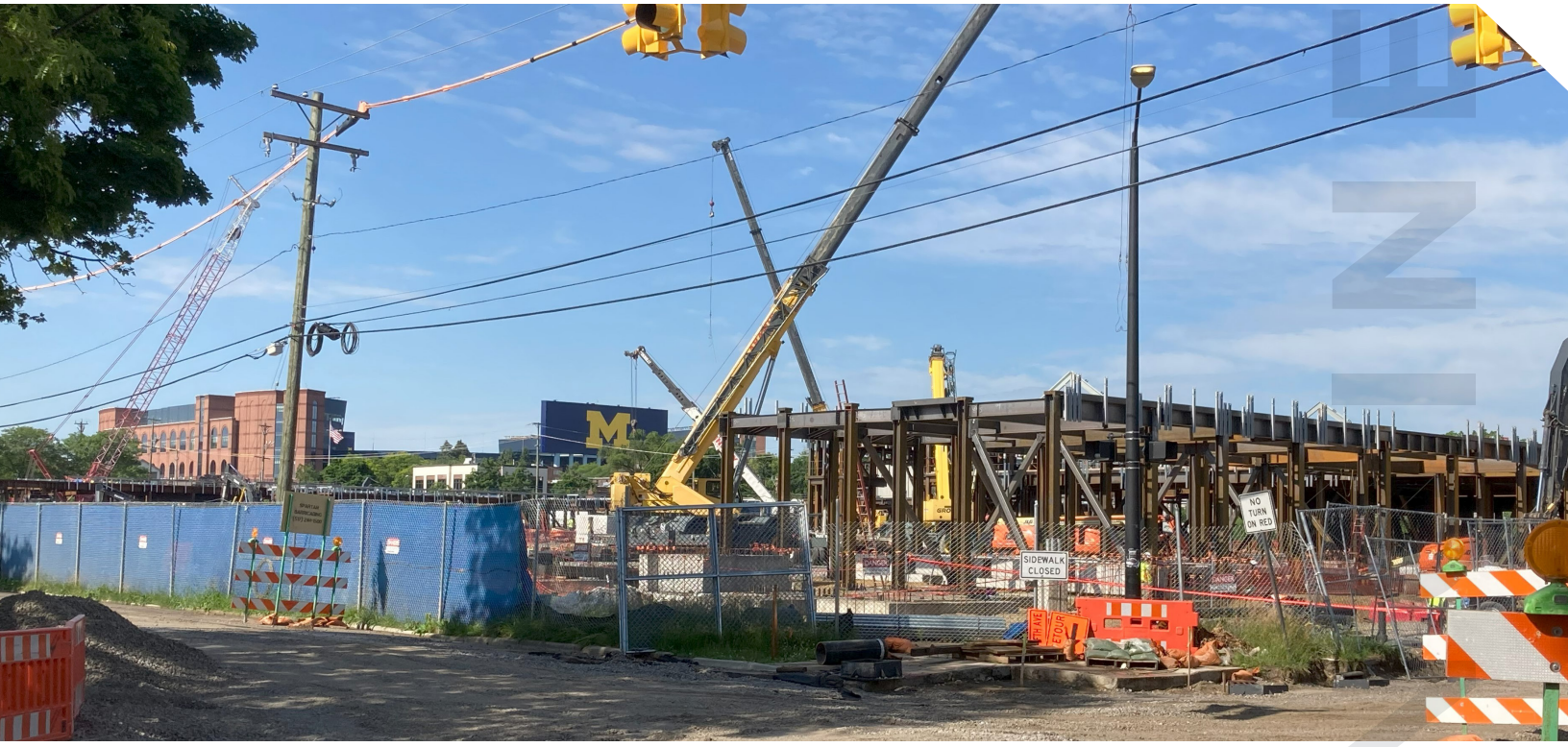
OHM Advancing Communities®

ENGINEERING

Revised Cost Proposal for

SANITARY SEWER COLLECTION SYSTEM COMPREHENSIVE PLAN

City of Ann Arbor | RFP No. 24-40



Proposal Due Date
THURSDAY, JULY 11, 2024, 3PM
REVISED AUGUST 19, 2024

SECTION D: FEE PROPOSAL

D.1 Our Costs

Our Costs

FEE BREAKDOWN BY TASK

OHM Advisors Stantec STAFF NAME PROJECT ROLE (BILLING CLASS)		R. Czachorski PIC (Principal)	M. Chamberlain PM (GE III)	K. Danielsen Modeling (Specialist III)	Various Modeling (GE II)	C. Elenbaas Costs / Design (PE IV)	M. Cummings Municipal Support (GE II)	E. Morgan AMM Development (GE IV)	M. Ulasir Visioning (Principal)	M. Trzeciak GIS Support (GIS Support)	D. Pulver Admin Support (Admin)	C. Slotten QA/QC Engineer (PE IV)	A. Burnham Financials & Policy (Director)	C. Malesky Financials & Policy (Technical Lead)	J. Bearman Financials & Policy (PM)	K. Cook Financials & Policy (Sr. Consultant)	A Ruiz Design & Costs (Sr Consultant)	Various Financial Analysts (Analyst)	Lambert Admin Support (Admin)	Fees - Stantec	Fees - H2O Metrics	TOTALS	
BILLING RATE		$242	$155	$191	$149	$206	$149	$163	$242	$160	$98	$206	$385	$335	$260	$210	$254	$150	$100	$4,175	$1,000	HOURS	COST
TOTAL HOURS		320	815	907	564	295	353	126	46	39	34	81	50	35	75	60	94	45	10	1	15	3965	-
TOTAL COST		$77,456	$125,918	$172,829	$84,233	$60,770	$52,721	$20,505	$11,134	$6,226	$3,327	$16,686	$19,250	$11,725	$19,500	$12,600	$19,740	$6,750	$1,000	$4,175	$15,000	-	$741,545
PERCENT OF TOTAL HOURS		8%	21%	23%	14%	8%	9%	3%	1%	1%	1%	2%	1%	1%	2%	2%	2%	1%	0%	0%	0%	-	-
TASKS																							
TASK 1: PROJECT INITIATION AND INFORMATION GATHERING																							
TASK 1 HOURS & FEE SUMMARY		**8**	**51**	**60**	**30**	**20**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**185**	**$32,239**
1.A	Project management	2	7																			9	$1,566
1.B	Information gathering		8	30	30																	68	$11,433
1.C	Regulatory review		16	16																		32	$5,521
