000.00	2.300%	49,162.50	109,162.50	-
01/15/2031	60,000.00	2.300%	48,472.50	108,472.50	217,635.00
07/15/2031	60,000.00	2.300%	47,782.50	107,782.50	-
01/15/2032	60,000.00	2.300%	47,092.50	107,092.50	214,875.00
07/15/2032	60,000.00	2.300%	46,402.50	106,402.50	-
01/15/2033	60,000.00	2.300%	45,712.50	105,712.50	212,115.00
07/15/2033	60,000.00	2.300%	45,022.50	105,022.50	-
01/15/2034	60,000.00	2.300%	44,332.50	104,332.50	209,355.00
07/15/2034	65,000.00	2.300%	43,642.50	108,642.50	-
01/15/2035	65,000.00	2.300%	42,895.00	107,895.00	216,537.50
07/15/2035	65,000.00	2.300%	42,147.50	107,147.50	-
01/15/2036	65,000.00	2.300%	41,400.00	106,400.00	213,547.50
07/15/2036	65,000.00	2.300%	40,652.50	105,652.50	-
01/15/2037	65,000.00	2.300%	39,905.00	104,905.00	210,557.50
07/15/2037	70,000.00	2.300%	39,157.50	109,157.50	-
01/15/2038	70,000.00	2.300%	38,352.50	108,352.50	217,510.00
07/15/2038	70,000.00	2.300%	37,547.50	107,547.50	-
01/15/2039	70,000.00	2.300%	36,742.50	106,742.50	214,290.00
07/15/2039	70,000.00	2.300%	35,937.50	105,937.50	-
01/15/2040	70,000.00	2.300%	35,132.50	105,132.50	211,070.00
07/15/2040	70,000.00	2.300%	34,327.50	104,327.50	-
01/15/2041	75,000.00	2.300%	33,522.50	108,522.50	212,850.00
07/15/2041	75,000.00	2.300%	32,660.00	107,660.00	-

(1) Capitalized Interest during construction to be paid out of bond proceeds.

Long Beach Sewer Rev SRF | SINGLE PURPOSE | 1/16/2020 | 5:21 PM

Michigan City Sanitary District

Town of Long Beach - Lake Shore Drive Sanitary Sewer Project
Proposed Sewage Works Revenue Bonds, Series 2020A \$5.110 M

Debt Service Schedule

Part 2 of 2

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
01/15/2042	75,000.00	2.300%	31,797.50	106,797.50	214,457.50
07/15/2042	75,000.00	2.300%	30,935.00	105,935.00	-
01/15/2043	75,000.00	2.300%	30,072.50	105,072.50	211,007.50
07/15/2043	75,000.00	2.300%	29,210.00	104,210.00	-
01/15/2044	80,000.00	2.300%	28,347.50	108,347.50	212,557.50
07/15/2044	80,000.00	2.300%	27,427.50	107,427.50	-
01/15/2045	80,000.00	2.300%	26,507.50	106,507.50	213,935.00
07/15/2045	80,000.00	2.300%	25,587.50	105,587.50	-
01/15/2046	80,000.00	2.300%	24,667.50	104,667.50	210,255.00
07/15/2046	85,000.00	2.300%	23,747.50	108,747.50	-
01/15/2047	85,000.00	2.300%	22,770.00	107,770.00	216,517.50
07/15/2047	85,000.00	2.300%	21,792.50	106,792.50	-
01/15/2048	85,000.00	2.300%	20,815.00	105,815.00	212,607.50
07/15/2048	85,000.00	2.300%	19,837.50	104,837.50	-
01/15/2049	90,000.00	2.300%	18,860.00	108,860.00	213,697.50
07/15/2049	90,000.00	2.300%	17,825.00	107,825.00	-
01/15/2050	90,000.00	2.300%	16,790.00	106,790.00	214,615.00
07/15/2050	90,000.00	2.300%	15,755.00	105,755.00	-
01/15/2051	90,000.00	2.300%	14,720.00	104,720.00	210,475.00
07/15/2051	95,000.00	2.300%	13,685.00	108,685.00	-
01/15/2052	95,000.00	2.300%	12,592.50	107,592.50	216,277.50
07/15/2052	95,000.00	2.300%	11,500.00	106,500.00	-
01/15/2053	95,000.00	2.300%	10,407.50	105,407.50	211,907.50
07/15/2053	95,000.00	2.300%	9,315.00	104,315.00	-
01/15/2054	100,000.00	2.300%	8,222.50	108,222.50	212,537.50
07/15/2054	100,000.00	2.300%	7,072.50	107,072.50	-
01/15/2055	100,000.00	2.300%	5,922.50	105,922.50	212,995.00
07/15/2055	100,000.00	2.300%	4,772.50	104,772.50	-
01/15/2056	105,000.00	2.300%	3,622.50	108,622.50	213,395.00
07/15/2056	105,000.00	2.300%	2,415.00	107,415.00	-
01/15/2057	105,000.00	2.300%	1,207.50	106,207.50	213,622.50
Total	\$5,110,000.00	-	\$2,512,941.67	\$7,622,941.67	-

