



CITY OF ANTIGO

PUBLIC WORKS COMMITTEE MEETING

COUNCIL CHAMBERS

Wednesday, February 24, 2021

CITY HALL, 700 EDISON STREET

5:30 PM

Call to Order

Discussion and Action May Occur on Any of the Following Agenda Items:

1. Approval of the Minutes from the January 27, 2021 Meeting
2. Presentation by City Resident Robert Baumann Regarding Compost Concerns
3. Request from Rick & Kathy LeBrun for Work within R.O.W. at 840 Laurisa Lane for Landscaping & Irrigation Purposes
4. Request to Place Landscape Plantings within the R.O.W. by Rick & Kathy Lebrun located at 840 Laurisa Lane
5. Professional Services Agreement with MSA Consultants for a 2021 Water System Study to Assess the City's Anticipated South Water Tower Replacement along with Consideration for Drilling a 5th Supply Well

Any Other Matters Authorized by Law to be Considered

Adjournment

The Public is Invited to Participate by Phone. Please Call 715-623-3633 ext 100 During Regular Business Hours for Dial-In Instructions.

Upon reasonable notice, efforts will be made to accommodate disabled individuals through appropriate aids and services. For additional information, contact Jaime Horswill, 700 Edison Street, Antigo, Wisconsin 54409. (715) 623-3633 extension 100. Members of and possibly a quorum of members of other governmental bodies may be in attendance to gather information. Any governmental body other than that specifically referred to above will take no action.

DATE MAILED: February 18,2021

TOM BAUKNECHT



To: Mayor and City Council
From: Mark Desotell, Director of Administrative Services
Date: February 24, 2021
Re: Presentation by City Resident Robert Baumann Regarding Compost Concerns

At the February Council meeting a concern was raised by resident Robert Baumann regarding a lack of composting opportunities within the City. He provided a handout of which he read during the Public Comment portion of the Council meeting but was advised that the subject was not part of the evening's agenda and that his concerns could be taken up at the February Public Works meeting. A copy of his handout along with existing City Ordinances related to this matter are attached to your agenda packets as reference materials for discussion.

MY PROPOSAL FOR "THE CITY OF ANTIGO COMPOSTING SITE"

I am here to talk about a suggested new way to reduce the amount of waste that ends up in the local landfill and create community service and volunteer opportunities and healthy fertilizer that can be used in right here in Antigo, WI.

According to the EPA (Environmental Protection Agency), 20% of what Americans throw away is biodegradable such as eggshells, nutshells, tea bags, coffee grounds and filter, bell pepper tops, fruit and vegetable peelings, bread, house plants, stale beans and more, which end up turning into 15% of the methane gas emissions in the U.S. Keeping food out of landfills is an important part when fighting climate change. Food scraps sent to landfills do not receive oxygen and cannot properly breakdown. After sitting in a landfill, methane is created from food waste. However, by composting, we decrease the amount of greenhouse gasses that get released into the atmosphere.

Basically, there would be 5 steps to turning biodegradable scraps dropped off by city residents into fertilizer:

- 1) A city drop-off location would be set up on the north end and south end of Antigo that city residents can bring their biodegradables to. They would add their scraps to the collection barrels that would be hauled away to the composting processing site.
- 2) After arriving at the site, scrapes would be transported from barrels to bins and combined with sawdust. Then Mixed Well while sitting for the next 2 weeks. Because the decomposition process requires 2 types of materials to be effective. Browns which are high in carbon, and greens which are high in nitrogen. Mixing the food waste to the bins of sawdust creates an ecosystem for bacteria and fungi.
- 3) Next the decomposed biodegradables are moved into piles called windrows and are then repeatedly turned over through-out the next 2 to 3 months using shovels, pitch forks or machinery creating the perfect conditions for scrapes to break down, which allows oxygen to reach the decomposed soil.
- 4) After that, the piles sit for 1 to 2 months in a process called curing which is the final cooling phase of compost, thus becoming richer with more nutrient filled fungi and bacteria.
- 5) Finally, the compost is run through a screen to sift out only the small fine pieces of fertilizer. Anything too big to run through the sifter would be considered garbage.

