



January 24, 2019

Mr. Ross T. Bintner, PE
Engineering Services Manager
City of Edina
7450 Metro Blvd
Edina, MN 55439

**RE: Supplemental Letter Agreement
Water Treatment Plant 5 – Dublin Reservoir Site
Community Engagement, Design, and Bidding Phase Services
City of Edina, Minnesota**

Dear Mr. Bintner:

Thank you for the opportunity to provide this professional services proposal for Community Engagement, Design and Bidding Phase Services related to Water Treatment Plant 5 on the Dublin Reservoir Site for the City of Edina. The following letter provides a general overview of our understanding of the project and the proposed scope of services, anticipated timeline, and estimate of associated professional fees.

Project Understanding

The City of Edina is committed to advancing plans for design and construction of Water Treatment Plant 5. The Project primarily consists of the design of a new 4,000 gallon per minute (gpm) conventional gravity filtration Water Treatment Plant (WTP). The new WTP will be designed to treat the Owner's existing raw water source, which is comprised of existing Wells 16, 19, and 20 and a planned future well. The project understanding is based on the comprehensive source water analysis, technology and alternative review, financial analysis, and recommendations represented in the WTP No. 5 Feasibility Study for the Dublin Reservoir Site, dated November 2018, which was completed as a precursor to project design.

Scope of Services

- A. The Project consists of an initial Community Engagement phase followed by Preliminary Design, Final Design, and Bidding Phase Services for the new City of Edina WTP 5 at the Dublin Reservoir Site.
- B. The Scope of Services (including the attached detailed scope/hours worksheet) for Community Engagement, Preliminary Design, Final Design, and Bidding Phase is defined as follows:

Mr. Ross T. Bintner, PE
Engineering Services Manager

RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 2 of 11

1. Water Treatment Plant Site
 - i. The new WTP is proposed to be located on existing City of Edina property, located at the Dublin Reservoir site, referred to herein as the Dublin Site, located on Dublin Rd. between Dublin Circle and Kerry Rd.
2. New Water Treatment Plant – 5.76 Million Gallon Per Day (MGD) Capacity
 - a) One (1) 10 minute detention tank
 - b) Gravity filters with 4,000 gpm of total filtration capacity. Three (3) or four (4) filters will be designed depending on design considerations and operational preference.
 - c) Anticipated design loading rate of approximately 3.0 gpm/sf
3. Chemical feed systems which will include chemical conveyance systems (as required), chemical storage tanks, chemical containment and chemical feed equipment. Anticipated chemicals include:
 - a) Chlorine (1-Ton cylinders)
 - b) Fluoride
 - c) Ammonia
 - d) Sodium Permanganate
 - e) Polymer
 - f) HMO
4. Two (2) below grade reinforced concrete backwash reclamation basins.
5. Backwash supply and recycle pumps.
6. Process pipes, valves and meters.
7. Distribution systems pumps and a clearwell.
8. Pipe, valves, meters, controls, and other appurtenances required to connect the future raw water supply pipelines to the new WTP and to connect the new WTP to the existing Distribution system.
 - a) Design of the raw water transmission piping from the wells to the WTP is not included as part of the scope of this proposal.
9. Storm water management and water resources systems as required to comply with stormwater requirements.
11. Access road, parking lot, and associated site landscaping for new WTP site.
 - a) Provide necessary field surveys and topographic and utility mapping for design purposes as related to the Project. Utility mapping will be based upon information obtained from utility owners.
 - b) A \$30,000 budgetary number is included in the scope for specialized landscape design services.
12. Architectural, structural and mechanical components associated with the new WTP which is planned to be approximately 10,000 square feet.
 - a) Develop structural plans for a stand-alone building structure, with no provisions for additional floors or building spaces not specifically required for the WTP.
 - b) Develop a colored architectural rendering including plan and elevation views of the WTP and associated site layout and landscaping.
13. Mechanical components associated with WTP 5 including, but not limited to heating, cooling, ventilation, dehumidification, and general mechanical requirements.

