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October 9, 2019

Ms. Brenda Klemmer, Clerk  
Village of The Village  
20399 West Main Street  
The Village, WI 53046

Re: Engineer's Comments for the October 14, 2019 Village of Lannon (Village) Board Meeting

Dear Brenda,

Please share this letter containing engineering comments for the October 14, 2019 Village Board meeting with the Village Board.

**Topic: Agency Communication Related to the Water System Expansion Projects  
Includes Impacts to Funding and Schedule**

**Strand Associates, Inc.® (Strand) Presentation and Discussion, No Recommended Action**

A Wisconsin Department of Natural Resources (WNDR) and Public Service Commission of Wisconsin (PSC) Joint Preconstruction Authorization Meeting was held at the PSC office in Madison on Monday September 30, 2019. This meeting was attended by Strand and by the Village President along with representatives from WNDR and PSC. Following is a summary of major discussion points and outcomes. Note that this meeting was a non-binding meeting and appropriate agency approvals will be required in the future.

1. Project Overview
  - a. The topic of the meeting was to ask for agency input relative to the Preferred Alternative for the forthcoming United States Department of Agriculture (USDA) Rural Development Loan Application. The Preferred Alternative currently consists of 2.8 miles of 8-inch diameter or larger water main, 0.2 miles of 6-inch diameter water main, and the acquisition of a second well source.
  - b. The second source could be the acquisition of an existing well built to municipal standards, drilling a new shallow aquifer or deep aquifer well, or interconnecting to a neighboring system. Acquisition of a second well source is preferred at this time as it is likely the least expensive and fastest way to add redundancy to the system while continuing to explore options for additional supply.
  - c. The overall cost of the Preferred Alternative is approximately \$8,300,000.
2. General Agency Roles
  - a. WNDR reviews technical projects for conformance with WNDR technical codes and standards.

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- b. PSC reviews the technical project, if the project is deemed a reviewable project, to verify the project's impact to utility finances and rates.
3. PSC Reviewable Project
- a. A project that consists of 3 miles or more of water main that is larger than 8-inches in diameter.
  - b. A project that adds supply or storage to the system.
  - c. The Village's Preferred Alternative for the purpose of the USDA application includes both water main and a well. If these are designed and bid as separate projects, the water main project does not need to be reviewed by the PSC.
  - d. The typical PSC review time for a well-defined project is six months with construction authorization being granted at a staff review level.
  - e. The typical PSC review time for a project that is not well-defined is 12 to 18 months with extensive staff review. It is ultimately deferred to a vote by the governing commission.
  - f. PSC staff advised the Village to proceed with the water main project first, pending WNDR's input.
  - g. The well project would be reviewed by PSC after the water main project commences.
4. WNDR's Application of Technical Requirements for the Village's Water System
- a. WNDR indicated that water main projects are only reviewed based on requirements of water main design.
  - b. WNDR does not consider supply or storage capacity implications when reviewing water main projects.
  - c. WNDR reviews supply and storage at the time of the bi-annual sanitary survey. The sanitary survey involves an on-site inspection of water facilities by WNDR staff with a follow-up report that notes any deficiencies and required action.
    - (1) The last sanitary survey was completed in 2018 and did not note any deficiencies in supply or storage capacity.
    - (2) WNDR will conduct another sanitary survey near the end of 2020 and will note any deficiencies to supply or storage capacity based on the number of customers added at that time. Any deficiencies noted would be accompanied with a compliance date that must be met by the Village.

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5. Current Status of the Village's Project as Not Well-Defined

a. PSC indicated that the following items lack the definition expected of a typical project. Therefore, if the Village applies for Construction Authorization without addressing these items, the PSC will likely require a 12- to 18-month review process.

- (1) The Opinion of Probable Cost (OPCC) is based on a conceptual design and the actual project cost could vary by 20 percent. The PSC expects to review projects that are fully designed and ready for bidding so that project costs are more reliable and not conceptual.
- (2) The Village is currently representing utility revenue as a projected value whereas the PSC expects to review actual revenue.
- (3) Additional funding sources (USDA, WNDR, Community Development Block Grant (CDBG), Public Private Partnerships) are not secured. PSC expects to review actual funding sources with known amounts.

b. PSC recommended that the Village proceed with engineering, bidding, and construction of the water main project. This could present the following benefits:

- (1) The water main project would be a non-reviewable project which would eliminate 6-months from the project schedule.
- (2) Geotechnical investigations would be complete, better defining currently unknown conditions.
- (3) Engineering design would identify actual project quantities with a much better OPCC with a lower contingency. This would help secure additional funding.
- (4) Additional funding sources would be defined and in-place.
- (5) Once built, actual project costs and actual utility revenues would both be known.
- (6) PSC would still review the impacts of this project on utility finances at the time a reviewable project, such as the well, is applied for. By that time, new customers will have been added to the system and utility revenues would be actual revenues instead of projected revenues.