When collected and processed properly, biodegradables can be used to create natural fertilizer for plants. After 4 to 6 months the compost would be turned into fertilizer that can be used in the tree beds of city parks to help rebuild the health of city trees, in community gardens or even sold at a reasonable price to fund the botanical improvements for the city to help pay for more local park improvements, updated walking trails and more. Having this program would also create volunteer and community service opportunities for incarcerated individuals which could bring down the amount of time inmates spend in the County Jail thus reducing incarceration rates in America and can be used to educate and children on the importance of keeping the planet healthy. With so many benefits this would make Antigo a healthier and all-around better place to visit and live in.

Finally, I would like to mention that New York City has a fully functional city-wide composting program complete with curb-side bin pick and drop of locations through out their city which handles 8 tons of biodegradables EVERY week. And if a city that huge can accomplish a planet saving task such as this, I passionately believe Antigo can as well, only better. BECAUSE WE'RE ANTIGO, AND WE'RE AWESOME AT WHAT WE DO!

Sec. 6-8. - Composting.

- (a) *Purpose and intent.* The purpose of this section is to promote the recycling of yard wastes and certain kitchen wastes through composting and to establish minimum standards for proper compost maintenance.
- (b) *Definitions.* The following words, terms and phrases, when used in this section, shall have the meanings ascribed to them in this subsection, except where the context clearly indicates a different meaning:

Composting means the controlled biological reduction of organic waste to humus.

Kitchen waste means any uncooked plant matter not contaminated by or containing meat, fish and/or dairy products.

Yard waste means the organic waste produced from the growing, trimming and removal of grass, branches not exceeding one inch in diameter, bushes, shrubs, plants, leaves and garden debris.

- (c) *Maintenance.* All compost piles shall be maintained using approved composting procedures to comply with the following requirements:
- (1) All compost piles shall be enclosed in a freestanding compost bin. Each compost bin shall be no larger in volume than 125 cubic feet and shall be no taller than 42 inches.
 - (2) All compost bins shall be maintained to prevent the attraction or harborage of rodents and pests. The presence of rodents in or near a compost bin shall be cause for the city to proceed under section 6-7.
 - (3) All compost bins shall be maintained to prevent unpleasant odors.
 - (4) No compost bin shall be allowed to deteriorate to such condition as to be a blighting influence on the surrounding property, neighborhood or city in general.
 - (5) a.
All compost bins shall be located not less than three feet from a property line or principal building or dwelling and three feet from any detached accessory building.
 - b. A variance from these setback requirements may be applied for if the property owner can show a hardship exists which prohibits compliance. In addition, any variance application must include a signed written approval of the variance request from the adjacent property owners. Variances to the requirements of this subsection (c)(5) can be granted by the city inspector on an annual basis upon the proper application being submitted by the property owner. Screening and/or fencing of compost bins may be required as a condition of a variance being granted.
 - (6) No compost bin shall be located in any yard except a rear yard, as defined in chapter 14, article II, unless a variance is granted by the board of appeals.
- (d) *Ingredients.* Prohibited and permitted contents of compost bins shall be as follows:

(1) No compost bin shall contain any of the following:

- a. Lake weeds.
- b. Cooked food scraps of any kind or type.
- c. Fish, meat or other animal products.
- d. Manures.
- e. Large items that will impede the composting process.

(2) Permitted ingredients in a compost bin shall include the following:

- a. Yard waste.
- b. Coffee grounds and used tea leaves.
- c. Uncooked plant matter not contaminated by or containing meat, fish and/or dairy products.
- d. Commercial compost additives.

(e) *Owner responsibility.* Every owner or operator shall be responsible for maintaining all property under his/her control in accordance with the requirements of this section.

(Code 1999, § 8-1-8)

Sec. 6-9. - Dumping brush, leaves and grass.

- (a) Residents of the city only shall be allowed to dump brush, leaves and grass clippings at the city's dumping site.
- (b) Residents shall be prohibited from dumping materials other than those indicated in subsection (a) of this section, and nonresidents shall be prohibited from dumping any materials.
- (c) Any person violating this section shall be subject to a fine of up to \$250.00 per occurrence.