1.D	Site investigations					16	16															32	$5,686
1.E	Develop System Overview Memo	2	14	10																		26	$4,553
	In-person kick-off meeting (1)	3	3	3		3																12	$2,379
	Internal team meeting	1	1	1		1																4	$793
	Follow up and deliver meeting notes		2																			2	$309
TASK 2: FLOW METERING DATA ANALYSIS AND INFLOW AND INFILTRATION EVALUATION																							
TASK 2 HOURS & FEE SUMMARY		**43**	**73**	**131**	**210**	**12**	**8**	**28**	**0**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**15**	**525**	**$101,725**
2.A.1	Quantify I&I from flow meter and lift station data (12 repeat meters and 3 new meters)			12	12			2													15	41	$19,404
2.A.2	Evaluate flow characteristics and I&I metrics over time	4	8	16	50			3														81	$13,209
	Perform meter correlations			12	12			6														30	$5,055
	Compare to previous AMM predictions			12				12														24	$4,239
2.A.3	Identify areas with high I&I	4	4	8	8	4																28	$5,129
2.A.4	Calculate I&I peaking factors and rainfall capture fractions			6	6			2														14	$2,365
2.A.5	Compare to FDD locations			4																		4	$762
2.A.6	Review CCTV data in areas with high I&I				60																	60	$8,961
2.A.7	Develop recommendations for reducing I&I in tributary areas	4	4	12	8																	28	$5,068
2.A.8	Develop cost estimates					8	8															16	$2,843
2.A.9	Analyze Township master meter flow data			2	8			2														12	$1,901
2.A.10	Identify Townships that have high I&I				4																	4	$597
2.A.11	Compare the Townships' peak flow rates to their contract flow rates			2	2																	4	$680
2.A.12	Develop recommendations to reduce I&I in Townships	4	4	4	4																	16	$2,946
2.B	Develop Volume 1: Flow Metering Data Analysis and Inflow and Infiltration Evaluation	12	30	30	30																	102	$17,737
	Internal team meetings (3)	3	3	3	3																	12	$2,209
	Bimonthly in-person meetings (2)	6	6	6	3			1														22	$4,133

