



**Department of Public Works
Engineering Division**

W240N3065 Pewaukee Road • Pewaukee, WI 53072

Phone: (262) 691-0804 • Fax: (262) 691-5729

Email: publicworks@pewaukee.wi.us

**PUBLIC WORKS COMMITTEE
MEETING NOTICE AND AGENDA**

Thursday, September 22, 2022

4:00 PM

City Hall Common Council Chambers
W240N3065 Pewaukee Road Pewaukee, WI 53072

-
1. Call to Order and Pledge of Allegiance
 2. Public Comment - Please limit your comments to 2 minutes. If further time for discussion is needed, please contact your local Alderperson prior to the meeting.
 3. Discussion and Action Regarding the Minutes - 7/28/2022 Minutes
 - 3.1.
 4. Old Business
 - 4.1. Update for entrance signs at the Pewaukee limits.
 - 4.2. Discussion and possible action regarding the request to install "No Engine Breaking" signs on Bluemound Road (CTH JJ) and Pewaukee Road (STH 164).
 5. Storm Water Management Division
 - 5.1. Discussion and possible action regarding an update on the Springdale Estates Drainage Easement.
 - 5.2. Update regarding the status of the City Wide Storm Water Management Plan Study.
 - 5.3. Discussion and possible action regarding the 2023-2026 MS4 Information and Education Workplan
 6. Water and Sewer Division
 - 6.1. Well #1 Repair 2022
 7. Engineering Division
 - 7.1. Discussion and possible action regarding the Draft 2023 Budget.
 - 7.2. Discussion and possible action regarding the upcoming changes to the Recycling Intergovernmental Agreement and the Recycling Dividend.
 8. Highway Division
 - 8.1. Discussion and possible action regarding an update and a tour of the new DPW Building.
 9. Public Comment - Please limit your comments to 2 minutes. If further time for discussion is needed, please contact your local Alderperson prior to the meeting.

10. Adjournment

Magdelene Wagner
Director of Public Works

September 22, 2022

NOTICE

It is possible that members of other governmental bodies of the municipality may be in attendance to gather information that may form a quorum. At the above stated meeting, no action will be taken by any governmental body other than the governmental body specifically referred to above in this notice.

Any person who has a qualifying disability under the Americans with Disabilities Act that requires the meeting or materials at the meeting to be in an accessible format must contact the DPW Main Office, at (262) 691-0804 by 12:00 p.m. the Tuesday prior to the meeting so that arrangements may be made to accommodate your request.

**CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 3.1.**

DATE: September 22, 2022

DEPARTMENT: PW - Water/Sewer

PROVIDED BY:

SUBJECT:

BACKGROUND:

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

07-28-2022 Minutes

In Attendance:

Alderman J. Wamser, Committee Members: M. Kreiter, D. Swan, J. Tormey

Also in Attendance:

Director of Public Works M. Wagner, Chief Engineer-Utilities R. Wirtz, Chief Engineer-Streets & Development M. Gabbey, Utility Manager J. Mueller, DPW Administrative Assistant S. Smaxwill

Absent

Mayor S. Bierce

1. Call to Order and Pledge of Allegiance

Alderman Wamser called the meeting to order at 4:10 p.m. and requested everyone stand for the Pledge of Allegiance.

2. Public Comment - None

3. Discussion and Action Regarding the Minutes of May 12, 2022

Mr. Kreiter asked if the 25 mph speed limit signs were changed on Busse Road. Ms. Wagner confirmed that the signs were changed, and that several residents complained about the signs being changed. She also reported that the Children at Play sign was installed and then someone moved the sign. Staff moved the sign back so that it faces the direction of traffic.

Ms. Wagner also confirmed that there was no stop sign installed.

A motion was made and seconded, (J. Tormey, M. Kreiter) to approve the May 12, 2022 minutes.

Motion Passed: 4-For, 0-Against

4. Communications

4.1. Discussion and possible action regarding entrance signs at the Pewaukee limits.

Ms. Wagner added this agenda item at the request of Alderman Wamser. She included a map that showed the number of entrances to the city.

Alderman Wamser showed the committee two different types of signs: a sign that is currently posted on Green Road and Springdale, and a sign that is posted in the Village of Pewaukee. The committee discussed the different types of signs and where they might be posted.

Alderman Wamser feels there is confusion in where the city begins/ends because of the jagged boundary lines. He feels installing signs with a logo or city emblem would help identify our community, much like the signs located in Wauwatosa or Lisbon.

Mr. Kreiter asked how old were the street name signs, and are they all green and white or are there older black and white signs too? Ms. Wagner responded that we are currently replacing signs throughout the city by plow routes, and about half of the city is done. She said there are some older black and white signs, but not many. Mr. Kreiter stated it would not be cost effective to replace the

signs that have already been recently replaced with new signs with a logo. Ms. Wagner stated that if the committee chooses to change the street signs, the new signs already installed would not be replaced until either there is damage to the sign or at the next 30-year replacement project.

The committee discussed changing only the signs on the main roads (county), thoroughfares, and collector roads, suggesting the traffic count would tell a lot about where they should be placed. They agreed it would be cost prohibitive to add signs to all entrances of the city.

Mr. Kreiter asked about the number of signs in the city. Ms. Wagner stated that as part of the current sign replacement project, staff is also doing a sign inventory. We currently do not have the exact numbers of signs.

Ms. Mueller suggested putting signs at the major crossroads or border roads where there are major subdivisions, like Springdale Estates, so just the entry roads would have the logo or emblem on the street signs. She mentioned the city has been looking into possibly changing the city logo.

Ms. Wagner stated there has been internal discussion to refresh the logo and bring it to today's standards and make it something that is easier to print or embroider. She doesn't know where the logo project currently stands.

Alderman Wamser said he would speak with Nick Fuchs and maybe get the council involved to get the logo project moving forward and then decide on the signs for the roads.

Mr. Kreiter asked Ms. Wagner if she could find out how the Village of Pewaukee sign came to be, and if that kind of a large sign (ornate/wood) was donated by someone and is maintained by an advertiser or sponsor. He recommended finding a sponsor to pay for our large signs and place them at the major intersections (determine which ones); and then put the 24x36 signs like the Green Road sign at collector streets; and then ultimately have the new signs (when the city logo is decided) on all individual city name signs, which could be 15 years down the road.

Mr. Tormey asked if staff could provide the costs associated with adding/replacing the signs. Ms. Wagner said she would get a quote to add the logo to the street name sign, and a quote for the cost for a sign similar to the one on Green Road, but the larger sign would depend on the design. Alderman Wamser feels the larger signs should be donated. Mr. Kreiter said there would be maintenance costs as well.

Mr. Kreiter recommended determining how many major intersections and collector streets are in the city and proceed from there. Ms. Wagner suggested major signs for 164-94 northbound, Capitol Drive, Springdale Road (county roads); and 24x36 signs for collector roads (Watertown, North Ave, Prospect, Meadowbrook, Duplainville). Mr. Kreiter suggested using 10,000 cars per day for large signs on the perimeter of the city.

A motion was made and seconded, (J. Tormey, M. Kreiter) to direct staff to determine the number of major intersections and collector streets in the city; get pricing for the 24x36 street sign; and get the cost to add the logo to street name signs. Motion Passed: 4-For, 0-Against

5. Water and Sewer Division

5.1. Discussion and possible action regarding the updated Lead and Copper Rule Revisions (LCRR).

Ms. Mueller reported that last fall the utility was notified that the EPA revised the lead and copper rules (LCRR). The EPA/DNR is requiring the municipality to perform a piping inventory on both the public and private side of all water services. This is going to be a major undertaking, as we will be required to enter the homes and businesses of our customers and inventory their pipes.

Ms. Mueller explained that we have been working internally to create a database from the spreadsheet template and other guidance provided by the EPA/DNR. Besides their requirements, we will be collecting additional information that may be requested in the future and adding it to the database. She stated the difficult part of this project will be getting access into our 4,500 customer's homes and places of business to collect the piping inventory information by the October 2024 deadline.

Mr. Tormey asked if we have to go into the homes and sample the water? Ms. Mueller said that this would be the next part of the process. There are 20 homes we sample for lead and copper every three years since the early 1990's.

Ms. Mueller stated that our community is relatively new. The municipal water system pipes went into the ground in 1976-77. There are no public side lead service lines in the City of Pewaukee. She does not know for sure if there are any on the private side, particularly in an existing home where water main was ran past an old farmhouse. She doesn't know what pipe type went from their private well into their home; there are some cases where they connected the laterals outside and went into their basements.

Alderman Wamser said we are in a good spot compared to other municipalities. Ms. Mueller agreed, but said we still have to go through the process of proving it. The EPA/DNR are still making us go through all the inspections to prove that we do not have any lead service lines. There was a period of time in the 1980's when lead solder was used. Those are the 20 homes that we sample every three years in Springdale Estates for lead and copper.

Utility staff will combine the efforts of performing the piping inventory with the meter replacement program. Ms. Mueller explained that generally the water meters last 15-20 years, and with new technology the battery life will start dying soon. We will focus on the Springdale Estates area first to get those meters changed out because that will be the area of concern for the timeframe for the lead solder. We will collect other data using property records, as-built information, building records, and other recordkeeping means to help prove the homes that were constructed beyond the 70's and 80's timeframe do not have lead in them. The data collection for the rest of the properties will be performed as time allows. We will have enough data to provide until we can complete all the inspections, even if we don't have every home inspected by 2024.

Mr. Tormey asked how do you prove there is no lead pipe? Ms. Mueller said a lead pipe would be gray. Lead and galvanized pipes are similar. There are test strips we use on the solder in the homes to test for lead. We will visually look at the pipe in the house. In the event we come across an old house that would have had a private well, we can check what pipe is coming through the basement and use the test strips to determine if it is lead or galvanized.

Ms. Mueller also reported that the utility will be obligated to do a cross connection for each one of our facilities.

Mr. Kreiter asked what we added to the sample template chart? Ms. Mueller said she added items like plastic rigid and plastic flexible piping, and is including fixtures (point of use-water softener, HO, iron). We are refining the list and changing the naming to get the data in our own useable form so we can submit the required inventory information, while collecting additional information should they ask for it in the future.

Alderman Wamser stated this is good information to know, and there is no action needed.

6. Highway Division

6.1. Discussion and possible action regarding the request to install "No Engine Braking" signs on Bluemound Road (CTH JJ) and Pewaukee Road (STH 164).

Ms. Wagner reported on two requests received for No Engine Braking signs to be installed at Bluemound near the industrial park, and the second on Pewaukee Road by the Five Fields subdivision.

Ms. Wagner stated that there are signs currently posted at the major roadways in the city. In talking with the sheriff, he told Ms. Wagner that this is one of the hardest things to enforce because unless they actually witness the engine braking, they can't cite a driver for it.

A discussion took place regarding the locations of current signs and possible locations for additional signs. Ms. Wagner stated it the engine braking is not a regular occurrence and feels the current signs are at the entrances to the city and effectively cover the community. She also mentioned that most truck drivers already know that within a municipal boundary there is no engine braking. Staff does not feel additional signage is warranted.

Mr. Kreiter stated that because of the sheriff's comments, and because this is covered under city ordinance, he feels there should be no action.

A motion was made and seconded, (M. Kreiter, J. Tormey) to table the issue and take no action.

Motion Passed: 4-For, 0-Against

7. Public Comment - None

8. Adjournment

A motion was made and seconded (D. Swan, J. Tormey) to adjourn the meeting at 5:02 p.m.

Motion Passed: 4-For, 0-Against.

Respectfully Submitted,

Magdelene Wagner
Director of Public Works

**CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 4.1.**

DATE: September 22, 2022

DEPARTMENT: Public Works

PROVIDED BY: Magdelene Wagner

SUBJECT:

Update for entrance signs at the Pewaukee limits.

BACKGROUND:

We are working on getting estimates for adding logos to our street signs per our discussion on July 28, 2022. We do not have all the estimates collected yet. Once we have the costs, we will present these to the Committee Members.

FINANCIAL IMPACT:

RECOMMENDED MOTION:

CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 4.2.

DATE: September 22, 2022

DEPARTMENT: Public Works

PROVIDED BY: Magdelene Wagner

SUBJECT:

Discussion and possible action regarding the request to install "No Engine Breaking" signs on Bluemound Road (CTH JJ) and Pewaukee Road (STH 164).

BACKGROUND:

Staff has received two requests to install "No Engine Braking" signs in two locations in the City of Pewaukee.

The first is located on Bluemound Road (CTH JJ). This would be located on a County road near the Pewaukee South Industrial Development. In discussion with the County, the City can apply for a permit to install the sign within the County's right-of-way, however, the County does not have jurisdiction over the enforcement.

The second is located at Pewaukee Road (STH 164), specifically between Green Road and Capitol Drive. This would require a permit from the State to install the sign within the State's right-of-way. The State would also not have jurisdiction over the enforcement.

The City currently has "No Engine Breaking" signs at the entrances to the City.

In discussion with the Sheriff, these signs are difficult to enforce unless an officer just happens to be at those locations when the incident occurs.

Since the signs are located at the entrances to the City and it is in our ordinances, Staff feels the notice is appropriately covered.

UPDATE: Alderman Wamser stated he was not able to locate the signs on Bluemound Road and requested one be installed. In addition, resident, Kim Kiser, indicated she wanted to attend the next meeting to discuss her concerns regarding this matter. For these reasons, we have added this item to the agenda again for your consideration.

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

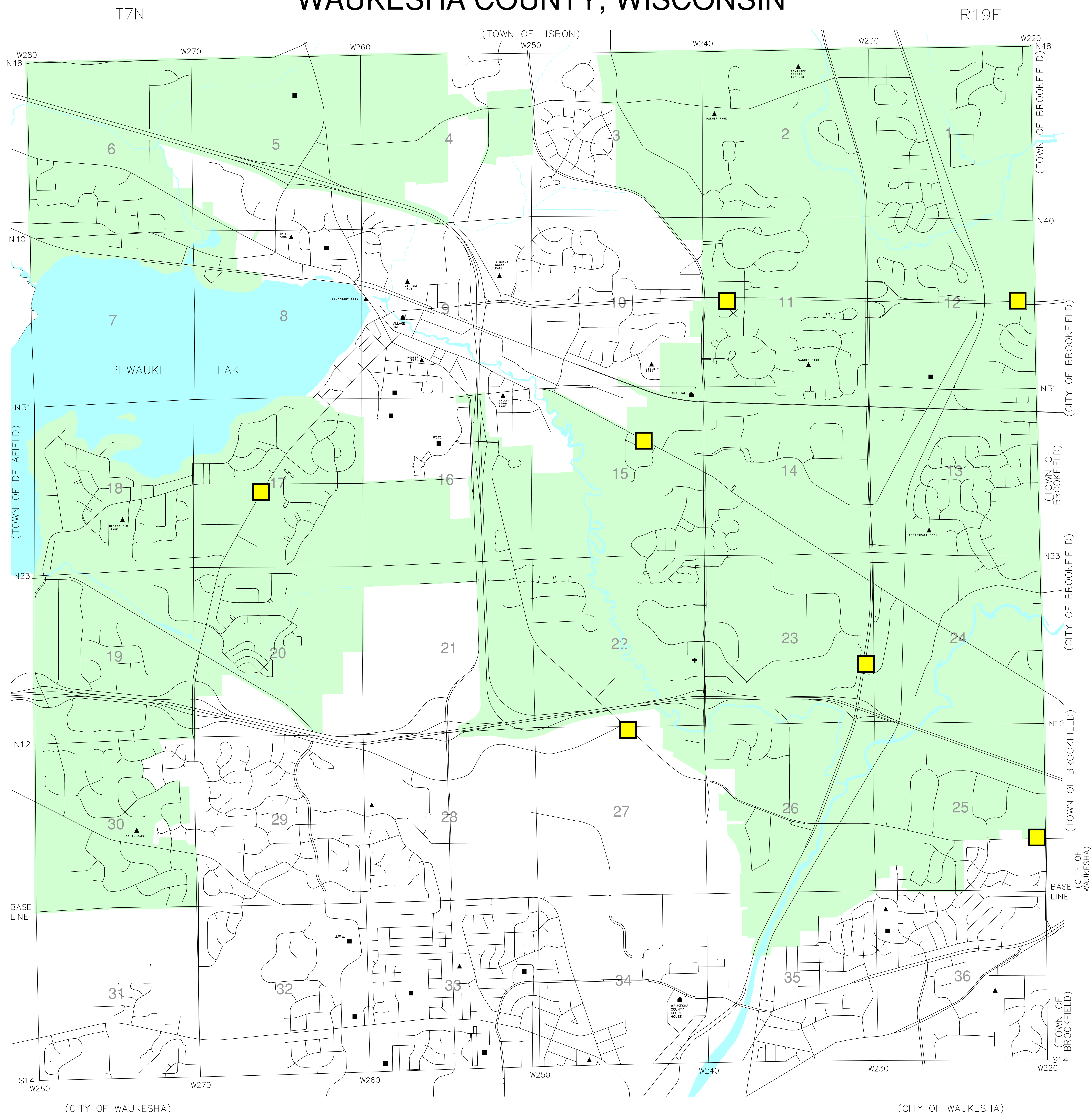
Description

No Engine Breaking Signs

2022 ROAD SIGN "NO ENGINE BRAKING" MAP

CITY OF PEWAUKEE

WAUKESHA COUNTY, WISCONSIN



**CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 5.1.**

DATE: September 22, 2022

DEPARTMENT: PW - Stormwater

PROVIDED BY: Richard Wirtz

SUBJECT:

Discussion and possible action regarding an update on the Springdale Estates Drainage Easement.

BACKGROUND:

The City's consultant has completed a survey of the drainage easement within Springdale Estates which runs from Aspenwood Lane to Stonewood Lane. A draft plan (see attached) has also been prepared to improve the flow of storm water within the easement. As expected, there are numerous trees which will need to be removed. Our next step is to walk the drainage easement with an arborist from Wachtel to evaluate which trees should be saved.

Once we have this information, we will reach out to the properties along the easement and hold a public information meeting to discuss the intent of the project and the details of the design.

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Springdale Estates Drainage Easement Preliminary Design

Filename: C:\ONEDRIVE\AECOM\SWM REVIEWS - DOCUMENTS\PEWAUKEE22.01 SPRINGDALE ESTATES\900_CAD_GIS\910_CAD\13_SHEETS\SPRINGDALE ESTATES COVER.DWG Last saved by: STEVE PARSE Last Plotted: 2022-09-22

SPRINGDALE ESTATES DRAINAGE IMPROVEMENTS

CITY OF PEWAUKEE
PEWAUKEE, WI
AUGUST 22, 2022

Preliminary Design - Draft

PROJECT LOCATION



INDEX OF DRAWINGS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	LEGEND AND PROJECT INFORMATION
3	SITE PLAN OVERVIEW
4-8	PLANS AND PROFILES
9-17	CROSS SECTIONS

NOTE: MAP NOT TO SCALE

AECOM

PROJECT
SPRINGDALE
ESTATES
DRAINAGE
IMPROVEMENTS

CLIENT
CITY OF PEWAUKEE

W240 N3065 PEWAUKEE ROAD
PEWAUKEE, WI 53072
TELE: 262-691-0770

CONSULTANT
AECOM
1555 NORTH RIVERCENTER DRIVE
SUITE 214
MILWAUKEE, WI 53212
414.944.6080 tel 414.944.6081 fax
www.aecom.com

REGISTRATION

ISSUE/REVISION

I/R	DATE	DESCRIPTION
	08/22/22	PRELIMINARY DESIGN DRAFT

KEY PLAN

PROJECT NUMBER
60339891

SHEET TITLE
COVER SHEET

SHEET NUMBER
1

Filename: C:\ONEDRIVE\AECOM\MSWM REVIEWS - DOCUMENTS\PEWAUKEE22.01 SPRINGDALE ESTATES\900_CAD_GIS\910_CAD\013_SHEETS\SPRINGDALE ESTATES LEGEND.DWG Last saved by: TRUJILLOD Last Plotted: 2022-08-22

UTILITY CONTACTS

WE ENERGIES GAS OPERATIONS:
KRISTEN RONGHOLT
500 SOUTH 116TH STREET
WEST ALLIS, WI 53214
(262) 446-9821
kristen.rongholt@we-energies.com

WE-ENERGIES ELECTRIC UTILITY SERVICE:
BRYAN STOEHR
500 SOUTH 116TH STREET
WEST ALLIS, WI 53214
bryan.stoehr@we-energies.com

SPECTRUM:
NEAL LONG
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
(262) 446-9821
neal.long@charter.com

CITY OF PEWAUKEE – WATER:
JANE MUELLER
UTILITY SUPERVISOR
W240 N3065 PEWAUKEE ROAD
PEWAUKEE, WI 53072
(262) 691-0804
mueller@pewaukee.wi.us

CITY OF PEWAUKEE – SANITARY:
JANE MUELLER
UTILITY SUPERVISOR
W240 N3065 PEWAUKEE ROAD
PEWAUKEE, WI 53072
(262) 691-0804
mueller@pewaukee.wi.us

AT&T:
TOM CROWLEY
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
(262) 446-9821
tc1657@att.com

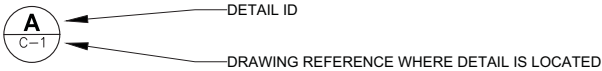
ABBREVIATIONS

B.M.	BENCH MARK
CB	CATCH BASIN
CL	CENTER LINE
C.O.	CLEAN OUT
CONC	CONCRETE
CP	CONTROL POINT
DB	DRAINAGE BASIN
EL	ELEVATION
EX	EXISTING
I.E.	INVERT ELEVATION
L.F.	LINEAL FEET
MH	MANHOLE
PVC	POLYVINYL CHLORIDE PIPE
R	RIM ELEVATION
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
PPOL	POWER POLE
SAN	SANITARY SEWER
SB	SOIL BORING
SS	STORM SEWER
STA	STATION
TEMP	TEMPORARY
TC	TOP OF CURB
UD	UNDERDRAIN
UG	UNDERGROUND
WDNR	WISCONSIN DEPARTMENT OF NATURAL RESOURCES
WISDOT	WISCONSIN DEPARTMENT OF TRANSPORTATION
WM	WATER MAIN

LEGEND

	SANITARY MANHOLE		PROPOSED 1' CONTOUR
	CONCRETE END SECTION		PROPOSED 5' CONTOUR
	HYDRANT		EXISTING 1' CONTOUR
	WATER VALVE		EXISTING 5' CONTOUR
	POWER POLE		SANITARY SEWER LINE
	GUY WIRE		STORM SEWER LINE
	ELECTRIC METER/PEDESTAL		OVERHEAD ELECTRIC LINE
	TELEPHONE PEDESTAL		UNDERGROUND ELECTRIC
	SIGN		UNDERGROUND PHONE
	BIRD HOUSE POST		CENTERLINE ROAD
	PROPOSED STORM MANHOLE		EDGE OF GRAVEL
	FOUND IRON PIPE		CENTERLINE OF DITCH
	FOUND REBAR		TREELINE/BRUSH LINE
	AECOM TRAVERSE POINT		LANDSCAPE AREA
	BUSH		CULVERT LINE
	DECIDUOUS TREE		DATA PRODUCED FROM SUBDIVISION PLAT
	CONIFEROUS TREE		DRAINAGE EASEMENT
	ROCK		LANDSCAPE EASEMENT AND BERM AREA
	EX. STORM SEWER INLET		SANITARY SEWER EASEMENT
	EX STORM SEWER CATCH BASIN		EXISTING CONCRETE FLUME
	EXISTING RUMBLE (BROKEN CONC.)		PROPOSED SEWER CENTERLINE ALIGNMENT
	REMOVE TREE		PROPOSED SMALL DIAMETER STORM SEWER

DETAIL REFERENCE SYSTEM



PROJECT

SPRINGDALE
ESTATES
DRAINAGE
IMPROVEMENTS

CLIENT

CITY OF PEWAUKEE

W240 N3065 PEWAUKEE ROAD
PEWAUKEE, WI 53072
TELE: 262-691-0770

CONSULTANT

AECOM
1555 NORTH RIVERCENTER DRIVE
SUITE 214
MILWAUKEE, WI 53212
414.944.6080 tel 414.944.6081 fax
www.aecom.com

REGISTRATION

ISSUE/REVISION

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KEY PLAN

PROJECT NUMBER

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SHEET TITLE

LEGEND AND PROJECT
INFORMATION

SHEET NUMBER



PROJECT

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ESTATES
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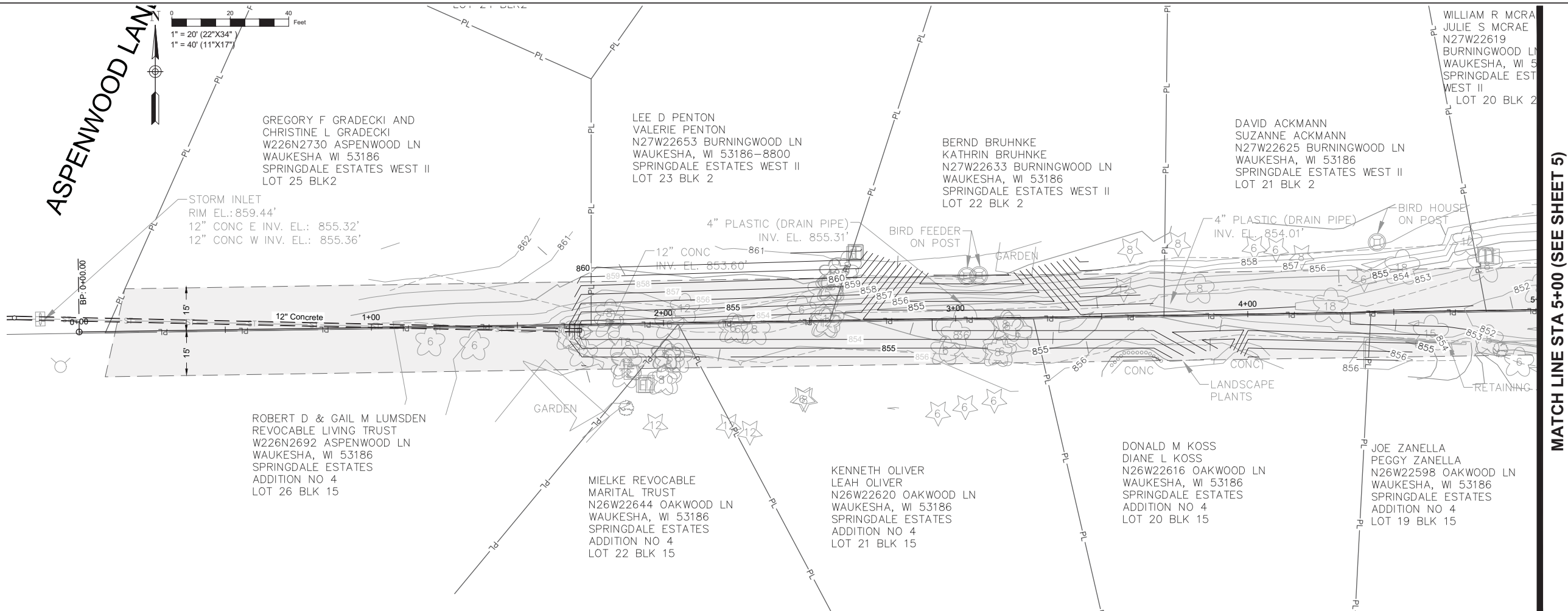
SHEET TITLE

OVERVIEW

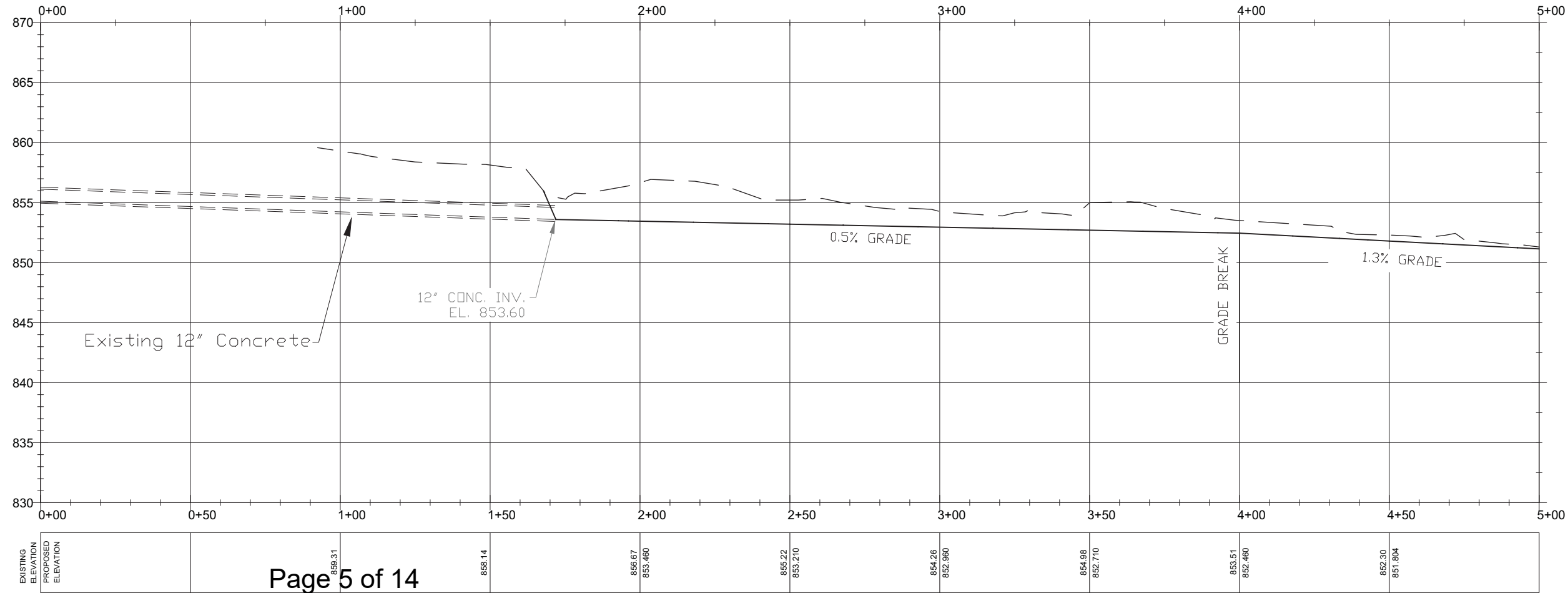
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MATCH LINE STA 5+00 (SEE SHEET 5)