Michigan City Sanitary District

Town of Long Beach - Lake Shore Drive Sanitary Sewer Project

Proposed Sewage Works Revenue Bonds, Series 2020B \$2.92 M

Debt Service Schedule

Part 1 of 2

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
09/15/2020	-	-	-	-	-
01/15/2021	-	-	14,666.67	14,666.67	14,666.67 (1)
07/15/2021	-	-	22,000.00	22,000.00	-
01/15/2022	-	-	22,000.00	22,000.00	44,000.00 (1)
07/15/2022	45,000.00	2.000%	22,000.00	67,000.00	-
01/15/2023	45,000.00	2.000%	21,550.00	66,550.00	133,550.00
07/15/2023	45,000.00	2.000%	21,100.00	66,100.00	-
01/15/2024	45,000.00	2.000%	20,650.00	65,650.00	131,750.00
07/15/2024	45,000.00	2.000%	20,200.00	65,200.00	-
01/15/2025	45,000.00	2.000%	19,750.00	64,750.00	129,950.00
07/15/2025	50,000.00	2.000%	19,300.00	69,300.00	-
01/15/2026	50,000.00	2.000%	18,800.00	68,800.00	138,100.00
07/15/2026	50,000.00	2.000%	18,300.00	68,300.00	-
01/15/2027	50,000.00	2.000%	17,800.00	67,800.00	136,100.00
07/15/2027	50,000.00	2.000%	17,300.00	67,300.00	-
01/15/2028	50,000.00	2.000%	16,800.00	66,800.00	134,100.00
07/15/2028	50,000.00	2.000%	16,300.00	66,300.00	-
01/15/2029	50,000.00	2.000%	15,800.00	65,800.00	132,100.00
07/15/2029	50,000.00	2.000%	15,300.00	65,300.00	-
01/15/2030	50,000.00	2.000%	14,800.00	64,800.00	130,100.00
07/15/2030	55,000.00	2.000%	14,300.00	69,300.00	-
01/15/2031	55,000.00	2.000%	13,750.00	68,750.00	138,050.00
07/15/2031	55,000.00	2.000%	13,200.00	68,200.00	-
01/15/2032	55,000.00	2.000%	12,650.00	67,650.00	135,850.00
07/15/2032	55,000.00	2.000%	12,100.00	67,100.00	-
01/15/2033	55,000.00	2.000%	11,550.00	66,550.00	133,650.00
07/15/2033	55,000.00	2.000%	11,000.00	66,000.00	-
01/15/2034	55,000.00	2.000%	10,450.00	65,450.00	131,450.00
07/15/2034	55,000.00	2.000%	9,900.00	64,900.00	-
01/15/2035	60,000.00	2.000%	9,350.00	69,350.00	134,250.00
07/15/2035	60,000.00	2.000%	8,750.00	68,750.00	-
01/15/2036	60,000.00	2.000%	8,150.00	68,150.00	136,900.00
07/15/2036	60,000.00	2.000%	7,550.00	67,550.00	-
01/15/2037	60,000.00	2.000%	6,950.00	66,950.00	134,500.00
07/15/2037	60,000.00	2.000%	6,350.00	66,350.00	-
01/15/2038	60,000.00	2.000%	5,750.00	65,750.00	132,100.00
07/15/2038	60,000.00	2.000%	5,150.00	65,150.00	-
01/15/2039	65,000.00	2.000%	4,550.00	69,550.00	134,700.00
07/15/2039	65,000.00	2.000%	3,900.00	68,900.00	-
01/15/2040	65,000.00	2.000%	3,250.00	68,250.00	137,150.00
07/15/2040	65,000.00	2.000%	2,600.00	67,600.00	-

(1) Capitalized Interest during construction to be paid out of bond proceeds.