OHM Advisors / Stantec — STAFF ROLE (BILLING CLASS)		R. Czachorski PIC (Principal)	M. Chamberlain PM (GE III)	K. Danielsen Modeling (Specialist III)	Various Modeling (GE II)	C. Elenbaas Costs / Design (PE IV)	M. Cummings Municipal Support (GE II)	E. Morgan AMM Development (GE IV)	M. Ulasir Visioning (Principal)	M. Trzeciak GIS Support (GIS Support)	D. Pulver Admin Support (Admin)	C. Slotten QA/QC Engineer (PE IV)	A. Burnham Financials & Policy (Director)	C. Malesky Financials & Policy (Technical Lead)	J. Bearman Financials & Policy (PM)	K. Cook Financials & Policy (Sr. Consultant)	A Ruiz Design & Costs (Sr Consultant)	Various Financial Analysts (Analyst)	Lambert Admin Support (Admin)	Fees - Stantec	Fees - H2O Metrics	TOTALS	
	Remote client meetings and notes	2	2	2																		6	$1,174
	Project management	4	12								5											21	$3,311
TASK 3: HYDRAULIC MODEL UPDATE AND CALIBRATION																							
	TASK 3 HOURS & FEE SUMMARY	35	71	142	137	10	0	98	10	0	3	0	0	0	0	0	0	0	0	0	0	506	$87,683
3.A	Migrate model to InfoWorks™ software			4																		4	$762
	Test model under three scenarios			16				0														16	$3,049
	Document and update model with changes needed	2	4	16	8				0													30	$5,346
3.B	Update hydraulic model from GIS database, CIP projects operational settings		2	16	24	8																50	$8,590
3.C	Utilize flow meter data for establishing dry and wet weather conditions	2		32	32			2	10													78	$14,107
	Create and calibrate AMM for up to 8 flow meters			8	8			64														80	$13,135
	Develop 25-year frequency design event			2				8														10	$1,683
3.D	Utilize City's water meter billing data for determining flow allocation		4	8	32			2														46	$7,247
3.E	Develop Volume 2: Hydraulic Model Update	12	16	22	22			20														92	$16,109
	Internal team meetings (5)	5	5	5	5	2		2														24	$4,420
	Remote client meetings and notes (3)	5	8	8	6																	27	$4,867
	Bimonthly in-person meetings and notes (2)	5	7	5																		17	$3,245
	Project management	4	25								3											32	$5,124
TASK 4: HYDRAULIC ANALYSIS AND RECOMMENDED IMPROVEMENTS																							
	TASK 4 HOURS & FEE SUMMARY	121	221	394	129	221	329	0	20	9	10	40	0	0	0	0	94	0	0	0	0	1588	$287,674
4.A	Evaluate Existing Conditions																					0	$0
	Identify capacity constraints under existing dry and wet weather conditions			12																		12	$2,287
	Tabulate flows and the extent of surcharging under dry and wet weather conditions			4																		4	$762
	Prepare a map to illustrate locations with capacity constraints			1																		1	$191
4.B	Existing conditions evaluation under EGLE and City design event																					0	$0
	Identify capacity constraints that do not meet the EGLE requirements			4																		4	$762
	Identify capacity constraints that do not meet the City design standards			4																		4	$762
4.C	Establish Future Conditions																					0	$0
	Meet with local planning organizations and compile growth predictions.10-year and 20-year	13	28	23																		64	$11,855
	Establish flow predictions for future connection/build out of township islands		2		12																	14	$2,101
	Develop modified flow projections by meter district.		2	1	10																	13	$1,993
	Update the model with the future growth projected flows.		1	5																		6	$1,107
	Incorporate climate adaptation goals from the Office of Sustainability and Innovations (OSI).	3	7	6					10													26	$5,371
4.D	SSO and Basement Backup Risk Evaluation																					0	$0
	Create a map of locations at high risk for present, 10-year, 20-year growth			8						9												17	$2,961

