



City Council Special Work Session

Crest Hill, IL

August 04, 2022

7:00 PM

Council Chambers

1610 Plainfield Road, Crest Hill, IL 60403

Agenda

- [1.](#) West Plant Bid Award Discussion
2. Public Comments
3. Mayor's Updates
4. Committee/Liaison Updates
5. City Administrator Updates

The Agenda for each regular meeting and special meeting (except a meeting held in the event of a bona fide emergency, rescheduled regular meeting, or any reconvened meeting) shall be posted at the City Hall and at the location where the meeting is to be held at least forty-eight (48) hours in advance of the holding of the meeting. The City Council shall also post on its website the agenda for any regular or special meetings. The City Council may modify its agenda for any regular or special meetings. The City Council may modify its agenda before or at the meeting for which public notice is given, provided that, in no event may the City Council act upon any matters which are not posted on the agenda at least forty-eight (48) hours in advance of the time for the holding of the meeting.



Agenda Memo

Crest Hill, IL

Meeting Date: August 4, 2022

Submitter: Mark Siefert, Director of Public Works

Department: Public Works

Agenda Item: West Plant Bid Award Discussion

Summary: On Thursday July 14, 2022, the Public Works department opened bids for reconstruction of the west plant wastewater treatment facility. Bids were received from three contractors after a 60-day bid period. The city received its lowest bid of \$51,770,000 from Vissering Construction located in Streator, Illinois. The original pre-bid engineering estimate of construction costs for this project was \$40,000,000. The attached letters from Strand and City Engineer Wiedeman explain the difference in the original cost estimate for this project compared to the bids that were received which, unfortunately, were higher than originally projected.

The city hired Burns and McDonnell to perform a water rate study in 2020-2021. Conservative assumptions, as part of this study, accounted for the uncertainty of the economy and interest rates and how these factors would impact the City's ability to finance this project. Below is a summary of the rate study assumptions:

Rate Study Assumptions

Loan Amount	\$45,000,000
Interest Rate	1.00%
Term (years)	20
Annual Debt Service	\$2,493,700

Last week, staff received confirmation from the IEPA that the city was approved for a 30-year loan at 0.73% for up to a maximum amount of \$49,500,000 (per the city passed ordinance earlier this year). We were also notified that the IEPA has granted us \$5,000,000 in principle forgiveness.

Based on the maximum loan amount of \$49,500,000 and the \$5,000,000 of principal forgiveness allotted to the city from the IEPA, the total loan repayment amount will be reduced to \$44,500,000.

The anticipated annual debt service payment is lower due to the lower interest rate calculated with the longer-term loan. The new loan structure under the 30-year term is summarized below:

IEPA Loan Payments

Loan Amount	\$ 49,500,000
Principal Forgiveness	\$5,000,000
Repayment Amount	\$44,500,000
Interest Rate	0.73%
Term (years)	30
Annual Debt Service	\$1,654,400

The annual repayment of the IEPA loan, as shown above, is anticipated to be \$839,300 less than what was estimated. The reason for the reduction in the annual debt service payment is due to the loan term being extended for an additional ten years. Staff's recommendation is to pay for all project costs up to \$49,500,000 from the IEPA loan proceeds.

Any expenditures which exceed \$49,500,000, which is the maximum IEPA loan amount, will be budgeted and funded from the City's Water/Sewer Fund.

Currently, the anticipated expenditures, which may exceed the maximum loan amount are:

- Construction engineering (pending council approval): \$3,720,300
- IEPA mandated contingency (3%): \$1,519,000
- Base bid above loan amount: \$1,140,000
- Accumulated interest: \$688,600 based on 0.73%

Below is a more detailed discussion on all out of pockets project costs not being covered under the IEPA loan.

Construction Engineering:

Staff proposes that the City fund the Strand Construction Engineering expenditures in accordance with the following payment schedule.

Payment Schedule

- 2023-\$400,000
- 2024-\$830,075
- 2025-\$830,075
- 2026-\$830,075
- 2027-\$830,075

These will be lump sum payments for a 5-year period. Monthly, Strand will invoice the city for the time charged for the work that has been completed. It is staff's recommendation that the savings from extending the loan term generated would be used to pay Strand's construction engineering services as shown in the payment schedule above.

IEPA Mandated Contingency (3%):

The IEPA loan mandates a contingency fund or proof that the City has the funds available in case of unexpected changes in this project's scope. This contingency is an increased expense for

the total construction cost for this project. Staff plans to demonstrate the City has the contingency funds available in our fund balance. This dollar amount is only in place if something were to happen outside of what is expected as part of this project. As such, this amount may be less than anticipated. Currently the Water/Sewer Fund has over \$10 million in the fund balance.

Base Bid above Loan Amount:

Staff proposed to fund the first 46 contractor pay requests with loan funds disbursed by the IEPA (up to the loan maximum of \$49,500,000). The last three contractor pay requests would be funded from the Fund Balance which is projected to increase by close to \$5 million compared to the projections made in the rate study, which assumed debt service payments would begin in fiscal year 202; however, payments won't actually begin until fiscal year 2027. Staff proposes using the funds that were allocated for debt service payments in fiscal year 2025 and 2026 to fund the final three contractor pay requests.

Accumulated Interest:

The accumulated interest of the loan will be spread over 4 years until we start repayment in 2027.

Fiscal Year	Loan Interest Amount
2023	\$ 620.80
2024	\$ 55,872.38
2025	\$ 145,337.16
2026	\$ 240,872.63
2027	\$ 245,877.38
Totals	\$ 688,580.35

The interest amount of \$688,580.35 will be paid at the end of the loan disbursements. This is an estimate based on the projected flow of money during the project. This will be coming from the fund balance at the completion of the project. A summary of the anticipated changes in fund balance compared to the rates study is provided below.

Fund Balance Withdrawals (Changes from Rate Study)

Fiscal Year	2023	2024	2025	2026	2027	2028
Withdrawals	\$400,000	\$830,075	(\$1,609,625)	(\$1,609,625)	\$4,177,275	(\$839,323)*

* These savings would go on for the following 19 years

Next Steps:

A Notice of Intent to Award must be executed by the City to allow Strand to submit the bid and all bid documents to the IEPA for approval.

