

## VILLAGE OF GRAFTON

### BOARD OF PUBLIC WORKS MEETING MINUTES

**MARCH 9, 2015**

The Board of Public Works meeting was called to order at 6:08 p.m. by Administrative Assistant Melissa Depies.

Motion by Mr. Blum, seconded by Mr. Murray, to elect Trustee Dave Antoine as chairman pro-tem. Motion carried.

Board members present: Trustee Dave Antoine (6:08 p.m.), Pat Murray, Les Blum, and Trustee Lisa Harbeck (6:10 p.m.).

Board members excused: Trustee Sue Meinecke.

Staff present: Director of Public Works/Village Engineer Dave Murphy, Superintendent of Public Works Gary Helm, Utility Superintendent Tim Nennig, and Administrative Assistant Melissa Depies.

Others present: Thomas Krueger, Ken Ward – Ruckert-Mielke, Jim Smith – Applied Technologies, and Terry Krajcik.

#### **HEAR PERSONS REQUESTING TO BE HEARD**

None

#### **MINUTES**

Motion by Mr. Blum, seconded by Mr. Murray, to approve the February 9, 2015, Board of Public Works meeting minutes. Motion carried.

#### **PUBLIC WORKS**

##### Five Year Capital Improvements – Streets

Director of Public Works/Village Engineer Dave Murphy stated that the Village typically budgets between \$320,000 and \$340,000 for street reconstruction projects. This amount of funding equals approximately 0.50 miles of street reconstruction per year which puts the Village at a 100 year replacement cycle.

The 2016 plan (Spring Street – Ninth Avenue to 12<sup>th</sup> Avenue / Ninth Avenue – Washington to Spring Street/ Seventh Avenue – Washington Street to North Street) calls for \$426,000 due to the need to remove and replace all curbs, stone base, and installation of a new railroad crossing on Spring Street. Seventh Avenue – Beech Street to Wisconsin Avenue was added to 2016 and will be funded by TID 3. This project is necessary to increase the storm sewer capacity for development at the Lumberyard site. River Bend Road will be done in conjunction with the River Bend Road Lift Station

project and funded by the Utility and the Blackhawk Valley Development. This will increase the road mileage reconstructed in 2016 to 1.22 miles.

Mr. Murphy stated that the remainder of the 5-Year Capital Improvement Plan – Streets is the same as the previously approved plan with 2020 being added. 2020 includes Sunset Court, Sunset Lane, Vista Lane, Bridge Street, and Cheyenne Court (0.60 miles of road).

Mr. Murphy highlighted a spreadsheet that included all roads rated 4 or lower that are not included in the 5-year plan.

Mr. Blum questioned what level other communities were at for reconstruction and how they funded the projects. Mr. Murphy responded that each community is a little different in how they fund the projects. He stated that the City of Port Washington borrows for their road projects.

Mr. Blum stated that he is not satisfied with the level of current funding for street reconstruction. He commented that the level of funding needs to be increased; therefore, this plan should not be approved.

Mr. Murphy noted that there are some instances where the Utility funds a portion of the road reconstruction due to reconstruction of underground utilities which can increase the miles of road reconstruction slightly. Example of this is the 2013 Sixth Avenue – Washington Street to Spring Street project.

Trustee Harbeck questioned what would be a good goal for miles reconstructed each year. Mr. Murphy replied that roads are designed for a 30 year life cycle, however most municipalities cannot meet that standard, therefore the life cycle is generally 40 to 50 years. He reiterated that Grafton is currently at a 100 year life cycle.

Mr. Murphy stated that when determining the 5-year program he takes location into consideration as well as road ratings. He tries to do streets in the same general area rather than having the contractor re-mobilize to other areas of the Village in order to save money.

Motion by Mr. Blum, seconded by Trustee Harbeck, to recommend the Village Board to increase the miles of streets to be reconstructed to approximately 1.0 miles annually. Motion carried.