PROJECT
SPRINGDALE
ESTATES
DRAINAGE
IMPROVEMENTS

CLIENT
CITY OF PEWAUKEE

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PEWAUKEE, WI 53072
TELE: 262-691-0770

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AECOM
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MILWAUKEE, WI 53212
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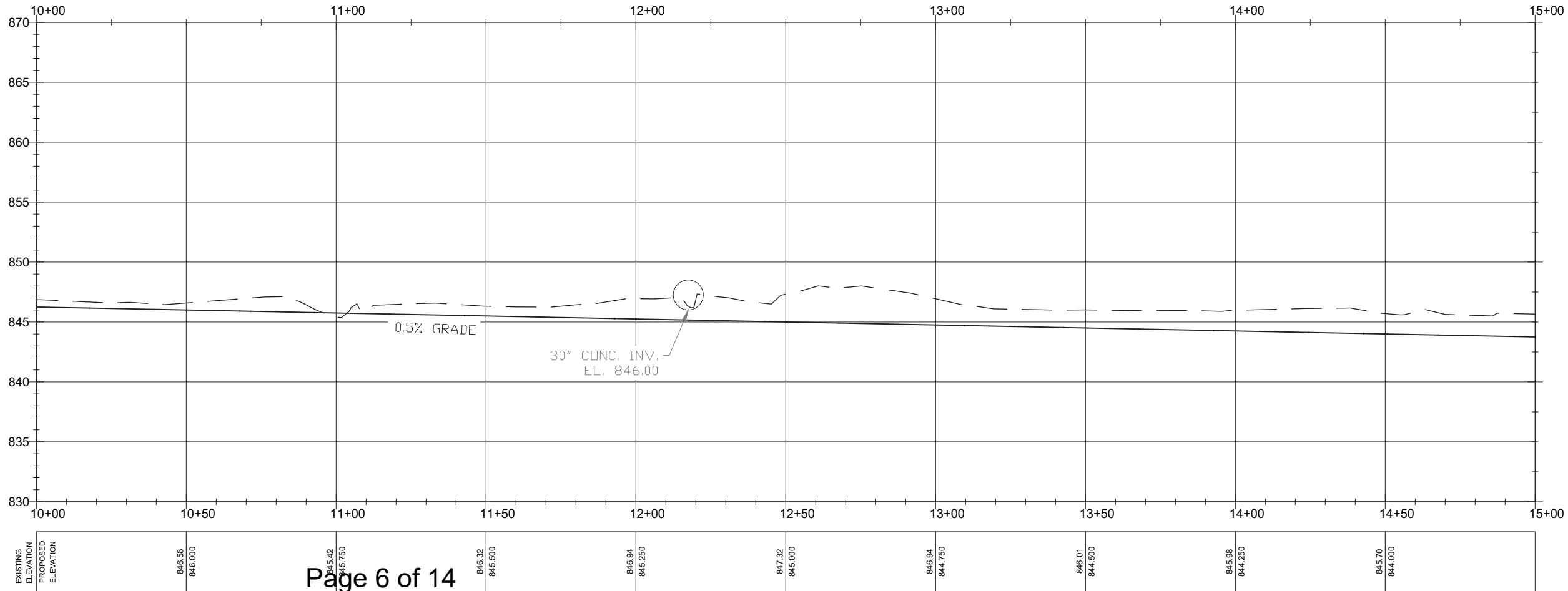
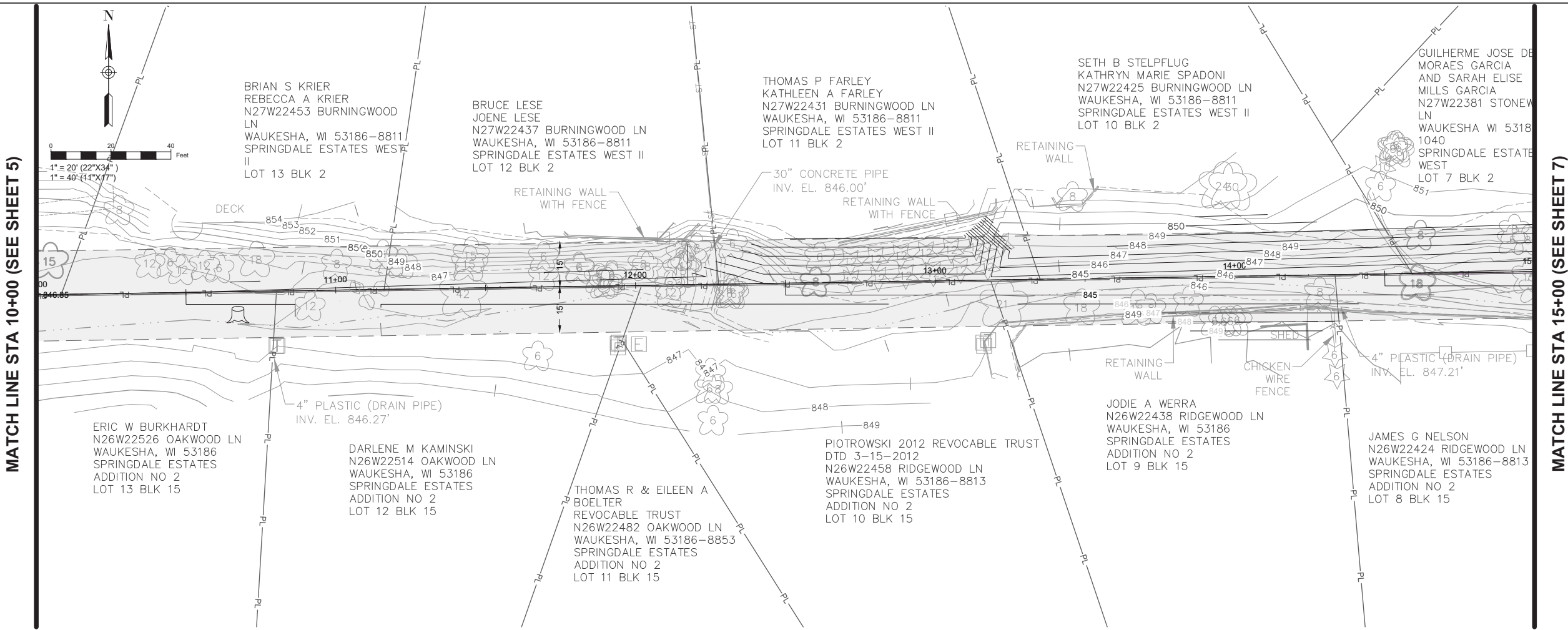
SHEET TITLE
PROPOSED CONDITIONS

SHEET NUMBER
4

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MATCH LINE STA 10+00 (SEE SHEET 5)

MATCH LINE STA 15+00 (SEE SHEET 7)



PROJECT

SPRINGDALE ESTATES DRAINAGE IMPROVEMENTS

CLIENT

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W240 N3065 PEWAUKEE ROAD
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TELE: 262-691-0770

CONSULTANT

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1555 NORTH RIVERCENTER DRIVE
SUITE 214
MILWAUKEE, WI 53212
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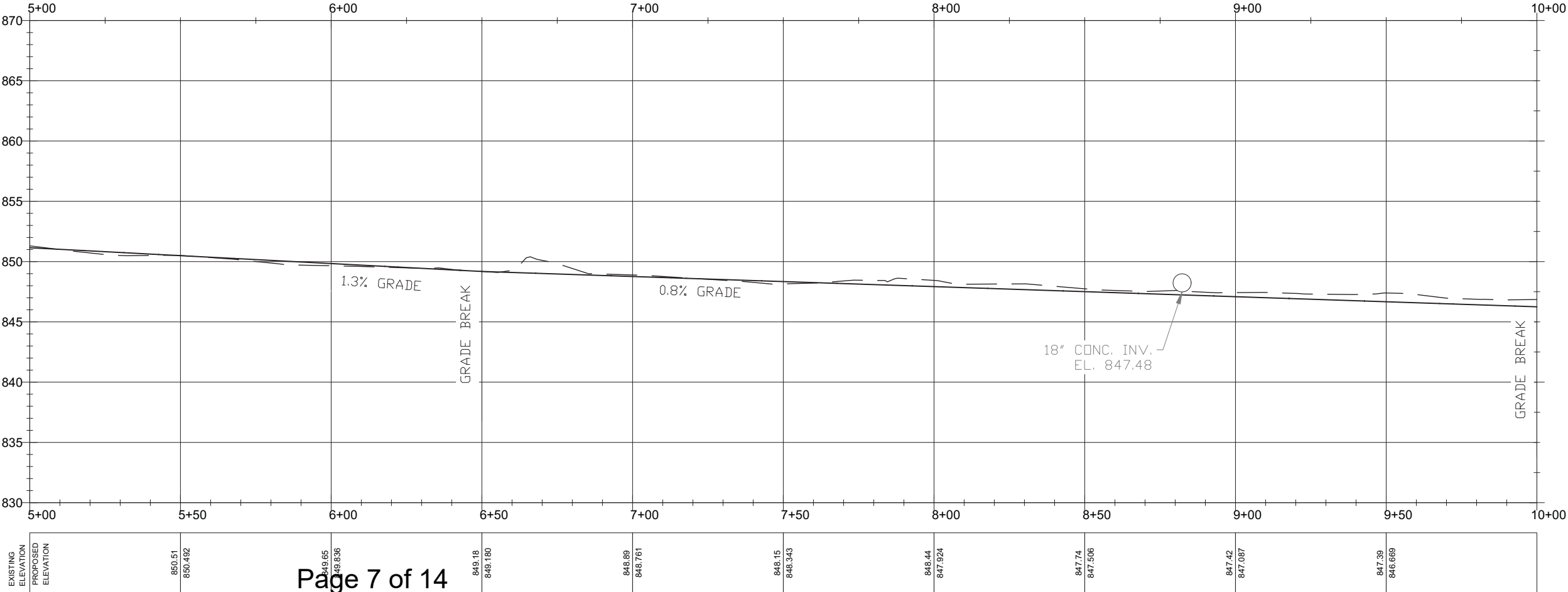
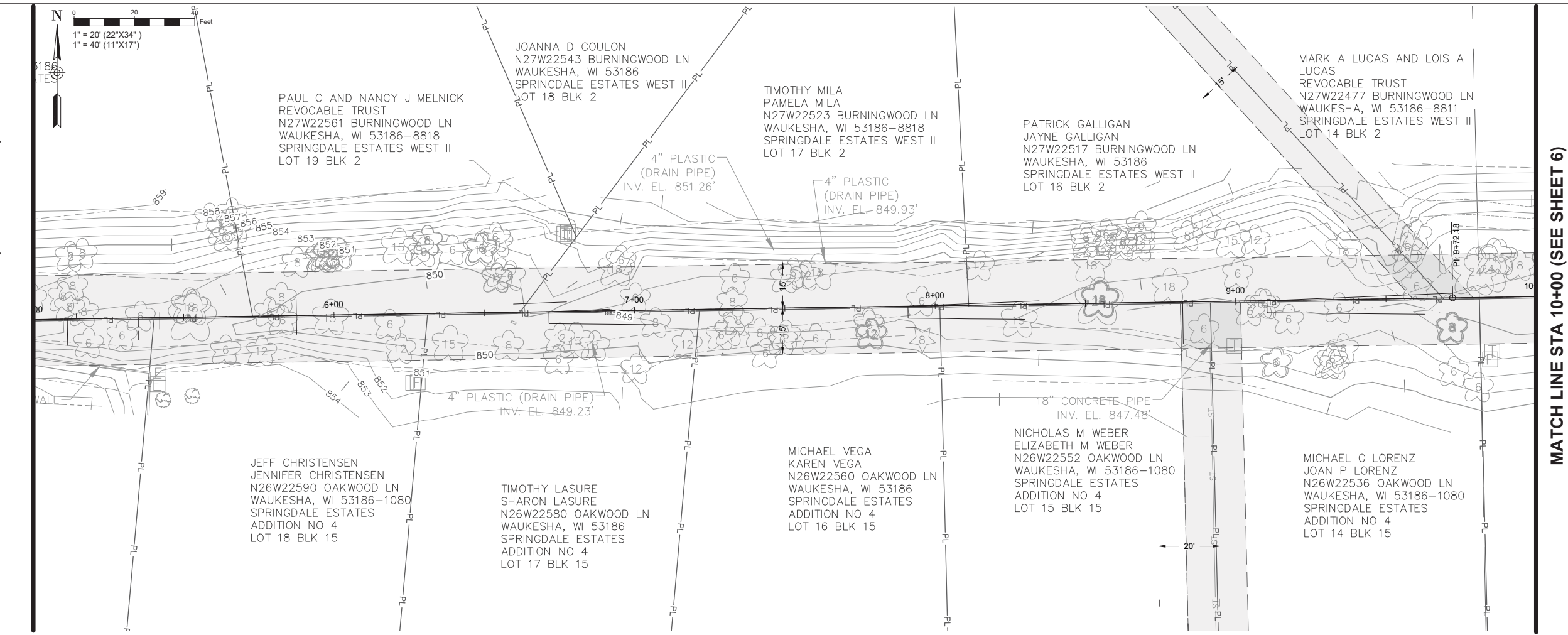
SHEET NUMBER

6

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MATCH LINE STA 5+00 (SEE SHEET 4)

MATCH LINE STA 10+00 (SEE SHEET 6)



PROJECT
SPRINGDALE ESTATES DRAINAGE IMPROVEMENTS

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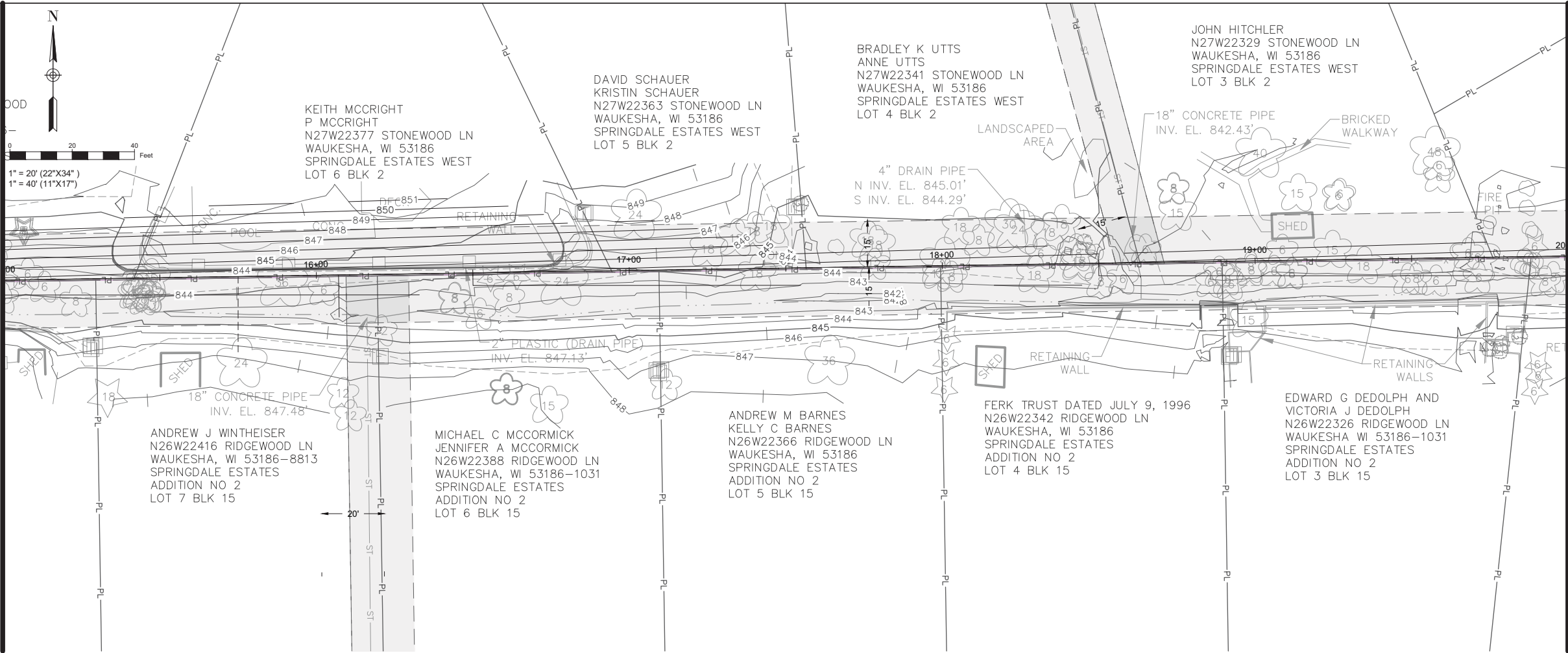
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PROPOSED CONDITIONS

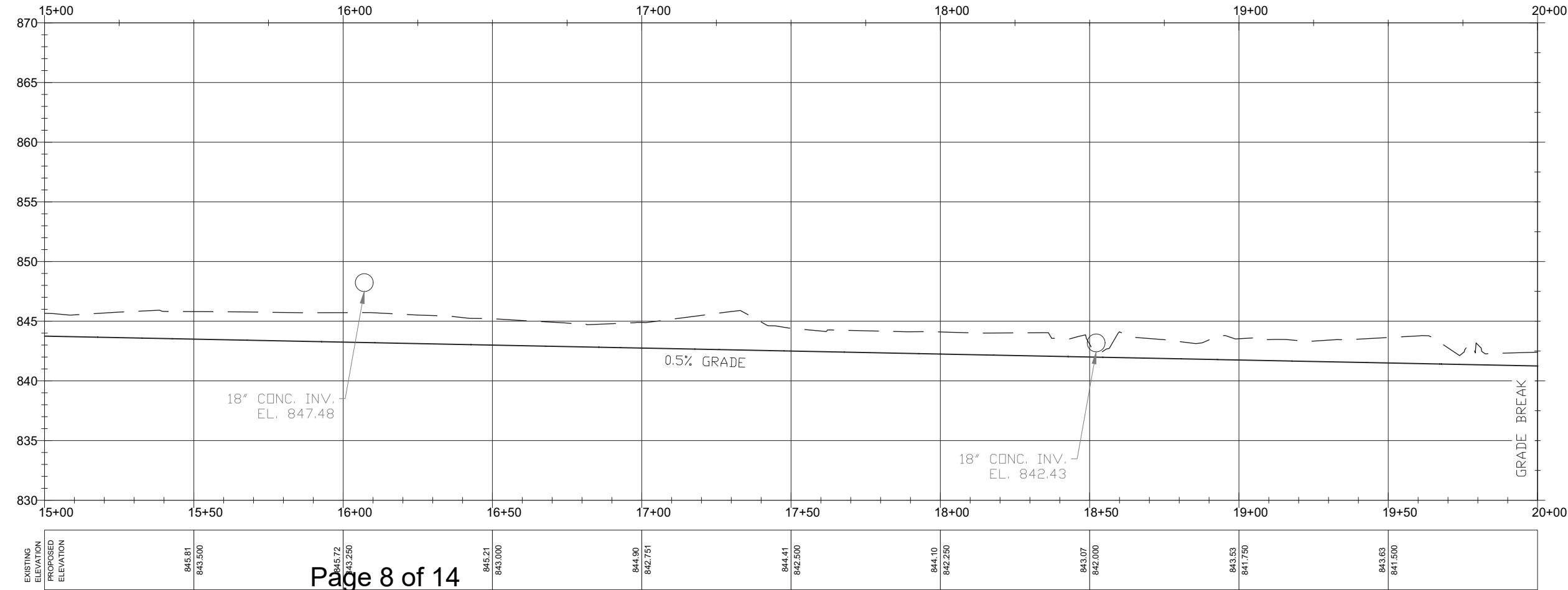
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MATCH LINE STA 15+00(SEE SHEET 6)



MATCH LINE STA 20+00(SEE SHEET 8)



PROJECT

SPRINGDALE ESTATES DRAINAGE IMPROVEMENTS

CLIENT

CITY OF PEWAUKEE

W240 N3065 PEWAUKEE ROAD
PEWAUKEE, WI 53072
TELE: 262-691-0770

CONSULTANT

AECOM
1555 NORTH RIVERCENTER DRIVE
SUITE 214
MILWAUKEE, WI 53212
414.944.6080 tel 414.944.6081 fax
www.aecom.com

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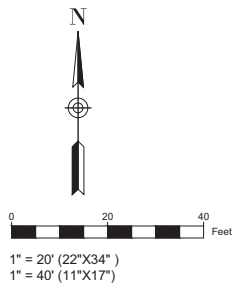
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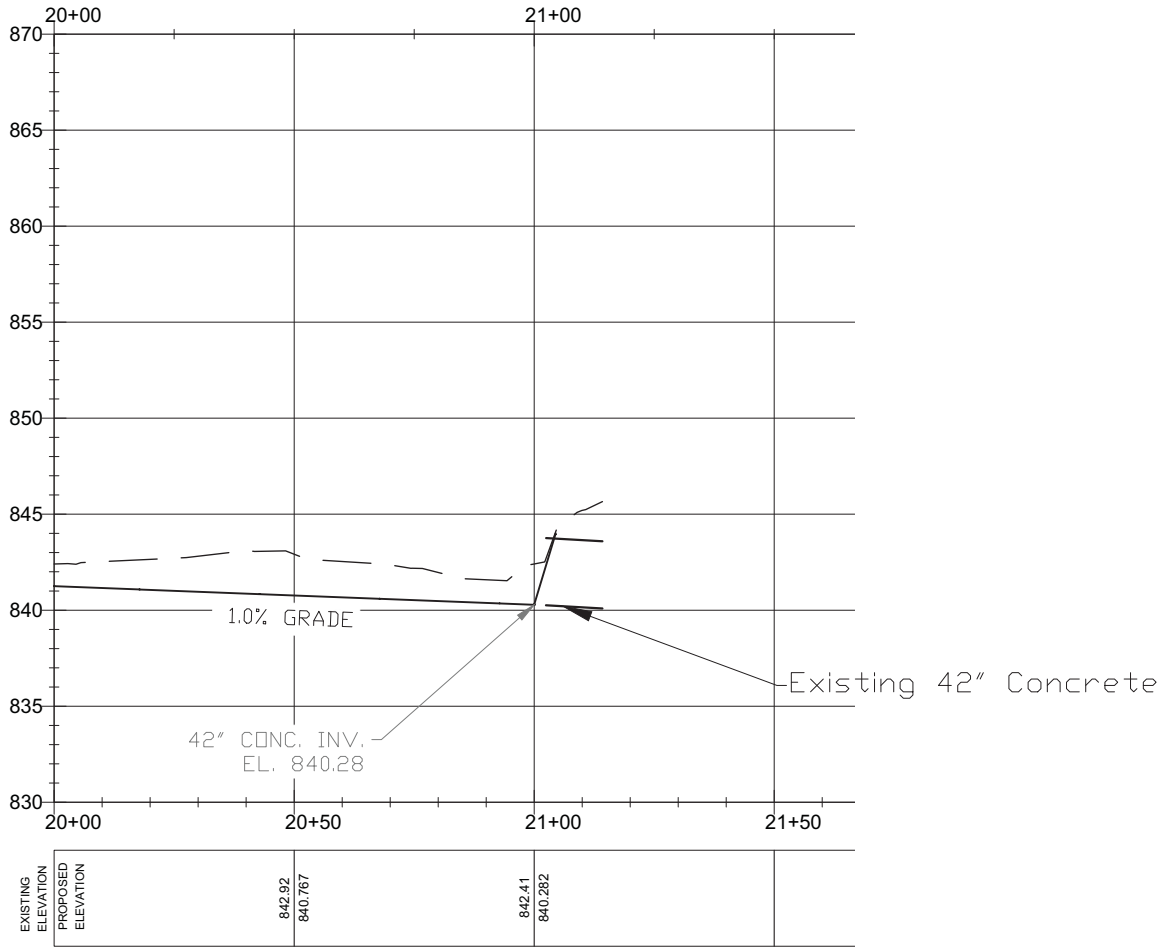
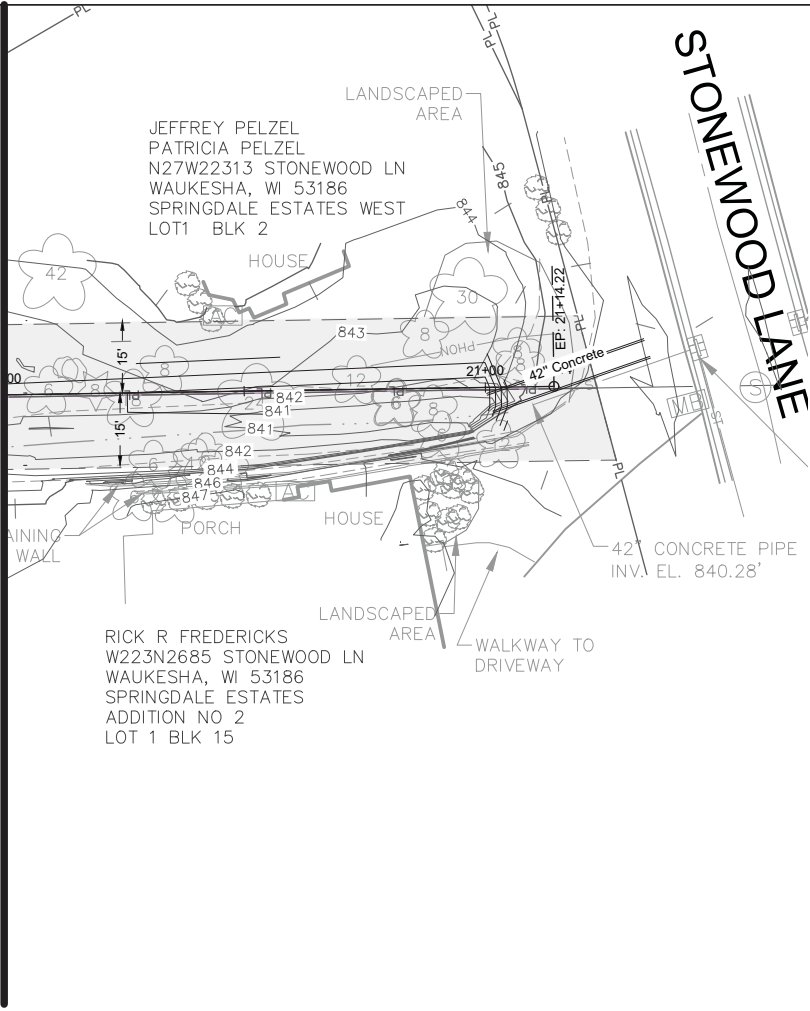
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MATCH LINE STA 20+00 (SEE SHEET 5)