The IEPA will take about 90-100 days to approve the bid documents and prepare the loan documents.

Once the IEPA has certified the bids and issued a loan agreement, the loan agreement and Notice of Award must be executed by the City with Council's approval within 120 days of the bid opening. This will allow an additional 20 days for executing the contract documents and issuing the Notice to Proceed, which must occur within the bid validity period (140 days of the bid opening *December 1, 2022*). If the Notice to Proceed is not issued by December 1, 2022, it could result in additional costs being incurred by the City.

Cost Cutting/Value Engineering

Staff and Strand & Associates have identified 15-25 non-essential or redundant items which have the potential to save \$1 million to \$2.5 million. These items will not affect the final operation of the facility but were included to provide the city the most up to date treatment plant facility, but through discussions some of these items can be eliminated and other procedures or method implemented to provide the same results. These cost cutting measures will not downgrade the performance of the facility as designed.

Recommended Council Action: Approve the notice of intent to award the West Plant Construction Contract to Vissering Construction in the amount of \$50,640,000 at the August 15 regular meeting.

Direct staff to identify cost cutting measures and present a change order for council approval after the project is awarded and contracts are signed.

Financial Impact:

Funding Source: IEPA Loan

Budgeted Amount: \$49,500,000

Cost: \$44,500,000 plus out of pocket expenses.

Attachments:

Letter from Burns and McDonnell
 Letter from City Engineer Wiedeman
 Letter from Strand regarding higher-than-expected bids
 Letter from Strand regarding potential costs savings



To: Mark Siefert, Public Works Director
From: Ronald J Wiedeman, City Engineer
Date: July 22, 2022
Re: West Treatment Plant Bids

I have reviewed the bids and found that these bids do reflect the market as it exists today and rebidding the same set of plans without eliminating or changing the scope of work would not result in lower bids.

With a difference of approximately 3% between the lower bidder and the highest bidder it shows me that the bid documents were clear for the manner of work being requested.

Some of the items that are driving up the prices are as follows:

- Contractors having to hold their prices for 145 days due to getting IEPA concurrence of award.
- Current and future inflationary factors over the 3–4-year construction period.
- City request for certain manufacturers and products.

Therefore, if the funding is available to construct the project as bid, the city should move forward with the project and not seek to rebid.

Should there be any questions on this matter, please feel free to call or email me at your convenience.

Very Truly Yours,

A handwritten signature in black ink, appearing to read "Ronald J. Wiedeman", written in a cursive style.

Memorandum



Date: July 29, 2022

To: Mark Siefert

From: Dave Naumann

Subject: Financial Plan Sensitivities Regarding West Plant Project Costs – Updated 7.29

In the rate study published early in 2022, improvements in the Crest Hill sewer utility's west treatment plant were anticipated at a cost of about \$45 million, financed through an Illinois Environmental Protection Agency (IEPA) state revolving loan over 20 years and an assumed interest rate of 1.0 percent. Crest Hill has typically qualified as a small/disadvantaged community IEPA incentives, which can lead to loan forgiveness, a lower interest rate, and up to a 30-year loan term. For the rate study, we assumed the loan would be financed without these incentives as they are not guaranteed, which reflects a relatively cautious and conservative approach to financial planning.

Crest Hill has received updated cost assumptions for the west plant project as well as additional clarification on construction engineering services and IEPA loan terms including contingency reserve requirements. Further, preliminary operation and maintenance costs for the new west plant have been estimated.

Table 1 summarizes the assumed costs and terms for the west plant project in the rate study as compared to the current understanding. As shown on Table 1, the all-in project cost for the west plant was assumed to be \$45 million in the rate study. Current estimates of the project cost reflect \$50.64 million in construction, but that excluded constructing engineering, and a contingency reserve required by the IEPA of 3% of the project. Further, because the construction cost of \$50.64 million exceeds the maximum approved IEPA loan amount, the difference of \$1.14 million will need to be funded from cash.

Table 1 – West Plant Project Cost Comparison

Line				
No.	<u>Rate Study</u>		<u>Update</u>	
1	Project Cost	45,000,000	Project Cost	50,640,000
2	Maximum Gross Loan Amount	45,000,000	Maximum Gross Loan Amount	49,500,000
3	Principal Forgiveness	-	Principal Forgiveness	5,000,000
4	Loan Amount	45,000,000	Loan Amount	44,500,000
5	Interest Rate	1.00%	Interest Rate	0.73%
6	Loan Duration	20	Loan Duration	30
7	First Year of Full P&I	2025	First Year of Full P&I	2027
8	Full Annual P&I Expense	2,493,700	Full Annual P&I Expense	1,657,100
9	Contingency - IEPA 3%	-	Contingency - IEPA 3%	1,519,200
10	Construction Engineering - Cash Funded	-	Construction Engineering - Cash Funded	3,720,300
11	Additional Cash Funding	-	Additional Cash Funding	1,140,000
12	Incremental O&M Cost	-	Incremental O&M Cost - 2027 \$	243,900

Memorandum (cont'd)



July 29, 2022

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The rate study had much more conservative estimates regarding loan terms. No principal forgiveness, a higher interest rate and a term of 20 years were assumed. Further, the loan repayment was assumed to start 2 years sooner in the rate study.

As shown on Line 8, the full annual principal and interest payment is projected to be less in the update by about \$800,000 per year.

Table 2 compares these assumptions showing the annual impact to revenue requirements (i.e. cash obligations). For the rate study, the cost assumptions were simplistic, reflecting only the principal and interest payments for the loan. The payments on Line 1 assume interest payments for the first two years with full payments starting in 2025.