#### Major Projects Updates

*Bridge Street Dam Lighting:* Fixtures are in and a mock lighting should take place early next week. Mr. Murphy will notify Board members of date and time.

*Sidewalk Replacement Program:* Project is currently out for bid and will be brought to the April meeting for award recommendation.

## Report of benchmark measurements - Department of Public Works

The benchmark report was reviewed.

Superintendent of Public Works Gary Helm stated that the crack fill material has been ordered. He noted that crews are going to be aggressive on this activity this year as this is the best maintenance that can be done to extend the life of the street.

If the warmer weather continues to hold, the street sweeper will begin cleaning the streets in accordance with our DNR Stormwater Permit.

A grant was received for treating trees against EAB and planting trees. We are anticipating treating 400 trees and planting approximately 200 which is double of what is typically planted. Staff will be evaluating the Ash trees and only treating those that are in a good location. If the tree site is too small or there are utilities in the way of the tree, the tree will not be treated. Trees need to be treated every 3-years to be effective against the insect.

Salt usage is down, which results in enough salt in the dome for the second half of the winter.

Mr. Murphy stated that that he has placed the order for salt for 2016. No early fill was order for fall of 2015 as there is over 1,000 tons of salt currently in the dome. The 2016 order includes 1,250 tons of guaranteed fill and another 250 tons in reserve. The state is looking into requiring all municipalities to pre-fill the domes during the summer months with early fills.

### River Bend Road lift station proposals for engineering services

Utility Superintendent Tim Nennig stated that the Utility has budgeted \$159,600 for professional engineering services relating to the design and construction of the lift station, new interceptor and force main sewers, and the related roadway improvements on River Bend Road and 17th Avenue. Design and preparation of the necessary bidding documents will be completed in 2015 with project bid and construction in 2016.

The Public Works Department will be responsible for all engineering and construction costs associated with the roadway improvements not directly related to the utility infrastructure; however, there will be a cost sharing plan between the Village and Town of Grafton for the road improvements.

The River Bend Road lift station will replace the existing Falls Road and Blackhawk Valley Lift Stations. This lift station will impact all future growth occurring in the northeast and southeast areas of the Village. It is critical that the new lift station structure and related sewer system improvements be properly designed to handle all current and future flows from these areas.

Also included in the request for proposals was an evaluation of the existing interceptor connection fee cap on a per acre basis, and calculation of costs of the new lift station,

interceptor and force main to determine a new fee schedule for all developable lands on the east side.

Mr. Murphy commented that all fees may not be able to be recuperated. If costs are so high that they scare development away the Village Board may choose to absorb some of the costs.

Mr. Nennig stated that eight engineering firms were contacted to submit a Statement of Qualification. Of the eight, four were selected to submit proposals for the project engineering services.

Ruekert-Mielke, Waukesha, WI	\$153,626
Applied Technologies Inc., Brookfield, WI	\$178,600
Strand Associates, Inc., Milwaukee, WI	\$296,840
Graef, Milwaukee, WI	\$378,137

Based upon the project fees, Strand Associates, Inc. and Graef were removed from consideration. The Utility has worked with both Ruekert-Mielke and Applied Technologies on previous projects. Ruekert-Mielke in 2006 for engineering services on the South Commercial District utility and streetscape reconstruction project and Applied Technologies was the selected engineer for the: Green Bay Road Lift Station upgrade (2009), Ninth Avenue Lift Station replacement (2014) and the North Green Bay Road sewer extension (2009).

Mr. Nennig stated that he is recommending Applied Technologies because he believes that Applied Technologies will provide a more comprehensive design. The same project team members that worked on the Green Bay Road and Ninth Avenue Lift Station projects will be used for the River Bend Road project.

Applied Technologies allocated a total of 689 staff hours for lift station and infrastructure planning and design where Ruekert-Mielke only allocated 446 hours. Mr. Nennig strongly believed that the extra time devoted to design has the potential to save significant dollars during the construction phase.