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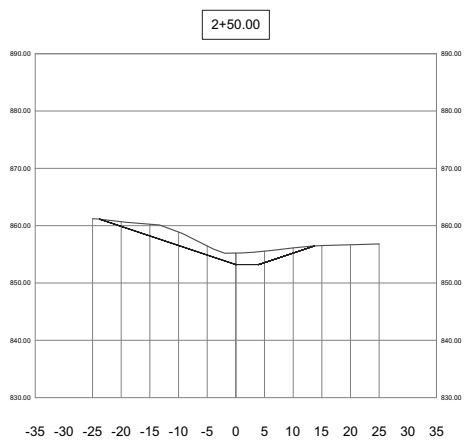
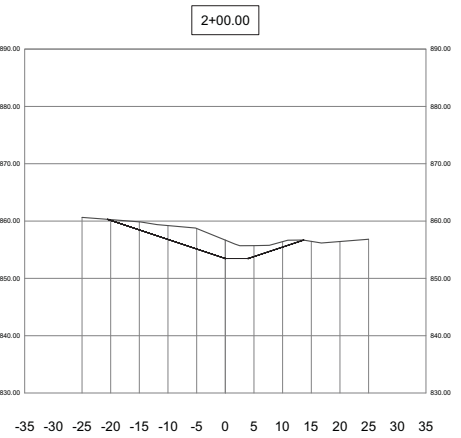
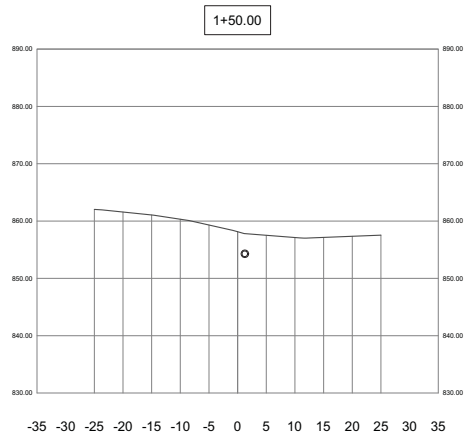
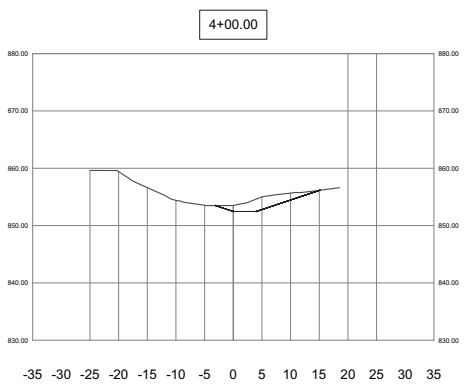
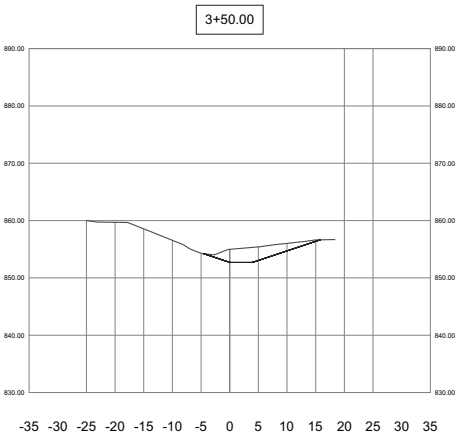
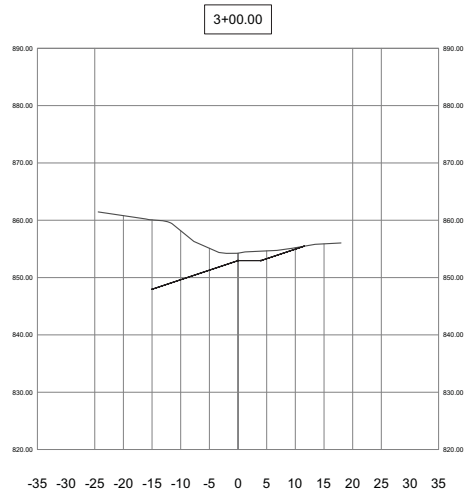
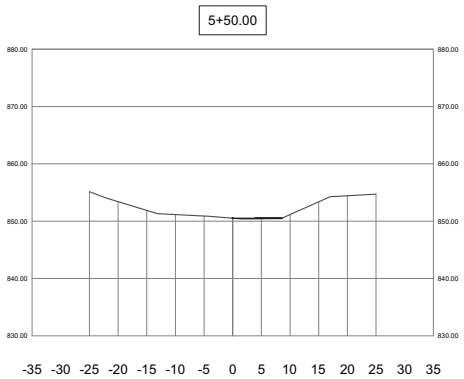
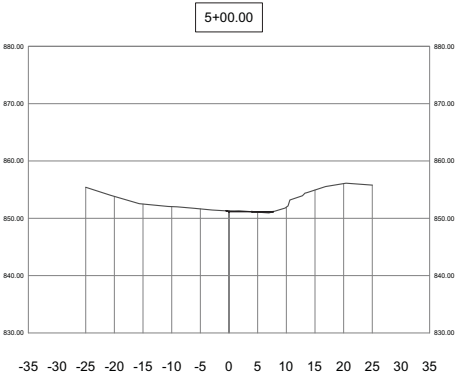
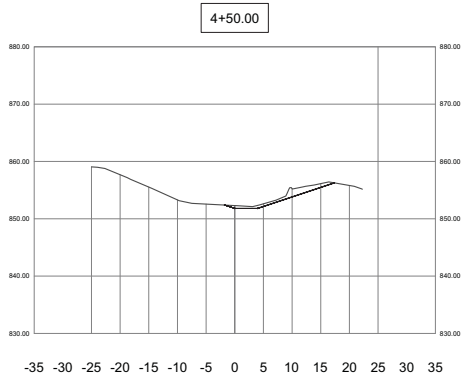
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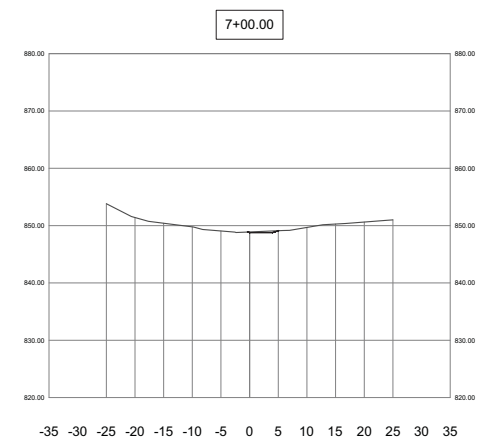
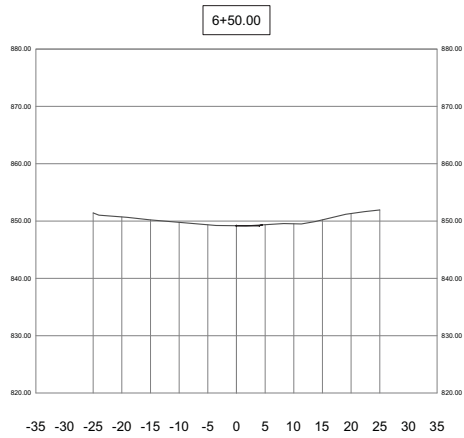
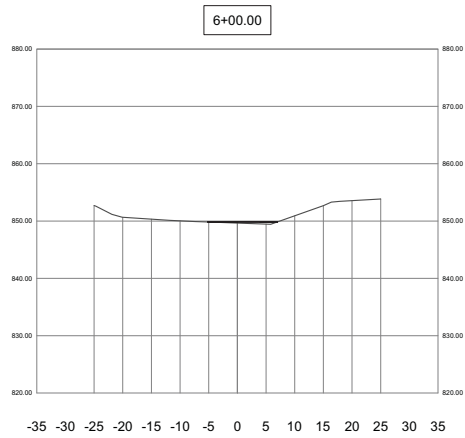
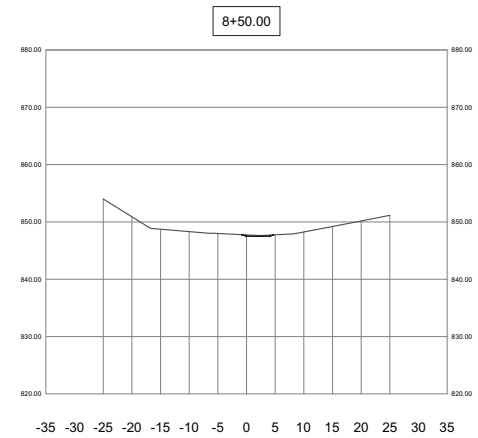
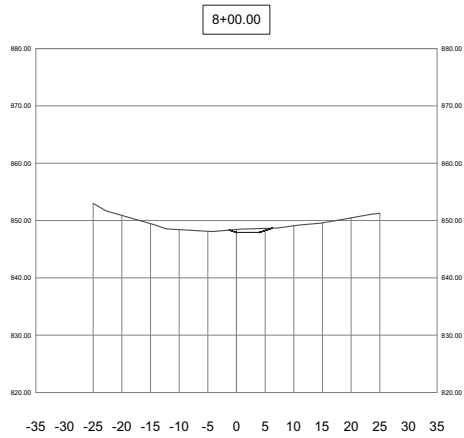
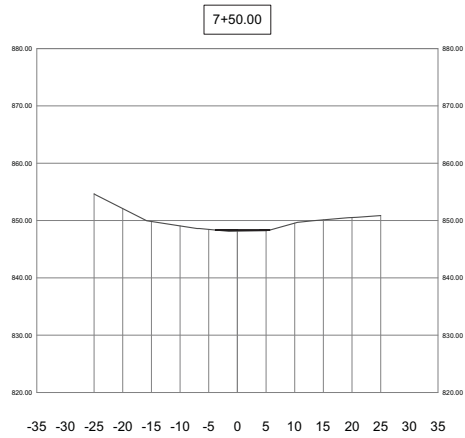
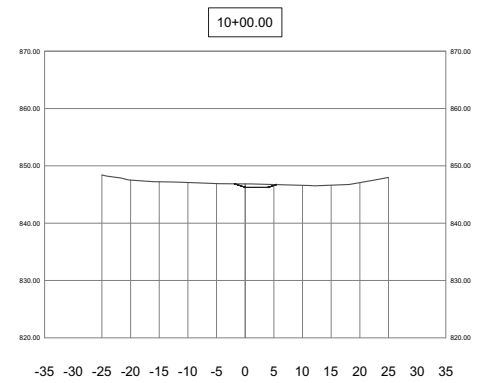
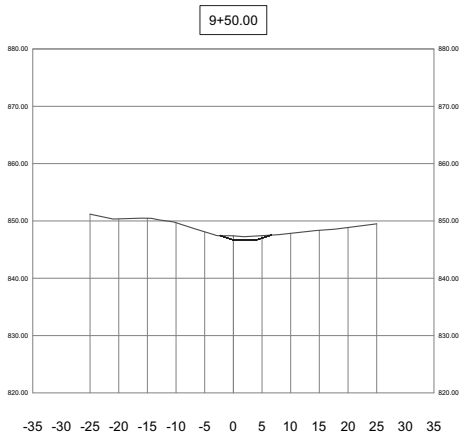
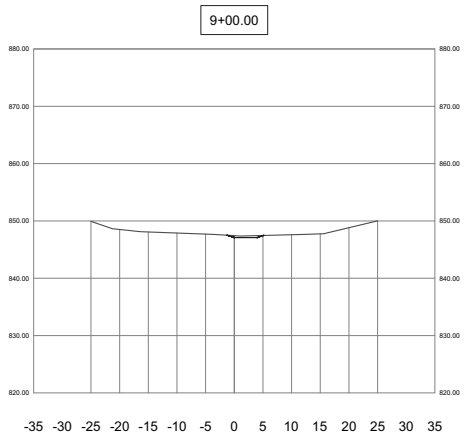
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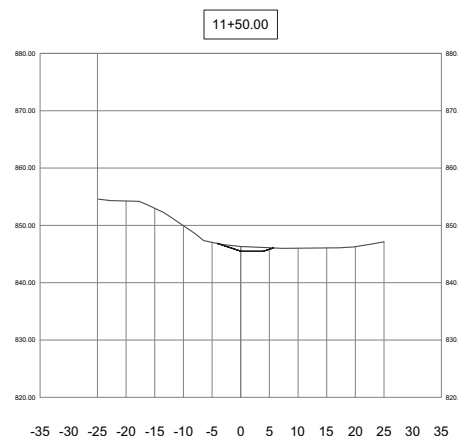
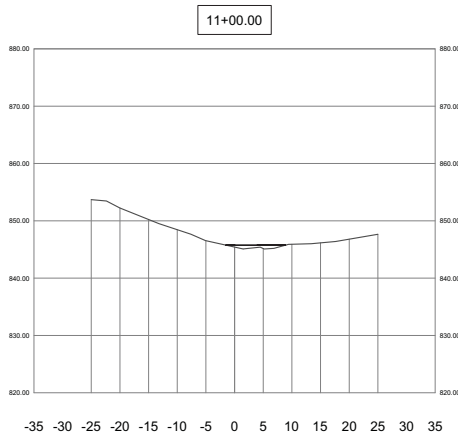
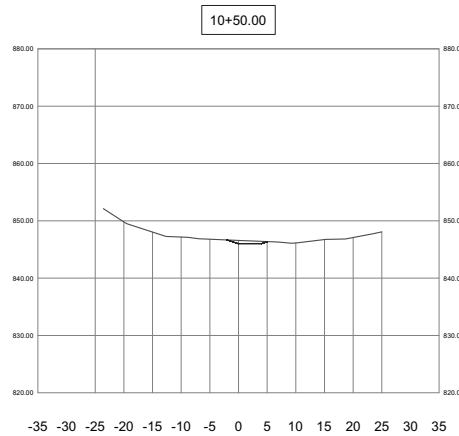
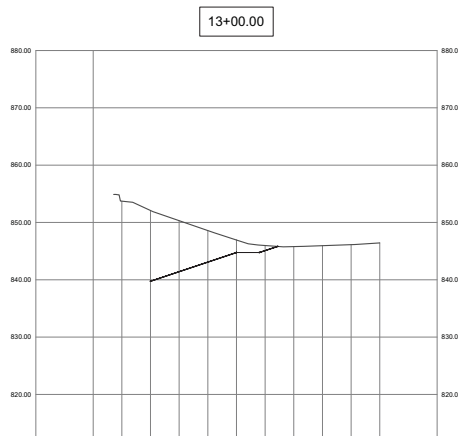
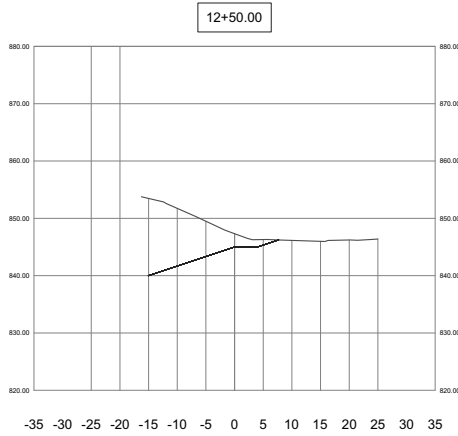
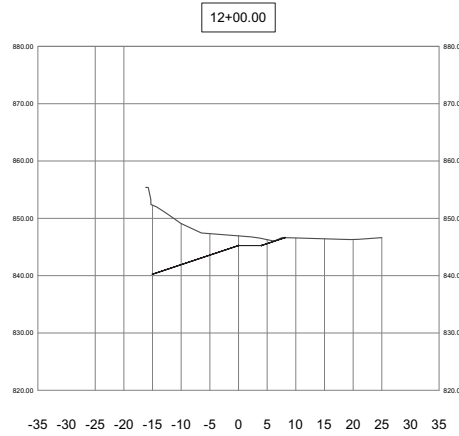
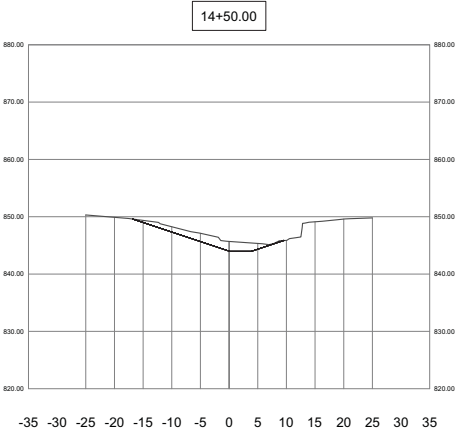
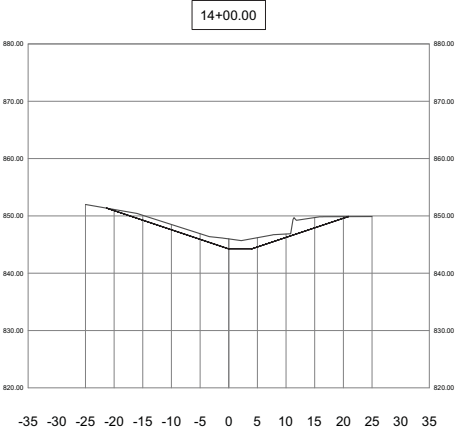
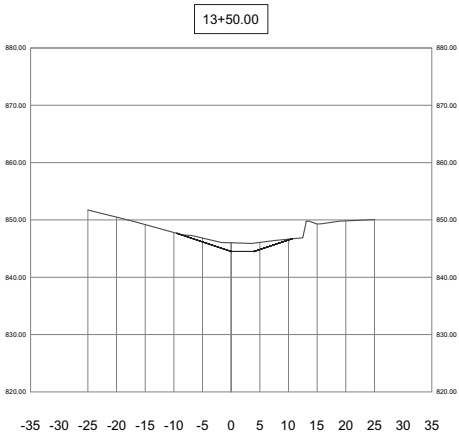
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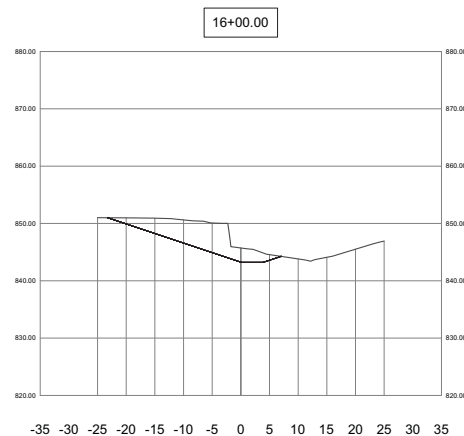
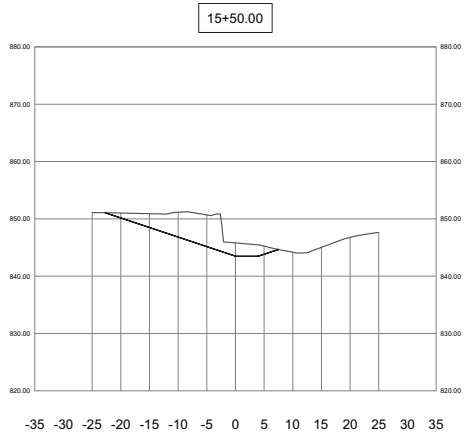
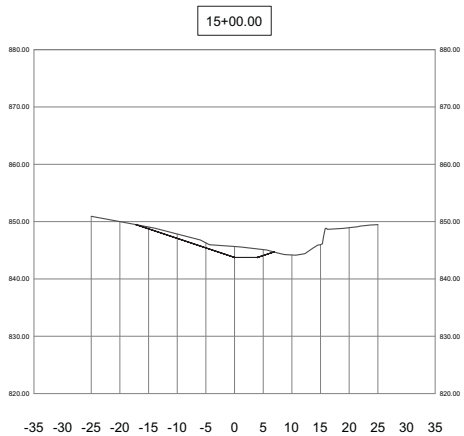
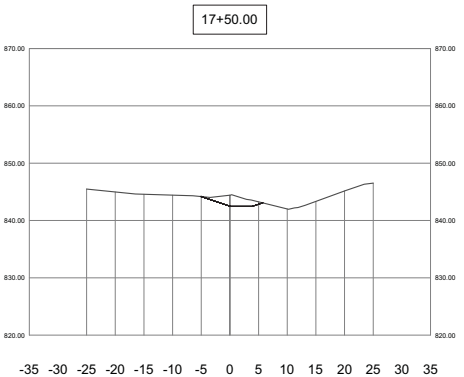
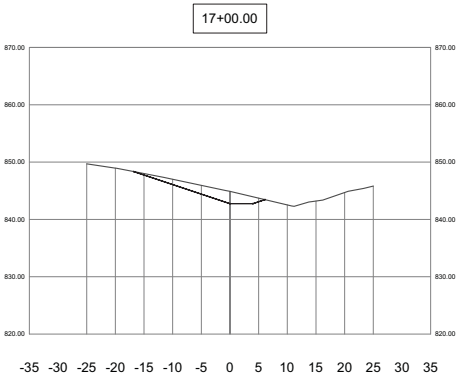
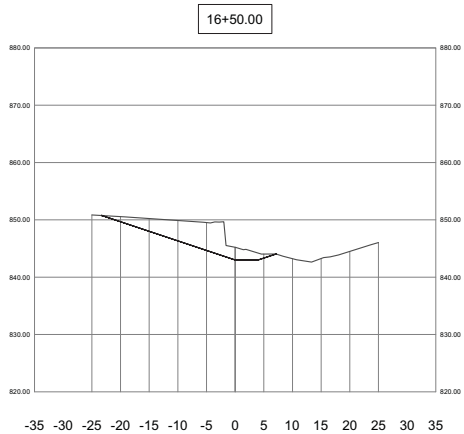
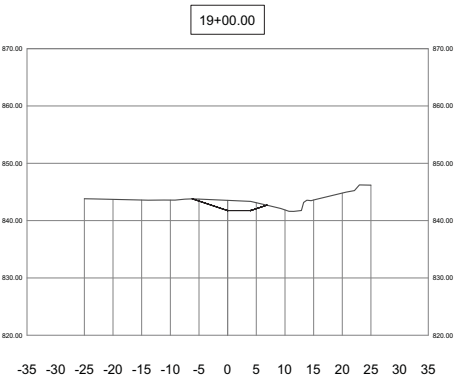
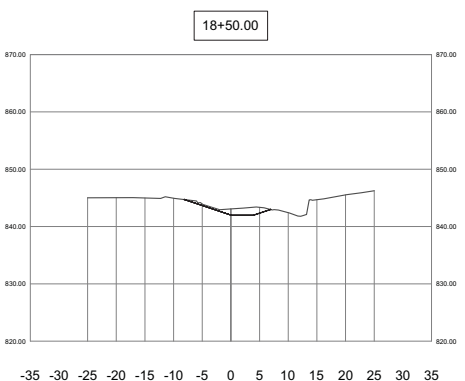
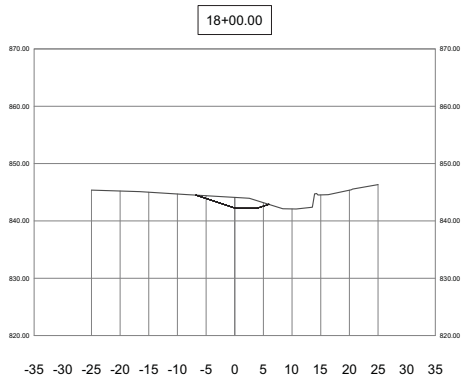
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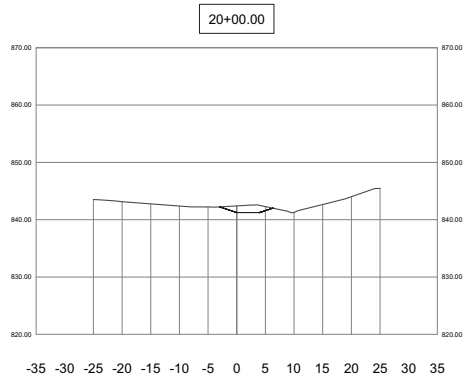
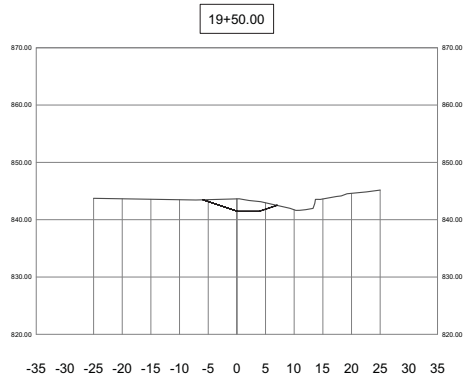
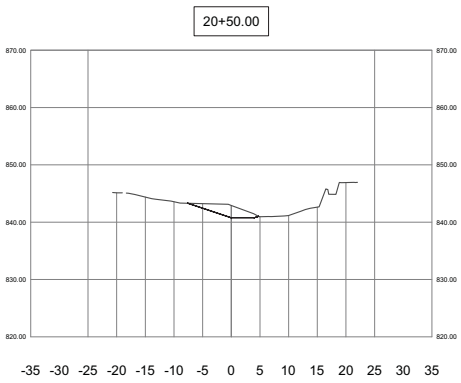
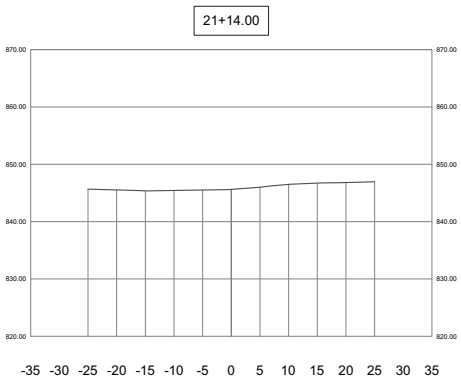
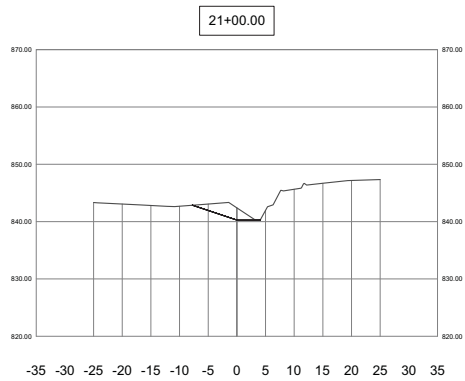
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13

**CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 5.2.**

DATE: September 22, 2022

DEPARTMENT: PW - Stormwater

PROVIDED BY: Richard Wirtz

SUBJECT:

Update regarding the status of the City Wide Storm Water Management Plan Study.

BACKGROUND:

The City's last storm water management plan was developed in 1999 by Earth Tech, Inc., and provided a detailed water quantity and water quality analysis of the City's known storm water management system. The plan was since updated in 2007 (by Earth Tech, Inc.) and in 2011 (by AECOM), generally to update the water quality analysis and prepare program components of the City's WPDES permit.

As the City continues to grow and gather more detailed information on its storm water management system, the engineering department felt it was time to have a new storm water management plan prepared. On June 30, 2022, the engineering department reached out to AECOM for a proposal and cost to prepare a city-wide comprehensive storm water management plan. The plan will recommend effective storm water management measures, based upon existing and planned land use conditions. The plan will identify existing storm water drainage problems and recommend cost effective, constructible solutions; identify measures required to avoid the creation of future storm water drainage problems resulting from development; provide estimates of existing pollutant loadings of TSS and total phosphorous; and recommend measures to mitigate the effects of nonpoint source pollution on water quality. Additionally, the plan will update the City's Municipal Separate Storm Sewer System (MS4) Map and include a re-evaluation of the screening locations for the City's major MS4 outfalls as a component of the Illicit Discharge Detection and Elimination (IDDE) program.

The budget to complete the project is approximately \$408,000 and will take approximately 2 years to complete. A copy of the proposal prepared by AECOM is attached for your reference.

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

AECOM proposal

PROPOSAL FOR

Comprehensive Storm Water Management Plan

Submitted to City of Pewaukee,
Department of Public Works Engineering Division
August 1, 2022

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus-DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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Submittal Cover Letter



1. Submittal Cover Letter

August 1, 2022

City of Pewaukee
Attn: Magdelene Wagner, PE, Director
Department of Public Works, Engineering Division
W240N3065 Pewaukee Road
Pewaukee, WI 53072

SUBJECT: Comprehensive Storm Water Management Plan

Dear Ms. Wagner,

AECOM Technical Services, Inc. (AECOM) is prepared to develop a storm water management plan (SWMP) with recommended alternatives for each drainage basin to help the City of Pewaukee (the City) achieve its hydraulic and hydrologic (H&H) performance and water quality goals. The plan will comply with the City's storm water requirements and with the current Wisconsin Department of Natural Resources (WDNR) guidelines for conducting city-wide water quality analysis in Total Maximum Daily Load (TMDL) areas, in preparation of the Fox River (Illinois) TMDL guideline release.

AECOM has a proven approach for this project, based on a combination of the knowledge and experience embodied in our extensive storm water planning portfolio. Helping the City achieve its goals for its Municipal Separate Storm Sewer System (MS4) is paramount to AECOM and will be accomplished by providing a team that is:

 **INVESTED** As part of the local community, we take a stewardship approach in delivering successful storm water modeling projects throughout southeast Wisconsin using our offices in Milwaukee and Middleton. Our project manager, Steve Parse, has extensive knowledge of the project area and the City's scope of work. This knowledge will provide efficient navigation of the City's processes and procedures to meet the project's schedule of submitting a final, completed SWMP by September 2024.

 **SKILLED** There will be no learning curve with our team. AECOM understands the critical role of effective data processing and management of the City's storm water assets. Our proposed Senior Technical Lead, Ashley Leisgang, has been the technical lead on nearly identical scoped projects throughout Wisconsin and the US. In addition, we have composed a team of storm water modelers that have created XPSWMM models and WinSLAMM models for a number of our clients including previous City of Pewaukee projects. This experience and knowledge will provide a cost benefit to the City.

Although this proposal highlights our qualifications and experience, we are most interested in demonstrating our commitment to you and your staff through responsive service that produces project deliverables of which we can all be proud. This commitment specifically includes respecting schedule constraints and working diligently to serve proactively as advocates for your storm water program. Thank you for giving us this opportunity to be considered for this important work. Steve Parse will be this project's point of contact, and he can be reached at 414.944.6147.

Sincerely,

AECOM Technical Services, Inc.



Steve Parse, PE
Project Manager (Single Point of Contact)
1555 N. RiverCenter Drive, Ste 214
Milwaukee, WI 53212
T: 414.944.6147
E: steve.parse@aecom.com



Ross Hillsman, PE
Principal in Charge (Authorized Signatory)

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Methodology



2. Methodology

For AECOM, locally committed leadership means we will be responsive to all project needs. We are your neighbors as well as stakeholders in this project, and therefore we are both professionally and personally vested in Pewaukee's success.