Table 2 – West Plant Project Cash Flow Impact

Line No.		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Rate Study												
1	Debt Service Expense	112,500	225,000	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	
2	Construction Engineering											
3	Cash Funded Project Costs											
4	Contingency (cash funded)											
5	Incremental O&M											
6	Total Cost	112,500	225,000	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	2,493,700	20,287,100
7	Total Cash	11,184,400	10,565,800	6,893,500	4,896,300	6,070,700	7,872,100	10,215,200	11,048,200	12,646,200	15,533,500	
Update												
8	Debt Service Expense (a)	621	55,872	145,337	240,873	1,902,977	1,657,100	1,657,100	1,657,100	1,657,100	1,657,100	
9	Construction Engineering	400,000	830,075	830,075	830,075	830,075						
10	Cash Funded Project Costs					1,140,000						
11	Contingency (cash funded)					1,519,200						
12	Incremental O&M					243,900	248,700	253,600	258,600	263,700	268,900	
13	Total Cost	400,621	885,947	975,412	1,070,948	5,636,152	1,905,800	1,910,700	1,915,700	1,920,800	1,926,000	18,548,080
14	Total Cash	9,454,400	9,086,800	8,649,900	7,176,100	13,683,000	13,874,000	12,385,600	13,776,300	13,655,900	14,088,400	
Comparison												
15	Annual Cost / (Savings)	288,121	660,947	(1,518,288)	(1,422,752)	3,142,452	(587,900)	(583,000)	(578,000)	(572,900)	(567,700)	
16	Cumulative Cash Impact Cost / (Savings)		949,068	(569,220)	(1,991,972)	1,150,480	562,580	(20,420)	(598,420)	(1,171,320)	(1,739,020)	

(a) Reflects interest payments on anticipated draws in 2023 through 2027. Full principal and interest payments of ~ \$1.6M are also expected to start in 2027.

The update reflects the benefit of \$5 million in principal forgiveness, a lower interest rate, and a 30-year term, with full payments assumed to start in 2027. Further, the update reflects the construction engineering cost, cash funding for construction costs in excess of maximum IEPA loan amounts, and the IEPA 3% contingency. Note the contingency is assumed to be spent during the construction period. Further, an allowance for incremental O&M has been made to reflect an additional full time employee and higher electric and other operating expenses.

Line 15 of Table 2 shows the annual difference in the cost estimates used in the rate study and the current update. Fiscal Years 2023, 2024, and 2027 are anticipated to be higher than projected in the rate study. All other years indicate a savings that results from favorable loan terms and a

Memorandum (cont'd)



July 29, 2022

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later start date for full repayment. Through 2032, a net savings of almost \$1.7 million is anticipated.

For Crest Hill, the key question is how to fund higher expenses anticipated during FY2023, 2024, and 2027 before savings start to be realized. Our analysis indicates this funding may come from reserves. Or alternately, the City could consider a short term loan to cover these costs.

Beyond the impact of the west plant project, long-term financial planning involves assumptions about future conditions, revenues and costs that will need to be monitored. Key assumptions include:

- Growth in customers and usage
- Estimates of future operation and maintenance expense
- Estimates of future capital project costs

While we believe the utility can absorb the short term increase in costs, it is possible that unfavorable trends in assumptions above regarding customer growth and usage, O&M, or capital costs may prompt the plans to be adjusted in the future.

I'd be happy to discuss this further if you would find that helpful, just let me know.

July 28, 2022

Mr. Mark Siefert, Director of Public Works
City of Crest Hill
1610 Plainfield Road
Crest Hill, IL 60403

Re: West Sewage Treatment Plant Improvements Project–Bid Results
Contract 1-2022
City of Crest Hill, Illinois

Dear Mr. Siefert:

Bids for the above-referenced Project were opened on July 14, 2022. Three Bids were received with the resulting Bid tabulation enclosed. Vissering Construction Company of Streator, Illinois, was the apparent low Bidder at \$51,770,000. The Bid included a Bid Bond for 10 percent and Addendum Nos. 1 through 4 were acknowledged. The Bid is deemed to be responsive.

The Engineer's opinion of probable construction cost (OPCC) was \$40,000,000. The difference between the apparent low and the highest Bids is approximately 3.5 percent. Strand Associates, Inc.® believes this difference reflects an accurate assessment of the project scope by all bidders and that a bidding mistake by the apparent low bidder was unlikely. The difference between the apparent low Bid and the OPCC is approximately 29 percent. Strand believes the following may be reasons for this discrepancy.

1. Unanticipated high inflation rates have driven up material pricing; especially ductile iron piping, aluminum, and stainless steel. Most of the specific wastewater treatment equipment on this project consists of the latter two materials.
2. The Contract-required Bid pricing is to be held for 140 days to comply with Illinois Environmental Protection Agency bid-awarding rules. Subsequent conversations with equipment representatives revealed that they were apprehensive to hold their prices for this length of time, given generally high inflation and the volatility of the materials market, as previously stated.
3. The project duration was extended during the bidding period to account for unanticipated, extended "lead" times for equipment. Contractors specifically requested this extension during the bid period for fear of being unable to meet the original contractual deadlines. For example, motor control centers (MCC) now have one-year lead times. This resulted in increasing long-term hesitancy. If, for example, an MCC was not ordered until middle of 2023, contractors would face two additional years of inflation on their MCC price.
4. Space constraints on the West Sewage Treatment Plant site limit the "laydown" space available to contractors. Further, the Contract allows for 75 percent payment for equipment and materials stored off-site at the warehouse or contractor's facilities. The intention of this rule is to hold a contractor accountable for its ordered materials and to protect owners from a contractor trying to get paid early for work that has not been completed. The project also contains complex,

Mr. Mark Siefert, Director of Public Works
City of Crest Hill
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multiyear phasing. Contractors were concerned they have to “float” several years of costs for materials that they could not order and stockpile.

5. Ongoing labor strikes in the area’s stone quarries are impacting stone and concrete costs.

A subsequent letter will discuss potential cost-saving measures to reduce overall project costs for the City of Crest Hill.

Strand Associates, Inc.[®] has previously worked with Vissering Construction Company on projects for Illinois American Water Company and Fox Metro Water Reclamation District. For those projects, the owners determined Vissering Construction Company to be responsible.

If you determine that Vissering Construction Company is a responsible Bidder after your evaluation of their qualifications, it is appropriate to proceed with issuing the Notice of Intent to Award of the Contract, in accordance with Article 18 of the Instructions to Bidders.

If you have questions regarding the information in this letter, please call 815-744-4200.

Sincerely,

STRAND ASSOCIATES, INC.[®]



Michael G. Ott, P.E.