Utility Superintendent Nennig expressed concern regarding the preliminary construction cost estimate for the Ninth Avenue Lift Station project provided by Ruekert-Mielke. In July of 2013, Ruekert-Mielke provided a budgetary construction cost estimate of \$557,700. Actual project engineering was awarded to Applied Technologies who estimated construction cost at \$822,000.

Mr. Nennig questioned why that preliminary construction cost estimate provided by Ruekert-Mielke did not take into account any upsizing of the station for future growth and development and why they did not recommend a design for the future project approach.

Trustee Harbeck questioned where the additional funds would come from. Mr. Murphy stated the majority of the contract would be paid in 2015 with the remainder being paid in 2016. The Utility will be funding the full design costs and the Village will be refunding their portion in 2016.

Mr. Blum questioned if the Utility was provided hourly rates for both firms and if they were comparable. Mr. Nennig replied that yes they are comparable.

Trustee Harbeck stated that the Village requested proposals from these firms because they believed they were both qualified firms, then we should accept the lowest cost proposal.

Ken Ward, Ruekert-Mielke, provided a letter stating that he is guaranteeing the proposed price of \$153,626 for design and construction services of the project. He noted that the lead lift station design engineer, Dave Arnott, has worked on over 35 lift stations in the past 15 years and believed he could provide the same comprehensive design services as Applied Technologies. Mr. Ward was confident that his design team did not need extra hours to provide a comprehensive design as they had a significant amount of experience.

Jim Smith, President-Applied Technologies, stated that the project team would be the same as the Green Bay Road and Ninth Avenue Lift Stations. They believe they know how to design and build a lift station not only for today's needs but to allow for expansion for future development. The construction cost for the Ninth Avenue lift station is approximately \$27,000 below the estimate. Landscaping and paving are the only items remaining to be done on the project. Mr. Smith stated that they try to minimize change orders during construction by providing a comprehensive design.

Mr. Blum stated that because the Village reviewed statements of qualifications and accepted proposals from only four firms, indicating that these firms were qualified to do the job, then we should work with the lowest cost proposal firm.

Trustee Harbeck questioned why The Utility has the process of receiving proposals if we are not going to contract with the lowest cost firm.

Mr. Nennig stated that he spent a great deal of time reviewing the proposals from all different angles and aspects. He believes that his recommendation to award a contract to Applied Technologies is in the best interest of the Village. Mr. Murphy stated that he is very comfortable with awarding to Applied Technologies based on past experience with the Ninth Avenue lift station.

There was discussion regarding the information in the letter from Mr. Ward, Ruekert-Mielke, compared to the actual proposal. As well as if there would be added costs for a design with flush stations.

Motion by Mr. Blum, seconded by Mr. Murray, to recommend the Village Board award the River Bend Road Lift Station and Road Reconstruction engineering services proposal work to Applied Technologies, Inc., Brookfield, WI in the amount of \$178,600. Motion passed 3-1 (Harbeck – nay).

Falls Road redesign project, contract amendment #1

Director of Public Works/Village Engineer Dave Murphy explained that Gremmer and Associates is seeking an additional \$7,951 for additional design work on the Falls Road project. The work was necessary as the cross-section was changed numerous times based on discussion between the Village and Town of Grafton.

Motion by Mr. Blum, seconded by Mr. Murray, to recommend the Village Board approve amendment No. 1 of the Gremmer & Associates, Inc. Falls Road Design contract in the amount of \$7,951 for a total cost of \$37,856. Motion carried.

Falls Road staking and construction services

Director of Public Works/Village Engineer Dave Murphy explained that Gremmer and Associates will provide all necessary staking for the project. This contract will also include some inspection services on an as needed basis. Village staff will be providing full-time inspections and project management; however, it is anticipated that the contractor will be working on Falls Road and 16th Avenue at the same time resulting in the need for two inspectors.

