Madison Water Utility – Madison, Wisconsin

REQUEST FOR PROPOSALS
Engineering Services for Conceptual Design, Final Design, Construction and Startup of

Unit Well 7 Reconstruction and Filter Addition

I. INTRODUCTION

Madison Water Utility is soliciting proposals for professional services to include but not be limited to: conceptual and final design of the reconstruction of Unit Well 7 to include an iron and manganese filtration system. The work shall include but certainly shall not be limited to including public participation support, permitting, working with the DNR and the PSC, preparation of drawings and specifications, bidding assistance, construction administration and facility startup services.

Well 7 is located on the north side of Madison on Sherman Avenue just north of Shabazz High School. The facility was constructed in 1939 and has served the City of Madison for decades. The reservoir is undersized, the facility is in need of significant repair and water quality dictates that a filter be added to remove iron and manganese. The well has an approximate capacity of 3.0 million gallons per day. The elevated levels of iron and manganese have led to more frequent customer complaints and water quality concerns from area residents.

In 2010 the Utility hired Black and Veatch to conduct a comprehensive review of the long term water supply needs of Madison's north and east side referred to as Zone 6E. A recommendation from that study indicated that Well 7 was a key supply point in the Madison system and that filtration should be added at the well. A filtration pilot study was conducted at the end of 2011 by SEH to demonstrate the feasibility of removing the iron and manganese from the water. The pilot study successfully demonstrated that a high rate filter would be effective in removing the iron and manganese. The pilot study recommended the use of pyrolusite media high rate filtration with chlorine oxidation as the treatment option of choice. The pilot study report is in draft form and is being reviewed by Utility staff.

II. PROJECT BACKGROUND

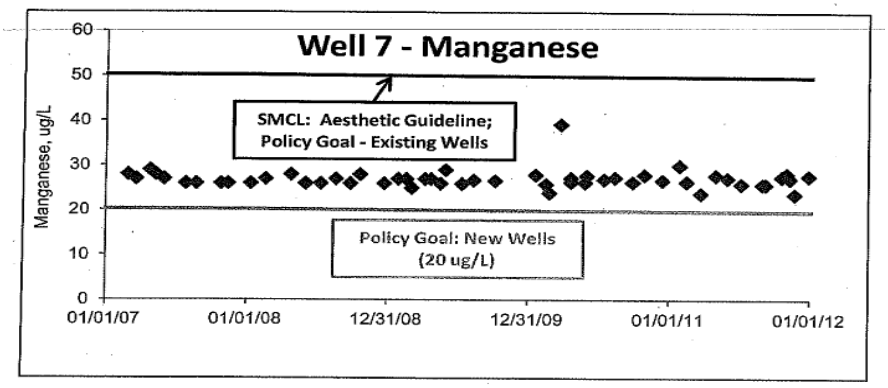
A. Unit Well 7 Facilities:

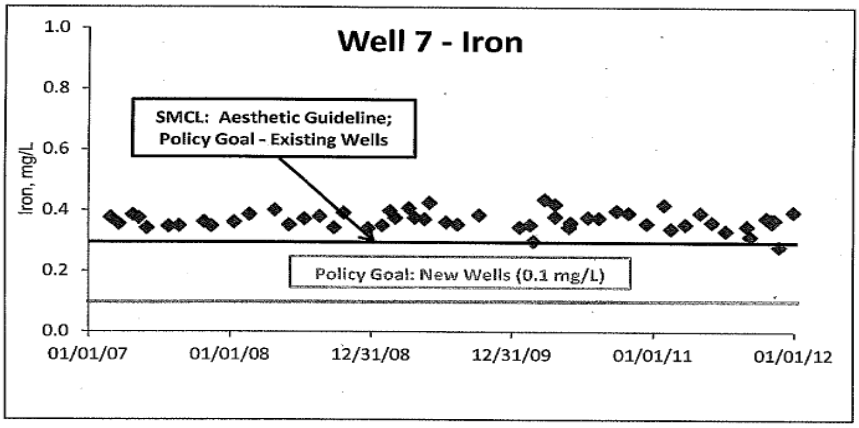
1. The well, pump station, and reservoir were constructed in 1939. The reservoir has a capacity of 135,000 gallons and the pump station consists of a single booster pump located in the basement with a capacity of approximately 2100 gpm.

2. The Utility's 2005 Infrastructure Management Plan identified significant structural concerns with the reservoir, there is severe space limitations within the pump station, and the DNR has cited the booster pump is in the basement, the well casing ends in the basement, and there is no separate chemical feed room within the facility.
3. The full facility needs to be replaced.