Enclosure

Bids Received: 2 p.m.
July 14, 2022

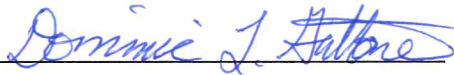
STRAND ASSOCIATES, INC.
IDFPR No. 184-001273
1170 Houbolt Road
Joliet, IL 60435

CITY OF CREST HILL, ILLINOIS
CREST HILL, ILLINOIS
WEST SEWAGE TREATMENT PLANT IMPROVEMENTS
CONTRACT 1-2022

BID TABULATION SUMMARY

Bidder and Address	Bid Bond or Guarantee	Addenda Acknowledged	Bid Alternative No. 1	Lump Sum Base Bid
Vissering Construction Company 175 Benchmark Industrial Drive Streator, IL 61364	10%	1,2,3,4	\$ (630,000.00)	\$ 51,770,000.00
Williams Brothers Construction, Inc. P.O. Box 1366 Peoria, IL 61654	10%	1,2,3,4	\$ (525,000.00)	\$ 53,340,000.00
IHC Construction Companies, Inc. 385 Airport Drive, Suite 100 Elgin, IL 60123	10%	1,2,3,4	\$ (600,000.00)	\$ 53,569,000.00

Reviewed by:



Bids Received: 2 p.m.
July 14, 2022

STRAND ASSOCIATES, INC.
IDFPR No. 184-001273
1170 Houbolt Road
Joliet, IL 60435

CITY OF CREST HILL, ILLINOIS
CREST HILL, ILLINOIS
WEST SEWAGE TREATMENT PLANT IMPROVEMENTS

CASH ALLOWANCES

BIDDER AND ADDRESS				Vissering Construction Company 175 Benchmark Industrial Drive Streator, IL 61364		Williams Brothers Construction, Inc. P.O. Box 1366 Peoria, IL 61654		IHC Construction Companies, Inc. 385 Airport Drive, Suite 100 Elgin, IL 60123	
Item No.	Description	Quantity Included in the Lump Sum Base Bid	Unit	Unit Price	Total Included in Lump Sum Bid	Unit Price	Total Included in Lump Sum Bid	Unit Price	Total Included in Lump Sum Bid
1.	Solids Removal and Disposal by Land Application (Section 02 77 50)	20,000	GAL	\$ 1.15	\$ 23,000.00	\$ 2.00	\$ 40,000.00	\$ 1.65	\$ 33,000.00
2.	Solids Removal and Disposal by Landfill (Section 02 77 50)	150,000	GAL	\$ 1.65	\$ 247,500.00	\$ 1.25	\$ 187,500.00	\$ 1.15	\$ 172,500.00
3.	Filter Medial Removal and Disposal by Landfill (Section 02 77 50)	110	DT	\$ 700.00	\$ 77,000.00	\$ 750.00	\$ 82,500.00	\$ 700.00	\$ 77,000.00
4.	Top of Wall Repairs (Section 03 01 30)	100	CF	\$ 50.00	\$ 5,000.00	\$ 250.00	\$ 25,000.00	\$ 500.00	\$ 50,000.00
5.	Wall Vertical Surface and Underside of Slab Repairs (Section 03 01 30)	100	CF	\$ 75.00	\$ 7,500.00	\$ 250.00	\$ 25,000.00	\$ 525.00	\$ 52,500.00
6.	Top of Slab Surface Repairs (Section 03 01 30)	100	CF	\$ 25.00	\$ 2,500.00	\$ 250.00	\$ 25,000.00	\$ 500.00	\$ 50,000.00
7.	Crack Injection (Section 07 95 00)	500	LF	\$ 10.00	\$ 5,000.00	\$ 100.00	\$ 50,000.00	\$ 175.00	\$ 87,500.00
8.	Disposal of Blast Residue (Section 09 91 00)	1	LS	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00	\$ 10,000.00
9.	Laboratory Equipment (Section 11 53 00)	1	LS	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
10.	Office Furniture (Section 12 51 00)	1	LS	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00	\$ 50,000.00
11.	SCADA Computer Allowance (Section 26 09 01)	1	LS	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00	\$ 40,000.00
12.	Electric Utility Service Entrance (Section 26 21 00)	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
13.	VoIP Phone System Allowance (Section 27 10 00)	1	LS	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
14.	Unsuitable Foundation Material for Structures and Roads (Section 31 23 00)	1,000	CY	\$ 90.00	\$ 90,000.00	\$ 101.61	\$ 101,610.00	\$ 115.00	\$ 115,000.00
				*	\$ 9,000.00				
15.	Unsuitable Foundation Material for Utility Trenches (Section 31 23 00)	1,000	CY	\$ 90.00	\$ 90,000.00	\$ 100.00	\$ 100,000.00	\$ 80.00	\$ 80,000.00
				*	\$ 9,000.00				

BIDDER AND ADDRESS				Vissering Construction Company 175 Benchmark Industrial Drive Streator, IL 61364		Williams Brothers Construction, Inc. P.O. Box 1366 Peoria, IL 61654		IHC Construction Companies, Inc. 385 Airport Drive, Suite 100 Elgin, IL 60123	
Item No.	Description	Quantity Included in the Lump Sum Base Bid	Unit	Unit Price	Total Included in Lump Sum Bid	Unit Price	Total Included in Lump Sum Bid	Unit Price	Total Included in Lump Sum Bid
16.	Excavation and Disposal of Solid Waste Fill Material (Section 31 23 00)	200	T	\$ 25.00	\$ 5,000.00	\$ 52.05	\$ 10,410.00	\$ 70.00	\$ 14,000.00
17.	Rock Removal for Structures and Roads (Section 31 23 16.26)	5,500	CY	\$ 135.00	\$ 742,500.00	\$ 75.00	\$ 412,500.00	\$ 170.00	\$ 935,000.00
18.	Rock Removal for Utility Trenches (Section 31 23 16.26)	2,750	CY	\$ 150.00	\$ 412,500.00	\$ 95.00	\$ 261,250.00	\$ 125.00	\$ 343,750.00
19.	Natural Gas Utility Service (Section 33 52 16)	1	LS	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00

