



Memorandum

DATE: November 12, 2010

TO: Board of Public Works

FROM: Mark Radtke, Director of Public Works *MR*

RE: Recommendation to Execute Agreement with Kaempfer & Associates for Preparation of Wastewater Collection System Operation and Maintenance (O&M) Manual

In late August the Engineering Department solicited proposals for the preparation of an Operation and Maintenance Manual for its wastewater collection system. The City submitted Requests for Proposals to seven engineering firms but received only one proposal in response, that being from Kaempfer & Associates located in Oconto Falls. Kaempfer is very familiar with our system as they have been the consultant for the City's extensive Sewer System Evaluation Study being undertaken these past few years.

The preparation of the O&M Manual is a very comprehensive process that must comply with the standards established by the Wisconsin Department of Natural Resources (WDNR). The City of Menasha received a low interest loan from the Clean Water Fund Program under Wisconsin Administrative Code NR 162.12 for the completion of sanitary sewer improvements in its Phase 3 Rehabilitation project. The WDNR requires that the O&M Manual be prepared before the Clean Water Fund loan is closed out and will withhold up to 5% of the loan proceeds until the O&M is satisfactorily submitted. For the City of Menasha that amounts to approximately \$120,000.

Based on this information, I recommend the City enter into agreement with Kaempfer & Associates for engineering services for the preparation of the Wastewater Collection System Operation and Maintenance Manual at a cost not to exceed \$16,000.

Enclosure (RFP, Agreement)

Enclosure (RFP, Agreement)

AMENDMENT NO. 2 TO
AGREEMENT FOR ENGINEERING SERVICES BETWEEN
CITY OF MENASHA, WISCONSIN
AND KAEMPFER & ASSOCIATES, INC. FOR
WASTEWATER COLLECTION SYSTEM REHABILITATION IMPROVEMENTS

THIS AMENDMENT, made and entered into on this _____ day of _____, 2009, by and between the City of Menasha, Wisconsin, hereinafter referred to as the "Owner", and Kaempfer & Associates, Inc., a corporation, authorized to provide engineering services in the State of Wisconsin, hereinafter referred to as "Engineer":

WITNESSETH:

WHEREAS, the Owner requires engineering services to plan, design, bid, and construct wastewater collection system rehabilitation improvements; and

WHEREAS, Engineer has available and offers to provide personnel and facilities necessary to accomplish the work within the required time.

NOW THEREFORE, Owner and Engineer agree as follows:

I. DESCRIPTION OF PROJECT

Owner and Engineer agree that the Project is as described in Exhibit "A" titled, "Description of Project for Wastewater Collection System Rehabilitation Improvements", and dated September 14, 2009. If, during the course of performing the engineering work, Owner and Engineer agree that it is necessary to make changes in the Project as described in Exhibit "A", such changes will be incorporated into the Agreement by written amendment.

II. SCOPE OF ENGINEERING SERVICES

Engineer agrees to perform those services which are more particularly described hereafter. Unless modified in writing by both parties, duties of Engineer shall not be construed to exceed those services specifically set forth herein. Engineer agrees to perform those planned tasks described in Exhibit "B" titled "Scope of Engineering Services for Wastewater Collection System Rehabilitation Improvements," dated September 14, 2009.

III. SCOPE OF OWNER SERVICES

The Owner shall examine all information presented by the Engineer and render decisions pertaining to this information in a timely manner. The Owner shall designate a person with authority to act on the Owner's behalf on all matters concerning the project.

Owner agrees to provide one copy of all correspondence, published reports, studies and evaluations, sanitary sewer mapping, plans and specifications, drawings, and operating data concerning the City of Menasha wastewater collection system facilities; and other data requested by the Engineer to complete the project. All borrowed material will be promptly returned to the Owner upon completion of the project. Owner agrees to make its properties available and accessible for inspection by the Engineer.

IV. AUTHORIZATION, PROGRESS, AND COMPLETION

In signing this Amendment, the Owner grants the Engineer specific authorization to proceed with work described in Parts B12 and B13 of Exhibit "B". The work shall be completed in accordance with the schedule in Exhibit "A".

V. COMPENSATION

For the services described in Exhibit "B", which are to be performed by the Engineer, the Owner agrees to pay, and the Engineer agrees to accept, compensation in accordance with the methods and schedules set forth in Exhibit "C" dated September 14, 2009.