Mr. Ross T. Bintner, PE
Engineering Services Manager

RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 3 of 11

14. Electrical components associated with WTP 5.
 - a) Facility electrical systems, as applicable, including electric service entrance and metering, lighting, ancillary building support systems, and general electrical requirements.
 - b) Include preliminary and final design of limited security provisions for the Project. Security features are to include intrusion alarms, electric operated controls on all exterior doors, and strategic site lighting. Additional items may include video surveillance, motion detection equipment, site perimeter fencing, and/or access control.
 - c) Standby generator sized to meet emergency and load management electrical requirements at the new WTP.
15. Instrumentation and Control (I&C) components associated with the new WTP.
 - a) Perform instrumentation and control system configuration engineering.
 - b) Coordinate with existing water utility instrumentation and control methods, as appropriate, to address compatibility issues.

C. Study and Report Phase Services (Community Engagement)

1. Upon written authorization from Owner, Engineer shall:
 - a) Coordinate, prepare for, and support OWNER at three (3) public meetings to engage the public on potential design alternatives and site use alternatives. Meetings attended by OWNER, ENGINEER, and ENGINEER's Consultants having a duration of four (4) hours.
 - b) Provide necessary OWNER support through design collaboration, communication support, meeting material prep, architectural renderings and virtual graphics, community engagement support, and assist OWNER with community response needs.
 - c) Assist with City Council engagement and preparation for one (1) City Council meeting and presentation.

D. Preliminary Design Phase Services

1. Upon written authorization from Owner, Engineer shall:
 - a) Coordinate, prepare for, and conduct a project team Kick-Off Meeting attended by OWNER, ENGINEER, and ENGINEER's Consultants having a duration of four (4) hours.
 - b) Prepare Preliminary Design Phase documents consisting of final design criteria, preliminary drawings, outline specifications, and written descriptions of the Project.

Mr. Ross T. Bintner, PE
Engineering Services Manager

RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 4 of 11

- c) Meet with OWNER and project stakeholders, as appropriate, to review the preliminary WTP floor plan, site layout, and architectural rendering.
- d) Provide necessary field surveys and topographic and utility mapping for design purposes as related to WTP 5. Utility mapping will be based upon information obtained from utility owners.
- e) Coordinate required soil borings to be used by the structural engineer. All associated costs shall be the direct responsibility of the OWNER.
- f) Coordinate required concrete analysis of existing below grade ground storage reservoir to be used by the structural engineer. All associated costs shall be the direct responsibility of the OWNER.
- g) Advise Owner if additional reports, data, information, or services are necessary and assist Owner in obtaining such reports, data, information, or services.
- h) Prepare a preliminary WTP layout based on the results from the community engagement effort. Layout will also include preliminary architectural design and layout of the WTP.
- i) Prepare a revised opinion of probable Construction Cost, and assist Owner in collating the various cost categories which comprise Total Project Costs.
- j) Perform preliminary structural engineering design calculations for water treatment plant structures, and roof system. Preliminary design calculations are to address type, configuration, support system requirements, and construction methods.
- k) Perform preliminary process engineering calculations to size the proposed major treatment system components and chemical feed systems to meet OWNER and regulatory requirements.
- l) Perform preliminary engineering calculations to size proposed pumping systems and associated electrical system(s).
- m) Perform preliminary mechanical calculations for WTP heating, cooling, ventilation, and dehumidification systems.
- n) Perform preliminary engineering calculations to size and layout WTP low and high voltage building electrical systems, as applicable, including electric service entrance and metering, lighting, heating, cooling, ventilation, dehumidification, pumping, and general electrical requirements.