Mr. Blum questioned if this type of service needed to be go through the bid process. Mr. Murphy responded that consulting work does not need to be bid out.

Motion by Mr. Murray, seconded by Mr. Blum, to recommend the Village Board approve the proposal for Falls Road staking and construction observation from Gremmer & Associates, Inc., Stevens Point, WI for an amount not to exceed \$39,785. Motion carried.

Award project 15-01: Falls Road – Blackhawk Drive to Port Washington Road and 16th Avenue/North Pine Street – Willow Court to 16th Avenue

Director of Public Works/Village Engineer Dave Murphy stated that Kopplin & Kinas was the lowest qualified bidder for this project. They were a subcontractor on the recent Fourth Avenue and Rose Street project, and the Village had no issues with them. The Village has received their list of subcontractors for this project and we are comfortable with all subcontractors.

Motion by Mr. Blum, seconded by Mr. Murray, to recommend the Village Board award project 15-01 / Falls Road – Blackhawk Drive to Port Washington Road and 16th Avenue/North Pine Street – Willow Court to 16th Avenue to Kopplin & Kinas Co., Inc., Green Lake, WI for a cost of \$1,270,293.96. Motion carried.

### Storm water annual report

Director of Public Works/Village Engineer Dave Murphy stated that the Storm Water Annual Report tells the DNR what requirements of the permit are currently being met as well as what projects are being done or what steps are being taken to ensure that non-compliant requirements will be met in the future.

Mr. Murphy stated that the DNR has indicated that they will be looking at total maximum daily loads for stormwater and there may be upcoming changes in the permit requirements. The Village may have to reduce total suspended solids on their own or part of a larger project in a rural area of the County in the future.

Motion by Trustee Antoine, seconded by Mr. Blum, to recommend the Village Board approve the 2014 Storm Water Annual Report. Motion carried.

## **WATER & WASTEWATER**

### WWTP digester cleaning and inspection

Utility Superintendent Tim Nennig explained that the Utility has two digesters that are in need of cleaning. Both digesters were last removed from service for cleaning and inspection in 2009. Five years is about the maximum time the Utility should let these digesters go in between cleanings. Beyond five years, the amount of accumulated debris inside the digesters starts to cause operational issues.

Mr. Nennig stated that this same digester cleaning project was approved by the Village Board on October 6, 2014; however, the contractor was unable to initiate the work due to scheduling conflicts and the onset of freezing temperatures in early November.

Utility staff received the following proposals for the digester cleaning work:

Advanced Waste Services, West Allis, WI	\$ T&M bid only
United Liquid Waste Recycling, Clyman, WI	\$26,988
North Shore Environmental, Germantown, WI	\$46,565

The bid received from Advance Waste Services was provided to the Utility solely on a time and materials basis without a clear estimate of the labor hours or materials needed to complete the work. The Utility is recommending to reject the bid on the grounds that the contractor was not willing to provide a more defined estimate or a not to exceed cost.

These cost estimates do not include the hauling and disposal of sludge volumes within the digesters. The Utility will be working with their own sludge hauling contractor Badger State Waste LLC, to dispose of the materials as they are removed from the digesters.

This project was not budgeted for in 2015 as it was scheduled to be done in 2014 but was not completed due to weather. Utility staff indicated that these funds could potentially come from a portion of the roof replacement project if necessary. Several of the roofs are not currently leaking and could potentially wait one more year to be completed.

Mr. Blum questioned how this bid number compares to the bid received in October of 2014. Mr. Nennig indicated that it was approximately \$3,000 less due to the time of year the project is being bid.

Motion by Mr. Blum, seconded by Mr. Murray, to recommend the Village Board award the WWTP anaerobic digester cleaning and inspection project work to United Liquid Waste Recycling, Inc., Clyman, WI for a cost not to exceed \$26,988. Motion carried.