Reviewed by 

EQUIPMENT ALTERNATIVES
CITY OF CREST HILL, ILLINOIS
CREST HILL, ILLINOIS
WEST SEWAGE TREATMENT PLANT IMPROVEMENTS
CONTRACT 1-2022

EQUIPMENT ALTERNATIVES

	Vissering Construction Company, Inc. 175 Benchmark Industrial Drive Streator, IL 61364					
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
A.	Fiberglass Reinforced Plastic Chemical Tank (Section 06 61 60)	Plas-Tanks OR Belding	\$60,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
B.	Control Panels and Instrumentation (Section 26 09 00)	Frakes Engineering OR Integrated Process Solutions OR Wunderlich-Malec OR Energenees	\$1,300,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
C.	SCADA Programming (Section 26 09 01)	Concentric Integration	\$600,000	<u>Frakes Engineering</u>	(+) _____	(-) <u>130,000</u>
				<u>Integrated Process Solutions</u>	(+) _____	(-) <u>300,000</u>
				<u>Wunderlich-Malec</u>	(+) _____	(-) <u>350,000</u>
D.	Sluice Gates (Section 40 05 59.20)	RW Gate	\$300,000	_____	(+) _____	(-) _____
E.	Slide Gates (Section 40 05 59.23)	RW Gate	\$300,000	_____	(+) _____	(-) _____
F.	Tri-lobe Positive Displacement Blowers (Section 43 11 33.11)	Aerzen	\$560,000	<u>Kaeser</u>	(+) _____	(-) <u>150,000</u>
				_____	(+) _____	(-) _____

Vissering Construction Company, Inc. 175 Benchmark Industrial Drive Streator, IL 61364						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
G.	Rotary Lobe Blowers (Section 43 11 33.12)	Aerzen	\$260,000	<u>Kaeser</u>	(+) <u>25,000</u>	(-) _____
				_____	(+) _____	(-) _____
H.	Plant Water Pumping System (Section 43 21 06)	Grundfos	\$150,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
I.	Centrifugal Sludge Pumps (Section 43 23 21)	Wemco	\$100,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
J.	Rotary Lobe Pumps (Section 43 23 58)	Boerger	\$650,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
K.	Internal Recycle Pumps (Section 43 24 13)	Xylem	\$185,000	<u>Wilo USA</u>	(+) <u>No Bid</u>	(-) _____
				_____	(+) _____	(-) _____
L.	Submersible Pumps (Section 43 25 10)	Xylem	\$575,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
M.	Samplers (Section 46 09 00)	Hach	\$25,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
N.	Center Flow Screens (Section 46 21 53)	Hydro-Dyne Engineering	\$400,000	<u>JWC</u>	(+) <u>No Bid</u>	(-) _____
				_____	(+) _____	(-) _____
O.	Screenings Wash Presses (Section 46 21 23)	Hydro-Dyne Engineering	\$250,000	<u>JWC</u>	(+) <u>No Bid</u>	(-) _____
				_____	(+) _____	(-) _____

Vissering Construction Company, Inc. 175 Benchmark Industrial Drive Streator, IL 61364						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
P.	Grit Pump (Section 46 23 22)	Wemco	\$40,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
Q.	Grit Collector (Section 46 23 23)	Hydro International	\$250,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
R.	Grit Washer (Section 46 23 63)	Hydro International	\$160,000	Huber	(+) No Bid	(-) _____
				_____	(+) _____	(-) _____
S.	Chemical Phosphorus Removal Equipment (Section 46 33 00)	Watson-Marlow	\$80,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
T.	Chemical Tablet Feeding Equipment (Section 46 36 53)	Axiall Corporation	\$80,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
U.	Submersible Mixers (Section 46 46 23)	Xylem	\$215,000	Wilo USA	(+) No Bid	(-) _____
				_____	(+) _____	(-) _____
V.	Primary Clarifier Collectors (Section 46 43 21)	Walker Process	\$400,000	Evoqua	(+) No Bid	(-) _____
				_____	(+) _____	(-) _____
W.	Excess Flow Clarifier Collector (Section 46 43 22)	Walker Process	\$375,000	Evoqua	(+) No Bid	(-) _____
				_____	(+) _____	(-) _____
X.	Final Clarifier Collectors (Section 46 43 23)	Walker Process	\$600,000	Evoqua	(+) No Bid	(-) _____
				_____	(+) _____	(-) _____

Vissering Construction Company, Inc. 175 Benchmark Industrial Drive Streator, IL 61364						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
Y.	Aeration Equipment–Aeration Tanks and Post Aeration (Section 46 51 46)	Sanitaire	\$125,000	<u>Evoqua</u> <u>Aquarius</u> _____	(+) <u>No Bid</u> (+) <u>50,000</u> (+) _____	(-) _____ (-) _____ (-) _____
Z.	Aeration Equipment–Aerobic Digesters (Section 46 51 46)	Sanitaire	\$75,000	<u>Evoqua</u> <u>Aquarius</u> _____	(+) <u>No Bid</u> (+) <u>50,000</u> (+) _____	(-) _____ (-) _____ (-) _____
AA	Tertiary Disc Filters (Section 46 61 41)	Westech	\$950,000	<u>Veolia Water Technologies</u> _____	(+) <u>No Bid</u> (+) _____	(-) _____ (-) _____
BB	Ultraviolet Disinfection (Section 46 60 56)	WEDECO	\$280,000	_____ _____	(+) _____ (+) _____	(-) _____ (-) _____
CC	Centrifuge Dewatering Equipment (Section 46 76 33)	Centrisys	\$745,000	_____ _____	(+) _____ (+) _____	(-) _____ (-) _____