IN WITNESS WHEREOF, the parties hereto have made and executed this Amendment as of the day and year first above written.

KAEMPFER & ASSOCIATES, INC.

CITY OF MENASHA, WISCONSIN

By 
Christopher Raempfer, P.E.
President

By _____
Donald Merkes
Mayor

By 
Taryn S. Nall, P.E.
Secretary

By _____
Deborah Galeazzi
City Clerk

Date 9/14/09

Date _____

Approved as to form and execution

By _____
City Attorney

Date _____

AMENDMENT NO. 2

EXHIBIT "A"

DESCRIPTION OF PROJECT
FOR
WASTEWATER COLLECTION SYSTEM REHABILITATION IMPROVEMENTS
SEPTEMBER 14, 2009

Engineering services performed under this Amendment are required for the planning, design, bidding, and construction of Phase 3 Wastewater Collection System Rehabilitation Improvements. The work is divided into thirteen parts: Project Management, Project Coordination, Manhole Inspection Program, Smoke Testing Program, Sewer Televising Program, Sanitary Lateral Televising, Sump Pump Inspection Program, Report Preparation, Phase 3 Sewer Rehabilitation Design Services, Phase 3 Sewer Rehabilitation Bidding Services, Phase 3 Sewer Rehabilitation Construction Related Services, Wastewater Collection System O&M Manual Preparation, and Field and Special Studies. Only Wastewater Collection System O&M Manual Preparation and Field and Special Studies are authorized by this Amendment.

EXISTING CONDITIONS

The Menasha wastewater collection and treatment system presently serves the entire developed area in the City of Menasha. The wastewater collection system consists of four (4) sewage lift stations, and approximately 50.3 miles of collector, trunk, and interceptor sewers ranging in size from 8 inches to 48 inches in diameter. A Wastewater Collection System Operation and Maintenance (O&M) Manual is required as a condition of obtaining Clean Water Fund Loan funding for the Phase 3 Wastewater Collection System Rehabilitation Improvements project.

DESCRIPTION OF PROJECT

A collection system O&M manual will be prepared that complies with the Wisconsin Department of Natural Resources requirements. A copy of the O&M manual certification checklist is included at the end of this Exhibit.

The manual will describe the O&M requirements of the City of Menasha wastewater collection system facilities. The manual will be divided into ten parts as shown in the attached preliminary outline. Part 'A' will be an introduction that describes the purpose and use of the manual. Part 'A' will include a list of references that should be available to the City staff and a list of telephone numbers and addresses for key contacts.

Part 'B' will contain a description of the wastewater collection facilities. The description will include an overview of the sanitary sewer system, sewage lift stations, and design criteria for gravity sewers. The description will include figures showing the collection system facilities, drainage districts, and pipeline materials.

Part 'C' will contain operating instructions for the sanitary sewer system. The operating instructions will be divided into sections describing inflow and infiltration control and prevention, maintenance schedule, sewer cleaning, odor control, inspection, and equipment used in the operation and maintenance of sanitary sewers.

Part 'D' will contain operating instructions for the sewage lift stations. The operating instructions will be divided into sections describing equipment operation, utilities, design and equipment summary, and valve indices for each of the four sewage lift stations. The operating instructions will include figures showing the arrangement of the piping and equipment at each facility.

Part 'E' will be reserved for operating instructions for the SCADA system.

Part 'F' will contain a description of staffing and records. Part 'F' will include an organization chart for the City staff and will include a discussion on certification and training requirements. Part 'F' will also include a description of the City records system and will contain examples of the WDNR and City forms that are routinely used.

Part 'G' will contain a general description of safety requirements and procedures. Part 'G' will include a general discussion on safety requirements and detailed discussions on personal protective equipment, confined spaces, trenches and excavations, working in streets and roads, chemical hazards, electrical hazards, mechanical hazards, and fire hazards.

Part 'H' will contain the general maintenance instructions for the wastewater collection system. Part 'H' will include a description of the equipment numbering system and a description of the manufacturer's O&M instructions for the wastewater collection system facilities.

Part 'I' will include a description of the emergency operating conditions and response program. Part 'I' will include discussion on emergency response and operating plans, vulnerability analysis, and procedures for obtaining outside help.

Part 'J' will contain supplemental information that is frequently used by the City staff or is referred to in the manual. Part 'J' will include copies of the sewer use ordinance and user charge system, collection system map, general discharge permit, compliance maintenance annual report, and other reference material the City staff should be familiar with.