(Ord. No. 1030B, §§ 1, 2, 8-9-2000; Ord. No. 1155B, § 1, 7-12-2006)



To: Mayor and City Council
From: Mark Desotell, Director of Administrative Services
Date: February 24, 2021
Re: Request to Place Landscape Plantings within the R.O.W. by Rick & Kathy Lebrun located at 840 Laurisa Lane

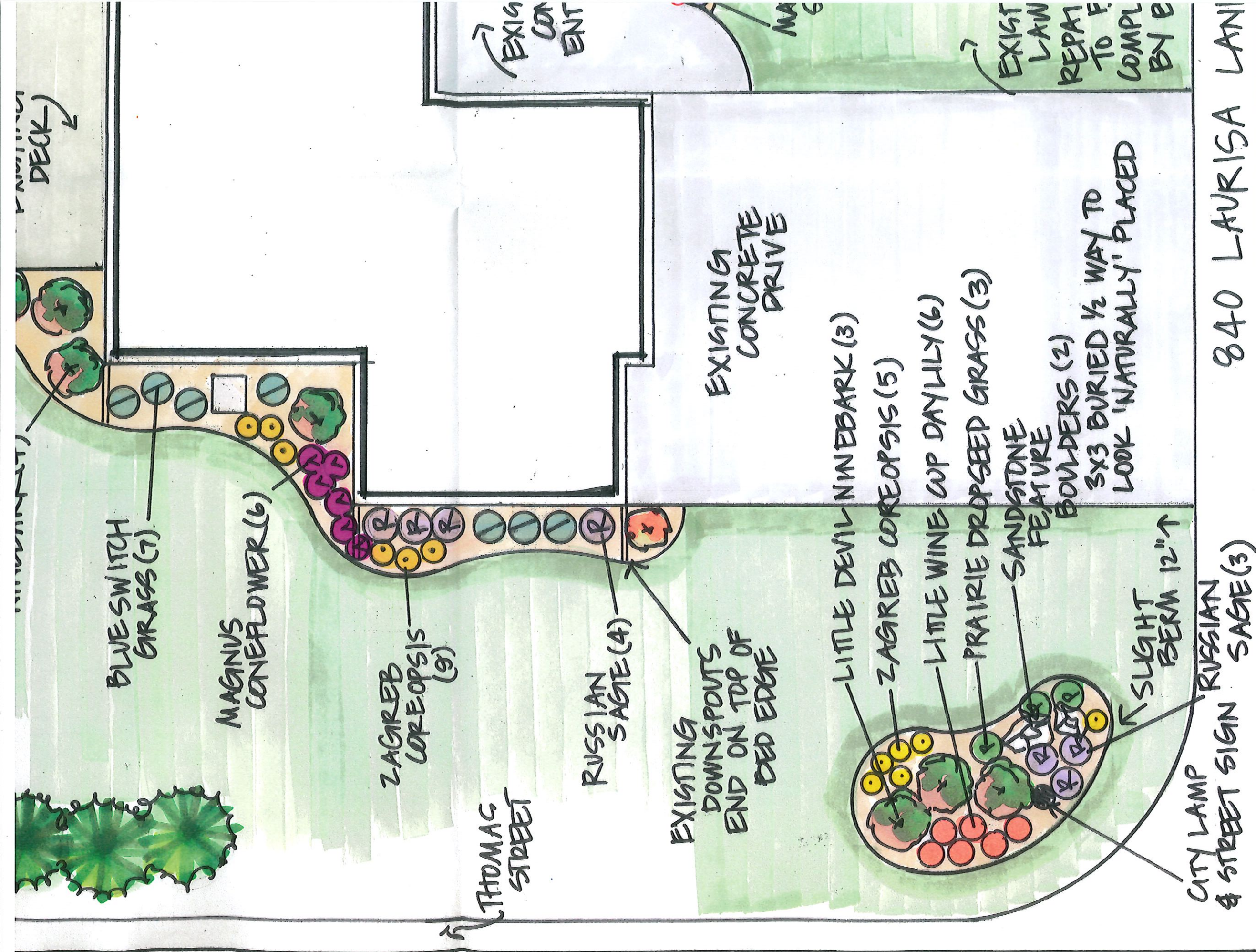
Rick & Kathy Lebrun of 840 Laurisa Lane have requested to place landscape plantings this spring into the City's R.O.W. at their newly constructed home. The work will focus on a placing a mulched-berm with low growth plantings (up to 24") around an existing light pole located in the southwest corner of their housing site.