#### Water System Master Plan update

Utility Superintendent Tim Nennig stated that the Utility budgeted \$35,000 in 2015 for an update to its existing Water System Master Plan. The original master plan was developed in 1994 by Patrick Planton, P.E., Rust Environment and Infrastructure. In 2001, Mr. Planton, completed the most recent update to the master plan.

Mr. Nennig stated that the last master plan was completed 13 years ago and the Utility would like to move forward with the next master plan update in order to evaluate the current and future system needs and to identify capital improvements required to serve both current and future Utility customers over a 20 year planning period. In conjunction with the master plan update, the water system hydraulic computer model will be updated, re-calibrated and verified for accuracy.

The Utility would like to work directly with Mr. Planton, Principal and Water Practice Leader at Short Elliott Hendrickson Inc. (SEH) of Milwaukee, WI. No other engineering firms had been contacted to submit a bid for this project work.

The scope of work includes: (1) water supply service area planning, (2) water supply needs analysis, (3) current water distribution system evaluation, (4) computer model update, re-calibration and verification, (5) future water system improvements planning and recommendations and (6) study deliverables including documentation.

Currently, Mr. Planton is in various stages of similar master plan development and updates for the Cities of Hartford, Watertown, and Cedarburg.

Mr. Nennig stated that if sufficient hours are available on the contract a water main replacement prioritization list will be developed from the master plan and computer model updating. If this cannot be completed as part of this contract, the Utility will budget for the water main replacement prioritization work in 2016.

The Utility also plans to budget for water main pipe integrity testing field services in order to further identify specific locations of deteriorating pipe in the distribution system.

Mr. Murphy stated that Mr. Planton is the same engineer that the Milwaukee wholesalers contracted with; on two separate occasions for a water rate challenge

against the City of Milwaukee to the PSC. Mr. Planton was successful in both rate challenges.

Motion by Mr. Murray, seconded by Trustee Harbeck, to recommend the Village Board award the Water System Master Plan update project to Short Elliott Hendrickson Inc., Milwaukee, WI in the amount of \$35,000. Motion carried.

#### WWTP Compact Plant #2 Recoating

Utility Superintendent Tim Nennig stated that the 2015 budget includes \$63,100 to complete the recoating of Compact Plant #2 at the WWTP. The tank was constructed in 1970 and recoated in 1997. In 2014 the Utility completed similar work to the Compact Plant #1 at a cost of \$50,460. Compact Plant #2 has more non-immersed steel structure than #1 and all hand railing, guard rails and support structure are made of steel rather than aluminum; therefore, the re-coatings costs are slightly higher than Compact Plant #1.

Mr. Nennig explained that the existing coating is approximately 17 years old. Utility staff has observed numerous areas where the coating is failing. The structure's existing airline piping which runs the full circumference of the tank is badly weathered and the decking, bridges and related components are all exhibiting various levels of degradation.

Four bids were received:

Crane Engineering, Kimberly, WI	\$50,700
Goldsmith Painting Inc., Sheboygan Falls, WI	\$58,385
Porta-Painting, Waukesha, WI	\$89,910
Spies Painting, Fond du Lac, WI	\$99,610

Crane Engineering was the lowest bidder; however, the Utility is recommending awarding the project to Goldsmith Painting, Inc.

Mr. Nennig explained that Crane Engineering was awarded the 2014 project work for structure re-coating and equipment rehabilitation of the WWTP Primary Clarifier #1. The quality of the work was poor. Crane applied the incorrect finish color to all steel, the measured mil thickness of the finish coatings was less than the specifications, and when the contractor returned to correct the color issue they failed to repaint the undersides of the structure.

Mr. Blum questioned if the contract had to be awarded to the lowest bidder. Mr. Murphy responded that it needed to be awarded to the lowest responsible bidder and Mr. Nennig has indicated that Crane Engineering was not a responsible bidder.

Motion by Mr. Murray, seconded by Mr. Blum, to recommend the Village Board approve the Compact Plant #2 recoating project to Goldsmith Painting Inc., Sheboygan Falls, WI in the amount of \$58,385. Motion carried.