Project Understanding

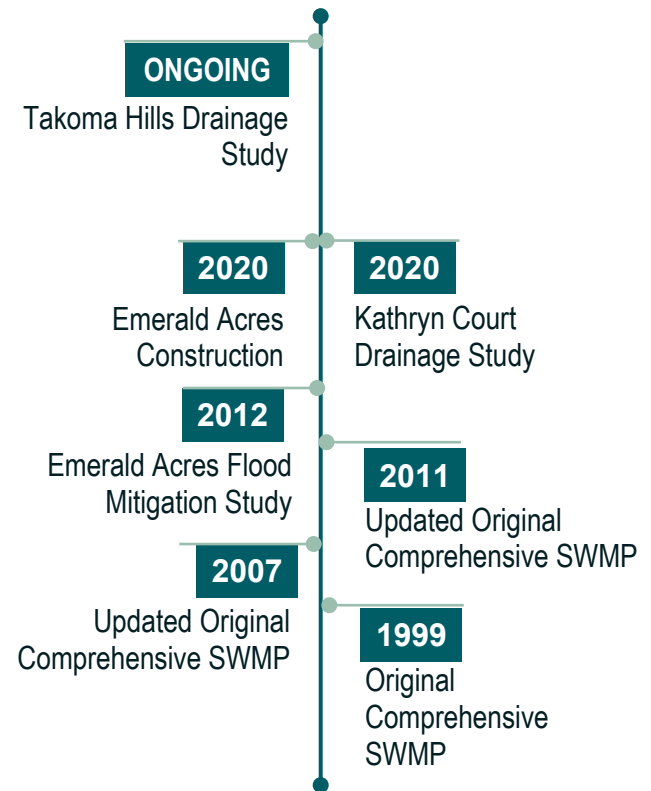
In 1999, the City of Pewaukee (the City), with AECOM, completed a comprehensive SWMP addressing the city-wide storm water quantity and quality. The planning effort looked to: establish a set of project objectives; describe the data compiled to characterize the study area and to perform the required analysis; detail the H&H analysis; detail the water quality analysis; identify critical sources of nonpoint pollution and flooding; formulate and evaluate alternatives; prepare an implementation plan; and prepare a report documenting the methods, analysis and findings of the planning effort. This study also concluded the City was achieving an approximate 28% reduction in total suspended sediment (TSS) loading. The plan also contained recommendations for improvements throughout the City.

The plan was since updated in 2007 and 2011 by AECOM, to update the water quality analysis and prepare program components of the City's Wisconsin Pollutant Discharge Elimination System (WPDES) permit. Since the City systematically implemented many recommendations in the past 10 years, the WinSLAMM analysis revealed the City achieves a 59% TSS reduction, primarily through storm water management ponds and roadside grassed swales. Because of modeling limitations at the time, these two storm water control practices were not able to be modeled in series. However, updates to the WinSLAMM model allows for these storm water control practices to be modeled in combination. The following scope of work incorporates those changes into the storm water quality analysis. In addition, this study incorporates the total phosphorous reduction for these practices.

A small-scale study was prepared by AECOM in 2012 to analyze and provide recommendations to mitigate flooding within the Emerald Acres Region along Green Road. Planning efforts by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) include the Pewaukee River Watershed Protection Plan (CAPR 313), the Lake Management Plan for Pewaukee Lake (CAPR 58), Pebble Creek Watershed Protection Plan (CAPR 284) and a Comprehensive Plan for the Fox River Watershed (Planning Report No. 12).

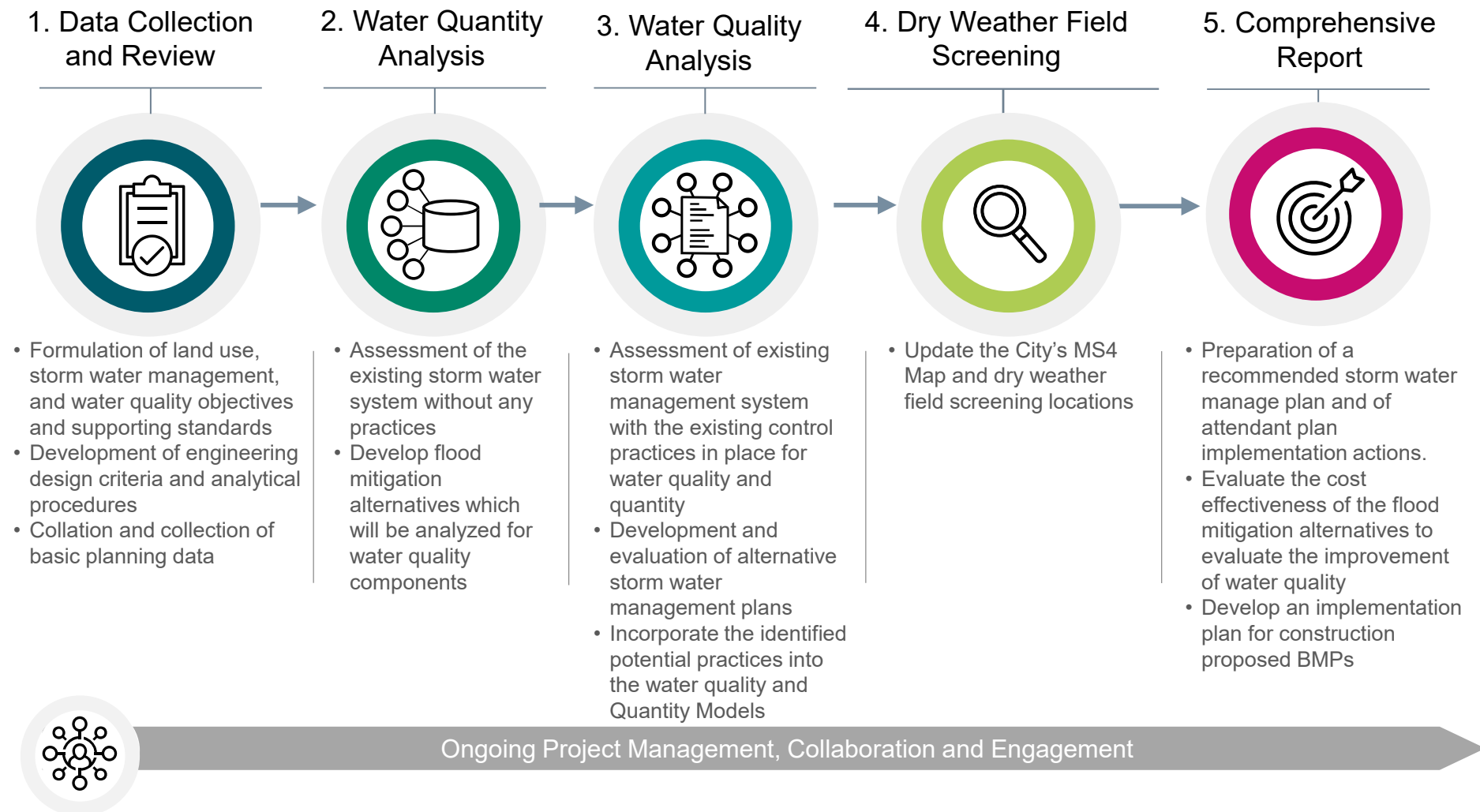
AECOM supported the City with previous SWMP efforts. Our team is well versed in this type of work and recent experience developing flood mitigation and TMDL focused storm water plans throughout Wisconsin will allow the City to accomplish the desired goals for this project.

Leveraging our history of more than 23 years working with the City of Pewaukee, our team will provide the necessary expertise for this project, carefully factoring proven approaches based on past successful projects.



The City has five major components they would like analyzed as part of this study. This study will weave between water quality and quantity, prioritizing projects that improve both aspects.

Figure 1. Proposed Workflow and Objectives



Scope of Work



Task 1 – Data Collection and Review

Task 1.1 - Data Collection

AECOM will review the past citywide SWMP Update project, previous subbasin drainage studies, and existing city Geographic Information System (GIS) data and then obtain any data needed for the project. The data to be used will be reviewed for the city-wide water quality loading analysis and the city-wide flood mitigation study.

Regarding water quality, the input data and WDNR modeling guidance to be used for the TMDL analysis differs slightly from the data used for the original MS4 permit analysis. The TMDL analysis will follow the WDNR document “TMDL Guidance for MS4 Permits: Planning, Implementation, and Modeling Guidance”.

The following GIS shapefiles are needed for use in the analysis:

- Municipal Boundary
- Watershed Boundaries
 - Watershed boundaries provided by WDNR will be updated to align with city watershed boundaries, storm sewer mapping, and more precise topographic information.
 - Existing city subbasin data will also be updated based on current storm sewer system mapping and municipal limits. AECOM will then group the subbasins into the WDNR watersheds.
 - This determination will be based upon 1 foot contour data created from the digital terrain model originating from the 2015 (or most recent) Waukesha County wide LIDAR project. Contour elevations are from the Waukesha County data are referenced to North American Datum of 1988. Significant internally drained areas which do not contribute runoff to downstream areas will also be identified.
- Storm Water Conveyance Mapping
 - Review and update the storm water conveyance system consisting of swales, roadside ditches, storm sewers, culverts, and channels (both natural and constructed).
 - Update the outfall classification for illicit discharge
- Soils
 - The USGS Soil Survey data will be used as a starting point to create a soils layer with the hydrologic soil group needed for the WinSLAMM analysis.
- Land Use
 - Water Quality Modeling
 - Existing Data on the existing land use in the City will be based off of the 2020 aerial photo. The existing 2015 land use provided by the City will be used as the starting point. Land use to characterize areas outside of the City’s municipal boundary that drain into the City will be based on existing 2020 aerial photography and the Waukesha County Development Plan.
 - Water Quantity Modeling
 - CN Values will be assigned to the standard land use designations for use in the hydraulic model.
 - 2050 Neighborhood Plan and city development standards will be evaluated and incorporated into the GIS file for storm water quantity modeling only. Recommendations to city development standards will be provided.

▪ Optional Excluded Areas for Water Quality Modeling

The following land use will be categorized and excluded from the water quality modeling per WDNR guidance. However, this land use will be included in the hydrologic and hydraulic modeling.

- Undeveloped/agricultural lands
- Industrial permitted lands
- Riparian lands
- Internally drained areas
- County/state right-of-way areas within the municipal boundary land use.

There is guidance for optional and mandatory TMDL excluded areas which is slightly different from the original MS4 analysis. In general, unless management measures improve water quality above the required reductions, areas that are allowed to be excluded should be removed from the analysis. WDNR is taking greater measures to review and confirm excluded areas than it had in the past. It is important that the areas identified for exclusion be confirmed with owning agencies to the extent possible at this step to avoid over- or under-recognizing land for the analyses. AECOM will conduct this analysis in accordance with the Administrative Code and current WDNR guidelines.

▪ Climate

- Climate data will be obtained from SEWRPC, the National Oceanic and Atmospheric Administration (NOAA), and other relevant resources. The climate in the vicinity of the study area will be characterized. This characterization will include temperature, precipitation, snow cover, and frost depth. Seasonal variations will be identified as necessary.

▪ Water Quality Indicator Selection

One meeting will be held with AECOM, city staff, and potentially WDNR during this task.

After each of the individual GIS files are finalized, they will be merged into one single feature class within a Geodatabase. This singular large file (**base file**) will contain specific coding for individual polygons which will be used for the WinSLAMM loading analysis and further refined for the H&H analysis.

Task 1.2 - Data Review - Review SEWRPC Studies and Summarize

Previous SEWRPC studies have contributed to an understanding of basin flood management needs for the City's water bodies. The previous studies will be used to generate a working knowledge of possible areas of deficiency in the City and aid in determining any additional data needs. AECOM's project team is experienced and proficient at reviewing prior watershed studies, and our familiarity with a variety of modeling software allows us to extract the necessary information and discover possible deficiencies.

The major waters within the City shall be derived from the WDNR designations and goals for the surface water, water use, and the objectives and standards developed by SEWRPC under the Pewaukee River Watershed Protection Plan (CAPR 313), the Lake Management Plan for Pewaukee Lake (CAPR 58), the Pebble Creek Watershed Protection Plan (CAPR 284) and A Comprehensive Plan for the Fox River Watershed (Planning Report 12) planning efforts. The reports will be evaluated and summarized for:

- Description and Assessment of Existing Storm Water Management Systems
 - Description of Streams and Watercourses
 - Engineered Storm Water Management Facilities
 - Wetlands
 - Nonpoint Source Water Pollution Control Facilities
 - Description and Assessment of Biological Conditions
 - Legal and Institutional Measures
 - Storm Water Drainage Problems



Task 2 – Water Quantity Analysis

Task 2.1 - XP-SWMM Model Development

The watershed delineation, land use designation, and storm water conveyance systems created in Task 1 will be used for the model hydrology development. The GIS files will be further evaluated to calculate the necessary data for hydraulic modeling. Flow paths, CN values, and other factors will be prepared for each subbasin.

Following the hydrology development, a hydraulic model will be constructed to analyze the flood extents in existing conditions. The City has indicated XP-SWMM 2D version 2020.1 or later, shall be considered for use. Because of the 2D size limitations in XP-SWMM, the City of Pewaukee's watersheds will be managed through multiple models separated by watersheds. We will build a Digital Terrain Model (DTM) for each of the models using the available LiDAR data for the City. If necessary, the interconnection between the watersheds will be evaluated and incorporated into the bounding watersheds. In addition, the City's right-a-way file, and land use files will be used to import pervious area, roads, and impervious area into the 2D portion of the XP-SWMM model.

Data described in the existing conveyance system of pipes, ditches, culverts, and the creek within the project areas will be assembled and evaluated. Storm sewers equal to and greater than 15 inches and culverts 18 inches and greater, will be included in the model. Components will generally include road crossing culverts regardless of size, in critical areas. Private storm sewer and culverts are excluded from the analysis. In areas with many driveway culverts, generalization may be applied to the model. Where the GIS data are incomplete with pipe inverts, diameter, or material, assumptions will be made based on the surrounding pipes. Since the DTM built within the XP-SWMM model does not pick up detailed elevations of ditches and creeks, these will be entered using the XP-SWMM 1D analysis process. The City's ditches will be evaluated and categorized up to five (5) types, matching the grassed swale infiltration testing. These types will then be entered into the XP-SWMM Model as 1D and connected to the 2D grid. Engineered storage/detention areas will be modeled using XP-SWMM's 1D algorithms and the top of the pond will be connected to the 2D surface. The twenty-six (26) public BMPs will be incorporated into the existing conditions model, along with the thirty-six (36) Private Site Storm Water Control practices with maintenance agreements.

We will develop tailwater conditions for each navigable stream to apply the outfalls of the modeled system and account for the impact on conveyance of elevated river stages on the performance of the system. The FEMA Flood Insurance Studies (FIS) for each of the waterbodies will be researched. The base flood elevation to be applied for the respective waterbodies will be discussed with City staff and applied at the watershed outfalls. It is typical to apply a 10-year flood elevation for the 100-year storm event. The 2-year flood elevation will be considered for the 10-year storm event. Normal water level conditions will be applied for the 1 and 2-year storm events.

The model will then be executed for the 1-year, 2-year, 10-year and 100-year storm events, for the 24-hour duration. Rainfall data to be used in conjunction with TR-55 methodology will be Atlas 14 precipitation depths for the 24 hour duration storm and the NRCS Wisconsin MSE 3 Precipitation distribution.

- 1-year, 24-hour: 2.38 inches
- 2-year, 24-hour: 2.69 inches
- 10-year, 24-hour: 3.80 inches
- 100-year, 24-hour: 6.17 inches

After the Existing Conditions models are finalized, we will incorporate the planned land use into the existing conditions. The future land use with existing infrastructure will be the basis of the flood mitigation alternative evaluation.

Figures illustrating the existing flood extents will be developed to illustrate the maximum extent of flooding during each storm event for each of the eight (8) watersheds like. For example, Figure 2 demonstrates the existing conditions results for the 25-year, 30-min storm event for a watershed in Oshkosh. We will utilize the figures created for the City's Existing Conditions to evaluate critical points within the watershed. Depending on the scaling, multiple watersheds maybe combined on the Figures. After the watersheds are analyzed, we will meet with the City to determine if the results match historic knowledge, and the 10 most critical sites will be selected based on discussions with the City. From there possible flood mitigation alternatives will be discussed. The proposed improvements will be incorporated into the model to determine their benefit. Figure 3 illustrates the surface flooding after the improvements have been proposed for the watershed.

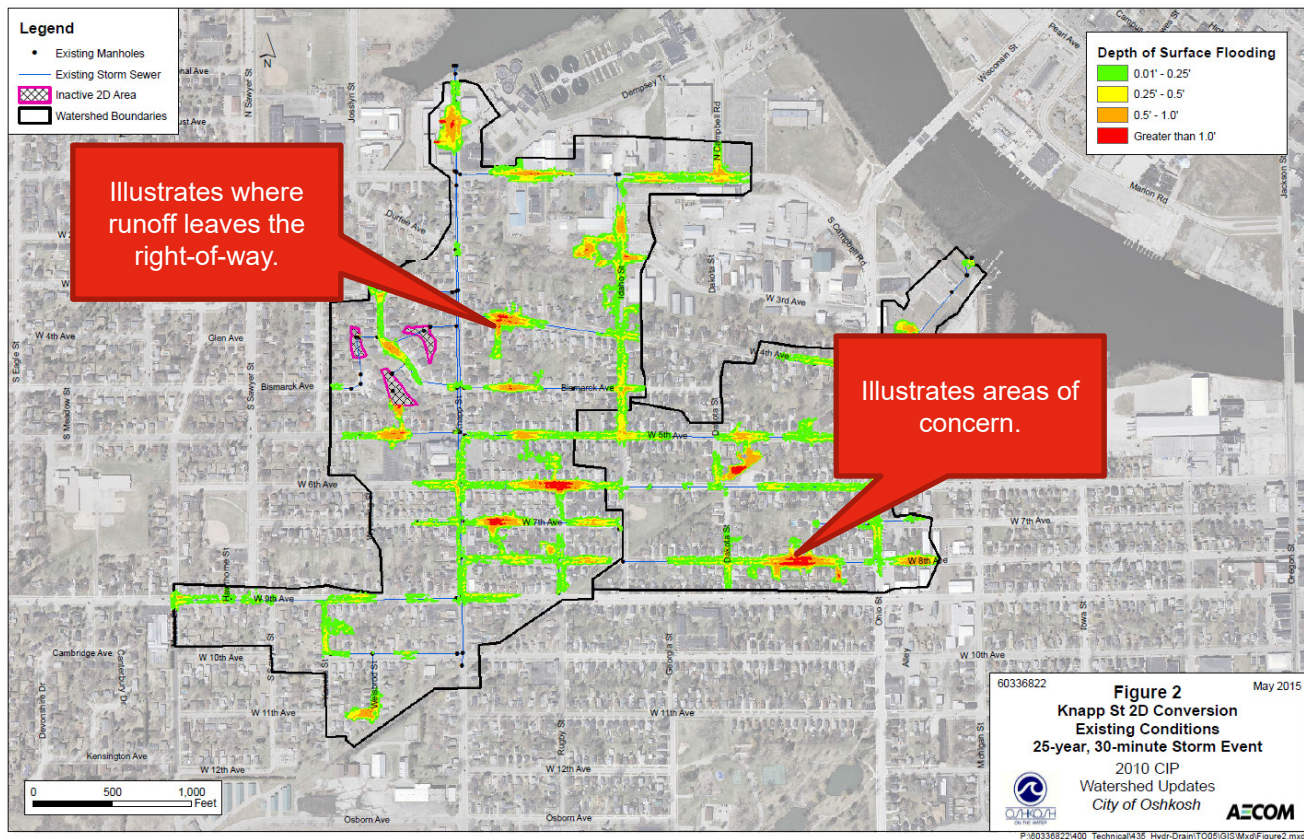


Figure 2. Example Existing Conditions Figure. City of Oshkosh, 25-year Storm Event.

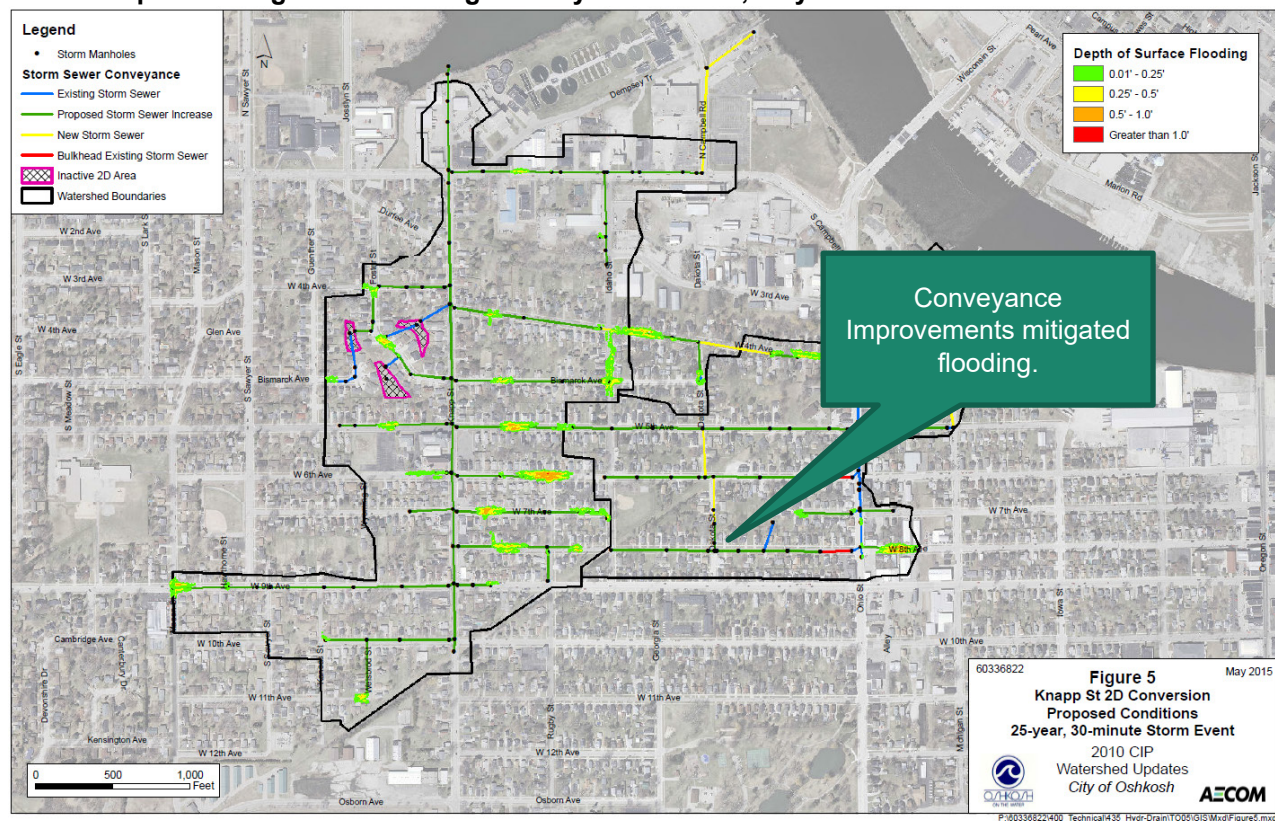


Figure 3. Example Proposed Conditions for the Knapp Street Watershed, City of Oshkosh 25-year Storm Event.

The selected alternative from the four (4) prior planning projects will be incorporated into the Existing Conditions model. These projects include the:

- Hill-n-Dale Drainage Improvement Project located in the SE1/4 of Section 12, T7N, R19E; the
- Kathryn Court Drainage Improvement Project located in the NE1/4 of Section 13, T7N, R19E; the
- Emerald Acres Flood Mitigation Project located in the NE1/4 of Section 14, T7N, R19E; and the
- Takoma Hills Drainage Project in the SW1/4 of Section 25, T7N, R19E.

Depending on implementation schedule and discussions with the City, one or more of these projects may be incorporated into the existing conditions models.

Task 2.2 - Flood Mitigation Alternatives Analysis

The City has clear goals for the solutions proposed in the SWMP. These goals will:

- Eliminate street flooding throughout the watershed for rainfall events up to a 10-year design storm.
- Prevent significant property damage and safety hazards during the 100-year, 24-hour storm event.

The existing conditions XP-SWMM model will be used as a starting point for the development of flood mitigation alternatives. It is assumed up to ten (10) critical flooding areas will need to be addressed. Previous studies and designs will be reviewed and incorporated into the model where appropriate. The evaluation will include sizing the storm water peak flow control practices with water quality in mind. Practices will be developed using a mix of green infrastructure where appropriate to enhance water quality, especially in areas that are near riparian zones or directly discharging to an impaired water body.

A list of potential flood mitigation components will be developed and refined in coordination with the City. This component list will be comprised of detention storage sites, potential replacement/relief sewer alignments, and other possible storm water management measures. Constraints such as wetlands, property boundaries, and known conflicting utilities, right-of-way/land ownership, and planning level cost estimates developed as part of the study will also be considered in the component listing. Our team will look for opportunities to mesh flood control structures with green spaces in parks for water quality improvements.

The alternatives for the minor storm water drainage systems will consist of new or replacement components sized with the ability to store and/or convey the runoff from the 10-year recurrence interval storm. All storm sewers shall have a minimum cover to the top of the pipe of 3-ft unless otherwise approved by City Engineer.

The alternative evaluations for the major storm water drainage system will utilize the 100-year recurrence interval. The proposed solutions will be checked to confirm the peak flows flowing overland maintain a 15-foot horizontal separation and 2-foot vertical separation from buildings. In addition, the proposed detention and infiltration ponds shall maintain 1-foot of free board for the 100-year water surface elevation and the crest elevation of the emergency spillway.

Another opportunity for flood mitigation would be to implement green infrastructure within the right-of-way (ROW). Medians could be converted to opportunities for infiltration, by installing biofilters or infiltration basins. Figures will also be developed to clearly present the alternatives and their impacts.

Dollars are limited, and cost of new infrastructure is always a paramount consideration. The cost effectiveness of alternatives will be at the forefront of AECOM's evaluations. Our cost estimating activities will be based on recent projects completed for the City. We will collaborate with the City to develop appropriate cost information to be applied to the alternatives analyzed for this project.

The proposed study is a planning study will identify alternatives for management of storm water and present a recommended plan. AECOM recognizes the alternatives recommended in the plan will need to progress to design and then ultimately construction in the future. Therefore, the recommended solution must be based on sound engineering design considerations and must be constructible. Our team has extensive experience in financial planning and developing optimized capital plans for storm water utilities, as well as associated infrastructure, such as, BMPs including green infrastructure. AECOM will perform the necessary conceptual engineering design in order to determine constructability and accurately model any proposed improvements. For example, based on past watershed level planning studies, preliminary design contours for a wet pond would need to be developed along with the location and inverts of the outlet structure. We follow a step-by-step process that collects the necessary data to help the City make informed and optimal financial and capital reinvestment decisions at the right time.

Figures illustrating the existing flood extents will be developed to illustrate the maximum extent of flooding during each storm event for each of the eight (8) watersheds. The results will also be documented, and a detailed report will be prepared clearly describing the analysis methods, results, and sequencing recommendations for each of the

watersheds. The report will be organized for clarity and ease of use in proceeding to the next stages of project development and implementation.

The project schedule includes review time to allow iterations between AECOM and the City for document refinements. Our intent is that the SWMP adequately documents existing conditions and recommendations in order to support future preliminary engineering, design, and other related activities such as land acquisition.

Assumptions

Only the following land use combinations will be modeled:

- Existing Conditions Model with Existing Land Use
- Existing Conditions Model with Future Land Use
- Proposed Conditions with Future Land Use

It is assumed ten (10) storm water improvements will be evaluated as potential locations for future storm water control practices, along with conveyance improvements. The future land use condition will be the only land use condition analyzed for the proposed alternatives. A meeting with City staff will be conducted to get input on any potential locations. Pertinent local storm water management planning documents will also be reviewed for any applicable BMP recommendations to include in this analysis.

Up to ten (10) conceptual figures will be creating and documenting the proposed storm water practice type, location, and invert information. Practices will need further evaluation during the design phase.

The evaluation will include additional information available from existing public files including wetland information, depth of storm sewer entering/exiting the proposed location, size of proposed storm water control practice and land availability. We will use data that is readily available (such as the WDNR Surface Water Data Viewer or the City's GIS information). Field investigations (such as soil borings or wetland delineations) are not included in this evaluation.



Task 3 – Water Quality Analysis

After the base layers are finalized in Task 1, we will also begin the TMDL no-controls loading analysis using WinSLAMM v10.4 or later. This step generates the pollutant loading the City is producing without considering the storm water best management practices that are currently implemented throughout the city for each reachshed. The following scope of work will utilize available information from the prior plan and updates. The modeling will be revised to follow the TMDL guidance, opposed to the MS4 modeling guidance used for the last water quality calculation. The Fox River (IL) Basin does not have a TMDL at this time, however one is currently in development. The City's MS4 system area will be analyzed following the current WDNR guidelines for conducting city-wide water quality analysis in TMDL areas to prepare the city for when the TMDL is released.

