



smartsewer

INNOVATION & INFRASTRUCTURE TO LAST A LIFETIME

QAQC REVIEW FORM

Project Name: In-Line Storage: Additional OK Creek Storage Facilities	Document Type: Design Recommendation Memo
Project Number: 81000920	Contract Number: 1577
Project Manager: Dave Hauser	Contract Administrator: Sarah Cooper

Review Schedule	
This final version of this document is needed no later than the following date:	ASAP _____
The First Line Review is to be completed no later than the following date:	ASAP _____
Smart Sewer Program Approval for Issuance needed no later than the following date:	ASAP _____

Project Manager	
Dave Hauser _____	4/10/24 _____
Signature	Date

Smart Sewer Design/Construction Manager	
Steve Stuempfig _____	4/10/2024 _____
Signature	Date

KC Water Smart Sewer Program Manager	
DocuSigned by: Andy Skively _____	7/2/2024 _____
<small>E41C77180C47409...</small> Signature	Date



MEMORANDUM

DATE: July 2, 2024

TO: Kelly Postlewait, Interim Director

CC: Andy Shively, P.E., Deputy Director

FROM: Dave Hauser, P.E., Smart Sewer Project Manager

SUBJECT: **Design Professional Contract recommendation for In-Line Storage: Additional OK Creek Storage Facilities, Project No. 81000920, Contract No. 1577**

On November 9, 2023, WSD advertised a request for proposal from design professionals to study and design additional in-line gate and storage facilities in the OK Creek interceptor sewer. Work will result in a Conceptual Design Report to identify and recommend the exact locations and configurations of up to two proposed storage facilities. Following the Conceptual Design, Preliminary and Final Design Services will commence to design the recommended and selected conceptual designs, with the Bid Phase and Construction Phase Services to follow. There was no pre-proposal meeting held. Proposals were received on December 22, 2023.

Project Description:

Engineering services are required for: Completion of a conceptual design study to verify or select specific locations of two separate in-line storage facilities at two different locations within the OK Creek Interceptor (OKCI) upstream of the existing OK Creek In-line Gate Structure, Rock Box and Turkey Creek Pump Station. The intent of the additional storage facilities is to reduce combined sewer overflows (CSOs) within the Turkey Creek Basin. Task series listing to be included in the Basic Scope of Services is organized as follows:

1. Task Series 100 – Project Management and Administration
2. Task Series 200 – Conceptual Design

Proposals Received from the Following Firms:

1. Black & Veatch Corporation

Selection Type and Committee Members:

1. Selection Type: City-Wide
2. City-Wide Selection Committee Members:
 - a. Mario Vasquez, Assistant City Manager's Office
 - b. Kelly Postlewait, Interim Director of Water Services
 - c. Andy Shively, P.E., Deputy Director of Water Services

Design Professional Firm Selection:

Selected Consultant: Black & Veatch Corporation

Alternate Consultant: N/A


MBE/WBE Utilization and CREO KC Approval: 11% MBE/11% WBE, approved by CREO 10/9/2023.

Negotiated Fee: \$3,623,000.00

Funding Source: AL-8193-807769-611040-81000920

Permission is requested to proceed with Ordinance authorization Contract #1577 for In-Line Storage: Additional OK Creek Storage Facilities.

Approved: 
Andy Shively, P.E., Deputy Director
Water Services Department

Approved: 
Kelly Postlewait, Interim Director
Water Services Department

Attachment:

1. Approved Final Fee Spreadsheet

cc: Contract File 1577

Owner: Kansas City, MO
 Project: In-Line Storage: Additional OK Creek Storage Facilities