The O & M manual text would be prepared using Microsoft Word and the figures would be prepared using AutoCAD. A copy of the electronic files for the project will be given to the Owner. Each part of the manual will be independently numbered to allow it to be updated without affecting the other parts of the manual. The manuals will be assembled in 3-ring notebooks so the contents can be easily updated and revised.

The O&M manual will be prepared in accordance with the WDNR guidelines. A draft of the O&M manual will be reviewed with the City. The City's comments will be incorporated into the manual. Copies of the O&M manual and O&M manual certification checklist will be submitted to the WDNR for review and approval. Copies of the final O&M manual will be provided for City use.

PROJECT SCHEDULE

The draft collection system O&M manual will be completed within 90 days of authorization. The final collection system O&M manual will be completed and submitted to the WDNR within 30 days of Owner acceptance of the O&M manual.

Wastewater Collection System Operation and Maintenance Manual Certification Checklist

Form 8700-310 (R 5/07)

Page 1 of 4

Notice: This form is authorized by s. NR 162.12(1)(k)(1), Wis. Adm. Code. Receipt of this information by the Department is mandatory to obtain a CWFPP loan. Failure to submit a completed form may result in denial of loan funds for the project. Personal information collected on this form will be used for program administration and may be made available to requesters as required by Wisconsin Open Records law [s. 19.31–19.39, Wis. Stats.].

Facility Information

Municipality Name		Clean Water Fund Project No.	Plan & Spec Approval No.	WPDES Permit No.	
Address			City	State	ZIP
Name of Firm that Prepared Manual	Name of Individual who Prepared Manual	Phone Number	E-Mail Address		
Checklist Completed By		Phone Number	E-Mail Address		

Municipal Acceptance

We certify that to the best of our knowledge and belief, the information provided on this form and any associated attachments are true, accurate and complete.

Project Engineer Name		Title			
Signature			Date Signed		
Authorized Representative Name		Title			
Signature			Date Signed		

Operator Acceptance

I certify that I have reviewed the Operation and Maintenance Manual developed for this project and find that the manual meets the information and training requirements for this wastewater collection system.

Operator Name		Title			
Signature			Date Signed		

Leave Blank – DNR Use Only

This certification checklist has been reviewed by me and is acceptable.

DNR Reviewer Name		Date Received			
Reviewer Signature		Date Reviewed			

NOTE: An acceptable Operation and Maintenance (O&M) Manual must address the applicable items in this checklist. For upgrading projects, addenda or revisions to the existing O&M manual may be provided. The applicable portions of this checklist should then be completed for the addenda or revisions. Manufacturers' Manuals and other standard reference materials do not need to be included with the copy of the manual provided to DNR.

Wastewater Collection System Operation and Maintenance Manual Certification Checklist

Form 8700-310 (R 5/07)

Page 2 of 4

A. General	Page No.	Satisfactory	N/A
1. Table of Contents			
2. Introduction – Purpose and use of the manual			
3. Contact Information			
a. Emergency telephone numbers and addresses			
b. Telephone number, address, contact person for:			
i. Utilities			
ii. DNR regional and central office			
4. Format			
a. Text written to operator			
b. Manual is an instructional tool			
c. Manual is organized and makes sense			
i. General information and discussion			
ii. Inspection, operation and maintenance sections including specific safety procedures and concerns			
d. Appendices			
e. Will user find manual helpful (satisfactory)			
f. Index Tabs			
B. Staffing			
1. Line diagram showing each position			
2. General description of responsibility of each position			
3. Qualifications required for each position			
C. Spill and Bypass Events			
1. Reporting procedures and contacts			
2. Sanitary Sewer Overflow or Bypass Notification Report (Form 3400-184)			
D. Safety			
1. General discussion			
2. Personal hygiene			
3. Hazards			
a. Physical injuries			
b. Pathogens (recommended inoculations)			
c. Oxygen deficiency and noxious gases			
d. Electrical safety			
e. Explosion and fire			
f. Chemical safety			
g. Equipment safety			
h. Laboratory safety			
i. Traffic and roadway safety			
4. Definition of confined spaces and applicable rules and regulations for entry			
5. Safety procedures for confined space entry			
6. List of specific hazardous areas and confined spaces at treatment facility/collection system			
7. List of actual chemicals used and a Material Safety Data Sheet (MSDS) for each			
8. Safety equipment and first aid kits (types and locations)			
9. Accident reports			
10. Job safety instruction and training			