Task 3.1 - Establish No-Controls Load by Reachshed (TSS and TP)

The first step will be to generate the no-controls loading for each of the four (4) reachsheds for Total Suspended Solids (TSS) and Total Phosphorous (TP). We will:

- Create WinSLAMM Standard Land Use Files
 - The GIS base file will be used to create the multiple WinSLAMM standard land use files that correspond to each specific code that was identified. These WinSLAMM files represent the no-controls loading scenario in the city.
- Calculate TMDL No-Controls Load
 - The loading results from the WinSLAMM files will be linked to the GIS base file to calculate the no-controls loading for TSS and TP by reachshed.
- The efforts and results of the preceding tasks will be consolidated into the report which will:
 - Summarize the current water quality regulations and requirements, document modeling methodology, compile the TSS and TP pollution loading results for no controls load.

In general, the no-controls analysis represents the urban storm water pollution with the desired exclude areas removed from the analysis and the existing water quality best management practices not considered (street cleaning, detention basins, etc.). This establishes the “benchmark” against which TSS and TP reductions are measured.

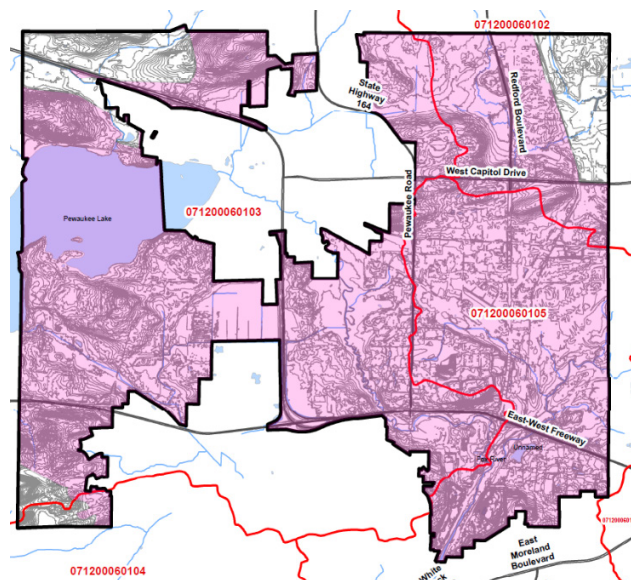


Figure 4 City of Pewaukee Reachsheds

Task 3.2 - Establish with Controls Load by Reachshed (TSS and TP)

Following the no-controls loading, AECOM will analyze the pollution reduction achieved by the storm water best management practices that are currently implemented in the City. In prior planning effort, this was referred to as Existing Conditions. The following steps are used to determine the current reduction percentages of TSS and TP achieved by the existing storm water BMPs:

Public BMPs

We will evaluate and incorporate the twenty-six (26) publicly owned storm water BMPs and non-structural BMPs into the WinSLAMM model. This will include, street cleaning, catch basin cleaning, storm water basins, grassed swales, and any potential green infrastructure practices such as: permeable pavers, asphalt, concrete, rain gardens, bioswales, constructed wetlands, etc. All existing BMPs will also be analyzed for their potential to be retrofitted to increase storm water pollutant removal efficiencies (i.e., converting a dry pond to wet pond).

Private Storm Water BMP's (with Maintenance Agreements)

We will incorporate the privately owned storm water practices that the City has maintenance agreements with. These practices include storm water basins, green infrastructure practices such as: permeable pavers, asphalt, concrete, rain gardens, bioswales, constructed wetlands, etc.

It is assumed that credit will only be taken for private BMPs with documented maintenance agreements (assuming 36) with the City. These sites will be categorized in a table to include the practice and efficiency listed in the storm water management plan. The efficiency will then be applied to the geodatabase by parcel. It is assumed that the WinSLAMM models created by the Developers from the site storm water management review process will be used for this analysis. No models will need to be created for these private sites. Since the storm water management plans do not all have the TP referenced, the original model submitted with the development will be opened and the TP function will be turned on and then run to get the TP efficiency. These efficiencies will be summarized by address in a table.

Utilizing the WinSLAMM models created for each BMP, AECOM will calculate the with-controls reduction in annual loadings for TSS and TP by reachshed all of the City's current BMPs achieve. The efforts and results of the preceding tasks will be consolidated into a report which will summarize the pollution control, TSS and TP reductions achieved by existing best management practices. The loading results will also be summarized in a graphical format as shown in Figure 5. Displaying the results in a graphical way is useful to understand which basins are producing the greatest pollutant load and is also a visual way to begin to understand where to implement new storm water practices, which will have the greatest return on investment by focusing on areas with greater loadings.

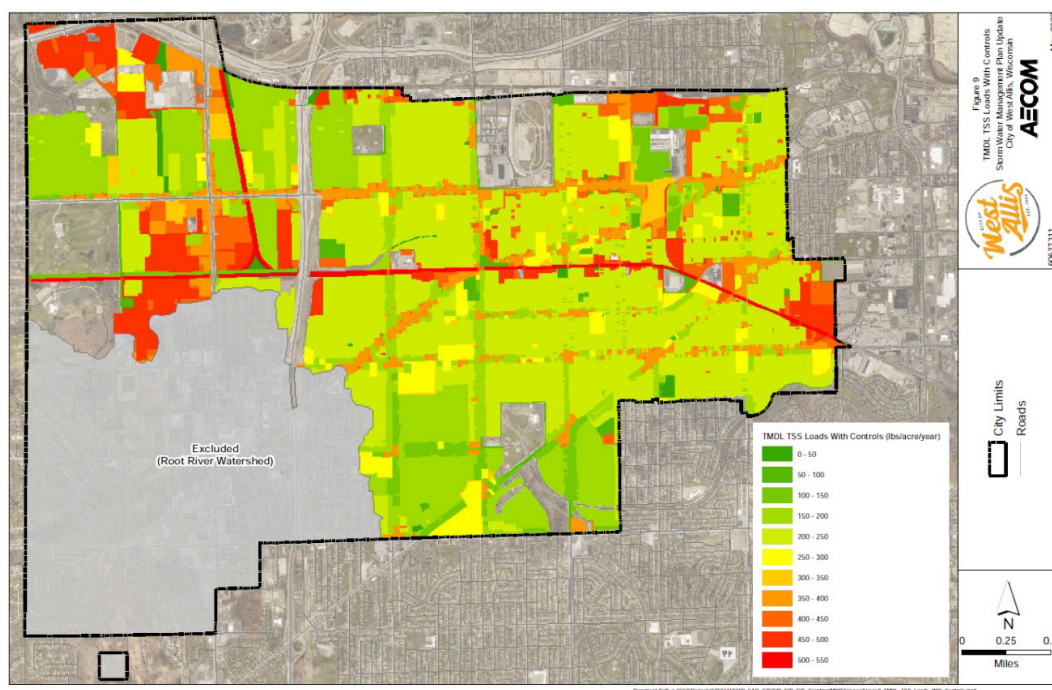


Figure 5 Example With Controls Loading (City of West Allis)

Assumptions

- It is assumed that a WinSLAMM file will need to be created for each Public BMP to determine the TSS and TP removal efficiencies. In order to model each BMP in WinSLAMM the individual site storm water management plans, associated models, or civil plan sets will be utilized if available from the City.
- If no previous SWMP, plan set, or modeling is available AECOM will have a survey crew available to obtain additional information needed for modeling such as BMP surface area, outlet structure inverts, and storm sewer sizes. This scope of services assumes if additional data is needed to be obtained from survey, a change order will be provided at that time.
- It is assumed the City provides a list and location of BMPs. This task does not include, reading through and locating old storm water management plans that the City may have.
- It is assumed 26 city owned BMPs will be modeled and 36 privately owned BMPs will be incorporated, for a total of 62 BMPs.

Task 3.3 - Establish with Future Controls Load by Reachshed (TSS and TP)

Recommended measures from the previous studies that were not implemented as well as the flood control structures identified in Task 2 will be evaluated. We will create WinSLAMM Models for the identified proposed Storm Water Control Practices to calculate the TSS and TP efficiencies. These practices may be modified slightly to balance increasing water quality benefits with flood control measures.

A review of WDNR wetland indicators and other potential inhibitors (new development, soil contamination and navigable waterways) will be researched prior to finalizing the selected sites for consideration. Wetlands need to be considered when planning storm water management facilities. Coordination and approval by permitting agencies when working in and around wetland areas can be a time consuming and costly process. These factors are increasingly causing delays in permitting new facilities and, at a minimum, adding significant cost and increasing implementation time.

Sites that are identified for inclusion in the evaluation will be modeled for TSS reduction and TP reduction on an annual basis. Cost estimates will be developed with information from the most recent bid tabs and estimates from other storm water projects within the City and surrounding area. This will be aggregated with hydraulic alternatives into a comprehensive alternatives comparison matrix that can be used to discern the best mix of alternatives through a review of quantitative and qualitative items.

Assumptions

- This scope assumes no more than ten (10) sites that will ultimately be modeled for their proposed TSS and TP reductions. Other pollutant removal effectiveness values for site specific or broader practices will be estimated based on supplemental information/research sources and engineering judgement.



Task 4 – Dry Weather Field Screening Mapping

As a part of the planning effort, AECOM will update the City's MS4 map and provide a re-evaluation of the dry weather field screening locations as a part of the City's IDDE program. Recommendations for screening locations and the screening frequency shall utilize WDNR Guidance Document #3800-2012-01,

Illicit Discharge Detection and Elimination Guidance

The updated MS4 map will incorporate the drainage facilities mapped and inventoried under a previous planning effort. GIS files of the inventoried facilities will be provided to AECOM. The MS4 map will identify:

1. All waters of the state including name and classification of the receiving water(s), identification of the receiving water as an ORW, ERW or listed as an impaired water under s. 303(d) of the Clean Water Act, storm water drainage basin boundaries for each MS4 outfall and the municipal separate storm sewer system.
2. All known municipal storm sewer system outfalls discharging to waters of the state or other municipal separate storm sewer system.
3. Major outfalls (36 inch in diameter or industrial land use) shall be uniquely identified. Priority outfalls for annual screening under the City's IDDE program shall also be uniquely identified.
4. The location and permit number of any known discharge to the municipal separate storm sewer system that has been issued WPDES permit coverage by the Department.
5. The location of structural storm water facilities including detention basins, infiltration basins, and other manufactured treatment devices. Any privately owned facility for which the City will be taking credit for pollutant removal must be separately identified from other privately owned facilities.
6. Publicly owned parks, recreational areas, and other open lands.
7. The location of municipal garages, storage areas and other public works facilities.
8. Streets and roadways.

Deliverables

The data will be organized and compiled into an ESRI ArcGIS compatible format along with an accompanying shapefile for each component. The data will be created such that City staff will be able to import the information directly into ArcGIS. The data will be provided to the City in a digital format on a portable flash drive. Two sets of hard copy maps shall be provided to the City at a scale of 1-inch equals 400-feet including the aforementioned data overlain on the 2020 aerial photo. The map sizes shall be 36-inches x 48-inches. A table of the major outfalls and the priority outfalls will be provided showing the: outfall identification, the subwatershed and subbasin the outfall is located in, the quarter section the outfall is located in, the nearest street or highway, receiving stream, type of pipe, pipe size, outfall invert elevation, tributary area, and dominant land use.



Task 5 –Comprehensive Report

Through the duration of the project, the evaluation results will be integrated into a comprehensive SWMP. This plan will summarize the existing and recommended storm water nonpoint source pollution, and storm water drainage and flooding. The plan will include an approach for the City to follow that implements storm water flooding improvements in a strategic manner. A series of figures that graphically represent the process and results of the study will be developed for the water quantity and quality analysis.

Planning level cost estimates will be developed for the selected proposed storm water control practices. The cost estimates will be developed with information from recent bid tabs for other storm water quality projects within the city and surrounding area or other sources. The cost estimates will include a contingency to address engineering and other unknown cost items. Potential sources of funding for any recommended facilities will be identified and suggested cost sharing between the City, state and the private sector will be provided.

The SWMP will clearly identify major and minor storm water management facilities, along with the costs associated with the proposed improvements. Figure 6 illustrates the future BMP cost analyses that will be performed.

Proposed BMP ID	BMP Type	Incremental Annual TSS Reduction (tons/yr)	Incremental Annual TP Reduction (lbs/yr)	BMP Construction Cost	Estimated Land Acquisition Cost	Maintenance Costs Over 20-years at 3% Cost Increase	Straight Line Depreciation Value Over 20-years (assumes 100-yr life)	Total 20-Year Annualized Cost	Annualized Cost/Ton TSS Removed	Annualized Cost/Pound TP Removed
Lapham St Median	Bioretention	0.38	2.52	\$290,000	-	\$78,000	\$58,000	\$6,800	\$17,800	\$2,800
Milwaukee Mile Ponds	Wet Ponds	91.99	477.34	\$10,950,000	-	\$4,920,000	\$2,190,000	\$355,500	\$3,900	\$800
Orchard St	Underground Storage	0.65	3.09	\$550,000	-	\$148,000	\$110,000	\$12,900	\$19,800	\$4,200
Redev Opp	Redevelopment	0.60	2.26	-	-	-	-	-	-	-
S 53rd St & Burnham St	Redevelopment	0.00	0.00	-	-	-	-	-	-	-
Vacant Lot 1	Redevelopment	0.03	0.17	-	-	-	-	-	-	-
Vacant Lot 2	Underground Storage	0.76	4.37	\$550,000	-	\$148,000	\$110,000	\$12,900	\$17,100	\$3,000
VisABILITY Center	Redevelopment	0.96	2.58	-	-	-	-	-	-	-
Walker Elementary	Underground Storage	2.34	12.94	\$1,400,000	-	\$377,000	\$280,000	\$32,850	\$14,100	\$2,600
WE Energies Corridor 2	Wet Pond	1.48	8.94	\$430,000	\$100,000	\$194,000	\$106,000	\$15,000	\$10,200	\$1,700

Figure 6 Example Future BMP Cost Analysis (City of West Allis)

A draft implementation schedule for the potential BMPs will be developed. This implementation schedule will be based on conversations with the City and prioritized with flood control in mind. This implementation schedule will be included in the SWMP and can be used as a roadmap for meeting the City's goals and capital improvement planning.

The report will also contain figures displaying the results of the modeling, existing BMP locations, excluded areas, soil conditions, watersheds, and the potential locations of proposed BMPs. AECOM has included the effort to formulate a response and address comments from the WDNR into this project. The formal comment document and response to the WDNR modeling comments will be included in an appendix of the report. Digital and hard copies of the report will be provided for the City and for distribution to the WDNR. The digital files will include report components, WinSLAMM database model files, XP-SWMM files, and GIS shapefiles for use by the City for future planning and for WDNR.

Deliverables

Draft SWMP

In the end the City will have a Comprehensive Citywide SWMP that will:

- Document the assessment of prior SEWRPC Studies for:
 - Stream and Watercourses
 - Water Quality Conditions
 - Biological Conditions
 - Legal and Institutional Measures
- Document modeling methodology;
- Document the results of the H&H analysis;
- Compile annual no controls TSS and TP loadings for the proposed TMDL conditions;
- Document the pollution control achieved by existing management measures for proposed TMDL conditions;
- Identify the potential new storm water practices for efficiency, flood reduction benefits, and cost; and
- Develop implementation recommendations for each of the eight (8) watersheds.

AECOM will provide two (2) hard copies and one (1) PDF copy of the Draft SWMP to the City for review. A meeting will be scheduled to coordinate and discuss the City's comments. Comments from the City will be incorporated into a final SWMP. At that point in time the report will be sent to the WDNR for review for the water quality modeling components.

Final SWMP

Upon approval by the WDNR, AECOM will provide a total of five (5) copies of the report to the City, in addition, to an electronic (PDF) copy of the final report. AECOM will also provide all additional electronic files develop as part of the project including: GIS shapefiles, geodatabase, WinSLAMM modeling files, and Microsoft Excel and Word documents. Individual digital and hard copy maps shall be prepared for each alternative and recommended plan that is developed for each hydrologic unit. The maps shall be prepared on a 2020 digital orthophoto base map at a scale such that the entire map fits on an 8.5-inch by 11-inch sheet, or if necessary, an 11-inch by 17- inch sheet. A complete legend shall be included.

Individual digital and hard copies of land use maps; subwatershed, hydrologic unit and catchment area maps; shall be provided at a scale such that the entire map fits on a full size (36-inch by 48-inch) sheet. All input and output data developed for the hydrologic, hydraulic, and nonpoint source models shall be provided to the City in electronic format. Digital copies of the WinSLAMM and XPSWMM models will be provided. Files shall be named in such a manner that the alternative or recommended plan condition analyzed can be readily identified by file name. Comments that clearly describe the conditions for which the data in each file are developed shall be included in the electronic files. Additional supporting calculations necessary to supplement the model information, including hand calculations or electronic spreadsheets, shall be provided in hard copy or electronic format, whichever is most appropriate.



Ongoing Project Management, Collaboration and Engagement

Meetings

The City's representatives have a far greater understanding of the needs of the City, of the characteristics of the watershed, and of previous relevant studies than any consultant can hope to have. Furthermore, the City's representatives have their own knowledge and ideas for potential solutions to the flooding problems within the watersheds. Therefore, AECOM recognizes the importance of working in concert with the City's representatives as the proposed study proceeds.

To facilitate a collaborative approach, AECOM will conduct a series of meetings with the City staff at appropriate junctures of the project to share ideas and exchange information. Six (6) meetings are included in this scope of work including a kickoff meeting and five (5) interim meetings throughout the project to discuss milestones and project status updates. Outside of these formal in-person meetings, our goal is to maintain very close communications with the City. The management style of AECOM's Project Manager, Steve Parse, is very hands on – he appreciates regular and involved communication during execution of the project. This additional communication will be accomplished through web meetings, email, and informal meeting opportunities.

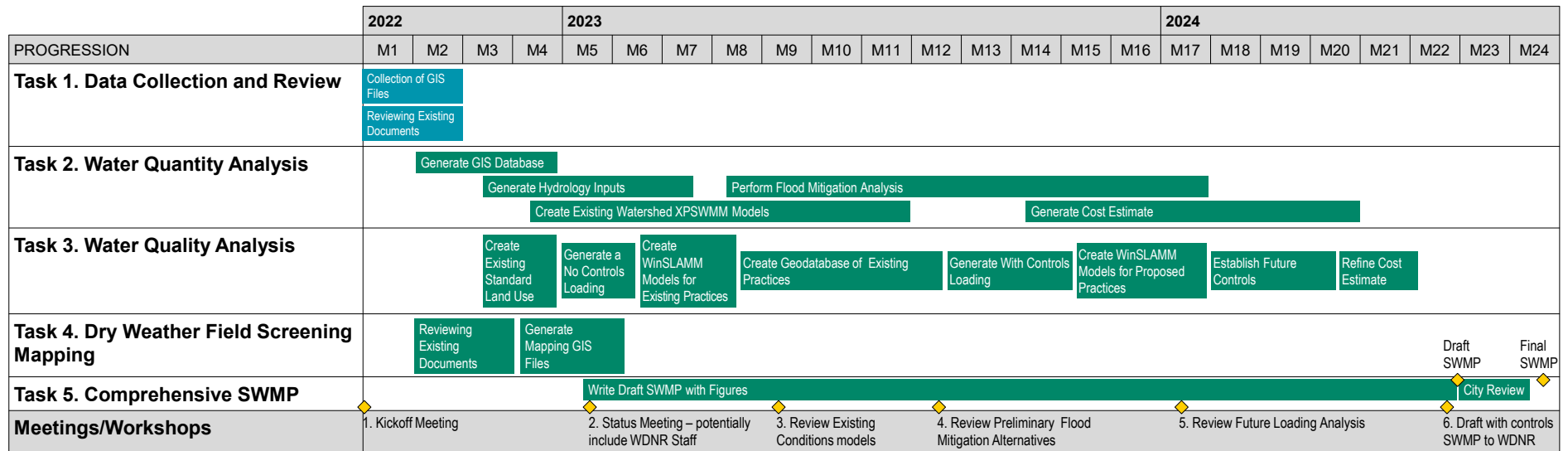
Timeline



3. Timeline

The schedule is organized with a stream workflow that follows the scope of services for this project. It is anticipated that the water quantity analysis will be initiated first, followed by the water quality analysis. After the Existing Conditions GIS files are finalized for the XP-SWMM models, it would be possible to create parallel work streams for the XP-SWMM hydraulic analysis and WinSLAMM water quality analysis. The future WinSLAMM analysis will be developed after the alternatives are selected for the XP-SWMM model alternatives.

Figure 7 Project Timeline



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Qualifications and Experience



4. Qualifications and Experience

Working together throughout the last 23 years, AECOM and the City have developed and maintained storm water management plans to keep the community safe.

As flooding increases across the country, innovative solutions to mitigate risks are in demand. Our team of storm water professionals have extensive and relevant experience in storm water quality and quantity modeling, planning, and design. We have assembled an experienced project team to lead efforts for the watershed plan.

In our planning process, we integrate GIS with H&H computer models and water quality computer models so that our engineers have more time to develop sound structural and non-structural solutions to storm water management problems.

Regardless of what the current driver is for storm water management in a community, strategic thinking can maximize potential opportunities. AECOM's approach to evaluating and ranking potential storm water control measures (SCMs) keeps the focus on practical, cost-effective solutions in a consistent and scientific manner to aid in the formulation of recommendations. Our plans are approved and implemented with a minimal amount of opposition because of the involvement of municipal staff and key stakeholders, and timely review and acceptance of WDNR in the planning process. The following pages contain project write-ups for six recent, relevant projects.

Table 1. A snapshot of AECOM's relevant project experience in all project components.

	Project Components										
	Drainage Delineation	Data Management	Survey	TMDL Loading	Future Planning	Implementation Plan	H&H	Permitting	Civil Plan Set	Native Vegetation	Const. Admin.
① Lincoln Street Storm Water Management Facility	●	●					●	●	●	●	●
② Kathryn Court Drainage Improvements Project	●	●	●				●	●	●	●	●
③ Emerald Acres Flood Mitigation Project	●	●	●			●	●	●	●	●	●
④ SWMP and Green Infrastructure Design	●	●	●	●		●	●	●	●	●	●
⑤ (a) City-wide SWMP Update, West Allis	●	●	●	●	●	●					
⑤ (b) City-wide SWMP Update, St. Francis	●	●	●	●	●	●					
⑤ (c) City-wide SWMP Update, Grafton	●	●	●	●	●	●					
⑤ (d) City-wide SWMP Update, Cedarburg	●	●	●	●	●	●					
⑥ Stringham Watershed and South Park Design	●						●	●	●	●	●



City of Pewaukee Emerald Acres project (left). City of Oshkosh South Park Design Project (center) City of West allis Parking Lots with Green Infrastructure (right).

1 Lincoln Street Storm Water Management Facility Verona, WI

Completion Date: 2021**Staff:** Rick Eilertson**Owner Contact:** City of Verona | Theran Jacobson, PE | 608.848.6801 | Theran.Jacobson@ci.verona.wi.us

Description: The purpose of the project was to improve water quality in Badger Mill Creek for areas of City that developed prior to storm water treatment being required and to allow redevelopment opportunities and total suspended solids (TSS) credit purchasing. The project included diverting low flows (up to approximately the 1-year, 24-hour rainfall event) from an urban channel through an offline storm water management facility (including wet pool, bioretention area, and outlet structure) for an approximately 700-acre watershed. Flows in excess of the 1-year event bypass the facility over the diversion dam and continue into the existing channel. The WDNR classified the diversion dam and berm surrounding a portion of the facility a small dam. Additionally, groundwater was high in the project area, requiring a groundwater mitigation system.

The City of Verona originally contracted with another consultant to complete the design of the project. However, AECOM was brought into the project during preliminary design to provide specialty technical services, including hydraulic modeling, dam design and permitting, and design of a groundwater mitigation system. AECOM provided the following services on the project:

- Responsible for hydraulic modeling of the facility using XP-SWMM, setting the elevation of the diversion dam and designing the outlet structure to only treat the flows necessary to achieve water quality treatment. Summarized in Hydraulic Analysis report.
- Performed Subsurface Exploration and Geotechnical Engineering Analysis, including dam seepage and stability analysis using GeoSlope, SEEP-W and analysis of groundwater and recommendation for geocomposite drainage layer groundwater mitigation system to drawdown groundwater levels where they are high.
- Designed dam and groundwater mitigation system including plans, special provisions, quantities and cost estimate, and construction support.
- Prepared WDNR dam permit application materials and worked with WDNR to secure permit for project.
- Prepared operation and maintenance plan for dam and groundwater mitigation system.

Relevancy to the City of Pewaukee: Hydraulic Modeling, Design Drawings, Technical Specifications.



Left. Lincoln Street Storm water Management Facility under construction in September 2021.
(Photo credit: City of Verona)

2 Kathryn Court Drainage Improvements Project Pewaukee, WI

Completion Date: 2022

Staff: Steve Parse, Rick Eilertson, Ashley Leisgang

Owner Contact: City of Pewaukee | Rich Wirtz | 262.691.0804 | wirtz@pewaukee.wi.us

Description: A hydrologic and hydraulic (H&H) analysis using XP-SWMM, a software program, was conducted by AECOM for the City of Pewaukee. This analysis specifically focused on an area north of Foxwood Lane and along Kathryn Court. The water flows west to east and discharges to the storm sewer system along Springdale Rd.

During storm events, storm water ponds southwest of the Kathryn Court cul-de-sac and north of Foxwood Lane in a localized low spot in an existing ditch (Foxwood ditch). The localized ponding has not impacted the street or neighboring houses; however, local residents have complained of smell and insects as result of standing water. In general, surface water runoff comes from a mix of urban and agricultural areas which drains from the west to the localized low spot southwest of Kathryn Court. In 2019, the City contracted with AECOM to evaluate alternatives that would improve storm water drainage away from the low spot and ultimately to the Springdale Road storm sewer system.

The H&H analysis found the ditch conveyed storm water from an approximately 275 acres of a mix of residential, commercial, crop land, and undeveloped land. This was discovered through field investigation and survey. Since this area was owned by the railroad company, the City records were incomplete as existing. Culverts were found on the railroad properties that connected the ditches drainage area. Further, the analysis found prior to the construction of Kathryn Court (Briarwood Homesite) in the 1980's, the Foxwood ditch conveyed flow directly to Springdale Road but was rerouted to a storm water outlot north of Kathryn Court. This outlot is used to control flow released into a 48-inch storm sewer located within the Springdale Road right of way which conveys flow approximately 1 miles south to the Fox River. Therefore, the improvement will need to mitigate the ditch ponding without overloading the Springdale Road storm sewer and maintaining the operations of the outlot.

The project began construction in May 2022 includes approximately 2,000 feet of 12-inch pipe from the low spot in the Foxwood Ditch to the 48-inch storm sewer on Springdale Road through the Kathryn Court Outlot and includes a bioswale to reduce the City's total suspended solids loading.

Relevancy to the City of Pewaukee: Hydrological & Hydraulic Analysis, WDNR permitting, Civil Plan Set and Project Manual, Native Vegetation Design and Seeding, Construction Administration and Documentation



New culvert (left), erosion control (middle), and trench for new low flow storm pipe and structure (right).

3 Emerald Acres Flood Mitigation Project Pewaukee, WI

Completion Date: 2021

Staff: Rick Eilertson, Ashley Leisgang

Owner Contact: City of Pewaukee | Rich Wirtz | 262.691.0804 | wirtz@pewaukee.wi.us

Description: The Emerald Acres Neighborhood in the City of Pewaukee was experiencing frequent flooding during moderate to extreme rainfall and snowmelt events. The City hired AECOM in 2010 to prepare a hydrologic and hydraulic (H&H) analysis of the neighborhood to identify recommendations to reduce the frequency of flooding within the neighborhood without creating further issues for properties downstream. This study was completed in 2012 and identified numerous recommendations for both storm water detention and conveyance improvements.

Project Challenges: The H&H results identified the biggest constrictions in conveyance leading to the flooding concerns were: 1) an existing 5.4' wide by 4.6' tall deteriorating hand formed concrete culvert under the busy Canadian Pacific Railroad (CP Rail) and 2) a 54" RCP storm sewer on private property south of the railroad. Neither of these properties had public access. Significant negotiations with both CP Rail and the private property owner were required to secure the necessary permits. Additionally, the unnamed stream conveying storm water through this area was determined to be a navigable stream with significant wetland areas that triggered a detailed practicable alternatives analysis to be prepared for approval of permits by both the Wisconsin Department of Natural Resources and the Army Corps of Engineers.

Project Accomplishments: After all the necessary permits and permissions were obtained, AECOM and the City were able to bid the project in October 2019 to enable winter construction from November 2019 through Spring 2020. The new 1,120 lf. of 60" RCP storm sewer was able to be installed on the private property south of CP Rail; however, the three 72" steel casing pipes to be bored and jacked under the Canadian Pacific Railroad were delayed due to new concerns they had with winter construction. AECOM and the contractor revised the track monitoring and construction procedures to address CP Rail's concerns and delayed construction until frost came out of the ground in March 2020. The contractor also revised the dewatering plan to address the spring thaw and increased storm water flows as well as added wood mats through the haul routes along the private property access. Substantial completion was achieved in June 2020 and final completion was authorized during November 2021 after the private property owner provided acceptance of the restoration.

Relevancy to the City of Pewaukee: Hydrological & Hydraulic Analysis, WDNR and Army COE permitting, Railroad Crossing Permitting and Track Monitoring, Civil Plan Set and Project Manual, Stream Restoration, Native Vegetation Design and Seeding, Construction Administration and Documentation



Flooding in North Branch Ecorse Creek (left). Ecorse River (right).