Williams Brothers Construction, Inc. P.O. Box 1366 Peoria, IL 61654						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
A.	Fiberglass Reinforced Plastic Chemical Tank (Section 06 61 60)	Plas-Tanks OR Bolding	\$50,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
B.	Control Panels and Instrumentation (Section 26 09 00)	Frakes Engineering OR Integrated Process Solutions OR Wunderlich-Malec OR Energences	\$1,380,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
C.	SCADA Programming (Section 26 09 01)	Concentric Integration	\$606,000	<u>Frakes Engineering</u>	(+)_____	(-)_____ 130,000
				<u>Integrated Process Solutions</u>	(+)_____	(-)_____ 300,000
				<u>Wunderlich-Malec</u>	(+)_____	(-)_____ 310,000
D.	Sluice Gates (Section 40 05 59.20)	RW Gate	\$100,000	_____	(+)_____	(-)_____
E.	Slide Gates (Section 40 05 59.23)	RW Gate	\$350,000	_____	(+)_____	(-)_____
F.	Tri-lobe Positive Displacement Blowers (Section 43 11 33.11)	Aerzen	\$260,000	<u>Kaeser</u>	(+)_____	(-)_____
				_____	(+)_____	(-)_____
G.	Rotary Lobe Blowers (Section 43 11 33.12)	Aerzen	\$560,000	<u>Kaeser</u>	(+)_____	(-)_____
				_____	(+)_____	(-)_____
H.	Plant Water Pumping System (Section 43 21 06)	Grundfos	\$150,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____

Williams Brothers Construction, Inc. P.O. Box 1366 Peoria, IL 61654						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
I.	Centrifugal Sludge Pumps (Section 43 23 21)	Wemco	\$100,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
J.	Rotary Lobe Pumps (Section 43 23 58)	Boerger	\$450,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
K.	Internal Recycle Pumps (Section 43 24 13)	Xylem	\$175,000	Wilo USA	(+)_____	(-)_____
				_____	(+)_____	(-)_____
L.	Submersible Pumps (Section 43 25 10)	Xylem	\$525,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
M.	Samplers (Section 46 09 00)	Hach	\$30,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
N.	Center Flow Screens (Section 46 21 53)	Hydro-Dyne Engineering	\$300,000	JWC	(+)_____	(-)_____
				_____	(+)_____	(-)_____
O.	Screenings Wash Presses (Section 46 21 23)	Hydro-Dyne Engineering	\$300,000	JWC	(+)_____	(-)_____
				_____	(+)_____	(-)_____
P.	Grit Pump (Section 46 23 22)	Wemco	\$40,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____

Williams Brothers Construction, Inc. P.O. Box 1366 Peoria, IL 61654						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
Q.	Grit Collector (Section 46 23 23)	Hydro International	\$250,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
R.	Grit Washer (Section 46 23 63)	Hydro International	\$160,000	Huber	(+)_____	(-)_____
				_____	(+)_____	(-)_____
S.	Chemical Phosphorus Removal Equipment (Section 46 33 00)	Watson-Marlow	\$80,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
T.	Chemical Tablet Feeding Equipment (Section 46 36 53)	Axiall Corporation	\$80,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
U.	Submersible Mixers (Section 46 46 23)	Xylem	\$200,000	Wilo USA	(+)_____	(-)_____
				_____	(+)_____	(-)_____
V.	Primary Clarifier Collectors (Section 46 43 21)	Walker Process	\$360,000	Evoqua	(+)_____	(-)_____
				_____	(+)_____	(-)_____
W.	Excess Flow Clarifier Collector (Section 46 43 22)	Walker Process	\$350,000	Evoqua	(+)_____	(-)_____
				_____	(+)_____	(-)_____
X.	Final Clarifier Collectors (Section 46 43 23)	Walker Process	\$550,000	Evoqua	(+)_____	(-)_____
				_____	(+)_____	(-)_____

Williams Brothers Construction, Inc. P.O. Box 1366 Peoria, IL 61654						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
Y.	Aeration Equipment– Aeration Tanks and Post Aeration (Section 46 51 46)	Sanitaire	\$100,000	<u>Evoqua</u> <u>Aquarius</u> _____	(+)_____ (+)_____ (+)_____	(-)_____ (-)_____ (-)_____
Z.	Aeration Equipment– Aerobic Digesters (Section 46 51 46)	Sanitaire	\$100,000	<u>Evoqua</u> <u>Aquarius</u> _____	(+)_____ (+)_____ (+)_____	(-)_____ (-)_____ (-)_____
AA.	Tertiary Disc Filters (Section 46 61 41)	Westech	\$850,000	<u>Veolia Water Technologies</u> _____	(+)_____ (+)_____	(-)_____ (-)_____
BB.	Ultraviolet Disinfection (Section 46 60 56)	WEDECO	\$250,000	_____ _____	(+)_____ (+)_____	(-)_____ (-)_____
CC.	Centrifuge Dewatering Equipment (Section 46 76 33)	Centrisys	\$680,000	_____ _____	(+)_____ (+)_____	(-)_____ (-)_____

IHC Construction Companies, Inc. 385 Airport Drive, Suite 100 Elgin, IL 60123						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
A.	Fiberglass Reinforced Plastic Chemical Tank (Section 06 61 60)	Plas-Tanks OR Belding	\$57,015	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
B.	Control Panels and Instrumentation (Section 26 09 00)	Frakes Engineering OR Integrated Process Solutions OR Wunderlich-Malec OR Energenecs	\$1,060,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
C.	SCADA Programming (Section 26 09 01)	Concentric Integration	\$566,200	<u>Frakes Engineering</u>	(+) <u>56,620</u>	(-) _____
				<u>Integrated Process Solutions</u>	(+) <u>56,620</u>	(-) _____
				<u>Wunderlich-Malec</u>	(+) <u>56,620</u>	(-) _____
D.	Sluice Gates (Section 40 05 59.20)	RW Gate	\$243,500	_____	(+) _____	(-) _____
E.	Slide Gates (Section 40 05 59.23)	RW Gate	\$243,500	_____	(+) _____	(-) _____
F.	Tri-lobe Positive Displacement Blowers (Section 43 11 33.11)	Aerzen	\$260,000	<u>Kaeser</u>	(+) <u>26,000</u>	(-) _____
				_____	(+) _____	(-) _____
G.	Rotary Lobe Blowers (Section 43 11 33.12)	Aerzen	\$560,000	<u>Kaeser</u>	(+) <u>56,000</u>	(-) _____
				_____	(+) _____	(-) _____
H.	Plant Water Pumping System (Section 43 21 06)	Grundfos	\$150,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____