I support the request based upon the following:

- Construction & maintenance costs are the responsibility of the homeowner
- Homeowner/contractor responsible for contacting Diggers Hotline
- Any plantings creating future roadway sight obstructions need to be either trimmed or removed by the homeowner
- Planting berm to be @ least +/- 6' behind the back of curb to allow for grass growth
- City retains the right to remove the plantings/restore to grass for any roadway R.O.W needs after exhausting any other possible cost effective alternatives
- Damage to the landscaping from the routine maintenance of the roadway (i.e. snow removal/ice control and etc.) is not the City's responsibility

I do not anticipate any specific problems with this request and appreciate the efforts by the LeBrun family in creating an attractive setting for this R.O.W. feature. They also intend to place an irrigation system for their lawn/landscaping but those plans were not available at the time that the agenda packet was developed.

I am asking that the Public Works Committee approve both the plans for the landscaping and the irrigation system request with the intention of both plans being available for Council's consideration.



LANDART

LANDSCAPE DESIGN / CONSTRUCTION

3808 E. SELL STREET
WAUSAU, WISCONSIN 54403
715 842 0619

L-t
RE



To: Mayor and City Council
From: Mark Desotell, Director of Administrative Services
Date: February 24, 2021
Re: Professional Services Agreement with MSA Consultants for a 2021 Water System Study to Assess the City's Anticipated South Water Tower Replacement along with Consideration for Drilling a 5th Supply Well

MSA Professionals has a long-standing history and understanding relative to the City's water supply system. That particular knowledge makes them a prime candidate firm for the completion of a 2021 Water System Study intended to assess the system's capacity, expandability, level of service and limitations.

This preliminary study will become the resource for the site selection process, test well investigation and to identify funding resources associated with the design and construction. It will identify the water tower replacement options for the existing "legged" tower located at the water treatment plant and for the drilling of a 5th well within the City's supply strategy.

A copy of the proposed Professional Services Agreement associated with the work is included in your agenda packets to assist you in understanding the details of the study. Scott Martin of MSA will be available at the meeting to address any of the questions that you might have. Feel free to reach out to me prior to the meeting if you feel that I can be of any assistance.



Professional Services Agreement

This AGREEMENT (Agreement) is made today March 10, 2021 by and between CITY OF ANTIGO (OWNER) and MSA PROFESSIONAL SERVICES, INC. (MSA), which agree as follows:

Project Name: 2021 Water System Study

The scope of the work authorized is: See Attached Scope of Services (3 pages)

The schedule to perform the work is: Approximate Start Date: March, 2021
Approximate Completion Date: July 2021

The lump sum fee for the work is: \$28,900

All services shall be performed in accordance with the General Terms and Conditions of MSA, which is attached and made part of this Agreement. Any attachments or exhibits referenced in this Agreement are made part of this Agreement. Payment for these services will be on a lump sum basis.

Approval: Authorization to proceed is acknowledged by signatures of the parties to this Agreement.

CITY OF ANTIGO

MSA PROFESSIONAL SERVICES, INC.

Bill Brandt
Mayor
Date: _____

Scott Martin, P.E.
Regional Public Works Manager
Date: _____

Attest:

Kaye Matucheski
City Clerk/Treasurer
Date: _____

Phil Kriesel, P.E.
Team Leader
Date: _____

700 Edison Street
Antigo, WI 54409
Phone: 715-623-3633

1835 N Stevens Street
Rhineland, WI 54501
Phone: 715-362-3244

MSA PROFESSIONAL SERVICES, INC. (MSA)
GENERAL TERMS AND CONDITIONS OF SERVICES (PUBLIC - Wisconsin)

1. **Scope and Fee.** The quoted fees and scope of services constitute the best estimate of the fees and tasks required to perform the services as defined. This agreement upon execution by both parties hereto, can be amended only by written instrument signed by both parties. For those projects involving conceptual or process development service, activities often cannot be fully defined during initial planning. As the project progresses, facts uncovered may reveal a change in direction which may alter the scope. MSA will promptly inform the OWNER in writing of such situations so that changes in this agreement can be made as required. The OWNER agrees to clarify and define project requirements and to provide such legal, accounting and insurance counseling services as may be required for the project.

2. **Billing.** MSA will bill the OWNER monthly with net payment due upon receipt. Past due balances shall be subject to an interest charge at a rate of 12% per year from said thirtieth day. In addition, MSA may, after giving seven days written notice, suspend service under any agreement until the OWNER has paid in full all amounts due for services rendered and expenses incurred, including the interest charge on past due invoices.