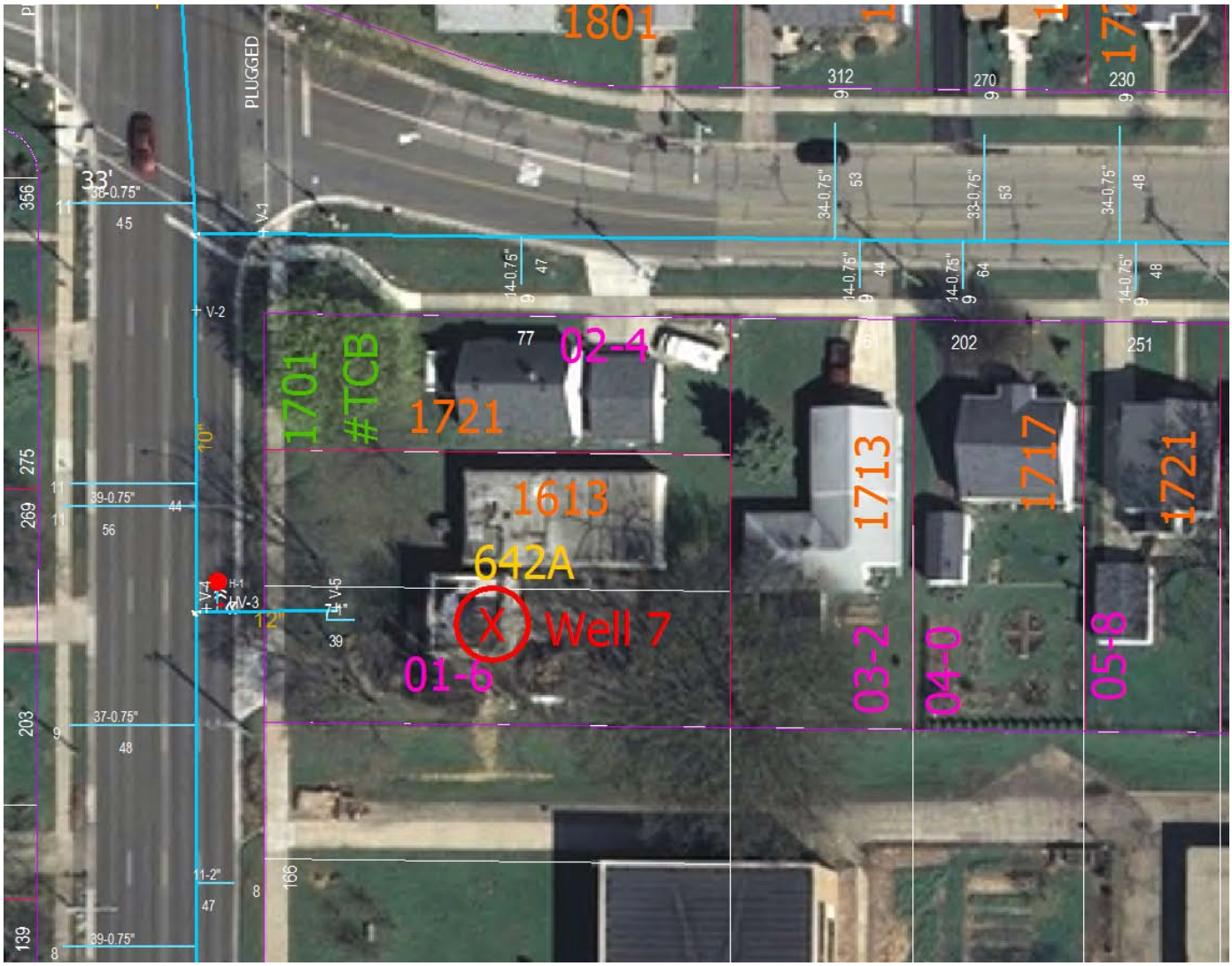
B. Water Quality:

1. Iron: Fe is present in the well water at approximately of 0.40 mg/l.
2. Manganese: Mn is present in the well water at approximately 30 μg/l.
3. The water has a hardness of 403 mg/l as $CaCO_3$ and a lab pH of 7.2.





C. Site Conditions: Madison Water Utility currently owns Clyde A. Gallagher's Sherman Avenue subdivision, Blk 1, Lots 4 & 5 which entails approximately 11,000 square feet. The Utility is negotiating with the owner to purchase 1721 N. Sherman Avenue and expects to have that property by the end of 2012 or early 2013. The Utility may consider additional property purchase if necessary.



D. Design Criteria: The proposed facility will match and complement the existing neighborhood to the maximum extent feasible. The Utility is working closely with the neighborhood and the local Alder to meet the aesthetic and architectural needs of the area. The Consultant will work closely with Water Utility engineering and operations staff to go over the design requirements following Notice to Proceed. The facility shall be designed to be low maintenance, durable, energy efficient, and quiet so it is not a nuisance to area residents.

E. Objective:

1. The overall objective of this work is to develop a set of clear design documents that will allow the project to be efficiently and economically bid and constructed.
2. The facility will have an expected life span of 75 to 100 years.
3. The facility shall blend into the site and neighborhood and shall be sensitive to local issues and concerns.
4. As much as possible the existing mature landscaping and trees on the site shall be protected and preserved.
5. Site and facility security shall be designed into the facility, without detracting from the visual impact of the building, to prevent unauthorized tampering with facility operations.
6. Any site lighting shall be adequate for security and operations yet it shall not create a nuisance condition to area residents.
7. Operational noise production at the facility including but not limited to, pump operation, electrical gear, and HVAC systems shall be considered and mitigated. Noise shall be limited to no more than 45 db at the property line.
8. Standby power generation is not anticipated at this time, however a transfer switch to allow the use of a portable generator shall be included.
9. Unit Well 7 shall be PLC controlled and shall be ready to be integrated into the Water Utility's SCADA system.
10. The facility shall meet all of the operational and maintenance requirements of Madison Water Utility.
11. The facility shall meet or exceed all building codes and City of Madison requirements.
12. The facility shall meet or exceed all DNR and PSC requirements.

13. Ultimately the facility will operate un-staffed with only daily checks by Water Utility personnel.
14. Additional appropriate low maintenance landscaping around the site will provide screening of the facility and an attractive and pleasant looking facility.