Mr. Ross T. Bintner, PE
Engineering Services Manager

RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 5 of 11

- o) Perform preliminary standby power generator sizing calculations per pumping system and OWNER requirements. Based on preliminary generator sizing calculations, select a generator to satisfy pumping system and plant needs.
- p) Identify site power source(s) from local power utility and perform preliminary electrical service calculations and layout preliminary power grid for WTP site.
- q) Perform preliminary instrumentation and control system configuration engineering. Coordinate with existing water system instrumentation and control methods, as appropriate, to address compatibility issues.
- r) Develop a revised WTP floor plan and site layout based on completed preliminary calculations. Preliminary layouts to address the treatment system components, chemical feed systems, pumping systems, mechanical systems, low and high voltage site and facility electrical systems, instrumentation and controls, personnel areas, site and structure access, chemical unloading garage and standby power generation and associated fuel system requirements.
- s) Prepare preliminary site design and conceptual layouts for the Project site. Considerations to include, but not be limited to; site access, parking and loading/unloading zones, stormwater management, landscaping, and preliminary design of sustainable site design features.
- t) Develop a preliminary colored architectural rendering including plan and elevation views of the WTP and associated site layout and landscaping.
- u) Evaluate the integration of responsible, sustainable, and resilient design features throughout the project; including, but not limited to: electrical and mechanical systems, treatment processes, building/architectural design, and exterior landscaping consistent with the Owner's vision for the project.
- v) Meet with OWNER and other project stakeholders, as appropriate, to review the revised preliminary WTP floor plan, site layout, and architectural rendering.
- w) Meet with representatives of the OWNER and the Minnesota Department of Health to review the revised preliminary WTP floor plan, site layout, and preliminary process system design.
- x) Develop an outline of anticipated specifications sections for the Project.
- y) 30 Percent Design Completion Milestone:

Mr. Ross T. Bintner, PE
Engineering Services Manager

RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 6 of 11

- i. Prepare and submit to OWNER three (3) review copies of a draft Preliminary Design submittal which will include preliminary detailed site layout, access, and utility maps, major treatment system component sizing calculations, a summary of water treatment facility structural components and construction methods, preliminary pumping system hydraulic design calculations, mechanical system calculations, standby power generation, low voltage building electrical calculations, electrical service calculations, interior and exterior architectural layout and landscaping components, instrumentation and control system information, preliminary water treatment facility layout drawings, a colored architectural rendering, a preliminary outline of specification sections, and a summary of Final Design criteria.
- ii. Coordinate, prepare for, and conduct a project team meeting attended by OWNER, ENGINEER, and ENGINEER's Consultants having a duration of four (4) hours to discuss technical aspects of the Preliminary Design.
- iii. Present Final Plans and Specifications and updated opinion of Total Project Costs to the City of Edina and Edina City Council.

- z) Engineer's services under the Preliminary Design Phase will be considered complete on the date when the revised Preliminary Design Phase documents, revised opinion of probable Construction Cost, and any other deliverables have been delivered to Owner.

E. Final Design Phase Services

1. After acceptance by Owner of the Preliminary Design Phase documents, revised opinion of probable Construction Cost as determined in the Preliminary Design Phase, and any other deliverables subject to any Owner-directed modifications or changes in the scope, extent, character, or design requirements of or for the Project, and upon written authorization from Owner, Engineer shall:
 - a) Prepare final Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor. If appropriate, Specifications shall conform to the 2004 Master Format of the Construction Specifications Institute.
 - b) 60 Percent Design Completion Milestone:
 - i. Prepare and submit to OWNER three (3) copies of a draft 60 percent Final Design submittal including Drawings and Specifications indicating the scope, extent, and character of the Work to be performed and furnished by Contractor, an updated opinion of Total Project Costs, and an updated Project schedule.