PHASE/Task	Project Director	Project Manager	Project Admin Support	Project Controls	Estimating	Engineering Manager	Civil Engineer	Quality Control	Constructability	Geotechnical Engineer	Option Services Design Engineer	Structural	Hydro - Higher level	Hydro - Higher I&C - Higher-level	Condition Assessment Lead	Condition Assessment	Hydraulic Lead	GFD Modder	SUBTOTAL Hours	SUBTOTAL Billings \$
(Billing Rate, \$\$/Hr.)	\$326.00	\$266.00	\$54.00	\$137.00	\$233.00	\$502.00	\$140.00	\$233.00	\$342.00	\$264.00	\$280.00	\$654.00	\$380.00	\$233.00	\$140.00	\$233.00	\$280.00	\$280.00		
WORK BREAKDOWN STRUCTURE																				
Work Breakdown Structure below is an example and can be removed																				
Conceptual Design																				
Task 001 - Project Management	9	9	9	36															63	\$ 11,286
Task 002 - Monthly Invoicing			18	18		9													63	\$ 9,810
Task 003 - Subcontractor Agreements	5	24	54																83	\$ 13,570
Task 004 - Quality Control	2	4				18													24	\$ 5,432
Task 005 - Project Kickoff Meeting	2	4	4			4													10	\$ 2,604
Task 006 - Work Plan	2	4	4			4	28												38	\$ 5,756
Task 007 - Monthly Progress Meetings	4	18	9			18			2										55	\$ 12,738
Conceptual Design																				
Task 010 - Review Documents	1	2	2			4			4										23	\$ 5,470
Task 020 - Condition Assessment		2				8	16			4					12	20			58	\$ 10,024
Task 030 - Basement Assessment																				
Task 040 - Mail survey		2				4	16												22	\$ 3,620
Task 050 - Identify and survey buildings		2				8	16												26	\$ 4,428
Task 060 - Review Inspection Data Connecting Sewers		2				8	16												22	\$ 3,620
Task 070 - Hydraulic Analyses/Evaluation	2	4				8	30	8											116	\$ 27,396
Task 080 - Weir Options and Control Options	4	16				8	28					8	24	24					136	\$ 32,560
Task 090 - Flushing of Office and Sediment Control	2	12				8	16						8						90	\$ 22,500
Task 100 - Deep Construction Options and Contracting Strategy	8	12				16	40	16		24	8		8						132	\$ 33,512
Task 110 - Conceptual Design Report		4	12			16	40	16		4	4								168	\$ 31,064
Task 120 - Conceptual Design Review Meeting						8	16			2									30	\$ 5,684
Task 130 - Public Meeting Assistance	2	8				12	20												34	\$ 7,044
Task 140 - Communication with Property Owners	2	16				20													38	\$ 12,088
Task 150 - Develop Alternatives Sustainability Evaluation Memorandum			2																6	\$ 946
Task 160 - Develop Alternatives Sustainability Evaluation Memorandum																			112	\$ 31,360
Optional Services																				
Total Hours	45	156	112	54	48	173	283	24	36	14	112	16	40	24	44	140	100	48	1,469	
Total Billings	\$ 14,670	\$ 44,616	\$ 10,528	\$ 7,398	\$ 11,184	\$ 34,946	\$ 39,620	\$ 5,592	\$ 12,312	\$ 3,696	\$ 31,360	\$ 4,224	\$ 11,200	\$ 5,592	\$ 10,252	\$ 19,600	\$ 28,000	\$ 13,440		\$ 308,230

Owner: Kansas City, MO
 Project: In-Line Storage: Additional OK Creek Storage Facilities

