



City of Appleton

100 North Appleton Street
Appleton, WI 54911-4799
www.appleton.org

Meeting Agenda - Final Utilities Committee

Tuesday, September 8, 2015

5:30 PM

Council Chambers, 6th Floor

1. Call meeting to order

2. Roll call of membership

3. Approval of minutes from previous meeting

[15-1424](#) Approval of the August 25, 2015 Utilities Committee Meeting minutes.

Attachments: [August 25, 2015 Utilities Committee Meeting Minutes.pdf](#)

4. **Public Hearings/Apearances**

5. **Action Items**

[15-1425](#) Award rehabilitation and painting of Water Plant Softener #4 to Howard Grote and Sons in the amount of \$248,806 with a 5% contingency of \$12,440 for a project total not to exceed \$261,246.

Attachments: [Softener Painting 09-02-15.pdf](#)

[15-1426](#) Approve additional rehabilitation and painting of Water Plant Softener #3 to Howard Grote and Sons in the amount of \$248,806 with a 5% contingency of \$12,440 for a project total not to exceed \$261,246 pending City Council approval of the 2016 Water Utility Budget.

Attachments: [Softener Painting 09-02-15.pdf](#)

6. **Information Items**

[15-1423](#) 2015 Dye Water Sanitary Sewer Testing Area.

Attachments: [2015 Dye Water Testing Notice Appleton.pdf](#)
[2015 Dye Testing Work Area 1.pdf](#)

[15-1427](#)

Change Order #2 to CH2M Hill for Regulatory Upgrades and Process Improvements Project Engineering Services to the Appleton Water Treatment Facility in the amount of \$13,500 and reducing the contingency to \$12,614.

Attachments: [CH2M HILL Change Order 2.pdf](#)

7. Adjournment

Notice is hereby given that a quorum of the Common Council may be present during this meeting, although no Council action will be taken.

Reasonable Accommodations for Persons with Disabilities will be made upon Request and if Feasible.

For questions on the agenda, contact Chris Shaw at 920-832-5945 or Paula Vandehey at 920-832-6474.



City of Appleton

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Meeting Minutes Utilities Committee

Tuesday, August 25, 2015

5:30 PM

Council Chambers, 6th Floor

1. Call meeting to order

Chairperson Dannecker called the Utilities Committee meeting to order at 5:30 p.m.

2. Roll call of membership

Aldersperson Jirschele arrived at the meeting at 5:46 p.m.

Present: 5 - Aldersperson Jirschele, Aldersperson Martin, Aldersperson Dannecker, Aldersperson Baranowski and Aldersperson Meltzer

3. Approval of minutes from previous meeting

[15-1376](#)

Approval of the August 11, 2015 Utilities Committee Meeting minutes.

Aldersperson Baranowski moved, seconded by Aldersperson Martin, that the Minutes be approved. Roll Call. Motion carried by the following vote:

Aye: 4 - Aldersperson Martin, Aldersperson Dannecker, Aldersperson Baranowski and Aldersperson Meltzer

Excused: 1 - Aldersperson Jirschele

4. Public Hearings/Appealances

[15-1407](#)

Mr. Don Fischer to discuss stormwater.

5. Action Items

[15-1406](#)

Award Unit R-15 Chemical Root Foaming of Sanitary Sewers to Duke's Root Control, Inc. in an amount not to exceed \$25,000.

Aldersperson Baranowski moved, seconded by Aldersperson Meltzer, that the Report Action Item be recommended for approval. Roll Call. Motion carried by the following vote:

Aye: 5 - Aldersperson Jirschele, Aldersperson Martin, Aldersperson Dannecker, Aldersperson Baranowski and Aldersperson Meltzer

6. Information Items

[15-1377](#)

Monthly Reports for July
- Water Distribution and Meter Team Monthly Report

Discussed.

7. Adjournment

Alderson Baranowski moved, seconded by Alderson Martin, that the Utilities Committee meeting be adjourned at 6:00 p.m. Roll Call. Motion carried by the following vote:

Aye: 5 - Alderson Jirschele, Alderson Martin, Alderson Dannecker, Alderson Baranowski and Alderson Meltzer



"...meeting community needs...enhancing quality of life."

Department of Utilities
Appleton Water Treatment Facility
2281 Manitowoc Road
Menasha, WI 54952
920-997-4200 ph
920-997-3240 fax

TO: Chairperson Greg Dannecker and Members of the Utilities Committee

FROM: Utilities Director Chris Shaw

DATE: September 2, 2015

RE: *Award rehabilitation and painting of Water Plant Softener #4 to Howard Grote and Sons in the amount of \$248,806 with a 5% contingency of \$12,440 for a project total not to exceed \$261,246*

Approve additional rehabilitation and painting of Water Plant Softener #3 to Howard Grote and Sons in the amount of \$248,806 with a 5% contingency of \$12,440 for a project total not to exceed \$261,246 Pending City Council approval of the 2016 Water Utility budget.