F. Proposed Facility Configuration:
1. Well Pump: 2200 gpm operating on a VFD
2. Chemical feed: Gas Chlorine and Fluorosilicic Acid
3. Filters: vertical high rate pyrolucite media filters using chlorine oxidation
4. Reservoir: Minimum capacity of 400,000 gallons
5. Booster Pumps: Two each at 2100 gpm on VFD
6. SCADA: Integrating into the Utility PLC based Wonderware system

G. Budget:
1. Madison Water Utility has budgeted $5,900,000 for the design and construction of the Unit Well 7 facilities.
2. The detailed Scope of Work submitted by the prospective consultant shall take into account the budget for this project.
3. Firms shall develop a budget for the work as a part of the proposal and any budget concerns on the project shall be detailed in the proposal.

H. Public Participation/Public Information
1. Public information will be an important part of the project. Keeping the public engaged in the project is vital to project success.
2. Assist the Water Utility with up to eight (8) Citizen's Advisory Panel meetings.
3. Assist the Water Utility with up to three (3) public meetings.
4. Assist the Water Utility with up to three (3) Water Utility Board meetings.
5. Assist the Water Utility with an open house and dedication at the completion of the project.
6. Assist the Water Utility with updating and maintenance of the project web page
7. Assist the Water Utility in preparation of exhibits for press releases and for public meetings. Exhibits shall convey the scope and intent of the proposed treatment alternatives.
8. These presentations and this assistance does not include any meetings or presentations required or necessary to obtain the necessary permits for the project.

III. SCOPE OF SERVICES

A. General: This is a Water Utility project and will be led by Water Utility engineers. The Consultant shall work closely as a part of the project team with Water Utility engineers, the public, and other City officials to develop a design for the facility that meets the needs of the utility. This objective will be accomplished through frequent and routine communication and meetings of the project team, a series of design review workshops, and close coordination with the Water Utility and other City Departments.

B. Design philosophy: The overall design philosophy for the facility will be toward functionality, durability, minimal maintenance requirements, energy efficiency, economy, employee comfort, and the facility shall be aesthetically pleasing while keeping within the context of its function as a municipal water supply and pumping facility. The Utility has developed design, material, and equipment preferences over the years that will be applied to this facility.

C. Phase 1 - Conceptual Design:

1. Objective: The conceptual design shall work from the Utility's preliminary designs to further refine site layouts, piping, filtration, pumping plans, and options for Water Utility review and evaluation. From these concepts, an alternative will be selected and final design will proceed. A copy of the draft report for Well 7 is attached to this RFP.
2. Neighborhood involvement: Madison Water Utility has engaged the public through a series of meetings and has formed a Citizen's Advisory Panel (CAP) for the project. The consultant shall:
   a) Assist the Utility with presentations, CAP meetings, and public meetings as noted above.
   b) Provide any necessary displays, answer questions from the public, assist with the development and maintenance of the project web page, and provide any and all other support to the Utility's project public participation effort.
   c) Address comments and concerns and modify the design if necessary.
3. Site plan development will include but will not necessarily be limited to the following components:
   a) Surveying:

(1) As built drawings are available of the existing facilities.
(2) The Consultant shall provide any additional surveying required to complete the work and prepare a project base map.
(3) The survey shall include all features a minimum distance of 100 feet from the project property line.
(4) Site plan shall be plotted at 1" = 10' on a 22" x 34" sheet.
(5) The survey shall be prepared and stamped by a licensed surveyor.

b) Geotechnical Investigation – Assist the Utility with the procurement of a site geotechnical report. Coordinate all the work of the geotechnical engineer in the development of the report.

c) Site Utilities: Coordinate all necessary utility work to include but certainly not be limited to: gas, electric, telephone, storm drain, and sewer.

d) Building location and configuration will be evaluated in conjunction with the site plan to efficiently and effectively use available space

e) Environmental issues - The site design shall be sensitive to and shall protect the surrounding environment and shall comply with all existing environmental laws and regulations.

f) Planning and Urban Development - The Consultant shall develop the site plan in accordance with the requirements of the Madison Planning Department and the approved neighborhood development plan.

g) Zoning - All work shall conform to the zoning requirements for the area.

h) Grading and Storm Water - The site shall be graded to drain away from the building and an adequate storm drainage system installed to prevent flooding or excessive ponding of surface runoff and any damage to adjacent property. The storm drain system shall accommodate the flushing of the well and booster pump systems. The storm drain design shall meet the requirements of the City of Madison Engineering Department.

i) Landscape Design: The Consultant shall provide a landscape design that is attractive, low maintenance, and effective in screening the facility.

j) Drawings: The Consultant shall develop drawings that illustrate the design concepts being proposed to allow the Water Utility to review

and approve the development plan. Drawings shall include but shall not necessarily be limited to: Site plans (scale 1"=10' full size), landscaping plans, floor layouts, and building elevations.

4. Building configuration development
   a) Filter layout: Develop a building plan and conceptual layouts. The conceptual design shall establish exterior treatments and materials.
   b) Building layouts will be presented to the CAP and interested neighborhood groups.
   c) Water Utility staff will review the floor, filter, and piping layouts and working with the Consultant, determine the best alternative for the facility.
   d) Drawings:
      (1) The Consultant shall develop sufficient types and numbers of drawings to convey the design concept being proposed.
      (2) Drawings to be produced shall include but shall not be limited to: Floor, equipment, and piping plans, sections, elevations, and details.
5. ADA Compliance:
   a) The facility shall take special care to accommodate the accessibility needs for the disabled as required by the Water Utility, paying particular attention to the Americans with Disabilities Act.
   b) Designing only to the minimum requirements of State Code or ADA standards shall not be sufficient.
6. Energy Conservation:
   a) The City is a partner in the Federal Government's Energy Star Program for buildings.
   b) The deep well pump and the booster pumps shall be equipped with variable frequency drives for operational flexibility and energy optimization.
   c) All designs shall be focused on energy conservation.