IHC Construction Companies, Inc. 385 Airport Drive, Suite 100 Elgin, IL 60123						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
I.	Centrifugal Sludge Pumps (Section 43 23 21)	Wemco	\$100,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
J.	Rotary Lobe Pumps (Section 43 23 58)	Boerger	\$487,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
K.	Internal Recycle Pumps (Section 43 24 13)	Xylem	\$185,000	Wilo USA	(+)_____	(-)_____
				_____	(+)_____	(-)_____
L.	Submersible Pumps (Section 43 25 10)	Xylem	\$575,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
M.	Samplers (Section 46 09 00)	Hach	\$54,795	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____
N.	Center Flow Screens (Section 46 21 53)	Hydro-Dyne Engineering	\$243,500	JWC	(+) 24,350	(-)_____
				_____	(+)_____	(-)_____
O.	Screenings Wash Presses (Section 46 21 23)	Hydro-Dyne Engineering	\$243,500	JWC	(+) 24,350	(-)_____
				_____	(+)_____	(-)_____
P.	Grit Pump (Section 46 23 22)	Wemco	\$40,000	_____	(+)_____	(-)_____
				_____	(+)_____	(-)_____

IHC Construction Companies, Inc. 385 Airport Drive, Suite 100 Elgin, IL 60123						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
Q.	Grit Collector (Section 46 23 23)	Hydro International	\$250,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
R.	Grit Washer (Section 46 23 63)	Hydro International	\$160,950	Huber	(+) 16,095	(-) _____
				_____	(+) _____	(-) _____
S.	Chemical Phosphorus Removal Equipment (Section 46 33 00)	Watson-Marlow	\$80,000	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
T.	Chemical Tablet Feeding Equipment (Section 46 36 53)	Axiall Corporation	\$79,780	_____	(+) _____	(-) _____
				_____	(+) _____	(-) _____
U.	Submersible Mixers (Section 46 46 23)	Xylem	\$215,000	Wilo USA	(+) 21,500	(-) _____
				_____	(+) _____	(-) _____
V.	Primary Clarifier Collectors (Section 46 43 21)	Walker Process	\$400,000	Evoqua	(+) 40,000	(-) _____
				_____	(+) _____	(-) _____
W.	Excess Flow Clarifier Collector (Section 46 43 22)	Walker Process	\$375,000	Evoqua	(+) 37,500	(-) _____
				_____	(+) _____	(-) _____
X.	Final Clarifier Collectors (Section 46 43 23)	Walker Process	\$600,000	Evoqua	(+) 60,000	(-) _____
				_____	(+) _____	(-) _____

IHC Construction Companies, Inc. 385 Airport Drive, Suite 100 Elgin, IL 60123						
	Item	Equipment Base Bid Manufacturer Included in the Lump Sum Base Bid (Circle One)	Cost of Equipment Included in the Lump Sum Base Bid	Alternative Manufacturer	Add to Base Bid for Alternative Manufacturer	Deduct From Base Bid for Alternative Manufacturer
Y.	Aeration Equipment– Aeration Tanks and Post Aeration (Section 46 51 46)	Sanitaire	\$106,000	<u>Evoqua</u> <u>Aquarius</u> _____	(+) <u>10,600</u> (+) <u>10,600</u> (+) _____	(-) _____ (-) _____ (-) _____
Z.	Aeration Equipment– Aerobic Digesters (Section 46 51 46)	Sanitaire	\$94,000	<u>Evoqua</u> <u>Aquarius</u> _____	(+) <u>9,400</u> (+) <u>9,400</u> (+) _____	(-) _____ (-) _____ (-) _____
AA.	Tertiary Disc Filters (Section 46 61 41)	Westech	\$950,000	<u>Veolia Water Technologies</u> _____	(+) <u>95,000</u> (+) _____	(-) _____ (-) _____
BB.	Ultraviolet Disinfection (Section 46 60 56)	WEDECO	\$280,000	_____ _____	(+) _____ (+) _____	(-) _____ (-) _____
CC.	Centrifuge Dewatering Equipment (Section 46 76 33)	Centrisys	\$745,000	_____ _____	(+) _____ (+) _____	(-) _____ (-) _____

July 29, 2022

Mr. Mark Siefert, Director of Public Works
City of Crest Hill
1610 Plainfield Road
Crest Hill, IL 60403

Re: West Sewage Treatment Plant (STP) Improvements Project
Project Financing and Potential Cost-Saving Measures

Dear Mr. Siefert,

This letter summarizes the potential impact of the West STP Improvements Project on the City of Crest Hill's (City) finances and potential cost-saving measures to reduce the overall project costs to the City.

Financial Impacts

The apparent low Bid for the project was higher than the opinion of probable construction cost (OPCC) developed by Strand Associates, Inc.® (Strand), as summarized in the Bid tabulation letter provided to the City dated July 28, 2022. The majority of the project will be funded through a low-interest loan from the Illinois Environmental Protection Agency's (IEPA) Water Pollution Control Loan Program. Following is a summary of the anticipated project costs and anticipated loan terms.

Lump Sum Base Bid	\$51,770,000
Lump Sum Base Bid to Be Awarded	\$50,640,000
IEPA contingency (3 percent)	\$1,519,200
Construction engineering	\$3,720,300
Accumulated interest	\$688,600
Loan amount	\$49,500,000
Principal forgiveness	\$5,000,000
Repayment amount	\$44,500,000
Rate	0.73%
Term (years)	30
Annual debt service	(\$1,657,100)
Cash to be provided by the City	\$7,068,100

There are several things to note regarding the previous table.

1. The bidding documents were set up with a Bid Alternative and Equipment Alternatives which results in \$1,130,000 in saving prior to the project being awarded. This allows the amount to be awarded to be decreased from the as bid amount of \$51,770,000 to \$50,640,000. This is discussed in more detail later in this letter. The remaining numbers in the table above reflect awarding the project at the lower award amount.
2. The IEPA allows up to three percent contingency on loan-funded projects to account for changes in project scope during the construction period. The actual number of potential changes, and

Mark Siefert, Director of Public Works
 City of Crest Hill, Illinois
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subsequent increase or decrease in the final construction cost, will not be known until construction is complete. As such, the IEPA's maximum allowed contingency is included to be conservative.