BACKGROUND:

The Water Utility has conducted public bidding for the rehabilitation services of Water Plant Softener #4 and #3. Robert E. Lee and Associates performed the inspection and prepared the project specifications and bidding documents. Robert E. Lee recommends award of the Water Plant Softener rehabilitation to Howard Grote and Sons from McFarland, Wisconsin.

BACKGROUND

The City of Appleton Water Treatment Facility has four water softeners that require maintenance and painting approximately every 10 years. This maintenance work protects carbon steel components from corrosion and extends equipment life. In addition, Wisconsin DNR has recently required the city to paint the softeners as detailed in their Sanitary Inspection Report. Two softeners have been rehabilitated to date leaving a balance of two which are scheduled for this year and 2016.

BIDDING PROCESS

The Softener Painting bid package bids were opened on August 25, 2015. The base bid was recommended without the alternate. A tabulation of base bid for one or two softeners are listed in the following table.

| Softener Rehabilitation Bid Tabulation for #4 and #3 Softeners | | |
|---|-------------------------|------------------------------|
| Company Name | Softener #4 Only | Softeners #3 & #4 |
| Howard Grote & Sons, McFarland, WI | \$248,806 | \$497,612 |
| TMI Coating, St. Paul, MN | \$306,250 | \$612,500 |
| MZ Construction, Linden, WI | \$325,100 | \$650,200 |
| Mill Coating, Suamico, WI | \$354,000 | \$708,000 |

Four sealed bids were opened and all met requirements defined in the bid package. The low bid was submitted by Howard Grote & Sons in the amount of \$248,806 for Softener #4 and 248,806 for #3. The bid specifications limit work start on Softener #3 until after January 1, 2016 when anticipated funding in the 2016 budget would be available.

RECOMMENDATION:

I recommend award of rehabilitation and painting Water Plant Softener #4 to Howard Grote and Sons in the amount of \$248,806 with a contingency of \$12,440 for a project total not to exceed \$261,246. I also recommend rehabilitation and painting of Water Plant Softener #3 to Howard Grote and Sons in the amount of \$248,806 with a contingency of \$12,440 for a project total not to exceed \$261,246 pending City Council approval of the 2016 Water Utility budget.

If you have any questions regarding this project please contact me at ph: 920-997-4200.



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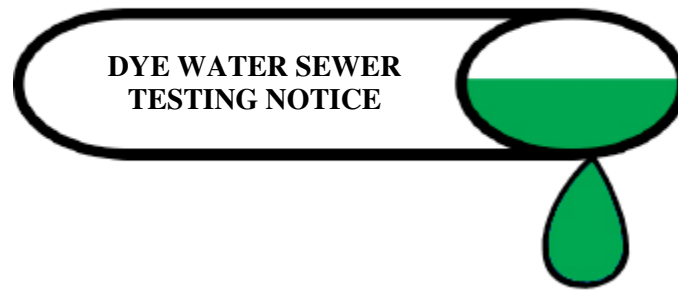
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If you have any questions regarding this project please contact me at ph: 920-997-4200.

Residents of the City of Appleton



As a part of efforts to reduce clearwater entry into the Appleton sanitary sewer system, the City of Appleton will be performing dye water testing of sewers in your area. The City is working with an engineering consulting firm (R.A. Smith National, Inc.) to perform the work with the assistance of a sewer televising contractor (Visu-Sewer, Inc.) to conduct the actual testing itself.

The procedure consists of filling the public storm sewer system with non-toxic, environmentally safe bright green colored dye. The sanitary sewers adjacent to the storm sewer will be examined for sources of dyed water entry into the system. When completed, the dyed water will be released into the downstream storm sewer system or waterways.









NOTE: Work in your area will occur between 8:00 a.m. and 5:00 p.m. during weekdays. R.A. Smith National, Inc. will have an on-site technician available at all times during the dye water sewer testing if you have any questions or concerns. The technician will have the ability to stop testing immediately if there are any issues as a result of the dye water sewer testing. The technician's cell phone number is 414-416-8678.

Dye water sewer testing is scheduled to occur between September 8th and 11th, but may extended into the week of September 14th, if necessary and weather dependent. This notice has been distributed to you within 3 to 10 days in advance of the start of dye water sewer testing in your area. Dye water sewer testing is typically not performed during inclement weather, and will be rescheduled for a later time if necessary due to weather. If you have any general questions, please contact: Ross Buetow, City Engineer, at (920) 832-6474. All questions during the testing process should be directed to the on-site technician at the underlined phone number listed in the previous paragraph.