7. Sound Control:
   a) Sound from the facility shall be controlled.
   b) The design shall incorporate sound attenuation into the facility.
   c) The maximum sound level emitted from the facility at any time shall be limited to 45 db measured at the property line.

8. Constructability issues:
   a) The Consultant shall be fully responsible for the constructability and phasing of the proposed site features and structures.
   b) Notwithstanding any recommendations or approvals by the City, the Consultant shall not be relieved from responsibility for the workability and suitability of the design and all details.
9. Schedule:
   a) The Consultant shall develop and regularly maintain a project schedule that includes all phases of the project through completion of the construction and startup and take over of the facility by the Water Utility.
      (1) It is expected that the project will be bid in June/July 2013 with construction staring at the end of August 2013.
      (2) The facility is expected to be fully functional by no later than the end of June 2014.
   b) The schedule shall be presented in a Gantt chart format and it shall contain sufficient detail to allow tracking of the progress of the work through each phase.
   c) The schedule shall be in an electronic format that is compatible with MicroSoft Project and the schedule and all updates shall be submitted to the Water Utility in MS Project electronic format.
   d) Keeping the project on schedule shall be a priority and goal for the Consultant throughout the completion of the project.
   e) Delays in completion of the work shall be promptly communicated to the Water Utility.
10. Cost estimates
   a) Controlling the total project cost is critical to project success.
   b) The Consultant is responsible to be keenly aware of project costs, the cost impact of decisions made, and of how to keep project costs within budget.
   c) Project cost estimates shall be routinely updated as the design is developed.
   d) During the discussion of design concepts, the Consultant shall present the cost impacts of the relative features of each option.
   e) Any change in the project cost estimate shall be promptly communicated to the Water Utility for analysis.

11. Construction Cost Control:
    a) The Water Utility has budgeted $5,900,000 for design and construction.
    b) The Consultant shall work closely with the Water Utility to control costs throughout the project.
    c) Project Budget Adjustment:
        (1) If an adjustment in the project budget is required to meet the overall objectives of the Water Utility, the Consultant shall notify the Water Utility immediately and provide the necessary supporting documentation to allow the Water Utility to make a decision.
        (2) The Consultant shall not proceed with the modifications to the facility budget without the prior written authorization of the Utility.
    d) The Consultant shall remain responsible to maintain the project within the budget. If project cost estimates exceed the budget due to the actions or inactions of the Consultant, the Consultant shall redesign the facility at no additional cost to bring the work within budget.
12. Presentation materials: The Consultant shall provide the Water Utility with any and all necessary drawings, renderings, and exhibits to convey the intent of the design to City Departments, committees, neighborhood groups, and other interested parties. These materials become the property of the Utility.
13. Other issues as required to complete the work:
    a) The Consultant shall outline and provide a detailed description in the proposal of any other tasks required to complete the work.
    b) Failure to account for items that would be considered usual and customary to this project shall not be justification for additional compensation or an extension of contract time.
14. The Consultant shall not proceed with Final Design until receipt of written approval of the conceptual design from the Water Utility.

D. Phase 2: Final Design: Upon approval of the conceptual design, the Consultant shall proceed with Final Design and the development of documents suitable for bidding.
1. Objective: The final design shall incorporate the approved components of the conceptual design into Drawings and Specifications suitable for public bidding and construction while staying within the established project budget.

2. Based on the selected alternative developed in Phase 1, the Consultant shall prepare final design documents for the work to include but not necessarily be limited to:
   a) Site plan design (Scale 1"=10' @ full size)
   b) Landscape Design
   c) Site Utilities (Scale 1"=10' @ full size)
   d) City Planning Department issues
   e) Architectural requirements
   f) Mechanical and piping requirements
   g) Filtration and backwash requirements
   h) Chemical feed requirements
   i) Monitoring and security requirements
   j) Interior space layout
   k) Telephone system wiring
   l) PLC System
   m) SCADA system setup and communications
   n) Building material schedules
   o) Window and door schedules
   p) Room Finish Schedules
   q) Plumbing
   r) Electrical
   s) HVAC
   t) ADA Compliance issues as they apply
   u) Any other component and schedules necessary to complete the work to the satisfaction of Madison Water Utility.
3. Drawings: Prepare plans, sections, elevations, mechanical and piping plans, lighting plans, structural and architectural details, grading plans, standard details, and any other drawings to adequately define the work and allow competitive bidding on the project.
4. Specifications - The Consultant shall prepare project specifications in CSI format to cover all aspects of the project. The specifications shall be crafted to encourage the competitive bidding for materials and components.
5. Constructability:
   a) The Consultant shall be fully responsible for the constructability of the final design and bidding documents.

b) Notwithstanding any recommendations or approvals by the City, the Consultant shall not be relieved from responsibility for the workability and suitability of the design and all associated details.