PHASE/Task	Task	Travel/Per Diem Expenses	Major Reproduction Expenses	SUBTOTAL EXPENSES	Trunk	T&B	DuBois	SUBTOTAL SUBCONTRACTS	TOTAL Billings
(Billing Rate, \$\$/Hr.)	TASK								
WORK BREAKDOWN STRUCTURE									
Work Breakdown Structure below is an example and can be removed									
Conceptual Design	0000	\$ -	\$ -	\$ -				\$ -	\$ -
Task 101 - Project Management	0010	\$ -	\$ -	\$ -				\$ -	\$ -
Task 102 - Monthly Invoicing	0020	\$ -	\$ -	\$ -				\$ -	\$ -
Task 103 - Subcontractor Agreements	0030	\$ -	\$ -	\$ -	\$ 3,460			\$ 3,460	\$ 11,286
Task 104 - Quality Control	0040	\$ -	\$ -	\$ -				\$ -	\$ 13,270
Task 105 - Project Kickoff Meeting	0050	\$ 40	\$ -	\$ 40				\$ -	\$ 5,432
Task 106 - Work Plan	0060	\$ -	\$ -	\$ -				\$ -	\$ 2,644
Task 107 - Monthly Progress Meetings	0070	\$ 200	\$ -	\$ 200				\$ -	\$ 7,556
Conceptual Design	0100	\$ -	\$ -	\$ -				\$ -	\$ 12,938
Task 201 - Review Documents	0110	\$ -	\$ -	\$ -				\$ -	\$ 5,470
Task 202 - Condition Assessment	0120	\$ 850	\$ -	\$ 850	\$ 45,400			\$ 45,400	\$ 56,274
Task 203 - Basement Assessment	0130	\$ -	\$ -	\$ -				\$ -	\$ -
Mail survey	0140	\$ -	\$ -	\$ -		\$ 33,320		\$ -	\$ 3,620
Identify and survey buildings	0150	\$ 200	\$ -	\$ 200				\$ -	\$ 37,948
Review Inspection Data Connecting Sewers	1000	\$ 850	\$ -	\$ 850				\$ 33,320	\$ 20,206
Task 204 - Hydraulic Analyses/Evaluation	1100	\$ 20	\$ -	\$ 20				\$ -	\$ 27,416
Task 205 - Weir Options and Control Options	1200	\$ 100	\$ -	\$ 100				\$ -	\$ 45,660
Task 206 - Flushing of Office and Sediment Control	1300	\$ -	\$ -	\$ -	\$ 13,000			\$ 13,000	\$ 22,500
Task 207 - Deep Construction Options and Contracting Strategy	1400	\$ 200	\$ -	\$ 200			\$ 13,100	\$ 13,100	\$ 46,812
Task 208 - Conceptual Design Report	1500	\$ -	\$ 200	\$ 200				\$ -	\$ 31,264
Task 209 - Conceptual Design Review Meeting	1600	\$ 20	\$ -	\$ 20				\$ -	\$ 7,064
Task 210 - Public Meeting Assistance	1700	\$ 40	\$ -	\$ 40				\$ -	\$ 7,064
Task 211 - Communication with Property Owners	1800	\$ 200	\$ -	\$ 200				\$ -	\$ 12,288
Task 300 - Envision	3000	\$ -	\$ -	\$ -	\$ 14,640			\$ 14,640	\$ 15,588
Develop Alternatives Sustainability Evaluation Memorandum	3100	\$ -	\$ -	\$ -	\$ 4,235		\$ 2,275	\$ 8,750	\$ 40,250
Optional Services		\$ 140	\$ -	\$ 140				\$ -	\$ -
Total Hours		\$ 2,860	\$ 200	\$ 3,060	\$ 49,635	\$ 53,700	\$ 26,375	\$ 131,710	\$ 445,000
Total Billings									