3. **Costs and Schedules.** Costs and schedule commitments shall be subject to change for delays caused by the OWNER's failure to provide specified facilities or information or for delays caused by unpredictable occurrences including, without limitation, fires, floods, riots, strikes, unavailability of labor or materials, delays or defaults, by suppliers of materials or services, process shutdowns, acts of God or the public enemy, or acts of regulations of any governmental agency. Temporary delays of services caused by any of the above which result in additional costs beyond those outlined may require renegotiation of this agreement.

4. **Access to Site.** Owner shall furnish right-of-entry on the project site for MSA and, if the site is not owned by Owner, warrants that permission has been granted to make planned explorations pursuant to the scope of services. MSA will take reasonable precautions to minimize damage to the site from use of equipment, but has not included costs for restoration of damage that may result and shall not be responsible for such costs.

5. **Location of Utilities.** Consultant shall use reasonable means to identify the location of buried utilities in the areas of subsurface exploration and shall take reasonable precautions to avoid any damage to the utilities noted. However, Owner agrees to indemnify and defend Consultant in the event of damage or injury arising from damage to or interference with subsurface structures or utilities which result from inaccuracies in information of instructions which have been furnished to Consultant by others.

6. **Professional Representative.** MSA intends to serve as the OWNER's professional representative for those services as defined in this agreement, and to provide advice and consultation to the OWNER as a professional. Any opinions of probable project costs, reviews and observations, and other decisions made by MSA for the OWNER are rendered on the basis of experience and qualifications and represents the professional judgment of MSA. However, MSA cannot and does not guarantee that proposals, bid or actual project or construction costs will not vary from the opinion of probable cost prepared by it.

7. **Construction.** This agreement shall not be construed as giving MSA, the responsibility or authority to direct or supervise construction means, methods, techniques, sequence, or procedures of construction selected by the contractors or subcontractors or the safety precautions and programs incident to the work of the contractors or subcontractors.

8. **Standard of Care.** In conducting the services, MSA will apply present professional, engineering and/or scientific judgment, and use a level of effort consistent with current professional standards in the same or similar locality under similar circumstances in performing the Services. The OWNER acknowledges that "current professional standards" shall mean the standard for professional services, measured as of the time those services are rendered, and not according to later standards, if such later standards purport to impose a higher degree of care upon MSA.

MSA does not make any warranty or guarantee, expressed or implied, nor have any agreement or contract for services subject to the provisions of any uniform commercial code. Similarly, MSA will not accept those terms and conditions offered by the OWNER in its purchase order, requisition, or notice of authorization to proceed, except as set forth herein or expressly agreed to in writing. Written acknowledgement of receipt, or the actual performance of services subsequent to receipt of such purchase order, requisition, or notice of authorization to proceed is specifically deemed not to constitute acceptance of any terms or conditions contrary to those set forth herein.

9. **Construction Site Visits.** MSA shall make visits to the site at intervals appropriate to the various stages of construction as MSA deems necessary in order to observe, as an experienced and qualified design professional, the progress and quality of the various aspects of Contractor's work.

The purpose of MSA's visits to, and representation at the site, will be to enable MSA to better carry out the duties and responsibilities assigned to and undertaken by MSA during the Construction Phase, and in addition, by the exercise of MSA's efforts as an experienced and qualified design professional, to provide for OWNER a greater degree of confidence that the completed work of Contractor will conform in general to the Contract Documents and that the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents has been implemented and preserved by Contractor. On the other hand, MSA shall not, during such visits or as a result of such observations of Contractor's work in progress, supervise, direct or have control over Contractor's work nor shall MSA have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by Contractor, for safety precautions and programs incident to the work of Contractor or for any failure of Contractor to comply with laws, rules, regulations, ordinances, codes or orders applicable to Contractor's furnishing and performing the work. Accordingly, MSA neither guarantees the performance of any Contractor nor assumes responsibility for any Contractor's failure to furnish and perform its work in accordance with the Contract Documents.