WWTP Orthophosphate Analyzer and Chemical Feed Pump System

Utility Superintendent Tim Nennig stated that the 2015 Utility budget includes \$27,255 for the purchase of an automated final effluent orthophosphate analyzer and replacement chemical feed pumps.

The orthophosphate analyzer will provide valuable final effluent discharge data currently unavailable; this information is needed as the Utility begins phosphorus removal investigations. The new analyzer equipment will be used to control ferrous chloride feed rates automatically, which will result in significant annual chemical cost savings.

Three bids were received:

Hawkins Inc. / ABB, Fond du Lac, WI	\$18,224.00
Mulcahy Shaw Water, Cedarburg, WI	\$25,087.50
William / Reid Ltd., Germantown, WI	\$27,925.00

Mr. Nennig noted that Hawkins Inc. / ABB was the low bidder; however, he is recommending award to Mulcahy Shaw Water. Hawkins Inc. / ABB has failed to provide a list of similar project work references despite several requests. Hawkins also does not have any similar equipment installations in the State of Wisconsin, and they had an unsuccessful pilot study with similar equipment for the City of West Bend.

There is potential for a fairly quick payback period relative to this equipment purchase. Utility has been told to expect immediate savings from day 1 of operation with a projected payback period of 24-30 months. The cost savings will be the direct result of the new orthophosphate analyzer automatically controlling the new chemical feed pumps to maintain a much tighter operating range relative to effluent phosphorus values.

Mr. Blum questioned who the company principals were of Mulcahy Shaw Water. Mr. Nennig responded, Tom Mulcahy and Jim Shaw.

Trustee Harbeck question the life span of the equipment. Mr. Nennig stated that this system is relatively new, it has only been out in other communities for approximately 2-3 years. The equipment only comes with the standard 1-year warranty; however, the Utility expects a 10 to 15 year service life.

Motion by Trustee Harbeck, seconded by Mr. Murray, to recommend the Village Board award the orthophosphate analyzer and chemical feed equipment proposal to Mulcahy Shaw Water, Cedarburg, WI in the amount of \$25,087.50.  
Motion carried.

Utility projects update

*Annual Water System Leak Survey:* Our annual leak detection survey work is scheduled to commence the week of May 4. The Utility is targeting 30 miles of distribution system

pipng equaling approximately 45 percent of the total distribution system mainline pipe in place.

*Annual Water System Valve Exercising:* Annual valve exercising work is also scheduled to commence the week of May 4.

*WWTP Roof Replacement:* The Utility has budgeted replacement of eight separate flat roof spans at the WWTP. This roofing replacement work was originally scheduled for 2014; however, various budget shortfalls allowed only a single roof to be replaced. Staff is currently working on obtaining bid prices.

#### Report of benchmark measurements – Water and Wastewater Utility

The benchmark report was reviewed.

Utility field staff will be reading residential meters the week of March 16.

There have been two water main breaks so far in March; one occurred the first week of March on Beech Street between First and Second Avenues. Another break was reported today on Dellwood Court. There have been a total of five water main breaks to date.

There have been zero sewer mainline backups.

#### **OLD BUSINESS**

Utility Superintendent Tim Nennig stated that the City of West Bend will be accepting sludge from the Village of Grafton for a period of time as they are in the process of starting up some new equipment. Also the storage tank in the Town of Addison has been approved by the DNR. With these locations being approved for sludge disposal, the Utility will be able to save approximately \$60 to \$65 per load on trucking.

Director of Public Works/Village Engineer Dave Murphy stated that Mark Didier has accepted the mechanic job and will begin employment with the Village on Monday, March 16.

#### **NEW BUSINESS**

None

#### **ADJOURN**

Motion by Trustee Harbeck, seconded by Mr. Murray, to adjourn the meeting at 8:03 p.m. Motion carried.