3. The amount listed for Construction engineering is pending City Council approval.
4. The City shall be responsible for interest accumulated during the construction period upon final completion of the project. The accumulated interest will not be known until the end of the project and will be dependent on the actual loan disbursements provided by the IEPA during construction. The amount included above is an estimate.
5. The maximum loan amount allowed to be borrowed by the City is \$49,500,000, in accordance with the Borrowing Authorization Ordinance (Ordinance 1900) passed on April 4, 2022. Any project-related costs above this amount will be the responsibility of the City.
6. The City will receive \$5,000,000 in loan principal forgiveness. This amount is calculated based on scoring criteria established by the IEPA. As a result, the loan amount to be repaid by the City will be \$44,500,000.
7. The City's interest rate on the loan amount will be 0.73 percent. This loan amount is based on the following:
 - a. The base rate established by the IEPA for Fiscal Year (FY) 2023 is 1.24 percent.
 - b. The City qualifies for the Small Community Rate, which provides additional subsidization based on population and economic factors. The Small Community Rate is equal to 75 percent of the base rate. The Small Community Rate also allows for a longer loan term than the standard 20-year term.
 - c. The City qualifies for an additional environmental interest rate reduction of 0.2 percent because more than 50 percent of the project costs are associated with nutrient removal and energy efficiency.
 - d. The City's project qualifies for a 30-year loan term as previously indicated.

The City will be responsible for funding up to approximately \$8,232,000 of project-related costs greater than the maximum loan amount of \$49,500,000 based on the information provided previously. Strand recognizes the amount of local funds required to be paid by the City is substantial. However, it has been determined that the City will have adequate cash flow and cash balances in its Sewer and Water Funds to pay the additional costs based on discussions with Burns and McDonnell, the consultant who developed the Water and Sewer Rate Study (Rate Study) used to establish the new water and sewer rates approved by the City Council on March 7, 2022 (Ordinance 1897). Specifically:

1. The Rate Study assumed the City would fund the West STP Improvements Project with a \$45,000,000 loan with a 20-year repayment term and an interest rate of one percent. The subsequent annual debt service would be \$2,493,700. The actual anticipated debt service will be approximately \$1,657,100, as indicated in the table. This results in an additional \$836,600 in cash flow available annually beyond that assumed in the Water and Sewer Rate Study.
2. The Rate Study assumed the first annual debt service payment to be paid in FY 2025. The first annual debt service payment will not need to be made until FY 2027, based on the actual anticipated construction schedule. This results in an additional savings of \$4,987,400.

Mark Siefert, Director of Public Works
City of Crest Hill, Illinois
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The Rate Study projected a minimum Total End of Year Cash of \$4,896,300 from the Combined Water and Sewer Utility Funds to occur in FY 2027. Burns and McDonnell developed an updated Combined Water and Sewer Utility Financial Plan based on the anticipated project costs previously summarized. The updated Combined Water and Sewer Utility Financial Plan projects a minimum Total End of Year Cash of over \$7 million from the Combined Water and Sewer Utility Funds to occur in FY 2026, taking into account the local funds required to be paid by the City. The higher projected Total End of Year Cash in FY 2026 compared to the Rate Study suggests the project is affordable, despite costs being higher than anticipated.

Potential Cost-Saving Measures

Strand recognized that the West STP Improvements Project would be the largest infrastructure expenditure in the City's history. As a result, the Bidding Documents included provisions to allow a reduction in the Lump Sum Base Bid while minimizing impacts to the functionality of the STP. Specifically, Bid Alternative No. 1 and equipment alternatives were included in the Bidding Documents. The City can reduce the Apparent Low Bid from \$51,770,000 to \$50,640,000 by selecting Bid Alternative No. 1 (a reduction of \$630,000) and selecting the equipment alternatives associated with the Supervisory Control and Data Acquisition System programming and aeration tank digester blowers (a reduction of \$500,000) as previously discussed.

Strand conferred with City staff and established a list of potential project scope reductions in addition to the Bid-related reductions previously described. Again, each project scope reduction item is viewed as a "luxury" that could be removed from the project while having a minimal impact to the functionality of the STP. The scope reduction items are described in detail in the following. It should be noted that some items identified will still be funded by the City, but at an anticipated more-affordable cost and/or as part of the City's regular operating costs.

1. A cash allowance associated with the removal of the sand filter media was included in the original Bidding Documents. The City indicated it has in-house ability to remove and dispose of this material without the assistance of a contractor.
2. A cash allowance associated with the removal of sludge and solids from structures to be demolished was included in the original Bidding Documents. The City indicated it has the in-house ability to remove and dispose of a portion of this material without the assistance of a contractor.
3. Remove the bridge crane from the Dewatering and Operations Building (Structure E70).
4. A cash allowance for purchasing office furniture was included in the original Bidding Documents. The City indicated it has extra office furniture available to furnish the offices included in Structure E70.
5. A cash allowance for purchasing samplers was included in the original Bidding Documents. The City indicated it can purchase samplers at a more favorable cost than that indicated by the contractor.
6. Replacing all glass lined ductile iron piping with standard ductile iron piping.
7. Replacing buried ductile iron piping with polyvinyl chloride piping. Any piping underneath structures will remain ductile iron piping.

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Mark Siefert, Director of Public Works
City of Crest Hill, Illinois
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8. Reduce the base slab thickness of the Final Clarifiers from 1'-9" to 1'-0" and move the pressure relief valves to the base slab instead of the walls.
9. Remove the elevator included in Structure E70. This will require a variance to the 2018 Illinois Accessibility Code.
10. Alternative pipe material for the STP effluent sewer.
11. Allow 100 percent payment, minus retainage, for materials stored off site (up from 75 percent currently allowed in the Bidding Documents).

It should be noted the scope reduction items will have to be implemented via change order after the project has been awarded and the Contract Documents have been executed. The OPCC of the above-mentioned project scope reduction items is approximately \$705,000.

If the City implements the cost-saving measures previously described, it could reduce the local funds required to complete the project from \$7,068,100 to \$6,363,100. This could be further reduced if the full contingency is not required.

If you have any questions or comments, please feel free to reach out to me via e-mail at michael.ott@strand.com or by phone at 815-744-4200.

Sincerely,

STRAND ASSOCIATES, INC.®



Michael G. Ott, P.E.