10. **Termination.** This Agreement shall commence upon execution and shall remain in effect until terminated by either party, at such party's discretion, on not less than thirty (30) days' advance written notice. The effective date of the termination is the thirtieth day after the non-terminating party's receipt of the notice of termination. If MSA terminates the Agreement, the OWNER may, at its option, extend the terms of this Agreement to the extent necessary for MSA to complete any services that were ordered prior to the effective date of termination. If OWNER terminates this Agreement, OWNER shall pay MSA for all services performed prior to MSA's receipt of the notice of termination and for all work performed and/or expenses incurred by MSA in terminating Services begun after MSA's receipt of the termination notice. Termination hereunder shall operate to discharge only those obligations which are executory by either party on and after the effective date of termination. These General Terms and Conditions shall survive the completion of the services performed hereunder or the Termination of this Agreement for any cause.

This agreement cannot be changed or terminated orally. No waiver of compliance with any provision or condition hereof should be effective unless agreed in writing and duly executed by the parties hereto.

11. **Betterment.** If, due to MSA's error, any required or necessary item or component of the project is omitted from the construction documents, MSA's liability shall be limited to the reasonable costs of correction of the construction, less what OWNER'S cost of including the omitted item or component in the original construction would have been had the item or component not been omitted. It is intended by this provision that MSA will not be responsible for any cost or expense that provides betterment, upgrade, or enhancement of the project.

12. Hazardous Substances. OWNER acknowledges and agrees that MSA has had no role in generating, treating, storing, or disposing of hazardous substances or materials which may be present at the project site, and MSA has not benefited from the processes that produced such hazardous substances or materials. Any hazardous substances or materials encountered by or associated with Services provided by MSA on the project shall at no time be or become the property of MSA. MSA shall not be deemed to possess or control any hazardous substance or material at any time; arrangements for the treatment, storage, transport, or disposal of any hazardous substances or materials, which shall be made by MSA, are made solely and exclusively on OWNER's behalf for OWNER's benefit and at OWNER's direction. Nothing contained within this Agreement shall be construed or interpreted as requiring MSA to assume the status of a generator, storer, treater, or disposal facility as defined in any federal, state, or local statute, regulation, or rule governing treatment, storage, transport, and/or disposal of hazardous substances or materials.

All samples of hazardous substances, materials or contaminants are the property and responsibility of OWNER and shall be returned to OWNER at the end of a project for proper disposal. Alternate arrangements to ship such samples directly to a licensed disposal facility may be made at OWNER's request and expense and subject to this subparagraph.

13. Insurance. MSA will maintain insurance coverage for: Worker's Compensation, General Liability, and Professional Liability. MSA will provide information as to specific limits upon written request. If the OWNER requires coverages or limits in addition to those in effect as of the date of the agreement, premiums for additional insurance shall be paid by the OWNER. The liability of MSA to the OWNER for any indemnity commitments, or for any damages arising in any way out of performance of this contract is limited to such insurance coverages and amount which MSA has in effect.

14. Reuse of Documents. Reuse of any documents and/or services pertaining to this project by the OWNER or extensions of this project or on any other project shall be at the OWNER's sole risk. The OWNER agrees to defend, indemnify, and hold harmless MSA for all claims, damages, and expenses including attorneys' fees and costs arising out of such reuse of the documents and/or services by the OWNER or by others acting through the OWNER.

15. Indemnification. To the fullest extent permitted by law, MSA shall indemnify and hold harmless, OWNER, and OWNER's officers, directors, members, partners, agents, consultants, and employees (hereinafter "OWNER") from reasonable claims, costs, losses, and damages, including reasonable attorney's fees, arising out of or relating to the PROJECT, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of MSA or MSA's officers, directors, members, partners, agents, employees, or Consultants (hereinafter "MSA"). In no event shall this indemnity agreement apply to claims between the OWNER and MSA. This indemnity agreement applies solely to claims of third parties. This agreement does not give rise to any duty on the part of MSA to defend the OWNER on any claim arising under this agreement.

To the fullest extent permitted by law, MSA's total liability to OWNER and anyone claiming by, through, or under OWNER for any cost, loss or damages caused in part or by the negligence of MSA and in part by the negligence of OWNER or any other negligent entity or individual, shall not exceed the percentage share that MSA's negligence bears to the total negligence of OWNER, MSA, and all other negligent entities and individuals.