OHM Advisors Stantec STAFF ROLE (BILLING CLASS)		R. Czachorski PIC (Principal)	M. Chamberlain PM (GE III)	K. Danielsen Modeling (Specialist III)	Various Modeling (GE II)	C. Elenbaas Costs / Design (PE IV)	M. Cummings Municipal Support (GE II)	E. Morgan AMM Development (GE IV)	M. Ulasir Visioning (Principal)	M. Trzeciak GIS Support (GIS Support)	D. Pulver Admin Support (Admin)	C. Slotten QA/QC Engineer (PE IV)	A. Burnham Financials & Policy (Director)	C. Malesky Financials & Policy (Technical Lead)	J. Bearman Financials & Policy (PM)	K. Cook Financials & Policy (Sr. Consultant)	A Ruiz Design & Costs (Sr Consultant)	Various Financial Analysts (Analyst)	Lambert Admin Support (Admin)	Fees - Stantec	Fees - H2O Metrics	TOTALS	
	Refine map based on FDD and lateral connections			9																		9	$1,715
4.E	Identify Capacity Constraints Under Future Growth Projections																					0	$0
	Tabulate: 10 and 20 year capacity constraints			50	25																	75	$13,261
	Tabulate capacity constrains with EGLE design storm			11	6																	17	$2,992
	Create capacity maps (6 total: baseline, 2x10year, 2x20year, EGLE)			6																		6	$1,143
4.F	Develop Improvement Alternatives								10													10	$2,421
	Lift stations	4	4	8	4	20																40	$7,828
	4 Major (3 alternatives each)	8	8	36		50	50										60					212	$40,400
	5 Intermediate improvements	5	5	25		20	40															95	$16,841
	10 Minor improvements	5	10	40		20	60															135	$23,458
	Prepare cost estimates		4			8	64															76	$11,824
	Evaluate alternatives	24	24	24	24	24	24										10					154	$28,303
	Conceptual layouts					30	50										12					92	$16,168
	Bypass pumping		10	10		2											12					34	$6,383
	QAQC											40										40	$8,240
4.G	Delivery of Model Scenarios (9 minimum)			8																		8	$1,524
4.H	Develop Volume 3: Hydraulic Analysis and Recommended Improvements	12	48	46	26	10	10															152	$26,523
	Internal Team Meetings (12)	12	12	12	12	12	6															66	$12,206
	Remote Client Meetings and notes (10)	10	20	20	10	10	10															80	$14,369
	Bimonthly In-person Client Meetings and notes (6)	15	21	21		15	15															87	$16,207
	Project management	10	15								10											35	$5,717

TASK 5: CAPACITY ASSESSMENT OF WASTEWATER FACILITIES																							
	TASK 5 HOURS & FEE SUMMARY	25	134	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	199	$32,728
5.A	Perform capacity assessment on the City's wastewater treatment plant and lift stations																					0	$0
	Review design capacities		8																			8	$1,236
	Review pump curves		8																			8	$1,236
	Evaluate WWTP and lift station dry and wet weather (10-year, 20-year) capacities		24		24																	48	$7,292
	Recommendations		16																			16	$2,472
5.B	Review of existing city/township wastewater service agreements.																					0	$0
	Review Township service agreements		8																			8	$1,236
	Projected growth	6	8																			14	$2,688
	Compare wet weather flows to contract max				8																	8	$1,195
	Available and remaining capacity: WWTP, lift stations, pipes		16																			16	$2,472
	Recommendations for modifications to service agreements/contract max	2	8		2																	12	$2,019
	Suggest additional contract terms	2	4																			6	$1,102
5.C	Develop Volume 4: Capacity Assessment of Wastewater Facilities	4	16		4																	24	$4,038
	Internal team meetings (2)	2	2		2																	6	$1,092