Wastewater Collection System Operation and Maintenance Manual Certification Checklist

Form 8700-310 (R 5/07)

Page 3 of 4

E. Security and Emergencies	Page No.	Satisfactory	N/A
1. Vulnerability Assessment			
2. Emergency Response Plan			
3. Emergency Operating Plan			
4. Emergency Generators and Pumps			
a. Functional description, location and procedures			
b. Startup and normal operation			
c. Emergency repair procedures and procedures for obtaining outside help			
d. Trouble shooting guide (table format)			
e. Safety associated with tasks			
F. Operation and Maintenance			
1. Sewers and Manholes			
a. Functional description of system (may refer to maps and general description)			
b. Normal operation, alternative operation and emergency operation			
c. Inspections			
d. Maintenance tasks, schedules and procedures			
e. Trouble shooting guide (table format)			
f. Safety associated with tasks			
2. Lift Stations			
a. Function, location and description of lift stations			
b. Schematic drawing			
c. Normal operation, startup, alternate operation and emergency operation			
d. Maintenance tasks, schedules and procedures			
e. Trouble shooting guide (table format)			
f. Safety associated with tasks			
3. Sewer Cleaning Equipment			
a. Function and location of equipment (each unit)			
b. Trouble shooting guide (table format)			
c. Safety associated with tasks			
4. Safety Equipment			
a. Tasks and procedures			
b. Personnel assigned to each task			
c. Schedules by which tasks are done			
d. Trouble shooting guide (table format)			
5. Appurtenances (inverted siphons, chlorinators, air relief valves, telemetering equipment, etc.)			
a. Functional description, schematics and location			
b. Normal operation, alternate operation and emergency operation			
c. Mechanical and/or electrical components			
d. Trouble shooting guide (table format)			
e. Safety associated with tasks			
G. Appendices			
1. WPDES General Permit WI-0047341 "Bypasses or Overflows from Sewage Collections Systems"			
2. Sewer use ordinance and user charge system			
3. Sewer System Map			
4. Capacity, Management, Operation & Maintenance Program (if applicable)			
5. Compliance Maintenance Annual Report (CMAR): Collection System Section			

Wastewater Collection System Operation and Maintenance Manual Certification Checklist

Form 8700-310 (R 5/07)

Page 4 of 4

G. Appendices (continued)	Page No.	Satisfactory	N/A
6. Summary of purchase order system and forms			
7. Summary of equipment inventory systems and forms			
8. Summary of mutual aid system (formal and informal)			
9. List of known or suspected dangerous locations, danger and mitigative actions			
10. List of manufacturers O&M manuals and location			
11. List of equipment and material suppliers and service representatives with address and telephone number			
12. List of safety equipment and respective location			

Wastewater Collection Systems Recommended Reference Materials	Check if Provided
1. Wastewater Collection Systems Management (WEF MOP-7)	
2. Operation & Maintenance of Wastewater Collections Systems (Calif. State Univ. -Sacramento Field Study Training Manuals)	
3. Collection Systems: Methods For Evaluating & Improving Performance (Calif. State University-Sacramento Manual)	
4. Confined Space Entry (WEF) or other: _____	
5. Safety & Health at Wastewater Systems (WEF MOP-1)	
6. Biological Hazards at Wastewater Treatment Facilities (WEF)	
7. WEF or other Collection System Reference Books as they apply. List additional books, if provided:	

8. Security Vulnerability Self-Assessment Guide for Wastewater Systems (WRWA)	
9. Wisconsin Administrative Code as they apply: <input type="checkbox"/> NR 110 – Sewerage Systems <input type="checkbox"/> NR 208 – Compliance Maintenance <input type="checkbox"/> NR 210 – Sewage Treatment Works	

COMMENTS

AMENDMENT NO. 2

EXHIBIT "B"

SCOPE OF SERVICES
FOR
WASTEWATER COLLECTION SYSTEM REHABILITATION IMPROVEMENTS
SEPTEMBER 14, 2009

The work to be performed under this Agreement is divided into thirteen major parts. The Wastewater Collection System O&M Manual Preparation and Field and Special Studies are authorized by this Amendment. The detailed tasks associated with each part of the work authorized by this Amendment are as described herein.