4 Storm Water Master Planning and Green Infrastructure Design West Allis, WI

Completion Date: Ongoing

Staff: Ashley Leisgang, Jimmy Platz, Rick Eilertson, Steve Parse

Owner Contact: City of West Allis | Rob Hutter | 414.302.8373 | rhutter@westallis.gov

Description: The City contracted with AECOM to conduct a Storm Water Management Plan (SWMP) Update. The SWMP assessed TMDL pollutant reduction requirements of West Allis. The plan included existing BMPs, future BMPs, an implementation plan, and a discussion on incorporating bacteria screening to the IDDE Program.

This project documented the water quality analysis conducted for the City of West Allis following the TMDL analysis guidelines prescribed by the WDNR for a municipal-wide storm water quality management plan. This report developed water quality loading estimates using the WinSLAMM computer model to develop loads under no-controls conditions and with-controls conditions. This will be done for the areas tributary to the Milwaukee River following the TMDL analysis guidelines. It also identified potential future BMPs available to the City to reduce storm water pollutant loadings and move towards compliance with TMDL targets.

Through this analysis AECOM has worked with the City and redevelop existing city owned parking lots in poor shape to integrate storm water management practices, such as, permeable pavers, biofilters, and rain gardens. AECOM has assisted the City in designing three of these redeveloped parking lots with a mix of asphalt, permeable pavers as well as two bioretention facilities.

AECOM refined the citywide drainage mapping and hydrologic/hydraulic modeling to quantify storm water runoff quantities and rates for compliance with City of West Allis and MMSD storm water rules. A WinSLAMM storm water quality model was also developed to quantify nonpoint pollution reduction as required by City of West Allis and WDNR rules for TSS reduction for redevelopment sites. Storm water quantity and quality management requirements were achieved through simple system of specifically designed storm sewer piping to control runoff rated, and grassed swales to reduce nonpoint pollution loadings. AECOM developed and submitted a SWMP in compliance with City of Milwaukee requirements. AECOM also developed the construction drawings, technical specifications, and bid documents for the three municipal parking lots.

Relevancy to the City of Pewaukee: Drainage Delineation, BMP Design, Infiltration, TMDL Loading, Future Planning, Implementation Plan



West Allis parking lot with two biofilters and permeable pavement (left). West Allis parking lot with permeable pavement and rain gardens (right).

5 City-wide Storm Water Management Plan Update West Allis, St. Francis, Grafton, Cedarburg, WI

Completion Date: 2018-2022

Staff: Ashley Leisgang, Jimmy Platz, Rick Eilertson, Steve Parse

Owner Contact: City of West Allis | Rob Hutter | 414.302.8373 | rhutter@westallis.gov

Owner Contact: City of St. Francis | Melinda Dejewski | 414.481.2300 | melinda.dejewski@stfranwi.org

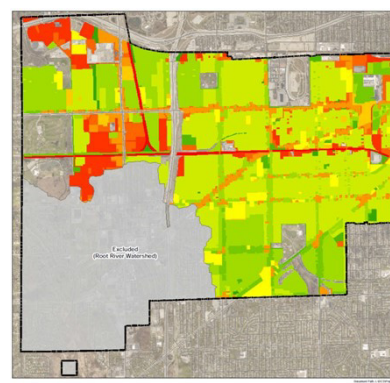
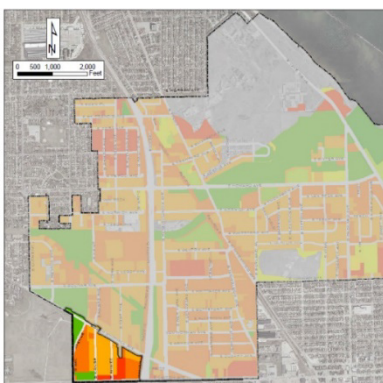
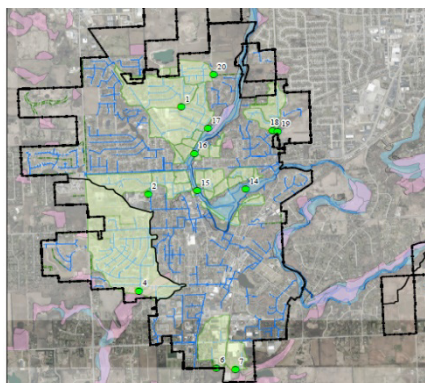
Owner Contact: Village of Grafton | Amber Thomas | 262.375.5330 | athomas@village.grafton.wi.us

Owner Contact: City of Cedarburg | Mike Wieser | 262.375.7610 | mwieser@ci.cedarburg.wi.us

Description: AECOM was selected by various municipalities in southeastern Wisconsin to update their comprehensive community wide SWMP. The SWMP updates were completed on time for each client and accepted by the WDNR. The updates were built upon previous planning efforts and developed to assess compliance with MS4 pollutant reduction requirements based on WDNR modeling guidance and TMDL pollutant reduction requirements of the Milwaukee River Basin TMDL. The projects inventoried each client's existing land use and BMP data, then calculating their existing loading results for MS4 and/or TMDL modeling parameters. Key steps for the projects included:

- Updating GIS data including land use, watershed boundaries, curb and gutter and swale drainage areas, riparian areas and county-owned parcels, and state right-of-way based on the latest WDNR guidance for MS4 and TMDL areas.
- Developed no controls TSS and TP pollutant loadings utilizing WinSLAMM to model annualized loads per acre for each land use and soil type combination in the City.
- Inventoried the client's existing best management practices including grass swales, street cleaning, wet detention basins, catch basin cleaning, bioretention devices, permeable pavement, and other manufactured devices. Previously modeled TSS efficiencies were used for BMPs that had SWMPs developed. BMPs with no existing SWMP data were modeled in WinSLAMM to obtain their TSS and TP pollutant control effectiveness.
- Determined existing pollutant reduction percentages by applying "with controls" storm water control practice efficiencies to the no controls loads. Where applicable, the values were compared with those required by the TMDL to determine how much additional pollutant reduction will be needed to meet all TMDL requirements.
- Analyzed potential future BMPs for reachsheds where the City was not in compliance with pollutant load reduction requirements. This included a variety of potential expanded measures such as retrofitting existing wet pond outlet structures, adding forebays to existing channels or wet ponds, underground storage units, biofiltration, permeable pavement, and other practices.
- Developed cost estimates for future BMPs and ranked based on costs per ton of TSS removed and pound of TP removed and identified practices for potential inclusion in future water quality improvement efforts.
- Assisted clients with developing a 20-year implementation plan that consisted of annual steps for continued permit compliance and water quality improvement as well as major planning, design, and capital construction efforts for new projects to guide future water quality benchmarking efforts.

Relevancy to the City of Pewaukee: Drainage Delineation, Data Management and Maintenance, Assessing MS4 permit and TMDL Requirements, BMP Modelling, TMDL Loading, Implementation Plan



Future Water Quality BMPs Figure for the City of Cedarburg's SWMP Update (left). Existing 2016 TP Conditions Figure for City of St. Francis' SWMP Update (middle). Example With Controls Loading for the City of West Allis (right).

6 Stringham Watershed and South Park Design Oshkosh, WI

Completion Date: 2018 and 2022

Staff: Ashley Leisgang, Dulay Trujillo

Owner Contact: City of Oshkosh | James Rabe | 920.236.5065 | jrabe@ci.oshkosh.wi.us

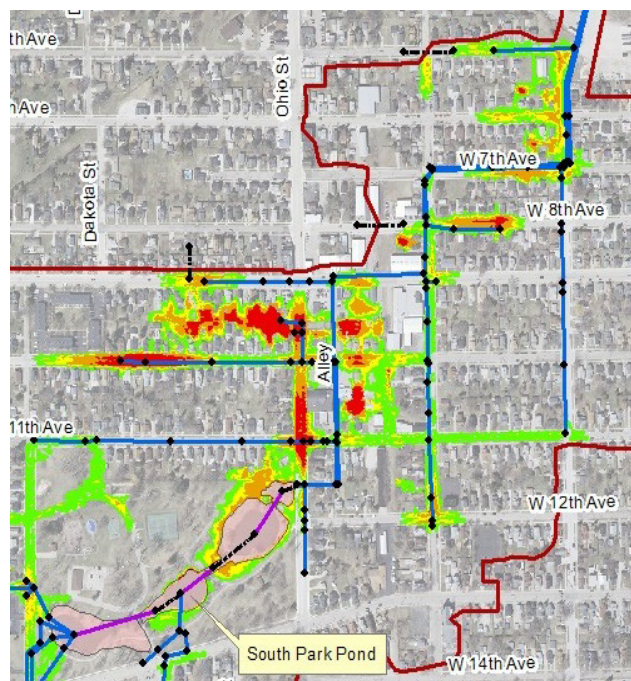
Description: The Stringham Creek Watershed is located in the south central area of the City of Oshkosh. Certain neighborhoods within this watershed experience severe flooding during moderate to heavy rainfalls. This watershed outfalls into the Fox River through a box culvert, which was reduced in size when the culvert's top slab was modified during past repair efforts. This, in addition to the high tailwater elevation on the Fox River which is influenced by Lake Winnebago during rain events, greatly affects the culverts discharge capacity. As a result, there is severe localized flooding in areas of the watershed.

An existing conditions model was developed to evaluate the existing conditions surface flooding, using XP-SWMM™ 2D. The XP SWMM™ 2D model included storm sewers equal to or greater than 18-inches in diameter and utilized LiDAR data to create the surface model. Open channel conveyance systems were also included. In locations where it was deemed important, storm sewers smaller than 18-inches were included, primarily in the areas downstream of the existing storm water management facilities that are incorporated into the model.

Development plans and land use changes were incorporated into the model. After calibration of the model, the existing conditions flood results were used to evaluate various mitigation alternatives. The ultimate goal is to eliminate street flooding throughout the watershed for rainfall events up to a 10-year design storm and to maintain street drivability for storm events up to a 25-year design storm, to the extent practical. A variety of flood mitigation alternates, such as flood water storage, increased capacity for existing storm sewers, creating new storm sewer where existing storm sewer did not exist, increased capacity of storm sewers through the use of a pump station, and combinations of the first four methods, were evaluated. Several sites in the watershed were identified for potential storage along with increasing the existing pipe diameter for various tributary lines. The project has led to a set of recommended improvements that include flood storage expansion of the lagoons in South Park, a central feature of this watershed and an important local park for the City.



Historic pedestrian bridge, a remnant from the original park design. (left). Existing Conditions for the 100-year Storm Event. The project goal was to lower surface ponding downstream of South Park Lagoons, to keep it within the right-of-way limits.(right).



Relevancy to the City of Pewaukee: Technical Coordination, Study Design, Project Management, Construction Document Preparation and Bidding, Engineering and Scientific Analysis, Geotechnical Investigation, Stakeholder Engagement , 100-year Flood Analysis and Mitigation, Storm Water Detention Basins, Watershed Planning

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Project Personnel



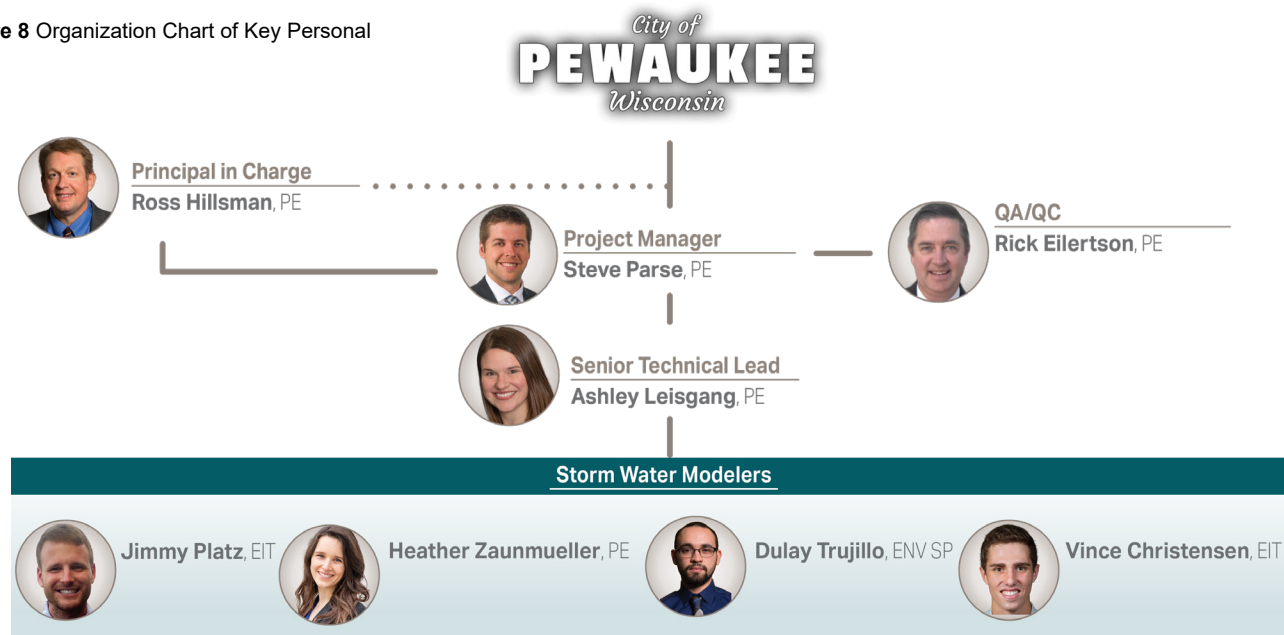
5. Project Personnel

We are proud to offer well-qualified and highly motivated team members to perform all tasks required in developing the storm water models for the City of Pewaukee.

Organizational Chart of Key Personal

Our Milwaukee-based project team is made up of skilled, experienced staff members, familiar with local and state regulations, storm water permit compliance expectations, WDNR regulation guidance, and the software and approaches necessary to successfully accomplish this project.

Figure 8 Organization Chart of Key Personal



Key Personnel	Individual Areas of Responsibility for this Project
Steve Parse Project Manager	Steve will actively communicate with the City to align the SWMP analysis with the City's current control practices and to provide recommendations that adhere to the City's overarching storm water management objectives.
Rick Eilertson QA/QC	Rick specializes in leveraging geospatial and asset management technologies, tools, and data to support engineering and planning projects, with a focus on storm water infrastructure. Rick will lead the project quality assurance according to the current standards and regulations to provide an accurate, compliant SWMP completed in accordance with industry best practices.
Ashley Leisgang Senior Technical Lead	Ashley has extensive experience developing SWMPs throughout Wisconsin and is a lead engineer in the state for SWMP updates regarding MS4 and TMDL compliance. Her practical experience and skills in design and modeling of BMPs help to make the planning process more relevant for future implementation purposes.
Jimmy Platz Storm Water Modeler	Jimmy will work closely with staff to create WinSLAMM models for existing and future BMPs, evaluate TSS and TP loadings, and summarize the data in one complete SWMP. He will support Steve and Ashley in efficiently driving this project forward.
Dulay Trujillo Storm Water Modeler	Dulay will work closely with staff to create XPSWMM models for existing and future conditions and summarize the data in the SWMP. He will support Steve and Ashley in efficiently driving this project forward.
Heather Zaubmueller Storm Water Modeler	Heather has successfully obtained recent WDNR approval of numerous similar projects including TMDL WinSLAMM modeling. Her experience on SWMP projects ranges from refining complex details to enhancing the overall planning efforts.
Vince Christensen Storm Water Modeler	Vince will work closely with staff to create XPSWMM models for existing and future conditions and summarize the data in the SWMP. He will support Steve and Ashley in efficiently driving this project forward.
Ross Hillsman Principal in Charge	Serves as the Water/Wastewater Department Manager for the upper Midwest. In this role, he is responsible for ensuring staff and other resources are available to complete this project.

Steve Parse, PE

Project Manager

Education

Masters, Business
Administration
BS, Civil Engineering

Licenses/Registrations

Professional Engineer: WI

Years of Experience

10

Key Skills

- WinSLAMM modeling
- Storm water management planning
- BMP and site design
- Surface water H&H modeling



Steve has more than 10 years of experience assisting clients with permit compliance, storm water management, TMDL action planning and storm water design. He will serve as the main point of contact and will leverage his experience with other SWMP programs and familiarity with Pewaukee to help the City continue to implement an effective program.

Kathryn/Foxwood Ct Drainage Study, Pewaukee, WI. Steve served as a drainage engineer and deputy project manager for a drainage study to determine the cause of a reported drainage issue and analyze three alternatives to correct the issue. The study involved collecting existing storm sewer data including survey information, collecting the data in a GIS file, and creating a XP-SWMM model to analyze the drainage area of approximately 290 acres of urban and rural land uses. The study produced three alternatives to correct the drainage issues and associated cost estimates.

Kenosha Water Utility Parcel F Sewer Relocation, Kenosha, WI. Steve served as the lead design engineer and deputy project manager for a relocation of approximately 1,200 feet of sanitary sewer in the downtown area of Kenosha. Steve's design tasks include sizing the sewer for proposed capacities, laying out their proposed routing, and producing the plan sheets and specifications.

WisDOT I-39/I-90 Reconstruction – South Segment Design, WisDOT. Steve served as a drainage engineer for the reconstruction of 12 miles of interstate highway and two local roads. Steve's design tasks include using XP-SWMM to analyze and design proposed drainage system and using WisDOT standard to determine proposed inlet spacing and provide details for plan set.

New MDOT I-75 Pump Station Discharge Analysis at George W Kuhn Retention and Treatment Basin Facility, Oakland County, MI. Steve served as a design engineer and deputy project manager for the analysis and design of the discharge routing of a proposed MDOT pump station in Oakland County, MI. Steve used XP-SWMM to determine the discharge location of a proposed pump station considering "dirty" first flush storm water and "clean" post-first flush water to a combined sewer system, combined sewer system storage and treatment basin, and a storm sewer bypass. A weir structure and discharge pipe were designed from the analysis.

1st Ave. Biofilter Design, Grafton, WI. Design engineer responsible for the design, modeling, cost estimating, and specification writing for a series of biofilters installed within the median of a divided roadway. The design of the biofilters included five different median area with approximately 200-300 square feet of engineered soil. The roadway was designed to drain to the biofilters via curb cuts before existing inlet locations. WinSLAMM models were created to determine TSS and TP removal efficiencies and HydroCAD was used to develop hydraulic models for each biofilter.

City-wide SWMP Update – City of Cedarburg, WI. Technical lead. Developed potential BMPs and used WinSLAMM to determine storm water pollution quantities (Total Suspended Solids and Total Phosphorus) for the City of Cedarburg to comply with WDNR MS4 and Milwaukee River Basin TMDL Permits. Based on required TMDL targets, future BMPs were proposed and modeled in WinSLAMM. This allowed the City to accurately gauge the amount of additional storm water control needed to meet the TMDL requirements. Existing and future condition modeling results were then summarized, and recommendations and results were presented in a final report with accompanying figures created in ArcGIS.

Rick Eilertson, PE

QAQC



Education

BS, Civil & Environmental Engineering

Licenses/Registrations

Professional Engineer: WI

Years of Experience

30

Key Skills

- Storm Water Facility Planning
- Inspection and Maintenance
- Municipal Infrastructure
- Public Involvement

Throughout his professional experience, Rick has worked closely with municipal governments in planning, evaluating, designing, and constructing municipal infrastructure systems. Rick's specialties include storm water conveyance design and construction; storm water utility management, roadway design and construction; municipal water and sanitary sewer system design, including planning and construction, municipal sewer system evaluation and rehabilitation; and sustainability initiatives. Planning for these projects included estimating, scheduling, coordination with funding programs, as well as permitting and correspondence with state and local governmental agencies.

Emerald Acres Flood Mitigation Project, Pewaukee, WI. Project Manager. Coordinated design modifications, ACOE/WDNR permit application documents, CP Rail Crossing permit application, bidding, and construction administration for storm water system improvements to alleviate flooding issues within the Emerald Acres residential subdivision in Pewaukee, Wisconsin.

Kathryn/Foxwood Ct Drainage Study, Pewaukee, WI. Rick served as a drainage engineer and project manager for a drainage study to determine the cause of a reported drainage issue and analyze three alternatives to correct the issue. The study involved collecting existing storm sewer data including survey information, collecting the data in a GIS file, and creating a XP-SWMM model to analyze the drainage area of approximately 290 acres of urban and rural land uses. The study produced three alternatives to correct the drainage issues and associated cost estimates.

Fitchrona Road Stormwater Improvements, City of Fitchburg, WI. Project manager for the modeling and recommendations for providing storm water improvements to reduce flooding on Fitchrona Road between Nesbitt Road and Lacy Road. Modelling included HydroCAD for hydrology parameters and XP-SWMM for hydrology and hydraulic analysis.

Storm Water Management Plan Update and IDDE Report Services, City of Cedarburg, Cedarburg, WI. Served as Project Manager for updating Cedarburg's Storm water Management Plan (for Total Suspended Solids and Total Phosphorus) to meet WDNR MS4 permit and Milwaukee River Basin TMDL requirements. The updates also included revising Cedarburg's Storm water Management ordinances and grant reimbursement documentation. Served as Project Manager for Illicit Discharge Detection and Elimination services provided to Cedarburg by AECOM.

Storm Water Management Plan Update and IDDE Report Services, Village of Grafton, WI. Served as Project Manager for updating Grafton's Storm water Management Plan (for Total Suspended Solids and Total Phosphorus) to meet WDNR MS4 permit and Milwaukee River Basin TMDL requirements. The updates also included revising Grafton's Storm water Management ordinances and providing grant reimbursement documentation. Served as Project Manager for Illicit Discharge Detection and Elimination services provided to Grafton by AECOM.

Nine Springs Creek Watershed Master Plan, City of Fitchburg, WI. Project Manager. Coordinated grant application and administration, consultant selection, public involvement, and recommendations for future stormwater facility improvements for the entire 3,600-acre Nine Springs Creek watershed. This project included cooperation with the adjacent Cities of Madison and Monona, as well as the Towns of Madison and Blooming Grove. Concept Plans for over 10 potential large-scale stormwater facilities were prepared and prioritized into the City's 10-year Capital Improvements Program Plan. Coordinated research, planning and design analysis, recommendations and a final report for stormwater facility and program improvements for the Nine Springs Creek Watershed. Work included numerous stakeholder meetings, three public involvement meetings, along with walking, biking, bus, and trolley tours through the watershed.

Ashley Leisgang, PE

Senior Technical Lead



Education

BS, Civil and Environmental Engineering

Licenses/Registrations

Professional Engineer, WI

Years of Experience

15

Key Skills

- Project Management
- Storm Water Management Planning
- Hydraulic and Hydrologic Modeling
- BMP and Site Design
- Municipal Infrastructure
- WinSLAMM Modeling

Ashley is a senior engineer with extensive experience in storm water planning, modeling, and design. The experience includes urban nonpoint source pollution modeling for storm water management plans and surface water hydrologic and hydraulic modeling. She conducts pollutant load reduction analyses for storm water management planning as well as H&H analyses for existing and proposed bridge and culvert replacements. She is proficient with WinSLAMM, ArcGIS, XPSWMM, XPSWMM 2D, HEC-RAS, AutoCAD, and software.

City-wide SWMP Update, City of West Allis, City of St. Francis, City of Greenfield, Village of Grafton, WI. Project Manager. Gathered required information and used WinSLAMM to determine storm water pollution quantities (Total Suspended Solids and Total Phosphorus) for various communities throughout southeastern Wisconsin for WDNR MS4 and Milwaukee River Basin TMDL Permits. This information included: best management practice locations and modeled removal efficiencies, watershed boundaries, prior and current land use, curb and gutter vs. swale drainage areas, and riparian areas. Existing model results were then interpreted and compared to TMDL targets. Based on required TMDL targets, future BMPs were proposed and modeled in WinSLAMM. This allowed the communities to accurately gauge the amount of additional storm water control needed to meet the TMDL requirements. Existing and future condition modeling results were then summarized, and recommendations and results were presented in a final report with accompanying figures created in ArcGIS.

Kathryn/Foxwood Ct. Drainage Study and Design, Pewaukee, WI. Ashley served as a senior reviewer for the drainage study to determine the cause of a reported drainage issue and analyze three alternatives to correct the issue. The study involved collecting existing storm sewer data including survey information, collecting the data in a GIS file, and creating a XP-SWMM model to analyze the drainage area of approximately 290 acres of urban and rural land uses. The study produced three alternatives to correct the drainage issues and associated cost estimates. After the planning study, she helped lead the review of the construction documents.

City of Manhattan Beach, Storm Drain Master Plan, Manhattan Beach, CA. Lead Engineer to perform hydrologic and hydraulic (H&H) modeling to find the existing problem areas within entire City using XPSWMM 2D. The existing model was developed and used to determine the flooding issues for the three design storms. Once the problem areas were identified, we worked with City staff to develop the best solutions to mitigate the surface flooding in the City. Alternatives were evaluated to properly size the proposed conveyance and storage basins. The plan identified the projects, along with the costs associated with the improvements. These were then summarized into a CIP plan.

City of Oshkosh, South Park Master Plan and Lagoon Design, Oshkosh, WI. Project Manager and Lead Engineer to perform hydrologic and hydraulic (H&H) modeling to find the existing problem areas within the watershed. From there, she worked with the City to determine the best solutions to mitigate the surface flooding in the watershed. Alternatives were evaluated to properly size the proposed conveyance and storage basins. XPSWMM 2D was the software used. The plan determined that the watershed needed improvements to the existing storm system, upgrades/retrofits to current wet detention basins, and new dry detention basins. One of the retrofits was to redesign the current wet detention basins in the heart of the watershed, which is upstream of a neighborhood with significant historical flooding. These basins were in a park called, South Park. In existing conditions, there were three lagoons that are formed and controlled by three existing weir structures. The hydraulic structures are nearing the end of their design life and do not restrict flow to create dynamic flood storage in the lagoons. Performed hydrologic and hydraulic (H&H) modeling to find the existing flood water surface elevation and then modeled the proposed improvements to maximize flood storage and water quality enhancement.

Jimmy Platz, EIT

Storm Water Modeler



Education

MS, Civil & Environmental Engineering
BS, Geological Engineering

Licenses/Registrations

Engineer in Training, WI

Years of Experience

3

Key Skills

- WinSLAMM modeling
- Storm Water management planning
- BMP and site design
- Surface water H&H modeling

Jimmy is a water resources engineer in the Milwaukee office. His technical expertise includes urban nonpoint source pollution modeling, BMP design, and storm water management planning for TMDL and WDNR MS4 permit compliance. His experience also includes surface water hydrologic and hydraulic modeling, roadway drainage design, and construction oversight on water resource and environmental projects. He is proficient with WinSLAMM, ArcGIS, HydroCAD, XPSWMM, HEC-RAS, and AutoCAD software.

City-wide SWMP Update – City of West Allis, Village of Grafton, and City of Cedarburg, WI. Technical Support. Gathered required information and used WinSLAMM to determine storm water pollution quantities (Total Suspended Solids and Total Phosphorus) for various communities throughout southeastern Wisconsin for the WDNR MS4 and Milwaukee River Basin TMDL Permits. This information included: best management practice locations and modeled removal efficiencies, watershed boundaries, prior and current land use, curb and gutter vs. swale drainage areas, and riparian areas. Existing model results were then interpreted and compared to TMDL targets. Based on required TMDL targets, future BMPs were proposed and modeled in WinSLAMM. This allowed the communities to accurately gauge the amount of additional storm water control needed to meet the TMDL requirements. Existing and future condition modeling results were then summarized, and recommendations and results were presented in a final report with accompanying figures created in ArcGIS.

Parking Lot Reconstruction Design, City of West Allis, WI. Technical Support. Assisted with the design of two parking lot reconstructions between 71st-72nd Street and 73rd-74th Street that incorporated bioretention devices and interlocking concrete permeable pavement to help the city achieve their storm water quality goals. Put together design alternatives, plan sheets, specs, cost estimates, and used HydroCAD and WinSLAMM to evaluate and model the BMP efficiencies.

Foxwood-Kathryn Court Drainage Study & Design, City of Pewaukee, WI. Stormwater Modeler. Assisted with developing HydroCAD and XPSWMM 1D models to analyze an urban area with existing drainage issues. Also used WinSLAMM software to analyze removal efficiencies for bioretention alternatives and help the city achieve their storm water quality goals.

Citizen Park Storm Water Management Plan, City of Manitowoc, WI. Technical Support. Assisted with a storm water management plan for a development in Manitowoc, WI to comply with WDNR requirements. Prepared alternatives to reduce pollutant loads, used HydroCAD to assess the hydrology, and used AutoCAD to delineate drainage areas and create project figures.

Site Review, City of West Allis, WI. Technical Support. Assisted with the review of a redevelopment site located south of National Avenue in the City of West Allis. Reviewed the WinSLAMM and HydroCAD models to check that the pollutant load reductions and hydrology aligned with Wisconsin Department of Natural Resources (WDNR) and Milwaukee Metropolitan Sewerage District (MMSD) requirements.

Drainage Study for the Village of Plover, WI. Stormwater Modeler. Assisted with developing a 1D XPSWMM model for a residential neighborhood that experienced flooding in the Spring of 2019. Developed conveyance alternatives to remediate the existing drainage problems and used ArcGIS to delineate drainage areas and create project figures.