Mr. Ross T. Bintner, PE
Engineering Services Manager

RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 7 of 11

- ii. Coordinate, prepare for, and conduct a project team meeting attended by OWNER, ENGINEER, and ENGINEER's Consultants having a duration of four (4) hours to discuss the technical aspects of the submittal prior to completion of the 60 percent Final Design submittal.
 - iii. Perform comprehensive review of building codes, fire codes, mechanical/plumbing codes, and electrical codes as required and as applicable to the Project. Provide a summary of all pertinent code requirements to ENGINEER and utilize all pertinent code requirements when designing components of the Project.
 - iv. Coordinate, prepare for, and conduct a building code review meeting with Edina building and fire officials. Meeting attended by OWNER, ENGINEER, and ENGINEER's Consultants having a duration of four (4) hours.
- c) 95 Percent Design Completion Milestone:
 - i. Prepare and submit to OWNER three (3) copies of the 95 percent Final Design submittal including Drawings and Specifications and a revised Architectural Rendering indicating the scope, extent, and character of the Work to be performed and furnished by Contractor, an updated opinion of Total Project Costs, and an updated Project schedule.
 - ii. Coordinate, prepare for, and conduct a project team meeting attended by OWNER, ENGINEER, and ENGINEER's Consultants having a duration of four (4) hours to discuss the technical aspects of Final Design prior to completion of the 95 percent Final Design submittal.
- d) Prepare 100 percent Final Design Drawings and Specifications and submit three (3) copies of Final Plans and Specification to OWNER along with an updated opinion of Total Project Costs.
- e) Submit three (3) copies of the Final Plans and Specifications to governmental authorities for review and approval. OWNER shall bear all costs associated with plan review and associated fees from governmental authorities.
- f) Present Final Plans and Specifications and updated opinion of Total Project Costs to the City of Edina and Edina City Council.
- g) Provide technical criteria, written descriptions, and design data for Owner's use in filing applications for permits from or approvals of governmental authorities having jurisdiction to review or approve the final design of the Project; assist Owner in consultations with such authorities; and revise the Drawings and Specifications in response to directives from such authorities.

Mr. Ross T. Bintner, PE
Engineering Services Manager

RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 8 of 11

- h) Advise Owner of any adjustments to the opinion of probable Construction Cost known to Engineer.
- i) Prepare and furnish Bidding Documents for review by Owner, its legal counsel, and other advisors, and assist Owner in the preparation of other related documents.
- j) Revise the Bidding Documents in accordance with comments and instructions from the Owner, as appropriate, and submit four (2) final copies of the Bidding Documents, a revised opinion of probable Construction Cost, and any other deliverables to Owner within 30 calendar days after receipt of Owner's comments and instructions.
- k) Engineer's services under the Final Design Phase will be considered complete on the date when the required submittals have been delivered to Owner.
- l) In the event that the Work designed or specified by Engineer is to be performed or furnished under more than one prime contract, or if Engineer's services are to be separately sequenced with the work of one or more prime Contractors (such as in the case of fast-tracking), Owner and Engineer shall, prior to commencement of the Final Design Phase, develop a schedule for performance of Engineer's services during the Final Design, Bidding or Negotiating, Construction, and Post-Construction Phases in order to sequence and coordinate properly such services as are applicable to the work under such separate prime contracts.
- m) The number of prime contracts for Work designed or specified by Engineer upon which the Engineer's compensation has been established under this Agreement is one (1). If more prime contracts are awarded, Engineer shall be entitled to an equitable increase in its compensation under this Agreement. The established Prime Contract is as follows:
 - a. Contract No.1 – Edina Water Treatment Plant 5

Mr. Ross T. Bintner, PE
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RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 9 of 11

F. Bidding Phase Services

1. After acceptance by Owner of the Bidding Documents and the most recent opinion of probable Construction Cost as determined in the Final Design Phase, and upon written authorization by Owner to proceed, Engineer shall provide the following services for Contract No.1 – Edina Water Treatment Plant 5.
 - a) Assist Owner in advertising for and obtaining bids or proposals for the Work and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, attend pre-Bid conferences, if any, and receive and process contractor deposits or charges for the Bidding Documents.
 - b) Issue Addenda as appropriate to clarify, correct, or change the Bidding Documents.
 - c) Provide information or assistance needed by Owner in the course of any negotiations with prospective contractors.
 - d) Consult with Owner as to the acceptability of subcontractors, suppliers, and other individuals and entities proposed by prospective contractors for those portions of the Work as to which such acceptability is required by the Bidding Documents.
 - e) Perform or provide the following additional Bidding or Negotiating Phase tasks or deliverables:
 - i. Evaluate and determine the acceptability of substitute or “or-equal” materials and equipment proposed by Contractor(s) during the Bidding Phase.
 - f) Facilitate a Pre-Bid Meeting for prospective Contractors to review site conditions and discuss project elements prior to bidding.
 - g) Attend the Bid opening, prepare Bid tabulation sheets, and assist Owner in evaluating Bids or proposals and in assembling and awarding contracts for the Work.
2. The Bidding or Negotiating Phase will be considered complete upon commencement of the Construction Phase or upon cessation of negotiations with prospective contractors