OHM Advisors Stantec STAFF ROLE (BILLING CLASS)		R. Czachorski PIC (Principal)	M. Chamberlain PM (GE III)	K. Danielsen Modeling (Specialist III)	Various Modeling (GE II)	C. Elenbaas Costs / Design (PE IV)	M. Cummings Municipal Support (GE II)	E. Morgan AMM Development (GE IV)	M. Ulasir Visioning (Principal)	M. Trzeciak GIS Support (GIS Support)	D. Pulver Admin Support (Admin)	C. Slotten QA/QC Engineer (PE IV)	A. Burnham Financials & Policy (Director)	C. Malesky Financials & Policy (Technical Lead)	J. Bearman Financials & Policy (PM)	K. Cook Financials & Policy (Sr. Consultant)	A Ruiz Design & Costs (Sr Consultant)	Various Financial Analysts (Analyst)	Lambert Admin Support (Admin)	Fees - Stantec	Fees - H2O Metrics	TOTALS	
	Bimonthly in-person meetings and notes (2)	5	7																			12	$2,292
	Remote client meetings and notes (2)	2	5																			7	$1,257
	Project management	2	4																			6	$1,102
Task 6: PHASING STRATEGY FOR IMPROVEMENTS																							
	TASK 6HOURS & FEE SUMMARY	22	55	71	16	28	0	0	0	0	5	20	0	0	0	0	0	0	0	0	0	217	$40,119
6.A	Develop Phasing Strategy	4	12	24	12	24						20										96	$18,252
6.B	Develop a Flow Monitoring Plan	2	4	8	4																	18	$3,224
6.C	Develop Volume 5: Phasing Strategy for Improvements	5	18	28		4																55	$10,151
	Internal team meetings (3)	3	3	3																		9	$1,761
	In-person client meetings and notes (1)	3	4	4																		11	$2,106
	Remote client meetings and notes (2)	2	4	4																		10	$1,864
	Project management	3	10								5											18	$2,760
TASK 7: INFOWORKS™ TRAINING																							
	TASK 7 HOURS & FEE SUMMARY	18	73	77	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	171	$30,601
7.A	Provide an overview of the hydraulic model																					0	$0
	Develop users manual and resources sheet		12	16																		28	$4,903
	Develop Training Workshop 1 Content	2	8	10																		20	$3,626
	Deliver workshop 1		4	4																		8	$1,380
	Develop Training Workshop 2 Content	2	8	10																		20	$3,626
	Deliver workshop 2		4	4																		8	$1,380
7.B	Develop Volume 6: InfoWorks™ Training	8	28	28																		64	$11,598
	Internal Team Meetings	2	2	4																		8	$1,555
	Remote Client Meetings and notes (1)	1	2	1																		4	$742
	Project management	3	5								3											11	$1,792
TASK 8: PUBLIC ENGAGEMENT																							
	TASK 8 HOURS & FEE SUMMARY	30	112	32	2	2	0	0	4	30	2	0	0	0	0	0	0	0	0	0	0	214	$37,327
8.A	Public Engagement																					0	$0
	Community Engagement Toolkit		2																			2	$309
	Target audience list		2																			2	$309
	Message model	2	8																			10	$1,720
	Develop project website and perform updates		32																			32	$4,944
	Educational materials		15																			15	$2,318
	Project Video	2	8	2	2	2			1													17	$3,054
	Dashboard	2	2	2					3	30												39	$6,690
	Recommendations for future public engagement	2	8																			10	$1,720
8.B	Develop Volume 7: Public Engagement	8	16	16																		40	$7,457
	Internal Meetings	2	2	2																		6	$1,174
	Remote client meetings and notes (2)	2	4	2																		8	$1,483