Owner: Kansas City, MO

Project: In-Line Storage: Additional OK Creek Storage Facilities

PHASE/Task	Project Director	Project Manager	Project Admin Support	Project Controls	Estimating	Quality	Engineering Manager	Civil Engineer	Quality Control	Constructability	Geotechnical Engineer	Structural - Higher-level	Structural - Mid-level	Hydro - Higher-level	Hydro - Mid-level	Electrical - Higher-level	Electrical - Mid-level	R&C - Higher-level	
(Billing Rate: \$8 Hr.)	\$345,000	\$322,000	\$132,000	\$165,000	\$247,000	\$296,000	\$296,000	\$146,000	\$247,000	\$362,000	\$280,000	\$280,000	\$214,000	\$296,000	\$197,000	\$247,000	\$181,000	\$280,000	
WORK BREAKDOWN STRUCTURE																			
Project Management																			
Task 101 - Project Management (15 months)	20	20	20	65															
Task 102 - Monthly Invoicing	34	19	34	34			19	19											
Task 103 - Subcontractor Agreements	0030	19	43	73			28	44											
Task 104 - Quality Control	0040	42	42	42		252	28	44											
Task 105 - Project Kickoff Meeting	0050	5	5	5			5	9											
Task 106 - Work Plan	0060	3	3	5			3	9											
Task 107 - Monthly Progress Meetings	0070	34	34	19			34	34			8								
Preliminary 30% Design	0100																		
Survey	0110	3	3	2			5	5											
Geotechnical	0120	6	8	5			12	8			124								
Utility Coordination	0130	8	14				10	118											
30% Design Drawings	0140	13	29				21	45	13	45	21	21	37	21	37	13	37	53	
Hydraulics	0150	23	31				91	130											
Controls Strategy	1000	15	23				39	67											
Permit Coordination	1100	3	5				5	17											
OPCC	1200	2	3		21		3	9											
Preliminary Design Memo	1300	6	28	44			44	72	20			20	28	20	28	8	24	44	
Preliminary Review Meeting	1400	3	5				9	9				5							
Modeling Confirmation	1500						40												
Detailed Design - 60%	1600																		
80% Contract Documents	1700	29	37				73	83	37	37	83	113	213	41	61	43	43	56	
60% OPCC	1800	4	4		42		6	10											
60% Review Meeting	2000	5	5				7	9			5								
Detailed Design - 90%	2300																		
90% Contract Documents	2400	28	36				72	72	36	36	72	96	156	36	52	28	112	162	
90% OPCC	2500	4	4		42		6	10											
90% Review Meeting	2600	5	5				7	9											
Detailed Design - 100%	3000																		
100% Contract Documents	3100	14	22	10			22	30	18	14	30	30	54	18	26	14	66	96	
100% OPCC	3200	3	3		21		5	9											
100% Review	3300	5	5				7	9											
Final Design	3600																		
Final Contract Documents	3700	7	11				19	35		5		7	35	9	19		23	43	
Final OPCC	3800		3		17		3	5											
Envision	4200																		
Monthly Reports	4300		20				20	35											
Task 4	4400																		
Bid Phase Package 1	5000																		
Pre-Bid Conference	5100	3	5	3			7	9											
Interpret Docs and Addenda	5200	5	17	9			13	13				3	5						
Bid Evaluation	5300	3	9	5			9	17											
Conform Docs	5400	2	5	13			5	17											
Bid Phase Package 2	6000																		
Pre-Bid Conference	6100	3	3	3			7	9											
Interpret Docs and Addenda	6200	5	17	6			13	13				3	5						
Bid Evaluation	6300	3	9	5			9	17											
Conform Docs	6400	2	5	13			5	17											
Optional Services																			
Total, Hours	324	542	331	99	143	252	683	1,033	124	137	332	318	543	145	223	80	305	456	74
Total, Billings																			

Owner: Kansas City, MO
 Project: In-Line Storage: Additional OK Creek Storage Facilities

52 53 54 55 56 57 58 59 60 61 62

PHASE/Task	I&C - Higher-level	I&C - Mid-level	BIM	BM	Hydraulic Load	CFD Modeler	Planning - Higher-level	Planning - Mid-level	Planning - Higher-level	Environmenta I & Land Services - Higher-level	Environmenta I & Land Services - Mid-level	SUBTOTAL Hours	SUBTOTAL Billings \$
(Billing Rate: \$\$ Hr.)	\$263,000	\$214,000	\$166,000	\$181,000	\$178,000	\$185,000	\$346,000	\$197,000	\$296,000	\$263,000	\$214,000		
WORK BREAKDOWN STRUCTURE													
Project Breakdown Structure below is an example and can be removed													
Task Management													
Task 101 - Project Management (15 months)													
Task 102 - Monthly Invoicing													
Task 103 - Subcontractor Agreements													
Task 104 - Quality Control													
Task 105 - Project Kickoff Meeting													
Task 106 - Work Plan													
Task 107 - Monthly Progress Meetings													
Preliminary 30% Design													
Survey													
Geotechnical													
Utility Coordination													
30% Design Drawings													
Hydraulics													
Controls Strategy													
Permit Coordination													
OPCC													
Preliminary Design Memo													
Preliminary Review Meeting													
Modeling Confirmation													
Detailed Design - 60%													
80% Contract Documents													
60% OPCC													
60% Review Meeting													
Detailed Design - 90%													
90% Contract Documents													
90% OPCC													
90% Review Meeting													
2600													
Detailed Design - 100%													
100% Contract Documents													
100% OPCC													
100% Review													
3300													
Final Design													
3600													
Final Contract Documents													
3700													
Final OPCC													
3800													
Envision													
4200													
Monthly Reports													
4300													
Task 4													
4400													
Bid Phase Package 1													
5000													
Pre-Bid Conference													
5100													
Interpret Docs and Addenda													
5200													
Bid Evaluation													
5300													
Conform Docs													
5400													
Bid Phase Package 2													
6000													
Pre-Bid Conference													
6100													
Interpret Docs and Addenda													
6200													
Bid Evaluation													
6300													
Conform Docs													
6400													
Optional Services													
Total Hours	370	504	335	327	367	359	367	306	338	35	65	9,537	
Total Billings													\$ 2,239,991