PART B12 WASTEWATER COLLECTION SYSTEM O&M MANUAL PREPARATION

The Engineer shall provide professional services to prepare a wastewater collection system O&M manual. The detailed tasks involved in this part of the work are as described herein.

- Task 12.01 -- Meet with the Owner to review project requirements and discuss relevant issues concerning the project.
- Task 12.02 -- Provide monthly updates of the project progress.
- Task 12.03 -- Prepare draft outline for O & M manual. Review draft outline for O & M manual with Owner. Update draft outline to reflect Owner comments.
- Task 12.04 -- Prepare an introduction for the manual describing the purpose and use of the manual.
- Task 12.05 -- Develop valve numbering system for each sewage lift station facility. Incorporate valve numbering system in operating instructions.
- Task 12.06 -- Prepare operating instructions for gravity sewers, sewer cleaning equipment, portable emergency generators, and portable pumps. Operating instructions will describe arrangement and operation of each wastewater collection system facility.
- Task 12.07 -- Prepare figures showing the arrangement of the wastewater collection system, pipeline sizes, pipeline materials, and drainage districts.
- Task 12.08 -- Prepare operating instructions for sewage lift stations. Operating instructions will include normal, alternate and emergency operating procedures.
- Task 12.09 -- Prepare figure showing site plan of each wastewater collection system facility from information collected in Field and Special Studies or information provided by the Owner.
- Task 12.10 -- Prepare figure showing equipment and piping arrangement for each wastewater collection system facility.

- Task 12.11 -- Prepare figure showing schematic of process piping and equipment for each wastewater collection system facility.
- Task 12.12 -- Prepare routine operating procedure for each wastewater collection system facility.
- Task 12.13 -- Obtain information on testing and monitoring requirements.
- Task 12.14 -- Prepare a description of testing and monitoring requirements.
- Task 12.15 -- Obtain information on maintenance procedures.
- Task 12.16 -- Prepare a description of equipment identification system.
- Task 12.17 -- Assemble manual for Owner to file manufacturer's O&M instructions for existing wastewater collection system facilities: Ninth Street Sewage Lift Station, Twelfth Street Sewage Lift Station, Paris Street Sewage Lift Station, and Third Street Sewage Lift Station. Provide 3-ring binders, table of contents, and equipment dividers for filing manufacturer's O&M instructions.
- Task 12.18 -- Prepare a description of Manufacturer's O&M manual filing system.
- Task 12.19 -- Prepare a description of maintenance instructions system.
- Task 12.20 -- Obtain information on staffing requirements and personnel qualifications.
- Task 12.21 -- Prepare a description of staffing requirements and personnel qualifications and responsibilities.
- Task 12.22 -- Obtain information on Owner safety procedures and requirements.
- Task 12.23 -- Prepare a description of safety considerations and requirements.
- Task 12.24 -- Obtain information on the SCADA system operation and maintenance.
- Task 12.25 -- Prepare a general operation description of the SCADA system.
- Task 12.26 -- Obtain information on as-built records system.
- Task 12.27 -- Obtain copies of current Owner and WDNR forms.
- Task 12.28 -- Prepare a description of Owner records and reports. Include examples of WDNR and Owner forms.
- Task 12.29 -- Select supplemental information for inclusion in the O & M manual.
- Task 12.30 -- Prepare text using Microsoft Word. Prepare figures using AutoCAD. Provide one copy of electronic files for Owner's use.
- Task 12.31 -- Review draft of the O&M manual with the Owner. Incorporate Owner comments into manual.

- Task 12.32 -- Assemble O&M manuals in 3-ring notebooks so information can be easily updated and revised.
- Task 12.33 -- Prepare and submit two (2) copies of O&M manual and O&M manual certification checklist to the WDNR for review and approval.
- Task 12.34 -- Prepare five (5) copies of the final O&M manual. Provide three (3) copies of the O&M manual for the Owner's use.

PART B13 FIELD AND SPECIAL STUDIES

The Engineer shall provide professional services to perform or coordinate all field and special studies needed to supplement the preparation of the Wastewater Collection System O&M Manual. The detailed tasks involved in this part of the work are as described herein.