6. Cost Estimating - During final design, routinely update the project cost estimate and keep the Water Utility apprised of any changes to the overall costs of the project.
7. Construction Cost Limitation:
   a) The Consultant agrees to adhere to the Construction Cost Limitation established during the Preliminary Design.
   b) If at any time, the projected project costs exceed the approved cost limitation; the Consultant shall notify the Utility immediately.
   c) The Consultant shall work with the project team to evaluate cost saving alternatives. Incorporation of these cost saving measures into the project shall be the sole discretion of the Utility.
   d) Any cost overruns as a direct result of either actions of or inactions of the Consultant that result in a redesign of the facility shall not be the basis for additional compensation or an extension of contract time.
8. Schedule:
   a) The project schedule shall be regularly updated throughout the design process.
   b) The schedule shall include design, bidding, and construction work.
   c) The project schedule shall clearly include the review times required by the Utility, City Planning, Urban Design, Public Works, DNR, the PSC and any other reviewing authority. Failure to include these review periods within the schedule and any delays resulting there from shall not be a basis for additional compensation or an extension of time.
   d) Any delays in the completion of the work shall be promptly reported to the Water Utility.

9. Review and approval:
   a) The Final Design shall be reviewed and approved by the Madison Water Utility and other Departments of the City of Madison.
   b) In the event that the Final Design is not approved, the Consultant shall revise the design at no additional cost to the Water Utility until which time it gains approval.

c) No extension of time shall be granted for failure to gain necessary approvals and permits for the projects.

10. The Consultant shall be responsible to meet all the requirements of the permitting and reviewing agencies.
11. Other issues as required to complete the work:
    a) The Consultant shall complete any other tasks as needed to meet the facility objectives of the Water Utility.
    b) Anticipated tasks other than those noted herein, shall be itemized in the proposal submitted to the Water Utility.
    c) Failure to account for items that would be considered usual and customary to this project shall not be justification for additional compensation or an extension of contract time.
12. The project shall not proceed to the bidding phase without the prior written approval of the Water Utility.

E. Quality Assurance/Quality Control Plan

1. Prior to starting work, the Consultant shall prepare a project specific Quality Assurance/Quality Control Plan (QA/QC).
2. The QA/QC Plan shall include but shall not necessarily be limited to:
    a) Schedule monitoring and compliance
    b) Project reviews both internal and external
    c) Project communications
    d) Project meetings
    e) Standards to be used
    f) Cost review and control
    g) Quality Control methods and criteria
3. Quality Assurance/Quality Control Plans will be required from all major sub-consultants working on the project.

F. Permit requirements

1. The Consultant shall be responsible to provide all information necessary to obtain the required approvals and permits for the work.
2. The design shall meet the requirements of the Planning and Zoning Departments and the Board of Public Works of the City of Madison.
3. In the event that the design is not accepted and a building permit or other required approvals cannot be obtained, the Consultant shall redesign

components of the project at no additional cost to the Water Utility to conform with the requirements such that the necessary permits can be obtained.

4. Make presentations as required for permitting and other approvals to City of Madison review agencies and boards, the Common Council, and to neighborhood groups.
5. Address and incorporate any comments received from review agencies into the final document.

G. Consultant Responsibilities for Phase 1 - Preliminary Design:

1. Provide all necessary personnel, resources, and subconsultants to complete the specified design work to the satisfaction of the Madison Water Utility and other Departments of the City of Madison.
2. Retain a licensed surveyor to survey the property and develop any required site topographic maps, utility maps, and any other base mapping information necessary to complete the work if necessary.
3. Gather and compile all necessary data required from City and County records, from field reconnaissance, and from other sources as the Consultant deems necessary to complete the work.
4. Prepare a Quality Assurance/Quality Control Plan that will be reviewed and approved by the Water Utility.
5. Once the QA/QC Plan is approved, schedule and coordinate quality control reviews throughout the completion of the work. The approved QA/QC Plan will define quality control requirements for the project.
6. Provide preliminary conceptual designs for review and comment to assist the Water Utility in determining the preferred site layout and building configuration.
7. Provide regular reports and communication with the Water Utility about the progress of the work.
8. Regularly update the project schedule.
9. Control project costs to keep the project within budget.
10. Work with Utility staff to meet with the City Planning Department and the City Building Department to discuss building concepts and site layout.
11. Any other work as required in this Request for Qualifications and the project Scope of Work.
12. Provide minutes for project meetings.

H. Water Utility Responsibilities for Phase 1 - Preliminary Design:

1. The Water Utility will provide the selected consultant with any existing information that we have on the property and the existing facility.
2. Provide timely input into facility design development.
3. Provide required direction on Utility objectives and needs.
4. Complete design review and provide comments and direction within 2 weeks of receipt of preliminary information.
5. Coordinate meetings of Utility staff and other City departments.
6. At the completion of the work, select a preferred alternative and provide direction to the Consultant to allow the work to proceed to Phase 2.
7. Host review meetings.

I. Consultant Responsibilities for Phase 2 - Final Design:

1. Provide all necessary personnel, resources, and subconsultants to complete the specified design work to the satisfaction of the Madison Water Utility and other Departments of the City of Madison.
2. Coordinate with City Planning Department, the Urban Design Commission, and the City Building Inspection Division to obtain the necessary approvals and permits.
3. Regularly meet with Water Utility personnel to review project status and go over design details.
4. Schedule and coordinate a minimum of two quality control review workshops during the Final Design to coordinate facility design configuration and details.
5. Provide regular written reports and communication with the Water Utility about the progress of the work.
6. Regularly update the project schedule.
7. Regularly update the project estimated costs.
8. At the completion of the work, provide a final opinion of probable costs for the project.
9. Control project costs to keep the project within budget. Assist Water Utility staff in finalizing and adjusting the project budget as needed.
10. Any other work as required in this Request for Qualifications and the project Scope of Work.
11. Provide minutes for project meetings.