Owner: Kansas City, MO
 Project: In-Line Storage: Additional OK Creek Storage Facilities

PHASE/Task	Task	Travel/Per Diem Expenses	Major Reproduction Expenses	SUBTOTAL EXPENSES	Hydro/Digital	Track	SUBCONTRACTS (TSI)	T&B	DuBois	SUBTOTAL SUBCONTRACTS	TOTAL Billings
(Billing Rate: \$\$ Hr.)											
WORK BREAKDOWN STRUCTURE											
Project Management	0000	\$ -	\$ -	\$ -						\$ -	\$ -
Task 101 - Project Management (15 months)	0010	\$ -	\$ -	\$ -	\$ 8,682			\$ 3,230	\$ 1,700	\$ 13,612	\$ 40,317
Task 102 - Monthly Invoicing	0020	\$ -	\$ -	\$ -						\$ -	\$ 24,652
Task 103 - Subcontractor Agreements	0030	\$ -	\$ -	\$ -						\$ -	\$ 30,037
Task 104 - Quality Control	0040	\$ -	\$ -	\$ -	\$ 5,904			\$ 6,120	\$ 4,080	\$ 16,104	\$ 138,054
Task 105 - Project Kickoff Meeting	0050	\$ 862	\$ -	\$ 862	\$ 1,353			\$ 935	\$ 680	\$ 2,968	\$ 9,977
Task 106 - Work Plan	0060	\$ -	\$ -	\$ -						\$ -	\$ 4,881
Task 107 - Monthly Progress Meetings	0070	\$ 1,317	\$ -	\$ 1,317	\$ 8,682					\$ 8,682	\$ 52,521
Preliminary 30% Design	0100	\$ -	\$ -	\$ -						\$ -	\$ -
Survey	0110	\$ 100	\$ -	\$ 100			\$ 70,000	\$ 60,000		\$ 60,000	\$ 64,585
Geotechnical	0120	\$ 890	\$ -	\$ 890	\$ 28,940					\$ 28,940	\$ 115,652
Utility Coordination	0130	\$ 500	\$ -	\$ 500	\$ 43,410			\$ 20,400		\$ 63,810	\$ 209,073
30% Design Drawings	0140	\$ -	\$ 150	\$ 150						\$ -	\$ 204,768
Hydraulics	0150	\$ 200	\$ -	\$ 200	\$ 71,500					\$ 71,500	\$ 124,409
Controls Strategy	1000	\$ 850	\$ -	\$ 850						\$ -	\$ 124,409
Permit Coordination	1100	\$ 20	\$ -	\$ 20						\$ -	\$ 9,163
OPCC	1200	\$ 100	\$ -	\$ 100	\$ 43,410					\$ 43,410	\$ 50,071
Preliminary Design Memo	1300	\$ -	\$ 200	\$ 200	\$ 14,470			\$ 10,000	\$ 10,000	\$ 24,470	\$ 157,664
Preliminary Review Meeting	1400	\$ 240	\$ -	\$ 240	\$ 1,476		\$ 1,020	\$ 1,020	\$ 1,020	\$ 5,556	\$ 15,317
Modeling Confirmation	1500	\$ -	\$ 200	\$ 200						\$ -	\$ 82,050
Detailed Design - 60%	1600	\$ 20	\$ -	\$ 20						\$ -	\$ 20
