



Baudhuin
Incorporated

Site Engineering • Surveying • Soil science

July 5, 2012

Paul Matthiae
WISCAP
720 Staehling Road
Three Lakes, WI 54562

Re: Washington Island Preliminary Engineering Report

Mr. Matthiae,

Baudhuin Incorporated appreciates the opportunity to provide you with this proposal to provide a preliminary engineering report for the wastewater disposal system on Washington Island. It is Baudhuin Incorporated's understanding that the current system at the ball field location is being overloaded during the summer months. It is also understood that certain septic tank waste is currently approved for land spreading on leased lands. There is potential that the available land spreading areas could be limited in the future. The goal will be to provide adequate subsurface disposal capacity to accommodate 20 year projections for population and flow increases.

Based on our recent meeting and conference call with the Town I propose the following scope of services:

1. Research Baudhuin files to establish which alternative disposal areas have previously been analyzed and compile previously completed soil tests.
2. Consider the two identified Gunnlaugsson sites for siting a new system. The airport site could be analyzed as a last resort.
3. Review USDA soil surveys to determine potential limiting factors on potential Town selected sites.
4. Review current system design and current peak flows being received by the system located at the ball park.
5. Review previously completed McMahon preliminary engineering report. It is understood that the aerobic and anaerobic systems recommended by the existing report were not feasible due to the low flows during the off-season and the cost.
6. Schedule underground utility locates in proposed soil testing areas.
7. Conduct additional soil testing (several borings per available location to supplement previously completed soils evaluations) to determine feasibility of supporting a system.
8. Field survey additional borings and obtain additional site topography in those areas.
9. Develop a new preliminary engineering report ranking the potential improvements from a cost and feasibility standpoint. The report shall consider a 20 year projection regarding population served and flow capacity. Pretreatment systems will be evaluated including options for use of the FAST aerobic treatment

55 S. Third Ave., P.O. Box 105
Sturgeon Bay, WI 54235-0105
(p)920.743.8211 (f)920.743.8217
www.baudhuin.com

units similar to the unit being utilized at the ball park site as well as a re-circulating gravel filter. The analysis will take energy efficiency and green concepts into consideration. The report shall follow the procedures and provide the information outlined in Bulletin 1780-3 including:

- a. Project planning areas with maps
 - b. Existing facilities map and performance status
 - c. Need for project
 - d. Alternatives considered/costs
 - e. Selection of an alternative
 - f. Proposed project specifics
 - g. Conclusion and recommendations
10. Present the draft engineering report to the Town and WISCAP for comments.
 11. Provide the finalized preliminary engineering report (20 year) to the Town and WISCAP.

The efforts outlined above would be completed during the summer/fall of 2012. The proposed cost to complete this effort will be \$17,950. This proposed cost assumes the Town will provide a backhoe and operator at no cost to us for one day to perform the necessary soil testing.

Please review this proposal and contact me if the proposed scope is incorrect or you have questions regarding our experience.

Thank you for considering Baudhuin Incorporated.

Respectfully submitted,



Peter J. Hurth, P.E., LEED AP
Baudhuin Incorporated

CC: Bill Brown, WISCAP