Mr. Ross T. Bintner, PE
Engineering Services Manager

RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 10 of 11

All additional Scope of Service items identified in the Master Agreement for Professional Engineering Services in Paragraphs 2.2 Preliminary Design Phase, 2.3 Final Design Phase, and 2.4 Bidding or Negotiating Phase (dated March 7, 2017) are acknowledged as components of this Agreement and included in scope defined in this Supplemental Letter Agreement.

Proposed Professional Fees

AE2S proposes to provide the professional services consistent with the Scope of Services outlined above on an hourly (plus expenses) basis in the amount of Nine Hundred and Eighty Three Thousand Dollars (\$983,000).

Water Treatment Plant 5 – Design and Bidding Phase Services	Professional Fees
<i>Study and Report Phase</i>	\$42,000
<i>Preliminary Design Phase</i>	\$265,000
<i>Final Design Phase</i>	\$635,000
<i>Bidding Phase Services</i>	\$41,000
Total Professional Services =	\$983,000

Compensation shall not exceed \$983,000 without written authorization from the OWNER.

AE2S proposes to provide the above professional engineering services in accordance with the Master Agreement for Professional Engineering Services between the City of Edina and Advanced Engineering and Environmental Services, Inc. (AE2S), dated March 7, 2017.

Anticipated Project Schedule

AE2S proposes to complete the proposed Scope of Services in accordance with the following proposed schedule:

- | | |
|----------------------------------|-------------------|
| ▪ Project Initiation - | February 11, 2019 |
| ▪ Community Engagement | May 24, 2019 |
| ▪ Preliminary Design - | July 26, 2019 |
| ▪ Final Design - | November, 2019 |
| ▪ Bid Opening - | December, 2019 |
| ▪ Construction Initiation - | December 2019 |
| ▪ Anticipated Final Completion - | July 2021 |

Acceptance

Should this proposal satisfactorily establish the scope of services desired by the City of Edina and you approve the fees/terms/conditions/schedule, please sign and date both copies of this letter proposal in the space provided. Please retain one (1) copy for your records and return the other to AE2S. Acceptance of this proposal will serve as our Notice to Proceed.

Mr. Ross T. Bintner, PE
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RE: Supplemental Letter Agreement

**Water Treatment Plant 5 – Dublin Reservoir Site – Design and Bidding Phase
Services**

January 24, 2019

Page 11 of 11

AE2S truly appreciates the opportunity to work with you on this important project for the City of Edina. Should you have any questions or comments regarding this proposal for professional services or the project in general, please feel free to contact me.

Submitted in Service,

Accepted this _____ day of _____, 20____

AE2S

City of Edina



Grant L. Meyer, P.E.
Client Program Leader

By: _____

Title: _____



Aaron Vollmer, P.E.
Operations Manager

Attachments:

1. Detailed Scope and Fee Breakdown

City of Edina WTP 5 Design (Dublin Reservoir)	AE2S															Oertel Architects			KFI		Stonebrooke	Landscape Arch				
	Meyer	Vollmer	DeBoer, PhD	McKenzie	Klabo	Geiger	Hauptert	Pittman	Ruda	Browen	Schmidt	Soland	Smith	Leppala	Sluiter	Oertel	Stromsodt	Support	Wentz	Support	Survey Crew		Subtotal	Labor	Expenses	Total
	CM	Process, PE, PM	Process, PE	CIV, PE	Water Rec., PE	STR, PE	ELEC, PE	I&C	Elect, PE	Process, PE	Struc, Tech	Civil, Tech	Elect, Tech	Process, Tech	Admin	AIA	AIA	Arch, Tech	Mech, PE	Mech, Tech	2- person crew	Arch	Hours			
2019 Billing Rate	\$ 243	\$ 178	\$ 212	\$ 157	\$ 178	\$ 157	\$ 178	\$ 178	\$ 132	\$ 132	\$ 166	\$ 103	\$ 103	\$ 190	\$ 98	\$ 160	\$ 125	\$ 90	\$ 158	\$ 158	\$ 200	\$ 100				
Study and Report	24	54	-	8	-	8	8	-	-	40	-	20	-	40	-	-	56	-	-	-	-	-	258	\$41,670	\$330	\$42,000
Community Engagement	24	54	0	0	0	0	0	0	0	40	0	0	0	0	0	0	36	0	0	0	0	0	154	\$25,449	\$330	\$25,779
Public Meeting No. 1		4															4					8	\$1,237		\$1,237	
Public Meeting No. 2		4															4					8	\$1,237		\$1,237	
Public Meeting No. 3		4															4					8	\$1,237		\$1,237	
Project Team Collaboration, Communication Support, Meeting Prep	20	38								40							20					118	\$19,529	\$330	\$19,859	
City Council Meeting and Presentation Prep	4	4															4					12	\$2,209		\$2,209	
Civil Concept Support				8								20										28	\$3,316		\$3,316	
Structural Concept Support						8																8	\$1,256		\$1,256	
Electrical Concept Support							8															8	\$1,424		\$1,424	
Architectural Concept Support																	20					20	\$2,625		\$2,625	
Process Concept Support														40								40	\$7,600		\$7,600	
Preliminary Engineering Phase	12	132	10	38	29	56	40	20	-	292	30	40	40	220	12	-	238	425	20	4	80	150	1,888	\$261,804	\$3,196	\$265,000
Civil Design and Drafting	0	0	0	34	25	12	0	0	0	0	0	40	0	0	0	0	0	0	0	0	80	0	191	\$32,592	\$0	\$32,592
Survey Coordination				6																	80		86	\$17,742		\$17,742
Soil Boring Coordination and Review				4		12																16	\$2,512		\$2,512	
Stormwater and Permitting Coordination				4	15																	19	\$3,298		\$3,298	
Development of Preliminary Site Plan and Underground Utility Plan				20	10							40										70	\$9,040		\$9,040	
Structural Design and Drafting	0	0	0	0	0	40	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	70	\$11,260	\$0	\$11,260	
Reservoir Demo Coordination						40					20											60	\$9,600		\$9,600	
Development of Preliminay Structural Wall Sections and Floor Sections						20					20											40	\$6,460		\$6,460	
Development of Preliminay Footing Design						20					10											30	\$4,800		\$4,800	
Architectural Design and Drafting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	226	416	0	0	0	150	792	\$84,725	\$0	\$84,725
Preliminary design																	10					10	\$1,313		\$1,313	
Concept Development																	10	8				18	\$2,069		\$2,069	
Schematic Design																	80	120				200	\$21,840		\$21,840	
Design development																	126	288				414	\$43,754		\$43,754	
Landscape Design																					150	150	\$15,750		\$15,750	
Process Design and Drafting	0	120	10	0	0	0	0	0	0	280	0	0	0	220	0	0	0	0	0	0	0	0	630	\$102,240	\$0	\$102,240
Schematic Design and P&ID's		20	2							60				40								122	\$19,504		\$19,504	
Draft Hydraulic Profile		20	2							40				40								102	\$16,864		\$16,864	
Below Grade Tank and Equipment Layout		20	2							20				40								82	\$14,224		\$14,224	
Filter Layouts / Below Grade Tank Layouts		20	2							20				60								102	\$18,024		\$18,024	
Chemical Room Layouts / Equipment Sizing		20	2							40				40								102	\$16,864		\$16,864	
Misc Coordination with other Disciplines		20																				20	\$3,560		\$3,560	
Specifications										100												100	\$13,200		\$13,200	
Mechanical Design and Drafting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	4	0	0	16	\$2,654	\$0	\$2,654
Preliminary design																			12	4			16	\$2,654		\$2,654
Electrical Design and Drafting	0	0	0	0	0	0	36	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	76	\$10,528	\$0	\$10,528
General Room Sizing							4															4	\$712		\$712	
Load List Development							16															16	\$2,848		\$2,848	
P&ID's							16						40									56	\$6,968		\$6,968	
I&C Design and Drafting	0	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	\$2,848	\$0	\$2,848	
P&ID Development								16														16	\$2,848		\$2,848	
Milestone Meetings	12	12	0	4	4	4	4	4	0	12	0	0	0	0	12	0	12	9	8	0	0	0	97	\$14,957	\$3,196	\$18,153
Kickoff Meeting	4	4		4	4	4	4	4		4					4		4		4			44	\$7,185		\$7,185	
Progress Meeting No. 1 (Stakeholder Meeting with Edina)	4	4								4					4		4	5				25	\$3,602		\$3,602	
Progress Meeting No. 2 (30% deliverable)	4	4								4					4		4	4	4			28	\$4,171	\$3,196	\$7,367	