- Task 13.01 -- Meet with representatives of the City to determine project requirements and discuss relevant issues concerning the project.
- Task 13.02 -- Develop a detailed work plan for performing wastewater lift station capacity evaluations and other field and special studies. The work plans shall consist of a scope of work, schedule, and estimated cost.
- Task 13.03 -- Perform pumping testing at each lift station to determine the actual capacity of the pumps. The task includes the following work items:
- * Perform physical inspection of Sewage Lift Station.
 - * Obtain existing pump information.
 - * Perform as-built measurements of the existing wet wells.
 - * Coordinate cleaning of the wet wells, if necessary, with the City staff.
 - * Perform pump drawdown tests.
 - * Evaluate test data and summarize results in a memorandum to the City.
- Task 13.04 -- Perform other field and special studies work as required to supplement preparation of the Wastewater Collection System O&M manual.

AMENDMENT NO. 2

EXHIBIT "C"

COMPENSATION
FOR
WASTEWATER COLLECTION SYSTEM REHABILITATION IMPROVEMENTS
SEPTEMBER 14, 2009

Compensation for the services provided under Article II "Scope of Engineering Services" and described in Exhibit "B" shall be as described in Part C1, Method and Amount of Compensation.

PART C1 METHOD AND AMOUNT OF COMPENSATION

The Owner agrees to compensate the Engineer for the services described in Exhibit "B" Part B12 and Part B13 in accordance with the following table. Parts B1 through B11 have been completed or are currently being completed. The amount shown in the table for work performed on a time and expense basis is the estimated cost. The total cost of engineering services for Parts B12 and B13 shall not exceed the amounts shown for Parts B12 and B13 of \$16,000 for the scope of work described in Parts B12 and B13.

<u>Part</u>	<u>Description</u>	<u>Compensation</u>	
		<u>Method</u>	<u>Amount</u>
B12	Wastewater Collection System O&M Manual Preparation	LS	\$13,500
B13	Field & Special Studies	T & E	\$2,500

AMENDMENT NO. 2

EXHIBIT "D"

KAEMPFER & ASSOCIATES, INC.
 Hourly Direct Salary Costs
 2009

The following direct salary costs will be used to develop labor costs for time and expense work performed in 2009.

Labor Category	Salary Cost Dollars Per Hour
Chief Engineer	\$37.30
Senior Engineer - 6	\$32.45
Senior Engineer - 5	\$30.10
Senior Engineer - 4	\$27.85
Senior Engineer - 3	\$25.50
Engineer - 5	\$24.35
Engineer - 4	\$23.20
Engineer - 3	\$20.90
Engineer - 2	\$18.60
Engineer - 1	\$16.30
Engineering Assistant - 4	\$16.75
Engineering Assistant - 3	\$15.00
Engineering Assistant - 2	\$13.25
Engineering Assistant - 1	\$11.50
Technician - 6	\$18.60
Technician - 5	\$17.50
Technician - 4	\$16.30
Technician - 3	\$15.10
Technician - 2	\$13.95
Technician - 1	\$12.80
Clerical - 4	\$15.10
Clerical - 3	\$13.95
Clerical - 2	\$12.80
Clerical - 1	\$11.65

The following mileage rates will be used for work performed in 2009:

Vehicle	Cost Per Mile, Dollars
Truck	\$0.50
Light Truck	\$0.40
Van	\$0.35
Car	\$0.35

August 27, 2010
~~June 9, 2009~~

Re: Request for Proposal for Engineering Services

Dear _____:

The City of Menasha is requesting proposals for providing engineering services for preparation of an Operation and Maintenance (O&M) Manual for its wastewater collection system. The City of Menasha shall receive sealed proposals until 3:00 p.m. on Thursday, September 10, 2009. A draft O&M Manual shall be submitted to the Menasha Department of Public Works within 90 days of authorization to proceed. The final O&M Manual shall be submitted to the Menasha Department of Public Works within 30 days of receiving comments on the draft O&M Manual.

The proposal shall contain the following information:

Section 1 Project Organization

- Listing of Collection System O&M Manuals prepared by firm including references (Community, Contact, Phone Number).
- Team members who will be participating in the work. Provide a copy of the resumes for the team members.
- Provide a copy of a Collection System O&M Manual completed by the team members.

Section 2 Description of Project

- A description of the project is presented in Attachment "A". All of the work elements in the description of project shall be completed to comply with the WDNR requirements.
- Provide an outline of the Collection System O&M Manual.