J. Water Utility Responsibilities for Phase 2 - Final Design:
1. Provide timely input into facility design development.
2. Provide required direction on Utility objectives and needs.
3. Complete design review and provide comments and direction within 2 weeks of receipt of preliminary information.
4. Coordinate meetings of Utility staff and other City departments.
5. Host review meetings and workshops.

K. Required Quality Control Reviews by the Water Utility:
1. Phase 1
   a) Design criteria and alternative development
   b) 90 percent completion
   c) Final Draft
2. Phase 2
   a) 50 percent completion
   b) 90 percent completion
   c) Final Draft

L. Communications/Meetings:
1. A project kickoff meeting will be held prior to starting work.
2. Routine communication is expected and required
3. Project meetings shall be held regularly as needed but not less than monthly unless agreed to by all parties
4. Monthly progress reports:
   a) Progress reports shall be submitted by the first of every month.
   b) No payments will be released to the Consultant without an acceptable monthly report.
   c) Each report shall detail progress made during the previous month, planned work for the coming month and any issues that need to be resolved.
   d) All monthly reports shall include an undated project schedule.
   e) Monthly reports shall not exceed one type written page not including updated schedules, charts or tables.

M. Public Participation/Public Information Presentations (This shall be separate from the permit coordination requirement noted above)

1. Assist the Water Utility with three (3) public meetings
2. Assist the Water Utility with up to eight (8) CAP meetings
3. Assist the Water Utility in preparation of exhibits for press releases and for public meetings. Exhibits shall include but not necessarily be limited to: site plans, floor plans, building elevations, and other drawings as needed to convey the scope and intent of the proposed design.
4. Other assistance as deemed required in the firms proposed detailed scope of work.

N. Schedule

1. Final design and approval of the project documents ready for bidding June 1, 2013.
2. Construction is expected to start September 1, 2013
3. Facility shall be finished, tested and fully on line by July 1, 2014

O. Products:

1. All documents become the property of the Utility
2. At each review point deliver to the Utility: Complete pdf files of all documents plus 4 paper copies of the project documents unless directed otherwise by the Utility.
3. Permit Submittals: Copies as required.
4. Final Approved Documents:
   a) All documents in pdf files
   b) Specifications shall also be submitted electronically on a compact disk (CD) in MS Word format.
   c) Drawings shall be submitted electronically on a compact disk (CD) in MicroStation Format. Submittal format shall be coordinated with the Water Utility Engineering Section.
5. Monthly progress reports throughout the project
6. At the completion of the project, all documents shall be submitted in original file format in addition to pdf versions of the documents.

P. Bidding Services:

1. Objective: The project shall be competitively bid to engage a qualified contractor at an equitable price with minimal change orders.
2. Consultant Responsibilities for Bidding:

a) Provide all necessary personnel, resources, and subconsultants to assist the Water Utility in competitively bidding the work.
b) Gather and compile all necessary data required from City and County records and from other sources as the Consultant deems necessary to successfully competitively bid the project.
c) Prepare bidding forms, conditions of the Contract, and the form of Agreement between the Contractor and the Water Utility as required by the Board of Public Works.
d) Assist the Water Utility in answering questions from prospective bidders.
e) Participate in a pre-bid meeting with prospective contractors explaining the project concepts and goals and answering questions that come up.
f) Prepare Contract Addendums as required to clarify or modify the design.
g) Assist the Water Utility in evaluating the bids and recommending an award.
h) Cost Limitation on Construction Costs:
(1) In the event that the low bid price is higher than the project budget, the Consultant will work with the Water Utility to determine ways to cut costs.
(2) If elements can be removed from the work to bring the total cost in below budget, the Consultant will advise the Water Utility as to the impact of this change.
i) Any other work as required in this Request for Qualifications and the project Scope of Work required to successfully bid the project.

3. Water Utility Responsibilities for Bidding:
a) Print and distribute bid documents
b) Host the pre-bid meeting
c) Host the bid opening.
d) Coordinate Utility staff and other City departments.
e) Work with the Consultant to recommend a bidder.

Q. Construction Administration Services:

1. Objective: Assist Madison Water Utility in monitoring, recording, and administering construction activities.

2. Consulting Engineer Responsibilities for Construction Administration Services:
   a) Consultant shall provide all necessary personnel, resources, and sub-consultants to assist the Water Utility in administering construction of the project.
   b) Construction administration and documentation to include but not necessarily be limited to:
      (1) Shop drawings
      (2) Schedule compliance
      (3) Contract compliance
      (4) Regular construction meetings
      (5) Request for information
      (6) Request for change
      (7) Change Orders
      (8) Monthly pay requests
      (9) Operation and maintenance manuals
      (10) Test results
      (11) Final inspection and punch list
      (12) Contract Closeout
      (13) Training
      (14) Startup and commissioning
      (15) Other tasks normal to facility construction administration
   c) Construction Inspection Services or Resident Engineer:
      (1) The Utility does not anticipate the need for full time inspection services
      (2) Engineer to provide a reasonable amount of on-site coordination and inspection to adequately protect the Utility's interests and to ensure that the facility is constructed in compliance with project contract documents.
      (3) Resident inspector/engineer shall provide written site reports to the Utility each time the inspector/engineer is on site.
      (4) Resident inspector/engineer shall witness and document startup and testing of the facility.
   d) Any other work noted in this Request for Qualifications and the project Scope of Work required to successfully complete construction, startup and commissioning of the facility.