6. Resulting Impacts to Project Schedule

a. A 12- to 18-month review process by PSC could jeopardize USDA principal forgiveness. The USDA will consider the current median household income (MHI) up until the 2020 census is complete for the purpose of calculating principal forgiveness. Therefore, the USDA application should proceed with the water main project identified as Phase 1 and the second source as Phase 2. Both projects will be eligible for USDA funding.

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- b. Proceeding with the water main project first as a project that does not require PSC review presents a scenario in which the water mains could be built by the end of 2020. Shortening the project timeframe would result in better defined costs and provides citizens safe water sooner.
  - c. Proceeding with the water main project now satisfies feedback from funding entities, from the Village Board, and Village residents to understand what the actual costs are going to be.
    - (1) CDBG Applications are due in January 2020. Previous feedback cited the need for better defined information from the Village.
    - (2) Public Private Partnership prospects have asked to begin drafting agreements and want to know the actual project costs relative to the proposed level of funding.
    - (3) USDA favors accurate project costs so that project scope and level of principal forgiveness can be defined.
  - d. Water main geotechnical and design services could begin immediately to meet these schedules.
    - (1) Geotechnical Investigations–November 2019
    - (2) Survey–October 2019
    - (3) Water Main Design–October 2019 through February 2020
    - (4) WNDR Water Main Extension Permit–January through March 2020
    - (5) Bidding–Approximately April 2020
    - (6) Construction–Approximately May through November 2020
7. Village Board Decision to Proceed with Construction
- a. The proposed schedule would target a decision by the Village Board in February 2020 on whether or not to proceed with the water main project.
  - b. By February 2020, the following information is anticipated to be available to support the Village Board’s decision.
    - (1) CDBG will have been applied for.
    - (2) Public Private Partnership Agreements will have been drafted.
    - (3) OPCC will be based on actual design and geotechnical information.
    - (4) Better understanding of actual customer connection costs and cost structure including potential special assessment amounts.
8. Role of the Emergency Response Plan (ERP)
- a. The ERP has been circulated to various parties for comment.
  - b. The ERP will define action and responsibility until a second source is brought online.

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- c. If the water main project proceeds, a second source will likely be required by WNDR shortly thereafter.
- d. The ERP could be finalized as soon as November 2019.

**Topic: Engineering Services Related to Program Management of the Water System Expansion**

**Strand Discussion and Recommended Action**

Several program management services will be required moving forward. These services, when required, have been performed under the existing General Engineering Services contract and assigned as water utility expenses. Moving forward, these services may be eligible for inclusion in the USDA project and eligible to be financed with principal forgiveness through that program. These services may include:

1. Investigate additional funding sources
2. Participate in meetings with project partners
3. Respond to private property inquiries
4. Participate in negotiations relative to project partnerships
5. Explore additional alternatives for second sources and participate in meetings as necessary
6. Assist in the application for and administration of CDBG funds
7. Communicate with the WNDR relative to well abandonment requirements and assistance as well as ongoing well monitoring
8. Assist the Village with information necessary to calculate impacts to property owners
9. Evaluate potential changes to the water impact fee
10. Assist in the special assessment calculation
11. Administer private water service lateral project including developing scope and bidding documents

Recommended Action: Authorize the Village President to execute a time and expense contract with Strand to provide Water System Expansion Program Management Services in an amount up to \$100,000.

**Topic: Geotechnical Services Related to the Water System Expansion**

**Strand Discussion and Recommended Action**

A geotechnical proposal has been solicited and will be reviewed before the Village Board meeting. The purpose is to conduct necessary investigation of subsurface conditions that will impact the engineering design and construction cost of the water main projects. This information is required to generate improved cost opinions relative the water system expansion. The anticipated cost is approximately \$30,000.

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Recommended Action: Authorize the Village President to execute a contract for geotechnical services with [name of firm] for an amount up to [amount].

**Topic: Engineering Survey and Design Services for Water Main Installation for Water System Expansion**

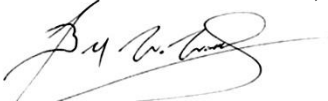
**Strand Discussion and Recommended Action**

A draft task order to provide engineering survey and design services of the water mains included in the USDA Preferred Alternative for the water system expansion has been provided. Authorizing these services now will allow the Village to proceed with agency and funding partner submittals and negotiations. The task order includes services from survey through bidding. The project status will be reported monthly to the Village Board and more frequently to the Village President or others that inquire. The Village may stop services at any point once a decision to not move forward with the construction of the project is made. Authorizing these services now allows survey to begin the week of October 21, 2019, supports project bidding in spring 2020, and supports substantial completion at the end of 2020.

Recommended Action: Authorize the Village President to execute an agreement with Strand for the Water Main System Extension in the amount of \$350,000.

Sincerely,

STRAND ASSOCIATES, INC.®



Ben W. Wood, P.E.