

May 1, 2001

CONSULTING ENGINEERS  
ESTABLISHED 1900  
3699 SYMMES ROAD  
HAMILTON, OHIO 45015  
513-860-8700  
513-860-8701 FAX

Mr. Ernie Stickler  
Public Utilities Superintendent  
City of Mason  
202 West Main Street  
Mason, Ohio 45040

Re: Mason, Ohio  
Letter Agreement for Engineering Services  
Final Design for Water Reclamation  
Plant Improvements



Dear Mr. Stickler:

We are pleased to submit this Letter Agreement to provide engineering services to the City of Mason for the Final Design phase of the Water Reclamation Plant (WRP) Improvements project. After careful consideration of several alternatives to increase treatment capacity, the City's Public Utilities Committee recommended and Council approved this Plant Relocation Alternative. As determined during our evaluation of available options, this alternative includes the relocation of the treatment facilities. This relocation will require construction of new treatment facilities on the northeast portion of a parcel located on Mason-Morrow-Milgrove Road and abandonment and demolition of the existing facilities located at 3920 U.S. Route 42.

Based on the 2020 design year flow projections for the sanitary sewer service area developed in the Wastewater System Master Plan Update, the design year treatment capacity will be 13.0 million gallons per day (MGD). The evaluations studied for improved treatment capacity have included incremental improvements to reach that design year capacity. This phase of improvements will provide for an initial plant capacity of 8.67 MGD with components designed for expansion to 13.0 MGD in the future.

As described in the alternative evaluations documentation, we propose to provide engineering design services to enable construction of the 8.67 MGD Water Reclamation Plant. Our design services for this important project are outlined below.

- 1) Perform a topographical survey of the proposed treatment plant site as well as the proposed sewer alignment and proposed reclaim water force main to connect to the existing force main near S.R. 741. The survey will include the following:
  - a) Notify OUPS of the design project to have all buried utilities field marked.
  - b) Locate all field-marked utilities.
  - c) Locate trees, poles, driveway culverts and other physical objects within public right-of-way along the proposed sewer alignment, as well as on the proposed treatment plant site.
  - d) Establish benchmarks for the project.

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- 2) Recommend a geotechnical firm to perform a soils investigation. We will provide soil-boring locations based on the proposed sewer alignment and proposed structure locations.
- 3) Site grading, landscaping, piping and drainage improvements.
- 4) Approximately 5,000 linear feet of gravity sewer with the capacity to convey ultimate projected wastewater flows to the proposed site.
- 5) Influent Pumping Station that will include either submersible chopper pumps or screw pumps. We will perform an evaluation and base the design on the selected alternative.
- 6) Preliminary Treatment Facilities that will include a mechanical bar screen, bypass manual bar screen and screenings conveyance and discharge system.
- 7) Grit Removal Facilities that will include a vortex-type cyclone grit separator.
- 8) Two Oxidation Ditches along with flow splitter structures.
- 9) Three 100-foot diameter Flocculation Clarifiers.
- 10) Ultraviolet Disinfection Chamber.
- 11) Sludge Pumping and Blower Building.
- 12) Aerobic Digestion Tanks.
- 13) Sludge Dewatering Facilities to include two belt filter presses.
- 14) Covered Dewatered Sludge Storage Facilities.
- 15) Plant Drain Pumping Station.
- 16) Reclaim Water Pumping Station and Force Main (approximately 5,000 linear feet).
- 17) Administration Building.
- 18) Collection System Maintenance Building.
- 19) Electrical and instrumentation improvements related to the above treatment components and structures.
- 20) Demolition drawings and specification documents to allow for abandonment and/or demolition of the existing treatment plant site and structures after the new plant is on line.

These services will be provided for under Paragraph 1.5 – Final Design Phase, of our continuing Agreement for Engineering Services, dated January 7, 1991 and amended

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June 6, 1996. We propose to offer our services based on the scope of services described above for a fee of \$1,526,800. This fee is a cost-reimbursement/multiplier fee, as described in our continuing Agreement for Engineering Services. The fee will not be exceeded unless there is a mutually agreed-upon revision to the scope of the project. As for all of our projects with the City of Mason, services will be invoiced only to the extent that time is charged to the project.

Please indicate the City's authorization to proceed with the project by obtaining the appropriate signatures on the lines on the following page, and return both copies of the signed Agreement to us for signing. We will then return one signed copy to you for filing. We are prepared to begin this project immediately upon your authorization.

We are available to discuss this Letter Agreement at your convenience. Please contact us if you wish to do so.