3. Water Utility Responsibilities for Construction Administration Services:
   a) Accept or reject contract documentation
   b) Approve pay requests
   c) Provide direction as necessary
   d) Accept or reject change orders
   e) Attend project meetings
   f) Coordinate and schedule Utility staff and other City departments.
   g) Work with the Engineer to ensure contract compliance

R. Consultant Evaluation

1. At the completion of the project, the Water Utility may, at its option, conduct a consultant evaluation.
2. The following criteria may be evaluated:
   a) Ability to meet project schedules and budgets
   b) Accuracy and completion of contract documents
   c) Number of Addendum required during bidding
   d) Constructability of the project
   e) Construction cost control
   f) Number of construction change orders and construction disputes
   g) Responsiveness to Water Utility concerns

IV. WATER UTILITY PROJECT TEAM

A. Water Utility Project Manager and point of contact:

Alan L. Larson, PE, BCEE
Principal Engineer – Water
119 E. Olin Avenue
Madison, WI 53713
608-266-4653
608-225-9131 Cell
allarson@cityofmadison.com

V. PROPOSAL

A. General:
1. The proposal will be limited to no more than **Fifteen (15) pages** plus resumes of the proposed team members and sample drawings.
2. Font used on all sheets including the schedule shall be no smaller than 11 point and shall not be "narrow". Print document on both sides of the paper, each side is one page.
3. The use of 11 x 17 paper shall be limited to drawings, schedules and tables. Each 11 x 17 sheet shall be considered one page. Print 11 x 17 pages single sided.
4. Margins shall be a minimum of 0.6 inches on all edges.
5. Submitted resumes shall not exceed one page in length per team member.
6. Work examples will not be considered part of the page limit.

B. Statement of project understanding
1. Provide a detailed statement of project understanding
2. Statement shall cover but not be limited to:
   a) Understanding of need for the project
   b) Project objectives
   c) Project challenges
   d) Permitting
   e) Public participation

C. Public Participation
1. Provide a one page public participation and communication plan for this project
2. Document qualifications and experience of the proposed team in public participation and engagement

D. Statement of Qualifications and Work History, to include but not necessarily be limited to:
3. Detailed description of the proposed Project Team
4. Documentation of qualifications of the proposed project team on iron and manganese filtration projects of similar size and complexity.

5. A demonstration of a thorough up to date working knowledge of the applicable City of Madison building and zoning regulations.
6. Demonstration of recent success getting a project through the City of Madison permitting process.
7. Demonstration of working knowledge of Wisconsin DNR permitting requirements
8. Demonstration of working knowledge of Wisconsin PSC requirements
9. Project History:
    a) List of completed iron and manganese filtration projects within the last 5 years. Dates for each project shall be clearly indicated
    b) List of completed pump station projects with a capacity of at least 1,000 gpm within the last 5 years. Dates for each project shall be clearly indicated.
    c) Other relevant project design and approval experience
    d) Include name of Project Manager for each project.
    e) Client name and phone number.
    f) Project Design Fee History:
        (1) Initial design fee dollar value
        (2) Value of any amendments to the design fee and justification for the change.
        (3) Provide a breakdown of conceptual design fee, final design and permitting fee, and construction administration fee for each project listed.
    g) Provide the actual design schedule for the project.
    h) Provide any public participation activities with the project
    i) Construction Cost History:
        (1) List the Engineers opinion of construction cost for each project listed.
        (2) List the low bid for each project.
        (3) List the value of all change orders for each project and the reason for the change orders.
    j) Provide any relevant details, descriptions, or explanations for each project as warranted to allow the City to evaluate the Firms performance history.
10. Include a detailed work plan for this project.

11. Proposed Subcontractors with their portion of the work identified and a listing of the appropriate qualifications and references with phone numbers.
12. Project Schedule:
    a) Include a detailed project schedule
    b) Schedule shall be a Gantt chart
    c) Include sufficient detail to demonstrate a thorough understanding of the process to complete the work and obtain the necessary permits through the City of Madison permitting process.
    d) The quality and detail of the submitted project schedule will provide an indication of the firms experience in completing projects of this type and will be used in the evaluation of the proposal.
13. References: Provide names and phone numbers of a minimum of three references familiar with the proposed Project Manager and other proposed key team members. Reference should have direct experience with the Project Manager on projects of similar complexity and size.
14. Project Management: Provide documentation of effective project management, project cost control, and project communications on completed projects of similar nature and scope.
15. Work Samples:
    a) Provide examples of two (2) iron and manganese filtration projects completed by your Firm within the last five (5) years.
    b) If unable to provide examples of iron and manganese filtration projects, provide examples or two (2) treatment system or pump station projects of similar size and complexity to Well 7 completed by your Firm within the last five (5) years.
    c) Provide a maximum of two (2) drawings no larger than 11” x 17” for each project. The purpose of the submitted drawings is to clearly demonstrate the quality of work to be expected from your Firm.
    d) Describe the proposed Project Manager’s function and role on each of the two submitted work samples.
    e) The sample drawings shall be from one of the projects listed and documented above.
    f) The sample drawings are not included in the sheet count for the proposal.
16. Projected Hours and Estimated Costs -

a) Submit a detailed breakdown of the estimated hours and projected costs for each project by discipline and firm.
b) The estimated hours shall provide a demonstration of your firms understanding of the effort and organization needed to complete the project.
c) Submit the estimated hours and associated costs in a separate sealed envelope clearly marked **"Projected Hours and Estimated Costs"**.
d) The hour and cost estimate is not included in the page count for the proposal.
e) The projected hours and estimated costs will not be used in the initial evaluation of the qualifications of your Firm for this project. The projected hours and estimated costs will be used as part of the evaluation by the selection committee of the short listed Firms.
f) Following selection of the successful Firm, these submitted costs will be used as a starting point to negotiate a Contract for the work and complete a detailed Scope of Services.