OHM Advisors Stantec STAFF ROLE (BILLING CLASS)		R. Czachorski PIC (Principal)	M. Chamberlain PM (GE III)	K. Danielsen Modeling (Specialist III)	Various Modeling (GE II)	C. Elenbaas Costs / Design (PE IV)	M. Cummings Municipal Support (GE II)	E. Morgan AMM Development (GE IV)	M. Ulasir Visioning (Principal)	M. Trzeciak GIS Support (GIS Support)	D. Pulver Admin Support (Admin)	C. Slotten QA/QC Engineer (PE IV)	A. Burnham Financials & Policy (Director)	C. Malesky Financials & Policy (Technical Lead)	J. Bearman Financials & Policy (PM)	K. Cook Financials & Policy (Sr. Consultant)	A Ruiz Design & Costs (Sr Consultant)	Various Financial Analysts (Analyst)	Lambert Admin Support (Admin)	Fees - Stantec	Fees - H2O Metrics	TOTALS	
	City Council Meetings (3)	8	8	8																		24	$4,697
	Project Management	2	5								2											9	$1,452
TASK 9: POLICY AND FINANCIAL EVALUATION																							
	TASK 9 HOURS & FEE SUMMARY	**18**	**25**	**0**	**0**	**2**	**0**	**0**	**12**	**0**	**6**	**21**	**50**	**35**	**75**	**60**	**0**	**45**	**10**	**1**	**0**	**360**	**$91,449**
9.A	Project Initiation/Management & Data Collection												8	3	21	9		7	2			50	$12,685
9.B	Review of existing Capital Cost Recovery Model and DOM												9	13	13	17						52	$14,770
9.C	Research/Develop Policy Options and Funding Strategies to implement the Sanitary Sewer Master Plan												10	11	14	18		21				74	$18,105
9.D	Presentations and Report (Volume 8)												23	8	27	16		17	8			99	$25,265
	Review	4	4						4			12										24	$5,026
	Fees																			1		1	$4,175
	Internal Meetings (2)	2	2			2			2			2										10	$2,101
	In-person Client Meetings and notes (2)	5	5						5			5										20	$4,223
	Remote Client Meetings and notes (1)	1	2						1			2										6	$1,205
	Project management	6	12								6											24	$3,893
OPTIONAL TASKS (Hours and fees not included in totals above.)																							
1	As-Needed Modeling Support During Project	25	60	180																		265	**$49,620**
2	As-Needed Modeling Support (3) Years																						
	Year 1																					-	$25,000
	Year 2																					-	$25,000
	Year 3																					-	$25,000
	TOTAL																						**$75,000**
PROJECT TOTALS																							
	Original Project Fee																						$741,545
	Optional Task 1 - As-Needed Modeling Support During Project																						$49,620
	TOTAL ORIGINAL PROJECT WITH OPTIONAL TASK 1																						**$791,165**
	Optional Task 2 - As-Needed Modeling Support (3) Years																						$75,000
	TOTAL ORIGINAL PROJECT WITH OPTIONAL TASK 1 & OPTIONAL TASK 2																						**$866,165**

Rates for Key Personnel

RATE SCHEDULE 2024-2029

Staff Name Project Role (Billing Classification)	2024-26	2027-29
Robert Czachorski, PE Principal in Charge *(Principal)*	$242	$275
Mackenzie Chamberlain, EIT Project Manager *(Graduate Engineer III)*	$155	$176
Chris Elenbaas, PE Costs / Design *(Professional Engineer IV)*	$206	$234
Karlin Danielsen, PhD Modeling *(Specialist III)*	$191	$217
Graduate Engineer I	$139	$158
Graduate Engineer II	$149	$170
Graduate Engineer III	$155	$176
Graduate Engineer IV	$163	$185
Professional Engineer I	$161	$183
Professional Engineer II	$173	$197
Professional Engineer III	$187	$213
Professional Engineer IV	$206	$234