Section 3 Scope of Services

- The scope of services to be provided by the engineering firm for preparation of the O&M Manual is presented in Attachment "B".

Section 4 Compensation

- Provide a lump sum cost for providing the professional services for preparation of the O&M Manual and associated work described in the project description and scope of services.
- Identify any field and special studies required for the preparation of the O&M Manual and the estimated cost for the services. Field and special studies would be compensated on a time and expense basis.

Please contact me if you have any questions.

Sincerely,

CITY OF MENASHA

Mark Radtke, P.E.
Director of Public Works

Enc: As Noted

ATTACHMENT "A"

DESCRIPTION OF PROJECT

A collection system O&M manual will be prepared that complies with the Wisconsin Department of Natural Resources requirements. A copy of the O&M manual certification checklist is included at the end of this Attachment.

The manual will describe the O&M requirements of the City of Menasha wastewater collection system facilities. The manual will be divided into ten parts as shown in the attached preliminary outline. Part 'A' will be an introduction that describes the purpose and use of the manual. Part 'A' will include a list of references that should be available to the City staff and a list of telephone numbers and addresses for key contacts.

Part 'B' will contain a description of the wastewater collection facilities. The description will include an overview of the sanitary sewer system, sewage lift stations, electrical power distribution, and design criteria for gravity sewers. The description will include figures showing the collection system facilities, drainage districts, and pipeline materials.

Part 'C' will contain operating instructions for the sanitary sewer system. The operating instructions will be divided into sections describing inflow and infiltration control and prevention, maintenance schedule, sewer cleaning, odor control, inspection, and equipment used in the operation and maintenance of sanitary sewers.

Part 'D' will contain operating instructions for the sewage lift stations. The operating instructions will be divided into sections describing equipment operation, utilities, design and equipment summary, and valve indices for each of the eleven sewage lift stations. The operating instructions will include figures showing the arrangement of the piping and equipment at each facility.

Part 'E' will be reserved for operating instructions for the SCADA system.

Part 'F' will contain a description of staffing records. Part 'F' will include an organization chart for the City staff and will include a discussion on certification and training requirements. Part 'F' will also include a description of the City records system and will contain examples of the WDNR and City forms that are routinely used.

Part 'G' will contain a general description of safety requirements and procedures. Part 'G' will include a general discussion on safety requirements and detailed discussions on personal protective equipment, confined spaces, trenches and excavations, working in streets and roads, chemical hazards, electrical hazards, mechanical hazards, and fire hazards.

Part 'H' will contain the general maintenance instructions for the wastewater collection system. Part 'H' will include a description of the equipment numbering system and a description of the manufacturer's O&M instructions for the wastewater collection system facilities. Information on the computerized maintenance management system will be included in the manual.

Part 'I' will include a description of the emergency operating conditions and response program. Part 'I' will include discussion on emergency response and operating plans, vulnerability analysis, and procedures for obtaining outside help.

Part 'J' will contain supplemental information that is frequently used by the City staff or is referred to in the manual. Part 'J' will include copies of the sewer use ordinance and user charge system, collection system map, discharge permit, compliance maintenance annual report, and other reference material the City staff should be familiar with.

The O & M manual text would be prepared using Microsoft Word and the figures would be prepared using AutoCAD. A copy of the electronic files for the project will be given to the Owner. Each part of the manual will be independently numbered to allow it to be updated without affecting the other parts of the manual. The manuals will be assembled in 3-ring notebooks so the contents can be easily updated and revised.

The O&M manual will be prepared in accordance with the WDNR guidelines. A draft of the O&M manual will be reviewed with the City. The City's comments will be incorporated into the manual. Copies of the O&M manual and O&M manual certification checklist will be submitted to the WDNR for review and approval. Copies of the final O&M manual will be provided for City use.

ATTACHMENT "B"

SCOPE OF SERVICES

PART B1 WASTEWATER COLLECTION SYSTEM O&M MANUAL PREPARATION

The Engineer shall provide professional services to prepare a wastewater collection system O&M manual. The detailed tasks involved in this part of the work are as described herein.