E. Interview:

1. Madison Water Utility reserves the right to make a selection based solely on the information contained in the submitted proposal. If no clear choice can be made based on the proposals, Madison Water Utility reserves the right to either interview selected Firms or request additional information to help in determining the most qualified Firm.
2. Interview format (if used):
   a) 30 minute presentation
   b) 30 minutes for questions and answers
   c) The proposed Project Manager shall lead the presentation.
   d) Presentation team shall have a maximum of three (3) people.
3. Presentation: The objective of the interview will be to clearly demonstrate the Firms qualifications to complete the project to the satisfaction of Madison Water Utility. The presentation shall be brief and concise and shall include but shall not be limited to:
   a) A presentation of details and special features of previous projects completed by members of the proposed Project Team.

b) Information should include how the design for the project cited was developed, how the team worked with the Owner, and how the finished product was received.
c) Cost information should be presented for any project experience used to include design fees and amendments and construction costs and project change orders.
d) A description of how the PM and the team proposes to work and communicate with the Utility throughout the project.
e) Outline of the public participation process.
f) A description on how the team will manage the design and control the costs on this project.
g) A presentation on how the team will handle quality control and quality assurance for the project.
h) Following a review of the submittals, the Water Utility reserves the right to establish specific requirements and content for the interview to further aid in the determination of the Firms qualifications.
i) Extensive and detailed preliminary layouts and designs of the proposed Water Utility project are not necessary for the interview and should not be included in the interview presentation.
j) Questions: The selection team may prepare a list of standard questions for the interview. Additional questions may be developed based on the Firm's proposal to clarify information submitted.

F. Submittal: Submit five (5) copies of the proposal to the following address:

Al Larson – Principal Engineer
Madison Water Utility
119 East Olin Avenue
Madison, Wisconsin 53713

The submittal shall be clearly marked:

"Engineering Services proposal for
Unit Well 7 Reconstruction and Filter Addition"

G. Due Date and Time:
1. The submittal is due to the Water Utility no later than **4:00 p.m. Thursday August 16, 2012.**
2. Email or fax submittals are not permitted and will not be accepted.
3. The Water Utility is not responsible for late deliveries.
4. Submittals received after the designated time shall be returned unopened.

VI. SELECTION PROCESS

A. The selection will be based on demonstrated qualifications in the design and construction of projects of similar size and complexity. Preference will be given to documented experience in the design, permitting, construction, and startup of iron and manganese filtration facilities. A capability of working closely with and as a highly functioning team with Utility staff toward the successful completion of the project will be critical to project success. A demonstrated ability to successfully work within the City of Madison permitting and contracting process and engage the public in the process will also be crucial.

B. Selection Committee: The Selection Committee shall be made up of 3 to 5 members of the Water Utility staff and potentially an independent outside individual.

C. Ranking
1. Submittals will be ranked based on the following categories:
   a) Project understanding
   b) Experience with iron and manganese removal
   c) Proposed Project Team
   d) Proposed Project Schedule and Work Plan
   e) Demonstrated experience in Public Participation and Engagement
   f) Understanding of the Madison Permitting process
   g) Understanding of getting DNR approval of projects of similar size and complexity
   h) Overall Quality of Two Work Samples
   i) Project Management History and Plan
   j) Cost Estimating and Cost Control History
2. A short list of 2 to 4 Firms will be developed from the review of the proposals

3. Estimated hours and costs for the short listed Firms will be evaluated for:
   a) Demonstration of project understanding
   b) Indicated effort required by phase and proposed tasks
   c) Overall Project Budget
4. Interview (If necessary) - Firms will be judged in the interview based on the following:
   a) Project Team Presentation and Organization
   b) Demonstration of Project Understanding and Project approach
   c) Project Management/Cost Control Plan
   d) Completed Projects
   e) Questions and Answers
5. Final Selection:
   a) The Firm judged to be the most qualified based on all of the information presented and evaluated will be selected by the committee and recommended to the Water Utility Board.
   b) The selected Firm shall be notified in writing. No other method shall be considered to be official notification of selection by the Water Utility.
   c) The selection of the committee shall be final.
6. Projected Schedule assuming no interview (Subject to change)
   a) August 16, 2012 – submittal due date
   b) August 23, 2012 – selected Firm recommended to the Water Utility Board for their August 28, 2012 meeting
   c) September 4, 2012 – Selection of the Water Utility Board confirmed by Common Council and contract awarded
   d) Week of September 10, 2012 – Detailed scope of services and contract finalized and signed
   e) Week of September 24, 2012 – Estimated start work date

VII. CONTRACT

A. City Contract:
   1. The Firm that is recommended for award of this Contract will be required to negotiate an equitable contract with the Water Utility based on the approved Scope of Work.

2. The selected Firm will then enter into a standard City of Madison Contract for Purchase of Services. A copy of this standard contract is attached for your review.

VIII. QUESTIONS

A. Questions concerning this Request for Proposals should be directed to:

Alan L. Larson, PE, BCEE
Principal Engineer – Water
Madison Water Utility
119 East Olin Avenue
Madison, WI 53713
608-266-4653; 608-225-9131 Cell
allarson@cityofmadison.com