City of Edina WTP 5 Design (Dublin Reservoir)	AE2S															Oertel Architects			KFI		Stonebrooke	Landscape Arch					
	Meyer	Vollmer	DeBoer, PhD	McKenzie	Klabo	Geiger	Hauptert	Pittman	Ruda	Browen	Schmidt	Soland	Smith	Leppala	Sluiter	Oertel	Stromsodt	Support	Wentz	Support	Survey Crew			Subtotal	Labor	Expenses	Total
	CM	Process, PE, PM	Process, PE	CIV, PE	Water Rec., PE	STR, PE	ELEC, PE	I&C	Elect, PE	Process, PE	Struc, Tech	Civil, Tech	Elect, Tech	Process, Tech	Admin	AIA	AIA	Arch, Tech	Mech, PE	Mech, Tech	2- person crew	Arch	Hours				
2019 Billing Rate	\$ 243	\$ 178	\$ 212	\$ 157	\$ 178	\$ 157	\$ 178	\$ 178	\$ 132	\$ 132	\$ 166	\$ 103	\$ 103	\$ 190	\$ 98	\$ 160	\$ 125	\$ 90	\$ 158	\$ 158	\$ 200	\$					
Final Design Phase	30	294	4	214	64	264	138	288	165	388	390	200	320	340	35	48	128	500	133	210	-	150	4,303	\$626,830	\$8,170	\$635,000	
Civil Design and Drafting	0	24	0	210	60	0	0	0	0	0	0	200	0	0	0	0	0	0	0	0	0	0	494	\$68,522	\$0	\$68,522	
Demo Plans		4		40								40										84	\$11,112		\$11,112		
Site Plan Development		4		50	20							40										114	\$16,242		\$16,242		
Utility Plans		4		40								40										84	\$11,112		\$11,112		
Details		4		20	20							40										84	\$11,532		\$11,532		
Misc. Coordination Items		4		30	20							40										94	\$13,102		\$13,102		
Specifications		4		30																		34	\$5,422		\$5,422		
Structural Design and Drafting	0	32	0	0	0	260	0	0	0	0	390	0	0	0	0	0	0	0	0	0	0	682	\$111,256	\$0	\$111,256		
Foundation Design		4				40					60											104	\$16,952		\$16,952		
Below Grade Walls		4				40					60											104	\$16,952		\$16,952		
Above Grade Walls		4				40					60											104	\$16,952		\$16,952		
Floors and Roof		4				40					60											104	\$16,952		\$16,952		
Beams and Columns		4				40					70											114	\$18,612		\$18,612		
Details		4				20					40											64	\$10,492		\$10,492		
Demo Plans		4				20					40											64	\$10,492		\$10,492		
Specifications		4				20																24	\$3,852		\$3,852		
Architectural Design and Drafting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	108	500	0	0	0	150	806	\$85,239	\$0	\$85,239	
Landscape Design																						150	\$15,750		\$15,750		
Construction Documents																48	108	500					656	\$69,489		\$69,489	
Process Design and Drafting	10	200	4	0	0	0	0	0	0	380	0	0	0	340	0	0	0	0	0	0	0	0	934	\$153,638	\$0	\$153,638	
Facility Plan Views	2	20								60				60									142	\$23,366		\$23,366	
Section Views	2	20								60				60									142	\$23,366		\$23,366	
Details	2	20								60				60									142	\$23,366		\$23,366	
Chemical Room Layouts / Equipment Sizing (6 chemicals)	2	20	2							60				60									144	\$23,790		\$23,790	
Pumps and Internal Hydraulic Calculations	2	20								60				60									142	\$23,366		\$23,366	