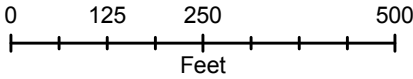
Legend

-  Sanitary Sewer To TV
-  Storm Sewer To Be Flooded
-  Storm Sewer
-  Sanitary Sewer
-  Sanitary Manhole
-  Storm Inlet
-  Storm Manhole
-  Fire Hydrant

Sanitary Sewer Lengths
to Televis with Dye Test

| | |
|--------------------|----------|
| 10" Sanitary Sewer | 1,640 LF |
| 12" Sanitary Sewer | 3,524 LF |
| 15" Sanitary Sewer | 302 LF |
| 18" Sanitary Sewer | 1,969 LF |
| <hr/> | |
| Totals | 7,435 LF |

2015 Dye Testing I/I Quantification
Work Area 1



1 inch = 250 feet



R.A. Smith National

Beyond Surveying
and Engineering

May 2015

Z:\Municipal\1110142\GIS\2015 Dye Flooding\Revised Dye Testing Locations\2015 Dye Testing Work Area 1.mxd



"...meeting community needs...enhancing quality of life."

Department of Utilities

To: Chairperson Greg Dannecker and Members of the Utilities Committee

From: Chris Shaw, Utilities Director

cc: Kelli Rindt, Enterprise Fund Accounting Manager

Date: September 2, 2015

Re: *Change Order #2 to CH2M HILL for Regulatory Upgrades and Process Improvements Project Engineering Services to the Appleton Water Treatment Facility in the amount of \$13,500 and reducing the Contingency to \$12,614*

BACKGROUND:

The Appleton Water Treatment Facility uses chlorine for primary disinfection in two chlorine contact tanks. The chlorine contact tanks were expanded during the Regulatory Upgrade and Process Improvement Project (RUPIP). Ammonia can be added at the middle and end of the chlorine contact tanks and a chloramine residual is maintained through the two clearwells (total of 5 million gallons) before pumping to the distribution system.

The water plant currently has ultrafiltration membranes that can achieve the Giardia removal requirements of the Surface Water Treatment Rule (SWTR). Recently added UV disinfection can also achieve the Giardia removal requirements of the SWTR, plus some virus inactivation and at least 3-log Cryptosporidium inactivation.

In order to determine the level of disinfection credit the new tanks can produce, a draft tracer test plan needs to be prepared by CH2M Hill and presented and approved by WDNR before actual testing begins. The testing will create data for the regulator to use to assign final disinfection formula factors. It should be noted that the AWTF has to maintain minimum contact tank requirements and the derived formula will be used by the AWTF staff to define the level of disinfection and ensure the minimums are not breached.

PROJECT SCOPE OF WORK

Task 1 – Finalize Tracer Test Plan

The draft Tracer Test Plan will be discussed with WDNR and comments incorporated. A final test plan will be prepared.

Task 2 - Data Collection

Samples will be collected by staff in four locations:

- CT 1A weir hatch
- CT 1B weir hatch
- CT 2A weir hatch
- CT 2B weir hatch

The number of samples will be determined by the test plan. A sample labeling scheme will be outlined in the test plan. The AWTF will provide sample bottles and analyze the samples. A data collection form will be provided in the test plan.

It is assumed that three water flow rates will be used, one at high flow of about 20 to 24 MGD (10-12 MGD through each basin), one at average flow of about 12 MGD (6 MGD through each basin) and one at less than average day flow of about 8 MGD (4 MGD through each basin). The need for a third water flow will be determined after WDNR review of the test plan. The AWTF will control flow through the CT basins and operate the fluoride feed system.

During the tracer test, the following parameters will be monitored: fluoride residual (background and after addition), pH, temperature, water level in the CT basins, flow meter reading, initial volume or weight of tracer in feed tank, and final volume or weight of tracer in feed tank.

An additional 4 samples will be collected for disinfection byproducts (total trihalomethanes and haloacetic acids).

CH2M Hill will have an engineer on site to assist with one day of tracer testing.

Task 3 - Data Analysis

The City will provide the data collection forms to CH2M Hill. CH2M Hill will normalize the data by calculating the concentration divided by the steady state concentration (C/C_0) and plotting it as a function of time. The T10 value will be determined from the plot by determining the time the curve passes through the C/C_0 value of 0.10. This value will be determined for each flow condition.

Task 4 - Report Preparation

CH2M will prepare a Tracer Test Report summarizing the test conditions and results. The report will be discussed with WDNR as they determine the final T10 values to be used for regulatory compliance.

ENGINEER DELIVERABLES

During report preparation, CH2M will work with the City to propose an overall disinfection plan that identifies log removal of Giardia, Virus and Cryptosporidium for the water treatment plant. Two copies of the draft report will be sent to WDNR and the City. A conference call will be held with the City and WDNR to discuss the report and gather comments. Five copies of the final report will be sent to the City, along with an electronic PDF file, and two copies to WDNR.

CH2M HILL will incorporate contractor changes contract drawings into revised “as built” drawings to create Record Drawings. Two half size copies of the record drawings, and one electronic copy in MicroStation will be provided.