Illicit Discharge Detection and Elimination (IDDE) – City of Cedarburg, Village of Grafton, Village of Hales Corners, City of Racine, City of Saint Francis, City of South Milwaukee, and City of West Allis, WI. Technical Lead. Performs the collection and analysis of storm water samples to comply with WPDES permit requirements. Pollutants tested for include ammonia, chlorine, copper, detergents, fluoride, phenols, and potassium. pH and bacteria levels are also evaluated. Starting at an outfall, if pollutants are found above the action limits, investigation is performed upstream in the storm sewer network in attempt to isolate the source. Data is compiled in an annual report and submitted to the municipality and WDNR for review.

Dulay Trujillo, ENV SP

Storm Water Modeler

Education

MS/BS, Civil and
Environmental Engineering

Licenses/Registrations

Envision Sustainability
Professional

Years of Experience

2

Key Skills

- WinSLAMM &
XPSWMM modeling
- Storm water
management planning
- Storm sewer modeling
- Surface water H&H
modeling



Dulay is a civil engineer with a background in water resources and environmental engineering. He has experience working with a variety of audiences and public outreach. He is newly familiar with XPSWMM, XPSWMM 2D, HEC-RAS, WinSLAMM, AutoCAD, and ArcGIS software.

Kathryn Court Drainage Improvements for the City of Pewaukee, WI. Construction Inspector. Dulay's role is assisting in documenting daily construction observation on behalf of the City of Pewaukee, track quantities, coordinate with the contractor, and document weekly erosion control inspections.

St. Francis Storm Water Pollution Prevention Plan (SWPPP), St. Francis, WI. GIS Modeler. Assisted in developing a SWPPP for the City of St. Francis. Project included identifying potential sources of contamination and proposing possible best management practices (BMPs) to the City. ArcMAP was the software used to develop figures for the report presented to the client.

Johnson and Stingham Modeling City of Oshkosh, Oshkosh, WI. Storm Water Modeler. The City Oshkosh is conducting a detailed hydrologic/hydraulic (H&H) and storm water quality analysis for each watershed in the City. Certain neighborhoods within the Johnson Ave and Stringham watershed experience severe flooding during large rainfall event. The watersheds H&H modeled was conducted using XPSWMM. The existing conditions were evaluated using a variety of storm events. Following the evaluation of existing flooding conditions, the study areas were reviewed to identify potential locations for flood management measures which included: improvement to existing storm sewers, new storm sewers, and channel/ditch improvement. Alternative were evaluated using XPSWMM.

Milwaukee Metropolitan Sewerage District - Green Infrastructure Outreach. Fresh Cost Intern. Assisted in promote green infrastructure (GI) technologies, in English and Spanish, to private property owners while an intern at Milwaukee Metropolitan Sewerage District's (MMSD). The work gave him an opportunity to engage with community members and communicate practical small-scale and large-scale GI knowledge and support small scale workshops and installations.

CORE/EI Centro – Community and Public Outreach. Program Assistance/Land Steward. Dulay was involved in planning, organizing, and coordinating community events for adults, young adults, and children from the near southside of Milwaukee. The community events subject ranged from themes that included, but not limited to, healthy lifestyle, environmental stewardship, gardening, and apiculture. All the events were presented in English with Spanish translations when needed. In addition, Mr. Trujillo also managed the clock shadow building rooftop garden, community garden, and rooftop beehive while at the same time educating visitors.

Heather Zaunmueller, PE

Storm Water Modeler

Education

BS, Civil Engineering

Licenses/Registrations

Engineer in Training, WI

Years of Experience

4

Key Skills

- H&H Modeling
- Water Quality Modeling



Heather is an Engineering-in-Training with four years of experience specializing in water resources. She has experience in storm water quality modeling for storm water management planning, hydraulic modeling for bridge replacement projects, FEMA floodplain modeling and mapping, and storm water drainage modeling and design. Heather is proficient in ArcGIS and HEC-RAS and familiar with HydroCAD, AutoCAD, WinSLAMM, and XPSWMM software.

City-wide SWMP Update, Upper Fox/Wolf River TMDL, Fond du Lac County, Towns of Fond du Lac, Friendship, and Taycheedah, WI. Primary Modeler. Gathered required information to determine the total storm water pollution quantities (Total Suspended Solids and Total Phosphorus) using WinSLAMM for the Upper Fox/Wolf River TMDL Permit. This information included: BMP locations and modeled removal efficiencies, watershed boundaries, land use designations, curb and gutter vs. swale drainage areas, as well as riparian areas and areas that drain to another MS4. Model results were then interpreted and compared to TMDL targets and compiled into report format with accompanying figures created in GIS. Future recommendations were offered for steps to meeting the TMDL requirements.

Wisconsin Department of Transportation, Southeast Region TS4 Permit Storm water Mapping, Various Locations, WI. Modeling Lead. Provided modeling and GIS mapping support for statewide water quality modeling to comply with the reporting requirements of the WDNR transportation separate storm sewer system (TS4) permit for storm water management. Organized and adapted spatial data to model pollutant loading for total suspended solids and total phosphorus.

Wisconsin Department of Transportation, USH 51 Segment 3 Hydrologic and Hydraulic (H&H) Modeling and Water Quality Analysis, City of Stoughton, WI. Deputy Project Manager & Primary Stormwater Modeler. Modeled existing and proposed flows and volumes entering a closed basin using XP-SWMM software. Provided stormwater treatment solutions to reduce flows and water surface elevations in the closed basin due to highway reconstruction. Computed water quality loadings for final design alternative. Summarized analysis in a stormwater report.

Portage County Highway Department, CTH R Hydrologic and Hydraulic (H&H) Modeling and Water Quality Analysis, Plover, WI. Primary Modeler. Performed H&H analysis for drainage conveyance along CTH R using XP-SWMM software. Reviewed spatial data to delineate drainage basins, classify land uses, calculate Times of Concentration, calculate and CN values. Evaluated two proposed alternatives in XP-SWMM, one with a rural cross section and another with an urban cross section. Computed water quality loadings for final design alternative. Summarized analysis in a stormwater report.

City of Verona, CTH M/CTH PB Intersection Improvements, Middleton, WI. Permitting Support. Compiled applications and supporting documentation for the WDNR notice of intent permit and Verona erosion control permit for improvements at the intersection of CTH M and CTH PB. Documentation included USLE calculations (soil loss & sediment discharge calculation tool) and existing site maps including WDNR wetland inventory, topography, and soils.

Village of Weston, Crestwood Acres Neighborhood Street Reconstruction Design Project, Weston, WI. Primary Modeler. Performed H&H analysis for drainage conveyance along in the Crestwood Acres Neighborhood using XP-SWMM software. Reviewed spatial data to delineate drainage basins, classify land uses, calculate Times of Concentration, calculate and CN values. Ensured no backsliding of water quality treatment under the municipal separate storm sewer system (MS4) permit held by the village.

Wisconsin Department of Transportation, Roadway Design, Somerset, WI. Reviewer. Provided quality control (QC) of stormwater analysis for 90% roadway design submittal. Reviewed modeling data including drainage area delineations, Time of Concentration calculations, and CN calculations. Reviewed Autodesk Storm and Sanitary Analysis (SSA) model and plans.

Vincent Christensen, EIT

Storm Water Modeler

Education

BS, Environmental
Engineering

Licenses/Registrations

Engineer in Training, WI

Years of Experience

2

Key Skills

- WinSLAMM modeling
- Storm water management planning
- Potable water main leak detection
- Surface water H&H modeling



Vincent is a water resources engineer-in-training. His technical expertise includes urban nonpoint source pollution modeling, potable water main leak detection, and storm water management planning for TMDL and WDNR MS4 permit compliance. His experience also includes surface water hydrologic and hydraulic modeling, roadway drainage design, CIPP rehabilitation, and construction oversight on water resource and municipal projects. He is proficient with AutoCAD, MicroStation, ArcGIS, WinSLAMM, HydroCAD, XPSWMM, WISE, and HEC-RAS software.

Foxwood-Kathryn Court Drainage Study & Design, City of Pewaukee, WI. Storm Water Modeler. Assisted with developing drainage system upgrades to an urban area with existing drainage issues. AutoCAD was utilized to create sheet sets which contained storm sewer layouts, surface grades, engineered soil area, and other project construction information.

Milwaukee Airport Rail Station Phase 2 Second Platform, Milwaukee WI. Storm Water Modeler. Developed 1D XPSWMM, HydroCAD, Hydraulic Toolbox, and WinSLAMM models to check that pollutant load reductions, H&H aligned with Wisconsin Department of Natural Resources (WDNR) and Milwaukee Metropolitan Sewerage District (MMSD) requirements. Helped to create a storm water management report, plan sheets, and specifications.

Beuchel Development, Town of Sheboygan, WI. Storm Water Modeler. Assisted with the creation and review of a development site located in the Town of Sheboygan. Created the WinSLAMM and HydroCAD models to check that the pollutant load reductions and hydrology aligned with Wisconsin Department of Natural Resources (WDNR) and Sheboygan storm water requirements.

Texas Department of Transportation - Houston District, SH 35 Roadway Widening Drainage Impact Study and S&E, Houston, TX. Storm Water Modeler. Assisted with developing a 1D XPSWMM model for proposed drainage system upgrades to SH 35 in Alvin, TX. Developed conveyance alternatives to remediate the existing drainage problems and used ArcGIS to delineate drainage areas and create project figures.

US Federal Emergency Management Agency, Risk Map 2014-2021 - FY20 Region 6 Regional Task Orders, Various Locations, Multiple States. Project engineer assigned a drainage area with approximately 485 miles of stream. Utilizing proprietary software, as well as ArcGIS and HEC-RAS 5.0.5, flood areas were modeled for the 100-yr and 500-yr events for all the streams in the basin.

Illicit Discharge Detection and Elimination (IDDE) – City of Cedarburg, Village of Grafton, City of Saint Francis, and City of South Milwaukee, WI. Field Surveyor. Performed collection and analysis of storm water samples to comply with WPDES permit requirements. Pollutants tested for include ammonia, chlorine, copper, detergents, fluoride, phenols, and potassium. pH and bacteria levels are also evaluated. Starting at an outfall, if pollutants are found above the action limits, investigation is performed upstream in the storm sewer network in attempt to isolate the source. Data is compiled in an annual report and submitted to the municipality and WDNR for review.

Budget



6. Budget

The compensation table as shown in Figure 9, summarizes our estimate of fees to complete the scope of services described. Because of the complexity of the project our proposed project fee is \$408,000, which is higher than the allocated budget for FY 2022, of \$350,000. If the City would like to keep to the allocated budget, our Team proposes most of Task 3 – Water Quality be removed from the scope of work at this time. The remaining water quality task consists of creating WinSLAMM models for the proposed storm water alternatives generated in Task 2. The items in the figure with the red box next to the task, illustrate the scope items that can be delayed. The remaining Scope Items will cost \$330,600.

Figure 9. Compensation Table

Scope of Work	Labor Costs	Direct Costs	Total Costs
1 Data Collection and Review			\$ 35,100
Update TMDL Watershed/Reachshed Boundaries	\$ 2,310	\$ -	\$ 2,300
Storm Water Conveyance	\$ 7,470	\$ -	\$ 7,450
Create Soils Data	\$ 2,090	\$ -	\$ 2,100
Land Use	\$ 7,970	\$ -	\$ 7,950
Excluded Areas (not sure what guidance to use)	\$ 4,780	\$ -	\$ 4,800
Climate	\$ 1,210	\$ -	\$ 1,200
Water Quality Indicators	\$ 1,950	\$ -	\$ 1,950
Review SEWRPC Studies	\$ 7,360	\$ -	\$ 7,350
2 Water Quantity			\$ 239,400
2.1 - XP-SWMM Model Development			
Construct Watershed Characteristics	\$ 31,920	\$ -	\$ 31,900
Construct Conveyance Network plus channel dimensions	\$ 54,960	\$ -	\$ 54,950
Add Public (26 Public BMPs (8 hours each), 36 Private BMPs @ 2 hrs each)	\$ 26,400	\$ -	\$ 26,400
Add Four Projects (Hilldale, Kathryn Ct, Emerald Acres, and Takoma)	\$ 3,230	\$ -	\$ 3,250
Boundary Condition Definition - 10 year floodplain tailwater conditions	\$ 3,420	\$ -	\$ 3,400
Execute Modeling - Run 10 and 100-year, 24-hour Events	\$ 2,990	\$ -	\$ 3,000
Incorporate 2050 Land Use Data	\$ 12,380	\$ -	\$ 12,400
Existing Conditions Figures	\$ 8,360	\$ -	\$ 8,350
Problem Area Identification in each Watershed	\$ 18,300	\$ -	\$ 18,300
2.2 - Flood Mitigation Alternatives			
Evaluate Prior Recommended and new SCM/System Improvement Analysis for each Watershed (10 Storm Water Practices - 40 hours per watershed)	\$ 43,260	\$ -	\$ 43,250
Conceptual Figures (Up to 10 Concept Figures)	\$ 12,040	\$ -	\$ 12,050
Selected Alternative	\$ 14,020	\$ -	\$ 14,000
Prepare Cost Estimate	\$ 8,150	\$ -	\$ 8,150
3 Water Quality			\$ 77,300
3.1 - Establish TMDL No Controls Conditions Load by Reachshed			
Create WinSLAMM Data Files	\$ 2,980	\$ -	\$ 3,000
Calculate TMDL No-Controls Load	\$ 5,640	\$ -	\$ 5,650
3.2 - Establish TMDL With Controls Conditions Load by Reachshed			
Update Street Cleaning/Swales	\$ 5,570	\$ -	\$ 5,550
Evaluate Catch Basins	\$ 4,860	\$ -	\$ 4,850
Evaluate With Controls City Owned BMPs (26 City Owned) assuming 4 hours each	\$ 11,620	\$ -	\$ 11,600
Evaluate with Controls Private BMPs - Private SWMP. Mix of modeling and just clicking TP (assumed 36 @ 2 hr each)	\$ 8,700	\$ -	\$ 8,700
Calculate With-Controls Conditions TMDL Load	\$ 6,260	\$ -	\$ 6,250
Summarize Existing TMDL Results	\$ 5,940	\$ -	\$ 5,950
Compile Methodology and Results	\$ 5,090	\$ -	\$ 5,100
3.3 - Evaluation of Potential Future Storm Water Control Practices for Purposes of TMDL Compliance			
Proposed Storm Water Control Practice Evaluation (10 sites @ 4 hr each)	\$ 10,260	\$ -	\$ 10,250
Develop Stormwater Control Practice Cost Estimates and Funding Mechanisms	\$ 7,260	\$ -	\$ 7,250
Develop Implementation Schedule	\$ 3,140	\$ -	\$ 3,150
4 Dry Weather Field Screening			\$ 5,900
Desktop Analysis	\$ 5,860	\$ -	\$ 5,850
5 Recommended Comprehensive Storm Water Management Plan			\$ 34,100
Summarize Data Review	\$ 3,160	\$ -	\$ 3,150
Summarize H&H Study	\$ 9,500	\$ -	\$ 9,500
Compile No-Controls	\$ 3,180	\$ -	\$ 3,200
Compile With-Controls	\$ 3,180	\$ -	\$ 3,200
Compile Future Conditions	\$ 3,900	\$ -	\$ 3,900
Summarize Cost Estimate	\$ 4,640	\$ -	\$ 4,650
Develop Implementation Schedule	\$ 6,460	\$ -	\$ 6,450
6 Meetings			\$ 16,200
Meeting (6)	\$ 16,120	\$ 100	\$ 16,200
Total	\$ 407,890	\$ 100	\$ 408,000

Scope items that can be authorized at a later date.

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Contact

Steve Parse, PE
Project Manager (Single Point of Contact)
1555 N. RiverCenter Drive, Ste 214
Milwaukee, WI 53212
T: 414.944.6147
E: steve.parse@aecom.com

**CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 5.3.**

DATE: September 22, 2022

DEPARTMENT: PW - Stormwater

PROVIDED BY: Magdelene Wagner

SUBJECT:

Discussion and possible action regarding the 2023-2026 MS4 Information and Education Workplan

BACKGROUND:

The City contracts with Waukesha County to assist in the information and education portion of the City's NR216 Permit with the Department of Natural Resources. New this year, they are looking to create a workplan for each community to cater which information and education programs they will focus on. To develop this, they are asking us to fill out a quick Municipal Checklist. In turn, we are asking for your feedback on what you would like us to focus on. Please fill out the survey with your preferences or bring your feedback to the meeting.

We have also included the current workplan we have been using to give you some ideas on these topics.

FINANCIAL IMPACT:

RECOMMENDED MOTION:

ATTACHMENTS:

Description

Municipal Checklist

I&E workplan 2020-2024

Municipal Checklist

Please rank the top 3 concerns in your municipality. Your community's 3 year education plan will be based on your answers.

____ Rain Gardens and Rain Barrels

____ Leaf Management

____ Pet Waste Management

____ Homeowner Association Education (BMP maintenance)

____ Adopt a Drain

____ Yard Waste Management/Composting

____ Other (please specify) _____

What resources are available in your community? Check all that apply.

____ municipal social media page

____ business groups (Rotary, Kiwanis, Chamber of Commerce)

____ social groups (Garden Club, Women's Club, etc)

____ community events

____ municipal newsletter

MS4 Public Education and Outreach Plan for Waukesha County Partner Communities 2020 to 2024

Permit Topic Areas	I&E Programs	Audience	Municipal I&E Plan Program Descriptions	2020	2021	2022	2023	2024	Municipal Activities (describe)	Passive or Active P/A
1. Illicit Discharge and Elimination	Storm Drain Stenciling	Teachers/Students, General Public	Continue to promote Storm Drain Stenciling (markers) especially as service learning project	X	X	X	X	X		A
	Adopt a Storm Drain	General Public, Businesses	Launch Adopt a Storm Drain Program with press release associated with World Water Day Set goal for # of adopters/year.	X	X	X	X	X		A
	social media	general public	media posts to help with launch of storm drain program	X	X	X	X	X		P
2. Household Hazardous Waste Disposal/Pet Waste Management/Vehicle Washing	HHW Collections	General Public	Partner with communities to host HHW collection events, website to help residents know how to dispose of items	X	X	X	X	X		A
	Watershed educational programs	Teachers/Students , general public	educational programs that cover pet waste and car washing	X	X	X	X	X		A
	Home Makeover: Green Edition program	General Public	program that covers pet waste, car washing and more	X	X	X	X	X		A
	Green Cleaning and Household Elf programs	General Public	program that covers toxic cleaners and safer alternatives	X	X	X	X	X		
	Displays and Handouts	General Public	Display that covers pet waste and car washing	X	X	X	X	X		P
	social media	General Public	timely posts on seasonal topics	X	X	X	X	X		P
3. Yard Waste Management/Pesticide and Fertilizer Application	Watershed educational programs	Teachers/Students , general public	educational programs that cover leaf management and fertilizers	X	X	X	X	X		A
	Home Makeover: Green Edition program	General Public	program that covers leaf management and fertilizer use	X	X	X	X	X		A
	Healthy Soils through Composting program	Teachers/Students	program that covers composting leaves and other yard waste	X	X	X	X	X		A

	Home Composting for Healthy Soils program	General Public	program that covers composting leaves and other yard waste	X	X	X	X	X		A
	Displays and Handouts	General Public	display with handouts that covers yard waste management and fertilizer use	X	X	X	X	X		P
	yard waste collection/processing	municipalities	work with municipalities to provide processing of yard wastes in partnership with Johnson Nursery	X	X	X	X	X		A
	social media	General public	timely posts on seasonal topics	X	X	X	X	X		P
4. Stream and Shoreline Management	Displays and Handouts	General Public	display with handouts that covers native plantings for shorelines	X	X	X	X	X		P
	Healthy Lakes Conference	Lakeshore property owners	Conference that covers shoreline restoration		X		X			A
5. Residential Infiltration	Rain Barrels/rain gardens workshop	General Public	program covering installation and use of rain gardens and rain barrels		X		X			A
	Displays and Handouts	General Public	Display that covers rain gardens and rain barrels as well as native plants	X	X	X	X	X		P
	Composting for Healthy Soils workshop	General Public	program that covers using compost to increase infiltration and water holding capacity of soils	X	X	X	X	X		A
	social media	General Public	timely posts on seasonal topics	X	X	X	X	X		
6. Construction Sites/Post-Construction Stormwater Management	Annual Stormwater Workshop	Developers, Builders, Contractors, Municipal Staff	workshop that covers a variety of topics regarding constructions sites and BMP management and maintenance	X	X	X	X	X		A
	Homeowners Association BMP maintenance workshop	Homeowners Associations	workshop that covers management and maintenance for BMP's	X	X	X	X	X		A
7. Pollution Prevention	Salt Management for Parking Lots Workshop	Businesses, Municipal staff, school facility staff	workshop that covers salting best management practices for sidewalks and parking lots	X			X			A

	Adopt a Storm Drain	Businesses	Launch Adopt a Storm Drain Program with press release associated with World Water Day Set goal for # of adopters/year.	X	X	X	X	X		A
	business resource webpage	businesses	launch website with resources specific to businesses	X	X	X	X	X		
8. Green Infrastructure/Low Impact Development	Green Infrastructure class	WCTC students	teach session in WCTC class on planning and development/building	X	X	X	X	X		A
	Annual Stormwater Workshop	Developers. Builders, Contractors, Municipal Staff	workshop that covers a variety of topics regarding constructions sites and BMP management and maintenance	X	X	X	X	X		A
9. Miscellaneous	Citizen Stream Monitoring	General Public	citizens trained to collect water quality data on local streams	X	X	X	X	X		A
	Municipal board/council meeting	General Public, elected officials	present annual workplan and report to public	X	X	X	X	X		A
	web page	General public	up to date information on pollution prevention and available programs	X	X	X	X	X		P

**CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 6.1.**

DATE: September 22, 2022

DEPARTMENT: PW - Water/Sewer

PROVIDED BY:

SUBJECT:

Well #1 Repair 2022

BACKGROUND:

On August 24, 2022, the Utility experienced a pump failure at Well #1 at City Hall. Our initial troubleshooting revolved around a We Energies power outage that occurred due to some storms that had rolled through the area the previous night. Upon further investigation, we discovered that the failure was not due to the localized power outage. Several days later, we were able to get an electrician to evaluate the motor controls and variable speed drive. Their troubleshooting eliminated the controls for the pump failure. We were able to get the pump installer out to disconnect the pump cable to conduct meg-ohm testing of the cable and motor. This testing indicated a dead short of the motor or cable requiring the pump to be pulled to determine which component has failed.

A pump rig arrived onsite on September 12th to remove the piping and pump over several days. On September 15th, the pump and motor were brought to surface. Further testing of the motor with the cable disconnected proved that the motor had shorted out.

The contractor preemptively ordered a replacement motor which arrived in time to be installed immediately after the failed motor was removed. We anticipate that the well will be up and available to run by September 26th.

In April 2021, Well #1 experienced a similar motor failure and was replaced at a cost of \$90,142. (Previously, the motor was replaced in 2017.) In October 2022, the motor failed again and was replaced under manufacturer warranty at no cost to the Utility.

We had hoped that this replacement would also be considered a warranty replacement, however with further investigation and testing this does not seem likely. The estimated cost for the new motor and work is approximately \$65,000.

These failures seem very similar to the series of pump replacements at our North Ave well site where we have experienced several premature motor failures between 2019-2021. We are currently finishing up a Motor Control Center replacement upgrade for both the deep well and shallow well at North Ave with special detail to surge suppression. We will be looking for a consultant to examine our existing Motor Control Center for recommendations on surge suppression and monitoring of incoming power supply at Well #1.

FINANCIAL IMPACT:

RECOMMENDED MOTION:

No action. Update only.

**CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 7.1.**

DATE: September 22, 2022

DEPARTMENT: Public Works

PROVIDED BY: Magdelene Wagner

SUBJECT:

Discussion and possible action regarding the Draft 2023 Budget.

BACKGROUND:

Attached is the Draft 2023 Budget for concurrence with Staff.

FINANCIAL IMPACT:

RECOMMENDED MOTION:

Committee recommends approval of the Public Works Budget to the Finance Committee and Common Council.

ATTACHMENTS:

Description

2023 DRAFT Budget Road, Eng, Storm

2023 Draft Budget W&S

**CITY OF PEWAUKEE
2023 BUDGET
GENERAL FUND EXPENDITURES**

2021 Actual	2022				2023 Budget	% Change	COMMENTS
	6 Month Actual	Year End Forecast	2022 Budget	2023 Dept Request			

ADMINISTRATION

Mayor

100-51100-51100	Wages	10,904	4,442	10,500	10,500	10,500	10,500		
100-51100-51300	Social Security	941	384	907	907	907	907		
100-51100-51400	Auto Allowance	1,402	571	1,350	1,350	1,350	1,350		
	Total Mayor	13,247	5,397	12,757	12,757	12,757	12,757	0.00%	

Common Council

100-51110-51100	Wages	39,179	16,500	39,000	39,000	39,000	39,000		
100-51110-51300	Social Security	3,366	1,418	3,351	3,348	3,351	3,351		
100-51110-51400	Auto Allowance	4,822	2,031	4,800	4,800	4,800	4,800		
100-51110-53200	Dues, Memberships & Subscriptions	7,757	8,185	8,185	8,200	9,037	9,037		
100-51110-53210	Meetings & Conventions	0	-	220	200	300	300		
	Total Common Council	55,124	28,134	55,556	55,548	56,488	56,488	1.69%	

BOARDS, COMMISSIONS, COMMITTEES

Fire Commission

100-51121-51300	Social Security	9	-	15	31	31	31		
100-51121-51410	Commissioner Wages	120	-	200	400	400	400		
100-51121-52100	Attorney Fees	0	-	-	500	500	500		
	Total Fire Commission	129	-	215	931	931	931	0.00%	

Public Works Committee

100-51133-51300	Social Security	0	-	55	45	55	55		
100-51133-51410	Meeting Fees	0	-	720	560	720	720		
	Total Public Works Committee	0	-	775	605	775	775	28.10%	

Board of Appeals

100-56400-51300	Social Security	18	-	24	49	24	24		
100-56400-51410	Meeting Fees	240	-	320	650	320	320		
100-56400-52100	Attorney Fees	0	-	-	1,000	1,000	1,000		
100-56400-53470	Notices & Publications	133	-	-	-	-	-		Moved under Clerk's expenses
	Total Board of Appeals	391	-	344	1,699	1,344	1,344	-20.89%	

Board of Review

100-51535-51300	Social Security	64	20	20	77	41	41		
100-51535-51410	Meeting Fees	840	260	260	1,000	540	540		
100-51535-52100	Attorney Fees	4,048	2,494	2,494	1,000	2,500	2,500		
100-51535-52980	Training	0	100	100	1,000	100	100		
	Total Board of Review	4,952	2,874	2,874	3,077	3,181	3,181	3.38%	
	Total Boards, Commissions, Committees	5,472	2,874	4,208	6,312	6,231	6,231		

Administrator

100-51410-51100	Wages	111,737	50,970	116,122	116,122	119,354	119,354		includes insurance buyout
100-51410-51300	Social Security	8,552	3,896	8,883	8,883	9,131	9,131		
100-51410-51320	Dental Insurance	322	179	388	388	371	371		
100-51410-51330	Optical Insurance	125	69	761	761	138	138		
100-51410-51340	Life Insurance	106	63	110	110	110	110		
100-51410-51350	Disability Insurance	333	195	343	343	343	343		
100-51410-51360	Pension	7,532	3,322	7,548	7,548	8,116	8,116		
100-51410-52260	Phone & Cell	0	-	200	-	480	480		
100-51410-53200	Dues, Memberships & Subscriptions	125	125	125	150	150	150		
100-51410-53210	Meetings and Conventions	0	-	-	500	500	500		
100-51410-53300	Mileage	0	-	-	250	250	250		
100-51410-53400	Operating Supplies	17	-	-	100	100	100		
	Total Administrator	128,849	58,819	134,480	135,155	139,043	139,043	2.88%	

Insurance

100-51930-52150	Insurance Consultant	14,111	9,178	14,300	16,000	16,000	16,000		diversified
100-51930-55110	Workers Compensation	66,704	28,556	41,000	61,516	62,751	62,751		
100-51930-55120	Property and Liability	74,535	64,955	80,000	82,500	93,000	93,000		Officials Bond-every 2 years, 2021 \$4,500. Added add'l 5K DPW bldg
	Total Insurance	155,350	102,689	135,300	160,016	171,751	171,751	7.33%	

Outside Services

**CITY OF PEWAUKEE
2023 BUDGET
GENERAL FUND EXPENDITURES**

		2021 Actual	2022				2023 Budget	% Change	COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget	2023 Dept Request			
100-51300-52100	General Affairs Attorney	53,706	17,410	55,000	55,000	55,000	55,000		
100-51510-52120	Audit and Accounting	45,529	29,921	52,000	52,000	55,000	55,000		
100-51510-52130	Other Accounting Services	0	-	-	-	-	-		
100-51510-52140	Investment Expense - Ehlers	21,049	8,556	22,000	22,000	23,000	23,000		
100-51510-52190	Other Professional Services	0	-	-	6,000	6,000	6,000		
100-51980-52150	Weights & Measures	1,600	1,600	1,600	1,600	800	800		New contract amount
	Total Outside Services	121,884	57,487	130,600	136,600	139,800	139,800	2.34%	