- Task 1.01 -- Meet with the Owner to review project requirements and discuss relevant issues concerning the project.
- Task 1.02 -- Provide monthly updates of the project progress.
- Task 1.03 -- Prepare draft outline for O & M manual. Review draft outline for O & M manual with Owner. Update draft outline to reflect Owner comments.
- Task 1.04 -- Prepare an introduction for the manual describing the purpose and use of the manual.
- Task 1.05 -- Develop valve numbering system for each sewage lift station facility. Incorporate valve numbering system in operating instructions.
- Task 1.06 -- Prepare operating instructions for gravity sewers, sewer cleaning equipment, portable emergency generators, and portable pumps. Operating instructions will describe arrangement and operation of each wastewater collection system facility.
- Task 1.07 -- Prepare figures showing the arrangement of the wastewater collection system, pipeline sizes, pipeline materials, and drainage districts.
- Task 1.08 -- Prepare operating instructions for sewage lift stations. Operating instructions will include normal, alternate and emergency operating procedures.
- Task 1.09 -- Prepare figure showing site plan of each wastewater collection system facility.
- Task 1.10 -- Prepare figure showing equipment and piping arrangement for each wastewater collection system facility.
- Task 1.11 -- Prepare figure showing schematic of process piping and equipment for each wastewater collection system facility.
- Task 1.12 -- Prepare routine operating procedure for each wastewater collection system facility.
- Task 1.13 -- Obtain information on testing and monitoring requirements.
- Task 1.14 -- Prepare a description of testing and monitoring requirements.
- Task 1.15 -- Obtain information on maintenance procedures.

- Task 1.16 -- Prepare a description of equipment identification system.
- Task 1.17 -- Assemble manual for City to file manufacturer's O&M instructions for existing wastewater collection system facilities: Ninth Street Sewage Lift Station, Twelfth Street Sewage Lift Station, Paris Street Sewage Lift Station, and Third Street Sewage Lift Station. Provide 3-ring binders, table of contents, and equipment dividers for filing manufacturer's O&M instructions.
- Task 1.18 -- Prepare a description of Manufacturer's O&M manual filing system.
- Task 1.19 -- Prepare a description of maintenance instructions system.
- Task 1.20 -- Obtain information on staffing requirements and personnel qualifications.
- Task 1.21 -- Prepare a description of staffing requirements and personnel qualifications and responsibilities.
- Task 1.22 -- Obtain information on City safety procedures and requirements.
- Task 1.23 -- Prepare a description of safety considerations and requirements.
- Task 1.24 -- Obtain information on the SCADA system operation and maintenance.
- Task 1.25 -- Prepare a general operation description of the SCADA system.
- Task 1.26 -- Obtain information on as-built records system.
- Task 1.27 -- Obtain copies of current City and WDNR forms.
- Task 1.28 -- Prepare a description of City records and reports. Include examples of WDNR and City forms.
- Task 1.29 -- Select supplemental information for inclusion in the O & M manual.
- Task 1.30 -- Prepare text using Microsoft Word. Prepare figures using AutoCAD. Provide one copy of electronic files for Owner's use.
- Task 1.31 -- Review draft of the O&M manual with the Owner. Incorporate Owner comments into manual.
- Task 1.32 -- Assemble O&M manuals in 3-ring notebooks so information can be easily updated and revised.
- Task 1.33 -- Prepare and submit two (2) copies of O&M manual and O&M manual certification checklist to the WDNR for review and approval.
- Task 1.34 -- Prepare five (5) copies of the final O&M manual. Provide three (3) copies of the O&M manual for the Owner's use.

PART B2 FIELD AND SPECIAL STUDIES

The Engineer shall provide professional services to perform or coordinate all field and special studies needed to supplement the preparation of the Wastewater Collection System O&M Manual. The detailed tasks involved in this part of the work are as described herein.

- Task 2.01 -- Meet with representatives of the City to determine project requirements and discuss relevant issues concerning the project.
- Task 2.02 -- Develop a detailed work plan for performing wastewater lift station capacity evaluations and other field and special studies. The work plans shall consist of a scope of work, schedule, and estimated cost.
- Task 2.03 -- Perform pumping testing at each lift station to determine the actual capacity of the pumps. The task includes the following work items:
 - * Perform physical inspection of Sewage Lift Station.
 - * Obtain existing pump information.
 - * Perform as-built measurements of the existing wet wells.
 - * Coordinate cleaning of the wet wells, if necessary, with the City staff.
 - * Perform pump drawdown tests.
 - * Evaluate test data and summarize results in a memorandum to the City.
- Task 2.04 -- Perform other field and special studies work as required to supplement preparation of the Wastewater Collection System O&M manual.