Yours truly,

A handwritten signature in black ink, appearing to read "Allen J. Aspacher". The signature is fluid and cursive, written over a horizontal line.

Allen J. Aspacher, P.E.  
Project Manager

c: Mr. Scot Lahrmer

**Mason, Ohio  
Water Reclamation Plant  
8.67 MGD Plant Relocation**

Data: 5/1/01  
File: hours.xls

Estimate of hours based on plan sheets required.

Description	Sheets	Description	Sheets
Architectural		Electrical	
Cover Sheet	1	Electrical Symbols	1
Index/Abbreviations/Symbols	1	Electrical Site Plan	1
Flow Profiles	1	Electrical Site Plan	1
Influent Sewer Plan & Profile Sheets	6	One-Line diagram	2
Miscellaneous Site Details	2	Existing Site Demolition	2
Manhole Details	1	Sludge Pumping and Blower Building	1
Proposed Site Plans		Sludge Pumping and Blower Building	1
Overall Site Plan	1	MCC and Schematics	1
Piping Plan	2	Schematics	1
Grading and Staking Plan	2	Influent Pumping Station & Screen Building	1
Administration Building		Influent Pumping Station & Screen Building	1
Exterior Elevations	2	MCC and Schematics	1
Sectional Plan	1	Oxidation Ditch No. 1 & 2	2
Floor Plan	1	Final Settling Tanks	1
Roof Plan	1	Administration Building	2
Reflected Ceiling Plan	1	Administration Building	2
Sections	2	MCC and Schematics	1
Sections and Details	3	Schematics	1
Schematics (water and plumbing)	2	Sludge Dewatering Building	1
Influent Pumping Station & Screen Bldg.		Sludge Dewatering Building	1
Exterior Elevations	1	MCC and Schematics	1
Sectional Plans	2	Schematics	1
Floor Plan	1	Maintenance Building	2
Roof Plan	1	Maintenance Building	1
Sections	2	MCC and Schematics	1
Sections and Details	3	Miscellaneous Structures	1
Grit Removal Structure		Miscellaneous Structures	1
Plans, Sections & Details	2	Miscellaneous Details	1
Flow Splitter Chamber No. 1	1	Instrumentation Panel Details	1
Oxidation Ditch No. 1 & 2		Instrumentation Panel Details	1
Overall Plan	1	Instrumentation Panel Details	1
Sectional Plan	1	Loop Diagrams	1
Plan	1	P&ID Drawings	9
Sections	2	DCS Block Diagram	1
Sections and Details	4	Telephone System Block Diagram	1
Flow Splitter Chamber No. 2	1	Miscellaneous Details	5
Final Settling Tanks			
Overall Plan	1		
Sectional Plan	1		
Plans	1		
Sections and Details	2		
RAS/WAS Chamber	1	Subtotal - Electrical	54
UV Disinfection Chamber			
Plan / Sectional Plan	1		
Sections	1		
Sludge Pumping and Blower Building			
Exterior Elevations	1		
Sectional Plan, Plan & Roof Plan	2		
Sections	1		
Sections, Details & Schematics	3		
Aerobic Digestion Tanks		Total Sheets =	130 + 54 = 184
Sectional Plan	1		
Plan	1		
Sections	2		
Sections and Details	3		
Sludge Dewatering Building			
Exterior Elevations	1		
Foundation Plan, Plan, Roof Plan	2		
Sections	1		
Sections, Details & Schematics	4		
Dewatered Sludge Storage Pad			
Sectional Plan and Plan	2		
Sections and Details	1		
Plant Drain Pumping Station	1	Total fee:	\$1,526,800.00
Reclaim Water Pumping Station			
Exterior Elevations	1		
Sectional Plan and Plan	1	Estimated Construction Cost from Study:	
Sections and Details	1		\$28,284,900
Details and Schematics	1		
Force main plan & profile	5		
Maintenance Building		Total Fee as % of Const. Cost:	5.40%
Exterior Elevations	2		
Foundation Plan	2		
Plan	2		
Roof Plan	2		
Sections	2		
Details	1		
Schematics	1		
Miscellaneous Details			
Misc. Structure Details	2		
Door Details	2		
Window Details	1		
Miscellaneous Schedules	4		
Existing Site Demolition			
Site Plans	4		
EQ Basins	1		
Control Building	1		
Preliminary Treatment Building	1		
Oxidation Ditches	1		
Flocculation Clarifiers	1		
UV Disinfection Chamber & Con. Bldg.	1		
Aerobic Digestion Tanks	1		
Belt Filter Press Bldg.	1		
Misc. Structure Details	1		
Subtotal - Architectural	130		