16. Dispute Resolution. OWNER and MSA desire to resolve any disputes or areas of disagreement involving the subject matter of this Agreement by a mechanism that facilitates resolution of disputes by negotiation rather than by litigation. OWNER and MSA also acknowledge that issues and problems may arise after execution of this Agreement which were not anticipated or are not resolved by specific provisions in this Agreement. Accordingly, both OWNER and MSA will endeavor to settle all controversies, claims, counterclaims, disputes, and other matters in accordance with the Construction Industry Mediation Rules of the American Arbitration Association currently in effect, unless OWNER and MSA mutually agree otherwise. Demand for mediation shall be filed in writing with the other party to this Agreement. A demand for mediation shall be made within a reasonable time after the claim, dispute or other matter in question has arisen. In no event shall the demand for mediation be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations. Neither demand for mediation nor any term of this Dispute Resolution clause shall prevent the filing of a legal action where failing to do so may bar the action because of the applicable statute of limitations. If despite the good faith efforts of OWNER and MSA any controversy, claim, counterclaim, dispute, or other matter is not resolved through negotiation or mediation, OWNER and MSA agree and consent that such matter may be resolved through legal action in any state or federal court having jurisdiction.

17. Exclusion of Special, Indirect, Consequential and Liquidated Damages. Consultant shall not be liable, in contract or tort or otherwise, for any special, indirect, consequential, or liquidated damages including specifically, but without limitation, loss of profit or revenue, loss of capital, delay damages, loss of goodwill, claim of third parties, or similar damages arising out of or connected in any way to the project or this contract unless caused by negligence or willful misconduct of MSA.

18. State Law. This agreement shall be construed and interpreted in accordance with the laws of the State of Wisconsin.

19. Jurisdiction. OWNER hereby irrevocably submits to the jurisdiction of the state courts of the State of Wisconsin for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement. OWNER and MSA further consent that the venue for any legal proceedings related to this Agreement shall be Langlade County, Wisconsin.

20. Understanding. This agreement contains the entire understanding between the parties on the subject matter hereof and no representations. Inducements, promises or agreements not embodied herein (unless agreed in writing duly executed) shall be of any force or effect, and this agreement supersedes any other prior understanding entered into between the parties on the subject matter hereto.

ATTACHMENT B: SCOPE OF SERVICES

PROJECT UNDERSTANDING AND APPROACH

The City of Antigo municipal water system consists of the following:

- Four (4) active wells (#15, #18, #19, #20) each with chlorine chemical injection
- Two (2) elevated reservoirs: 150,000 gallons and 200,000 gallons
- One (1) ground reservoir: 500,000 gallons adjacent to the treatment plant
- One (1) central treatment plant that includes
 - o Lime softening and mixed media gravity filters
 - o Three (3) booster pumps with water supply from the ground reservoir
 - o Chemical addition of alum, chlorine, fluoride and phosphate

MSA intends to assess the current level of service provided by the water system with respect to water supply, fire flow capacity and storage capacity. The study will evaluate the future (20-year) projected water demands, and provide recommendations to satisfy future conditions. The study will also evaluate preliminary sites for a future well (#21), as well as preliminary sites for future elevated reservoir.

Throughout the development of the water system study, MSA will present comments and concerns to City staff to ensure that system limitations and level of service expectations are understood.

SCOPE OF SERVICES

1. Correspondence with Owner
 - Phone and email correspondence to address miscellaneous questions related to the project.
2. Historical Data Collection & Review
 - Review background information provided by Owner.
 - Review existing and proposed future population and water demands:
 - i. Review historic water demand data.
 - ii. Review historic average and maximum daily, monthly and annual pumpage.
 - iii. Review DOA population data and projections.
 - iv. Review City Comprehensive Plan.
 - v. Estimate projected future average and maximum daily demands.
3. Site Visit
 - Review each water system facility (wells, reservoirs, and SCADA master telemetry unit) with Owner.
4. Fire Flow Testing
 - Perform hydrant flow testing at 5 to 7 hydrants to establish existing system performance data. City to provide one staff person to assist MSA.
5. Water Supply & Storage Analysis
 - Review well capacity for the following scenarios:
 - i. Current and future average day water demand.
 - ii. Current and future maximum day water demand.
 - iii. "All wells" pumping condition and "firm well" pumping condition (assumes the largest pump out of service)