Michigan City Sanitary District

Town of Long Beach - Lake Shore Drive Sanitary Sewer Project
 Proposed Sewage Works Revenue Bonds, Series 2020B \$2.2 M

Debt Service Schedule

Part 2 of 2

Date	Principal	Coupon	Interest	Total P+I	Fiscal Total
01/15/2041	65,000.00	2.000%	1,950.00	66,950.00	134,550.00
07/15/2041	65,000.00	2.000%	1,300.00	66,300.00	-
01/15/2042	65,000.00	2.000%	650.00	65,650.00	131,950.00
Total	\$2,200,000.00	-	\$539,516.67	\$2,739,516.67	-

Yield Statistics

Bond Year Dollars	\$26,975.83
Average Life	12.262 Years
Average Coupon	2.0000000%
Net Interest Cost (NIC)	2.0000000%
True Interest Cost (TIC)	2.0001040%
Bond Yield for Arbitrage Purposes	2.0001040%
All Inclusive Cost (AIC)	2.1566791%

IRS Form 8038

Net Interest Cost	2.0000000%
Weighted Average Maturity	12.262 Years

MICHIGAN CITY SANITARY DISTRICT

Town of Long Beach - Lake Shore Drive Sanitary Sewer Project

Combined Debt Service Schedule

	Annual Debt Service Series <u>2020A</u>	Annual Debt Service Series <u>2020B</u>	Total Annual Debt Service Payments	
01/15/21	\$ -	\$ -	\$ -	(1)
01/15/22	-	-	-	(1)
01/15/23	216,955.00	133,550.00	350,505.00	
01/15/24	214,655.00	131,750.00	346,405.00	
01/15/25	212,355.00	129,950.00	342,305.00	
01/15/26	210,055.00	138,100.00	348,155.00	
01/15/27	212,755.00	136,100.00	348,855.00	
01/15/28	215,282.50	134,100.00	349,382.50	
01/15/29	212,752.50	132,100.00	344,852.50	
01/15/30	210,222.50	130,100.00	340,322.50	
01/15/31	217,635.00	138,050.00	355,685.00	
01/15/32	214,875.00	135,850.00	350,725.00	
01/15/33	212,115.00	133,650.00	345,765.00	
01/15/34	209,355.00	131,450.00	340,805.00	
01/15/35	216,537.50	134,250.00	350,787.50	
01/15/36	213,547.50	136,900.00	350,447.50	
01/15/37	210,557.50	134,500.00	345,057.50	
01/15/38	217,510.00	132,100.00	349,610.00	
01/15/39	214,290.00	134,700.00	348,990.00	
01/15/40	211,070.00	137,150.00	348,220.00	
01/15/41	212,850.00	134,550.00	347,400.00	
01/15/42	214,457.50	131,950.00	346,407.50	
01/15/43	211,007.50		211,007.50	
01/15/44	212,557.50		212,557.50	
01/15/45	213,935.00		213,935.00	
01/15/46	210,255.00		210,255.00	
01/15/47	216,517.50		216,517.50	
01/15/48	212,607.50		212,607.50	
01/15/49	213,697.50		213,697.50	
01/15/50	214,615.00		214,615.00	
01/15/51	210,475.00		210,475.00	
01/15/52	216,277.50		216,277.50	
01/15/53	211,907.50		211,907.50	
01/15/54	212,537.50		212,537.50	
01/15/55	212,995.00		212,995.00	
01/15/56	213,395.00		213,395.00	
01/15/57	213,622.50		213,622.50	
	<u>\$ 7,466,235.00</u>	<u>\$ 2,680,850.00</u>	<u>\$10,147,085.00</u>	

(1) Bond proceeds will pay capitalized interest during construction and up through period users connect to the system through January 15, 2022.

MICHIGAN CITY SANITARY DISTRICT
Town of Long Beach - Lake Shore Drive Sanitary Sewer Project

Preliminary Schedule of Sewer User Fees
for Lake Shore Drive Project

For Assumed SRF Financing

Monthly Operating & Maintenance Sewer Fee

for 700 Cubic Feet (Michigan City Sanitary - Outside District Rate) \$ 37.29

Long Beach Sewage Works Sewer Fee

Capital Charges

Maximum Annual Debt Service Charge
on \$7,310,000 SRF Loan 20 & 35 Years - 2% & 2.3% \$ 355,685

Funding Debt Service Reserve & Coverage \$ 88,921 (1)

Total Revenue Requirements \$ 444,606

Annual Equivalent Dwelling Units (290 homes) 3,480 (2)

Estimated Monthly Local Capital Charge 127.76

Total Estimate Monthly Sewer Fees

\$ 165.05

(Based on 700 cubic feet for Operating & Maintenance)

Local Capital Charge to Non-Connecting Lake Shore Dr. Residents

Estimated Monthly Local Capital Charge

to Lake Shore Drive Residents Not Connecting to the
Sanitary Sewer Line.

\$ 127.76

(1) SRF requires 125% coverage for its State Revolving Loans (Net Revenues/Maximum Annual Debt Service)

(2) Assumes all North and South Side Lakeshore residents pay the Local Capital Charge (to cover the debt service payments) regardless if they hook-up.