Misc Coordination with other Disciplines		100								60				40									200	\$33,320		\$33,320	
Specifications			2							20													22	\$3,064		\$3,064	
Mechanical Design and Drafting	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	133	202	0	0	335	\$55,577	\$0	\$55,577	
Preliminary design																			133	202			335	\$55,577		\$55,577	
Electrical Design and Drafting	0	18	0	0	0	0	130	0	165	0	0	0	200	0	0	0	0	0	0	0	0	0	513	\$68,724	\$0	\$68,724	
General Power		2					15		25				30										72	\$9,416		\$9,416	
Mechanical power plans		2					15		25				40										82	\$10,446		\$10,446	
Security System		2					20		25				40										87	\$11,336		\$11,336	
Process Power		2					20		25				30										77	\$10,306		\$10,306	
One-lines		2					20		25				20										67	\$9,276		\$9,276	
Details		2					20						20										42	\$5,976		\$5,976	
Misc. Coordination Items		2					20						20										42	\$5,976		\$5,976	
Fire Alarm Design and lighting protection		2							20														22	\$2,996		\$2,996	
Specifications		2							20														22	\$2,996		\$2,996	
I&C Design and Drafting	0	0	0	0	0	0	0	280	0	0	0	0	120	0	0	0	0	0	0	0	0	0	400	\$62,200	\$0	\$62,200	
I&C Design for Bidding								280					120										400	\$62,200		\$62,200	
Milestone Meetings	20	20	0	4	4	4	8	8	0	8	0	0	0	0	35	0	20	0	0	8	0	0	139	\$21,674	\$8,170	\$29,844	
60% Design Meeting	4	4		4	4	4	4	4		4					10		4		4			50	\$7,773	\$2,585	\$10,358		
90% Design Meeting	4	4					4	4		4					10		4		4			38	\$5,805	\$2,585	\$8,390		
Planing Department Meeting	4	4													5		4					17	\$2,699	\$1,000	\$3,699		
Stake Holder Meeting	4	4													5		4					17	\$2,699	\$1,000	\$3,699		
Council Meeting (2 total)	4	4													5		4					17	\$2,699	\$1,000	\$3,699		
Bidding Phase	-	52	-	-	-	-	30	-	-	38	-	-	-	30	-	-	32	8	-	16	-	-	206	\$32,922	\$8,078	\$41,000	
Contractor Questions		20					15										32						67	\$10,430		\$10,430	
Addendums, Clarifications, Document Management		20					15			30				30				8		16			119	\$19,300	\$2,500	\$21,800	
Pre-Bid Meeting		4																					4	\$712		\$712	
Bid Opening		4																					4	\$712		\$712	
Contract Documents		4								8													12	\$1,768	\$5,578	\$7,346	
	66	532	14	260	93	328	216	308	165	758	420	260	360	630	47	48	454	933	153	230	80	300	6655				
	\$ 16,038	\$ 94,696	\$ 2,968	\$ 40,820	\$ 16,554	\$ 51,496	\$ 38,448	\$ 54,824	\$ 21,780	\$ 100,056	\$ 69,720	\$ 26,780	\$ 37,080	\$ 119,700	\$ 4,606	\$ 7,680	\$ 56,750	\$ 83,970	\$ 24,174	\$ 36,340	\$ 16,000	\$ 30,000		\$963,226	\$19,774	\$983,000	
	Meyer	Vollmer	DeBoer, PhD	McKenzie	Klabo	Geiger	Hauptert	Pittman	Ruda	Browen	Schmidt	Soland	Smith	Leppala	Sluiter	Oertel	Stromsodt	Support	Wentz	Support	Survey Crew	\$	-				