ATTACHMENT B: SCOPE OF SERVICES

Review existing treatment plant booster pump capacity for the following scenarios:

- iv. Current and future average day water demand
 - v. Current and future maximum day water demand.
 - vi. “All wells” pumping condition and “firm well” pumping condition (assumes the largest pump out of service)
 - Review existing storage capacity for:
 - i. Existing and future water demands.
 - ii. Existing and future fire flow demands
 - Review system-wide spare capacity based on PSC standard equations and common engineering standards.
6. Water System Modeling & Exhibits
- Update the existing water system hydraulic model of the existing water supply, storage and distribution system for analysis of the following:
 - i. Existing static pressures throughout distribution system.
 - ii. Existing fire flow capabilities throughout distribution system for the given events.
 - 1. Maximum day, firm pumping condition
 - 2. Maximum day, all wells on condition
 - Utilize the water system model of the existing water system for the following:
 - i. Identify system limitations and prepare recommendations for improvements and operation.
 - ii. Evaluate the effect that proposed reservoir sites (3 scenarios) will have throughout the distribution system, to prioritize implementation.
7. Alternatives and Cost Estimates
- Develop and evaluate preliminary well site alternatives for a future Well #21.
 - i. Alternatives limited to three sites, all provided by Owner.
 - ii. Preliminary site evaluation limited to desktop review of potential contamination (from RR Sites Map), wetlands, floodplains, proximity to large diameter watermain and “East Site Geophysical Investigation Results and Test Boring Recommendations” report dated October 2003.
 - Develop and evaluate alternatives for replacement of the existing 150,000 gallon reservoir.
 - i. Alternatives limited to three sites, all provided by Owner.
 - ii. Preliminary site evaluation limited to desktop review of topography, proximity to large diameter watermain, potential airport restrictions, and water modeling scenarios as described above.
 - Develop preliminary cost estimates for other recommended improvements identified in this study.
8. Owner Meeting and PowerPoint Presentation
- Prepare a PowerPoint presentation summarizing the preliminary results of the water system study.
 - Review recommendations and cost estimates with Owner
 - Attend and facilitate meeting with City staff to gather input to be used in final report.
9. Report Preparation
- Prepare Water System Study report including the following information:
 - i. Existing System Description
 - ii. Documentation of Historic Water Use.
 - iii. Documentation of Fire Flow capabilities.
 - iv. Evaluation of existing facilities and level of service.

ATTACHMENT B: SCOPE OF SERVICES

- v. Documentation of system deficiencies.
 - vi. Projection of future conditions.
 - vii. Review of funding alternatives.
 - viii. Recommendations for proposed system improvements.
 - Prepare and deliver an electronic copy of a draft report to Owner for review and comment.
 - Prepare and deliver 2 printed copies and 1 electronic copy of the final report for the Owner
10. Quality Control Review
- Provide quality control review by another MSA potable water expert of the following deliverables
 - i. PowerPoint presentation
 - ii. Final report

OWNER TO PROVIDE

- Access to any and all relevant structures and equipment as necessary to complete evaluation.
- Copies of any reports, maintenance evaluations, or other determinations performed to date including past two DNR Sanitary Surveys.
- Historic Water quality data, including:
 - i. Water quality analysis records and reports for the most current complete data year;
 - ii. Types and amounts of chemical usages for each well and the treatment plant.
- Existing well and well pump information, including well depth, water bearing aquifer, geology, yields and pump curves for each well.
- Well pumping records, including daily pumpage and drawdown, for the past three years.
- Existing treatment plant booster pump information including pump curves and pumping records for the past three years.
- Fire flow testing data throughout the distribution system.
- Assistance with fire flow testing of existing hydrants (one day assumed)
- Operational control settings, reservoir water elevation settings and usages.
- Water utility billing records for most complete data year.
- Ten (10) largest water consumers in the City (by records of use).
- Existing water system hydraulic model data

ADDITIONAL SERVICES – not included in this scope of services

- Well site investigation report (per NR 811.09) and submittal to DNR
- Test well design and submittal to DNR
- Reservoir design, engineering report (per NR 811.09) and submittal to DNR
- Bidding and/or construction related services
- Evaluation of existing water quality and treatment effectiveness
- Corrosion Control Optimization Study
- Evaluation of additional alternate sites for reservoir and/or well
- Additional meetings
- Funding applications