60% Contract Documents	1700	\$ 40	\$ 500	\$ 540	\$ 25,000			\$ 37,400	\$ 30,600	\$ 179,820	\$ 595,561
60% OPCC	1800	\$ -	\$ -	\$ -						\$ -	\$ 14,918
60% Review Meeting	2000	\$ 100	\$ -	\$ 100	\$ 1,200			\$ 850	\$ 850	\$ 2,900	\$ 14,264
Detailed Design - 90%	2300	\$ -	\$ -	\$ -						\$ -	\$ -
90% Contract Documents	2400	\$ -	\$ 500	\$ 500	\$ 20,000			\$ 50,000	\$ 34,000	\$ 190,820	\$ 562,884
90% OPCC	2500	\$ -	\$ -	\$ -						\$ -	\$ -
90% Review Meeting	2600	\$ 100	\$ -	\$ 100	\$ 1,200			\$ 850	\$ 850	\$ 2,900	\$ 12,864
Detailed Design - 100%	3000	\$ -	\$ -	\$ -						\$ -	\$ -
100% Contract Documents	3100	\$ -	\$ -	\$ -	\$ 15,000			\$ 30,000	\$ 17,000	\$ 105,410	\$ 298,674
100% OPCC	3200	\$ -	\$ 500	\$ 500						\$ -	\$ 9,465
100% Review	3300	\$ 100	\$ -	\$ 100				\$ 850	\$ 850	\$ 2,930	\$ 9,769
Final Design	3600	\$ -	\$ -	\$ -						\$ -	\$ -
Final Contract Documents	3700	\$ -	\$ -	\$ -	\$ 7,287			\$ 5,000	\$ 5,000	\$ 17,287	\$ 97,689
Final OPCC	3800	\$ -	\$ -	\$ -						\$ -	\$ 6,793
Envision	4200	\$ -	\$ -	\$ -						\$ -	\$ -
Monthly Reports	4300	\$ -	\$ -	\$ -						\$ -	\$ 43,295
Task 4	4400	\$ -	\$ -	\$ -						\$ -	\$ -
Bid Phase Package 1	5000	\$ 100	\$ -	\$ 100						\$ -	\$ 100
Pre-Bid Conference	5100	\$ -	\$ -	\$ -						\$ -	\$ 6,445
Interpret Docs and Addenda	5200	\$ -	\$ -	\$ -	\$ 3,618			\$ 1,360	\$ 1,360	\$ 6,338	\$ 22,407
Bid Evaluation	5300	\$ -	\$ -	\$ -						\$ -	\$ 10,613
Conform Docs	5400	\$ -	\$ 500	\$ 500	\$ 2,315			\$ 850	\$ 850	\$ 4,015	\$ 14,157
Bid Phase Package 2	6000	\$ -	\$ -	\$ -						\$ -	\$ -
Pre-Bid Conference	6100	\$ -	\$ -	\$ -						\$ -	\$ 6,445
Interpret Docs and Addenda	6200	\$ -	\$ -	\$ -	\$ 3,618			\$ 1,360	\$ 1,360	\$ 6,338	\$ 22,011
Bid Evaluation	6300	\$ -	\$ -	\$ -						\$ -	\$ 10,613
Conform Docs	6400	\$ -	\$ -	\$ -	\$ 2,400			\$ 850	\$ 850	\$ 4,100	\$ 13,742
Optional Services		\$ -	\$ -	\$ -						\$ -	\$ -
Total, Hours		\$ 5,539	\$ 2,550	\$ 8,089	\$ 132,520	\$ 396,255	\$ 71,020	\$ 200,675	\$ 131,450	\$ 931,920	\$ 3,180,000
Total, Billings											