Unclassified

100-51910-57400	Delinquent Pers Prop Taxes	6,665	-	12,800	13,000	13,000	13,000		
100-51910-57410	Rescinded Taxes	115,534	7,096	30,876	-	10,000	10,000		
100-51980-59910	Contingency Appropriation	0	-	62,160	100,000	100,000	100,000		14,150 spent on cameras for sports complex; 48,010 quiet zone study
	Total Unclassified	122,199	7,096	105,836	113,000	123,000	123,000	8.85%	
	Total Administration	602,125	262,496	578,737	619,388	649,070	649,070	4.79%	

Municipal Court

100-51200-51100	Wages	16,829	7,018	16,589	16,589	16,589	16,589		
100-51200-51200	Clerical Wages	90,250	35,959	93,927	93,927	88,048	88,048		Reduced clerical help
100-51200-51300	Social Security	8,079	3,264	8,455	8,455	8,004	8,004		
100-51200-51310	Health Insurance	7,939	4,469	10,131	10,131	9,831	9,831		
100-51200-51320	Dental Insurance	322	179	388	388	371	371		
100-51200-51330	Optical Insurance	66	36	73	73	73	73		
100-51200-51340	Life Insurance	138	83	142	142	142	142		
100-51200-51350	Disability Insurance	202	123	209	209	209	209		
100-51200-51360	Pension	6,312	2,419	6,105	6,105	5,988	5,988		
100-51200-53200	Dues, Memberships & Subscriptions	210	190	190	165	190	190		
100-51200-53210	Meetings and Conventions	1,754	1,280	2,160	2,000	3,200	3,200		
100-51200-53300	Mileage	74	-	300	400	400	400		
100-51200-53400	Operating Supplies	2,363	613	2,000	3,000	2,600	2,600		
100-51200-53450	Witness Fees	0	-	-	100	100	100		
100-52700-52920	Prisoner Housing	224	38	500	1,000	1,000	1,000		
	Total Municipal Court	134,762	55,671	141,169	142,684	136,745	136,745	-4.16%	

Clerk/Treasurer

100-51420-51100	Wages	322,833	133,665	331,255	331,255	345,051	345,051		
100-51420-51150	Part-Time Wages	3,384	660	3,000	5,000	5,000	5,000		
100-51420-51280	Overtime	858	843	1,200	5,000	2,500	2,500		
100-51420-51290	Wages Charged To/From Other Depts	(79,524)	(39,506)	(78,376)	(78,376)	(81,828)	(81,828)		McMillian 60%, Sazama 20% - Hurd to Planning 50% \$5k Sazama/McMillian to Storm
100-51420-51300	Social Security	24,331	9,570	19,667	26,108	27,934	27,934		
100-51420-51310	Health Insurance	80,546	45,348	102,780	102,780	99,765	99,765		
100-51420-51320	Dental Insurance	4,156	2,309	5,012	5,012	5,495	5,495		
100-51420-51330	Optical Insurance	709	391	782	782	782	782		
100-51420-51340	Life Insurance	768	459	792	792	792	792		
100-51420-51350	Disability Insurance	1,159	697	1,194	1,194	1,194	1,194		
100-51420-51360	Pension	22,616	9,112	21,857	21,857	23,635	23,635		
100-51420-51370	Unemployment Compensation	2,405	(2,153)	(2,153)	-	-	-		
100-51420-51950	Benefits Charged To/From Other Depts	(40,912)	(20,002)	(43,283)	(43,283)	(43,065)	(43,065)		
100-51420-52160	Background Checks - Licensing	1,421	112	2,000	2,300	2,300	2,300		
100-51420-52260	Phone & Cell	-	-	200	-	504	504		New account added
100-51420-52430	Equip Repair/Maintenance	7,948	3,798	8,000	10,000	10,000	10,000		
100-51420-52980	Training	2,114	1,048	1,500	3,600	3,500	3,500		
100-51420-53200	Dues, Memberships & Subscriptions	1,584	717	1,000	2,000	2,000	2,000		
100-51420-53210	Meetings and Conventions	578	-	500	2,000	2,000	2,000		
100-51420-53300	Mileage	355	175	400	750	750	750		
100-51420-53400	Operating Supplies	5,502	1,152	6,000	8,000	8,000	8,000		
100-51420-53410	Uniforms	0	-	-	300	300	300		
100-51420-53470	Notices and Publications	4,854	1,996	5,000	6,000	6,000	6,000		
100-51420-53950	New Equipment	0	-	4,000	4,000	4,000	4,000		
	Total Clerk/Treasurer	367,685	150,391	392,327	417,071	426,609	426,609	2.29%	

Elections

100-51440-51150	Part-time Wages	9,382	8,096	28,000	35,943	10,500	10,500		2023 Spring Elections only
100-51440-51250	Training Wages	0	426	1,000	1,880	1,308	1,308		
100-51440-51290	Wages Charged To/From Other Depts	2,541	950	4,000	5,000	2,600	2,600		

**CITY OF PEWAUKEE
2023 BUDGET
GENERAL FUND EXPENDITURES**

		2021 Actual	2022				2023 Budget	% Change	COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget	2023 Dept Request			
100-51440-51300	Social Security	97	610	2,525	3,272	1,102	1,102		
100-51440-52100	Attorney Fees	1,893	539	750	500	1,000	1,000		
100-51440-52430	Equipment Repairs & Maintenance	1,995	228	2,400	2,400	2,400	2,400		
100-51440-53120	Printing	934	929	3,000	6,000	3,000	3,000		
100-51440-53400	Operating Supplies	2,387	782	2,400	5,500	2,500	2,500		
100-51440-53470	Notices and Publications	829	184	500	500	500	500		
	Total Elections	20,098	12,744	44,575	60,995	24,910	24,910	-59.16%	

City Hall Operations

100-51600-51150	Part time Wages	11,439	2,569	29,204	29,204	29,204	29,204		
100-51600-51290	Wages Charged To/From Other Depts	7,272	1,084	4,500	4,500	8,000	8,000		\$8k from Park for Grass Cutting
100-51600-51300	Social Security	876	197	2,234	2,234	2,234	2,234		
100-51600-51360	Pension	748	-	1,898	1,898	1,898	1,898		
100-51600-51950	Benefits Charged To/From Other Depts	866	-	-	-	-	-		
100-51600-52160	Data Processing	39,552	12,803	40,000	45,000	45,000	45,000		
100-51600-52210	Electricity	57,417	18,757	45,000	56,000	58,000	58,000		
100-51600-52220	Heat	16,569	10,251	18,000	18,000	18,000	18,000		
100-51600-52230	Water	1,069	650	1,200	1,200	1,200	1,200		
100-51600-52240	Sewer	1,888	944	2,000	2,000	2,000	2,000		
100-51600-52260	Phone & Cell	22,001	4,790	22,000	22,000	22,000	22,000		
100-51600-52400	Contracted Janitorial services & Supplies	40,168	21,442	60,000	60,000	61,500	61,500		
100-51600-52410	Bldg Repairs & Maintenance	47,091	10,465	50,000	50,000	50,000	50,000		
100-51600-52420	Grounds Maintenance	1,570	1,934	10,000	10,000	10,000	10,000		
100-51600-52950	Public Fire Protection Charge	1,960	980	1,700	1,700	2,000	2,000		
100-51600-53110	Postage	16,010	4,448	20,000	20,000	25,000	25,000		
100-51600-53400	Operating Supplies/Expenses	4,979	2,092	5,000	15,000	15,000	15,000		
100-51600-53950	New Equipment	6,330	-	10,000	10,000	10,000	10,000		
	Total City Hall Operations	277,805	93,406	322,736	348,736	361,036	361,036	3.53%	

Employee Services (HR)

100-51430-51100	Wages	103,421	47,179	106,667	106,667	112,000	112,000		
100-51430-51200	Clerical Wages	29,465	14,249	34,133	34,133	36,181	36,181		
100-51430-51300	Social Security	10,083	4,570	10,771	10,771	11,336	11,336		
100-51430-51310	Health Insurance	17,386	9,790	22,189	22,189	21,537	21,537		
100-51430-51320	Dental Insurance	631	351	761	761	727	727		
100-51430-51330	Optical Insurance	125	69	138	138	138	138		
100-51430-51340	Life Insurance	228	137	235	235	235	235		
100-51430-51350	Disability Insurance	333	195	343	343	343	343		
100-51430-51360	Pension	9,261	4,147	11,029	11,029	12,392	12,392		
100-51430-51370	Employee Assistance Program (EAP)	2,948	1,252	2,652	3,945	3,945	3,945		
100-51430-52100	Attorney Fees	1,990	3,398	8,000	18,000	12,000	12,000		decreased based on last 3 years
100-51430-52150	Employment Examinations	8,878	4,279	12,000	12,000	12,000	12,000		
100-51430-52190	Other Professional Services	16,000	-	-	-	-	-		
100-51430-52260	Cell Phones	507	126	550	550	1,000	1,000		add iPad
100-51430-53440	Licenses & Certification	0	-	1,500	1,500	1,500	1,500		
100-51430-52700	Employee Wellness Program	11,385	3,060	13,000	13,000	13,000	13,000		
100-51430-52980	Training	21,838	9,456	23,500	23,500	23,500	23,500		
100-51430-53200	Dues, Memberships & Subscriptions	823	-	800	1,500	1,500	1,500		
100-51430-53210	Meetings & Conventions	2,073	-	2,500	3,000	3,000	3,000		
100-51430-53400	Operating Supplies	1,311	232	1,000	1,000	1,000	1,000		
100-51430-53430	Service Recognition	4,030	250	5,000	4,000	7,000	7,000		more recognition events
100-51430-53470	Employment Advertisements	569	75	500	1,500	1,500	1,500		
100-51430-53480	Personnel Protective Equipment	4,467	3,170	4,500	4,500	4,500	4,500		
100-51430-55140	Affordable Care Act Expenses	184	206	206	200	225	225		
	Total Employee Services	247,936	106,191	261,974	274,461	280,559	280,559	2.22%	

Assessor

100-51530-51100	Wages	158,508	95,944	217,005	217,005	225,687	225,687		
100-51530-51150	Part time Wages	88,223	-	-	-	-	-		
100-51530-51280	Overtime	15,041	2,291	5,000	5,000	3,000	3,000		
100-51530-51290	Wages Charged To/From Other Depts	13,914	-	-	-	-	-		
100-51530-51300	Social Security	19,938	7,365	16,984	16,984	17,495	17,495		
100-51530-51310	Health Insurance	15,879	13,406	30,393	30,393	29,493	29,493		
100-51530-51320	Dental Insurance	644	536	1,164	1,164	1,113	1,113		
100-51530-51330	Optical Insurance	131	109	219	219	219	219		

**CITY OF PEWAUKEE
2023 BUDGET
GENERAL FUND EXPENDITURES**

		2021 Actual	2022				2023 Budget	% Change	COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget	2023 Dept Request			
100-51530-51340	Life Insurance	363	263	542	542	542	542		
100-51530-51350	Disability Insurance	569	408	845	845	845	845		
100-51530-51360	Pension	16,442	6,641	17,376	17,376	19,116	19,116		
100-51530-51950	Benefits Charged To/From Other Depts	2,598	-	-	-	-	-		
100-51530-52100	Attorney Fees	2,471	3,850	5,000	2,000	6,000	6,000		
100-51530-52150	Wis. Mfg. Assessor Charges	9,663	9,663	10,000	10,000	10,000	10,000		
100-51530-52160	Contract for Services	39,484	-	-	-	-	-		
100-51530-52440	Vehicle/Repairs Maint.	0	-	500	500	500	500		
100-51530-52980	Training	0	-	400	1,000	1,000	1,000		
100-51530-53110	Postage	2,891	1,015	1,500	1,000	2,500	2,500		
100-51530-53200	Dues, Memberships & Subscriptions	4,946	5,228	5,228	5,300	6,500	6,500		CoStar
100-51530-53210	Meetings & Conventions	1,155	-	1,500	2,000	2,000	2,000		
100-51530-53300	Mileage & Fuel	336	194	400	400	1,000	1,000		
100-51530-53400	Operating Supplies	2,860	234	2,000	2,000	3,000	3,000		
100-51530-53440	Licenses & Certifications	20	20	180	-	300	300		
100-51530-53950	New Equipment	0	-	2,002	1,000	1,500	1,500		(3) New Office Chairs
	Total Assessor	396,425	147,167	318,238	314,728	331,810	331,810	5.43%	

Information Technology

100-51450-51100	Wages	90,532	41,098	92,919	92,919	97,564	97,564		
100-51450-51300	Social Security	6,895	3,034	7,108	7,108	7,464	7,464		
100-51450-51310	Health Insurance	17,386	9,790	22,189	22,189	21,537	21,537		
100-51450-51320	Dental Insurance	631	351	761	761	727	727		
100-51450-51330	Optical Insurance	125	69	138	138	138	138		
100-51450-51340	Life Insurance	204	121	210	210	210	210		
100-51450-51350	Disability Insurance	325	195	334	334	334	334		
100-51450-51360	Pension	6,313	2,784	6,040	6,040	6,634	6,634		
100-51450-52190	Other Professional Services	53,622	30,602	55,000	55,000	55,000	55,000		
100-51450-52260	Phone & Cell	507	126	750	750	1,000	1,000		Short in 2022
100-51450-52430	Equipment Repair & Maint	15,975	5,910	15,000	15,000	15,000	15,000		
100-51450-52480	Software/Maintenance/Updates	195,986	127,800	218,050	218,050	289,472	289,472		ransomware, penetration testing, Laserfiche Cloud, and general increases. 3k GIS
100-51450-52500	GIS Maintenance/Updates	0	-	250	250	250	250		
100-51450-52980	Training/Certifications	35	61	150	1,000	1,000	1,000		
100-51450-53200	Dues, Memberships & Subscriptions	50	-	-	100	100	100		
100-51450-53210	Meetings & Conventions	0	-	-	250	250	250		
100-51450-53300	Mileage	286	83	350	350	350	350		
100-51450-53400	Operating Supplies	3,549	1,687	5,000	5,000	5,000	5,000		
100-51450-53950	New Equipment	18,140	131	10,000	15,000	9,500	9,500		Replace 6 PCs in 2023
	Total Information Technology	410,561	223,842	434,249	440,449	511,530	511,530	16.14%	

Law Enforcement

Police Services

100-52100-51200	Clerical Wages	37,163	18,368	40,380	40,380	42,345	42,345		
100-52100-51290	Wages Charged To/From Other Depts	(18,552)	(10,095)	(20,190)	(20,190)	(21,173)	(21,173)		De Byl 50% to Fire
100-52100-51300	Social Security	2,824	1,360	3,089	3,089	3,239	3,239		
100-52100-51320	Dental Insurance	998	554	1,203	1,203	1,115	1,115		
100-52100-51330	Optical Insurance	155	85	171	171	171	171		
100-52100-51340	Life Insurance	92	56	95	95	95	95		
100-52100-51350	Disability Insurance	115	73	119	119	119	119		
100-52100-51360	Pension	2,284	1,091	2,625	2,625	2,879	2,879		
100-52100-51950	Benefits Charged To/From Other Depts	(3,464)	(1,847)	(3,693)	(3,693)	(3,849)	(3,849)		
100-52100-52100	Attorney Fees	43,120	10,792	50,000	50,000	50,000	50,000		
100-52100-52150	Police Overtime	64,406	10,232	60,000	60,000	60,000	60,000		
100-52100-52160	Contract for Police Services	2,987,835	1,774,215	3,041,512	3,041,512	3,303,006	3,303,006		
100-52100-52180	Community Policing Program	4,220	6,182	18,000	18,000	18,000	18,000		
100-52100-52190	Contract for Lake Patrol	25,525	6,381	25,750	25,750	26,500	26,500		Estimated 3% Increase
100-52100-52980	Training	350	-	500	500	500	500		
100-52100-53400	Operating Supplies	2,240	2,185	2,500	2,500	2,650	2,650		
100-52100-xxxxx	Equipment Rental	0	-	-	-	12,500	12,500		rent 4 cameras 2500 each, one time installation fee
	Total Operating Costs	3,149,311	1,819,632	3,222,061	3,222,061	3,498,097	3,498,097	8.57%	

Fire & Ambulance Services

Fire Administration

100-52210-51100	Wages	332,794	152,551	340,433	340,433	360,759	360,759		
100-52210-51150	Part-time Wages	3,054	-	15,000	55,000	55,000	55,000		

**CITY OF PEWAUKEE
2023 BUDGET
GENERAL FUND EXPENDITURES**

		2021 Actual	2022				2023 Budget	% Change	COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget	2023 Dept Request			
100-52210-51200	Clerical Wages	51,156	-	31,747	31,747	31,747	31,747		
100-52210-51290	Wages Charged To/From Other Department	0	10,095	20,190	20,190	21,173	21,173		De Byl 50%
100-52210-51300	Social Security	29,263	11,137	34,929	34,929	34,235	34,235		
100-52210-51310	Health Insurance	76,025	38,094	106,329	106,329	83,807	83,807		
100-52210-51320	Dental Insurance	3,503	1,736	4,900	4,900	3,599	3,599		
100-52210-51330	Optical Insurance	584	282	712	712	564	564		
100-52210-51340	Life Insurance	807	433	744	744	744	744		
100-52210-51350	Disability Insurance	1,123	584	1,029	1,029	1,029	1,029		
100-52210-51360	Pension	44,024	19,130	44,662	44,662	51,811	51,811		
100-52210-51900	Benefits Charged To/From Other Department	0	1,847	3,693	3,693	3,849	3,849		
100-52210-51370	Unemployment	0	(579)	-	-	-	-		
100-52210-52100	Attorney	763	648	3,000	7,500	7,500	7,500		
100-52210-52130	Waukesha Urban Rescue	8,871	8,871	8,871	9,000	9,000	9,000		
100-52210-52150	Employment Examinations	12,095	2,593	15,000	15,000	15,000	15,000		
100-52210-52180	Billing Services EMS	68,812	39,796	70,000	70,000	75,000	75,000		
100-52210-52210	Electricity	39,433	11,515	25,000	35,000	30,000	30,000		
100-52210-52220	Heat	9,754	7,747	15,000	15,000	15,000	15,000		
100-52210-52230	Water	5,544	2,970	6,000	3,000	6,000	6,000		
100-52210-52240	Sewer	3,775	1,888	4,000	4,000	4,000	4,000		
100-52210-52260	Phones & Cell	236	2,948	10,000	12,000	10,000	10,000		
100-52210-52270	MDC Air Cards	12,571	3,569	10,000	10,000	10,000	10,000		
100-52210-52410	Building Repairs & Maintenance	31,510	19,772	35,000	35,000	35,000	35,000		
100-52210-52420	Grounds Maintenance	4,487	154	5,000	5,000	5,000	5,000		
100-52210-52450	Trunked Radio Operating Cost	902	957	5,500	7,000	1,170	1,170		
100-52210-52950	Public Fire Protection Chg	436	218	500	500	500	500		
100-52210-53200	Dues, Memberships & Subscriptions	679	719	2,000	2,000	2,000	2,000		
100-52210-53210	Meetings & Conventions	1,703	2,264	4,500	5,000	6,000	6,000		
100-52210-53400	Operating Supplies	11,649	5,036	12,500	12,500	12,500	12,500		
100-52210-53450	CPSI Accreditation Fees	6,050	291	4,000	6,000	6,000	6,000		
100-52210-53950	New Equipment	13,325	8,234	15,000	7,500	15,000	15,000		
	Total Fire Administration	785,518	355,500	855,239	905,368	912,987	912,987	0.84%	

Fire Protective Services

100-52230-51100	Wages	2,376,479	1,145,309	2,554,052	2,554,052	2,721,368	2,721,368		
100-52230-51130	FLSA Wages	20,233	8,883	21,854	21,854	21,854	21,854		
100-52230-51150	POC	135,416	39,275	150,000	300,000	300,000	300,000		
100-52230-51280	Overtime	84,829	17,187	55,000	75,000	80,000	80,000		Officer Develop Program
100-52230-51300	Social Security	196,907	88,042	229,949	229,949	247,849	247,849		
100-52230-51310	Health Insurance	513,893	316,311	700,000	712,745	735,057	735,057		
100-52230-51320	Dental Insurance	26,214	14,897	30,000	32,941	31,831	31,831		
100-52230-51330	Optical Insurance	4,269	2,496	5,000	4,978	5,244	5,244		
100-52230-51340	Life Insurance	5,206	3,326	6,000	5,864	6,200	6,200		will update after raises are implemented for 2022 (KW)
100-52230-51350	Disability Insurance	1,310	774	1,500	1,349	1,349	1,349		
100-52230-51360	Pension	312,943	153,624	300,000	318,108	385,739	385,739		
100-52230-52430	Equipment Repairs & Maintenance	32,941	25,043	60,000	60,000	60,000	60,000		
100-52230-52440	Vehicle Repairs & Maintenance	98,877	74,395	100,000	75,000	85,000	85,000		
100-52230-52970	Emergency Preparedness	2,750	-	5,000	5,000	5,000	5,000		
100-52230-52980	Training	16,871	20,602	25,000	25,000	32,500	32,500		Officer Develop Program
100-52230-53400	Operating Supplies	5,926	3,478	25,000	25,000	25,000	25,000		
100-52230-53410	Uniforms	29,467	3,726	33,000	33,000	37,000	37,000		Contract Cost
100-52230-53420	Fuel	44,761	27,647	55,000	50,000	55,000	55,000		
100-52230-53450	EMS Operating Supplies	52,331	23,605	55,000	55,000	60,000	60,000		
100-52230-53950	New Equipment	30,387	199	60,000	60,000	60,000	60,000		replacement of turnout per NFPA
100-52230-55110	Worker's Compensation	116,176	60,794	82,500	123,462	130,109	130,109		
100-52230-55120	Property & Liability Insurance	42,390	31,298	40,000	45,000	45,000	45,000		
	Total Fire Protective Services	4,150,576	2,060,911	4,593,855	4,813,302	5,131,100	5,131,100	6.60%	
	Total Fire	4,936,094	2,416,411	5,449,094	5,718,670	6,044,087	6,044,087	5.69%	

Building Services (Bldg Inspection)

100-52400-51100	Wages	122,504	56,719	129,751	129,751	155,230	155,230		
100-52400-51150	Part-time Wages	17,598	10,443	19,282	19,282	23,051	23,051		
100-52400-51200	Clerical Wages	95,018	45,332	102,995	102,995	100,568	100,568		
100-52400-51280	Overtime	775	63	100	5,000	5,000	5,000		
100-52400-51290	Wages Charged To/From Other Depts	42,436	21,077	42,154	42,154	47,044	47,044		Tsoris 50% to Park, Fuchs 50% from Planning, Geis 20% from Eng
100-52400-51300	Social Security	17,427	7,865	19,663	19,663	21,487	21,487		

**CITY OF PEWAUKEE
2023 BUDGET
GENERAL FUND EXPENDITURES**

		2021 Actual	2022				2023 Budget	% Change	COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget	2023 Dept Request			
100-52400-51310	Health Insurance	68,366	33,377	86,321	86,321	114,942	114,942		
100-52400-51320	Dental Insurance	3,131	1,505	3,769	3,769	5,035	5,035		
100-52400-51330	Optical Insurance	708	222	777	777	702	702		
100-52400-51340	Life Insurance	520	267	548	548	548	548		
100-52400-51350	Disability Insurance	759	395	800	800	800	800		
100-52400-51360	Pension	14,697	6,652	15,454	15,454	17,735	17,735		
100-52400-51950	Benefits Charged To/From Other Depts	26,804	12,925	28,153	28,153	12,056	12,056		Tsoris taking insurance 2022
100-52400-52100	Attorney Fees	1,441	60	150	4,000	4,000	4,000		
100-52400-52190	Other Professional Services	4,530	-	-	10,000	15,000	15,000		
100-52400-52260	Phone & Cell	1,006	251	500	1,000	1,000	1,000		
100-52400-52440	Vehicle Repair	19	10	50	2,000	2,000	2,000		
100-52400-52980	Training	2,542	1,593	3,000	3,500	3,500	3,500		
100-52400-53200	Dues, Memberships & Subscriptions	162	245	500	1,200	1,200	1,200		
100-52400-53210	Meetings and Conventions	227	164	350	1,000	1,000	1,000		
100-52400-53300	Mileage & Fuel	3,541	2,456	5,000	5,000	5,000	5,000		
100-52400-53400	Operating Supplies	5,810	3,373	7,000	7,500	7,500	7,500		
100-52400-53420	State Seals	3,319	1,755	3,500	5,000	5,000	5,000		
100-52400-53430	Address Tiles	2,507	1,542	3,000	2,000	3,000	3,000		
100-52400-53440	License/Certification	55	-	-	500	500	500		
100-52400-53480	Personnel Protective Equipment	226	-	100	500	500	500		
100-52400-53950	New Equipment	0	-	-	1,000	1,000	1,000		
	Total Community Services	436,128	208,291	472,917	498,867	554,398	554,398	11.13%	

Public Works

Engineering

100-53110-51100	Wages	458,238	246,848	554,877	554,877	584,135	584,135		
100-53110-51290	Wages Charged To/From Other Depts	(55,036)	(50,274)	(56,548)	(56,548)	(173,111)	(173,111)		Hiltunen 40% to W/S, Geis 20% W/S,20%Bldg.Reed & Smaxwill add 15%, 25% Wagner
100-53110-51295	Wages Charged Out-Storm Water	(172,032)	(100,319)	(178,638)	(178,638)	(185,847)	(185,847)		Hiltunen 40%, Geis 20%,Leightner 33%, 10%,Wirtz 90%,Wagner 25%,Faber 10%
100-53110-51300	Social Security	34,495	18,299	42,449	42,449	44,686	44,686		
100-53110-51310	Health Insurance	75,103	42,669	128,772	128,772	93,871	93,871		
100-53110-51320	Dental Insurance	4,400	2,444	6,810	6,810	5,068	5,068		
100-53110-51330	Optical Insurance	768	424	1,061	1,061	848	848		
100-53110-51340	Life Insurance	1,033	685	1,303	1,303	1,303	1,303		
100-53110-51350	Disability Insurance	1,526	1,019	1,905	1,905	1,905	1,905		
100-53110-51360	Pension	31,456	16,408	36,068	36,068	39,722	39,722		
100-53110-51900	Benefits Charged Out-Storm Water	(66,656)	(38,711)	(69,713)	(69,713)	(76,009)	(76,009)		
100-53110-51950	Benefits Charged To/From Other Depts	(33,196)	(27,771)	(34,876)	(34,876)	(65,366)	(65,366)		
100-53110-52190	Outside Engineering	233,357	69,546	140,000	35,000	35,000	35,000		
100-53110-52260	Phone & Cell	322	87	450	800	800	800		
100-53110-52440	Vehicle Repair & Maintenance	911	2,168	3,500	2,000	2,000	2,000		
100-53110-52980	Training & Seminars	60	1,264	2,500	4,000	4,000	4,000		
100-53110-53110	Postage		800	800		1,600	1,600		
100-53110-53200	Dues, Memberships & Subscriptions	510	635	950	1,100	1,100	1,100		
100-53110-53210	Meetings & Conventions	195	194	300	300	300	300		
100-53110-53300	Mileage	622	317	700	700	800	800		
100-53110-53400	Operating Supplies	6,063	5,685	11,200	11,500	11,500	11,500		
100-53110-53950	New Equipment	1,861	-	10,000	18,000	10,000	10,000		
	Total Engineering Services	524,000	192,417	603,870	506,870	338,305	338,305	-33.26%	

Highway Administration

100-53100-51100	Wages	592,000	267,003	622,394	622,394	661,442	661,442		New hire full year 2023
100-53100-51150	Part-time Wages	25,905	8,380	29,523	29,523	30,000	30,000		COL increase
100-53100-51280	Overtime	35,732	24,610	36,000	36,000	37,080	37,080		
100-53100-51290	Wages Charged To/From Other Depts	4,606	5,330	11,875	11,875	12,664	12,664		Reed &Smaxwill 15%, Hwy chg to Park -\$4k. Hwy charges to W/S
100-53100-51295	Wages Charged Out-Storm Water	(125,337)	(47,802)	(148,000)	(148,000)	(150,000)	(150,000)		
100-53100-51300	Social Security	48,082	21,182	52,625	52,625	57,267	57,267		
100-53100-51310	Health Insurance	166,088	95,021	215,798	215,798	271,083	271,083		
100-53100-51320	Dental Insurance	7,144	4,017	8,829	8,829	11,539	11,539		
100-53100-51330	Optical Insurance	1,260	705	1,408	1,408	1,838	1,838		
100-53100-51340	Life Insurance	1,545	926	1,430	1,430	1,693	1,693		
100-53100-51350	Disability Insurance	2,386	1,473	2,258	2,258	2,655	2,655		
100-53100-51360	Pension	43,463	19,959	42,795	42,795	44,978	44,978		
100-53100-51900	Benefits Charged Out-Storm Water	(49,768)	(18,760)	(66,600)	(66,600)	(67,500)	(67,500)		used 45% of wages for benefits
100-53100-51950	Benefits Charged To/From Other Depts	8,384	4,086	8,868	8,868	8,835	8,835		Reed & Smaxwill 15%
100-53100-52160	Contract Services	3,684	3,804	4,500	4,500	4,500	4,500		

**CITY OF PEWAUKEE
2023 BUDGET
GENERAL FUND EXPENDITURES**

		2021 Actual	2022				2023 Budget	% Change	COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget	2023 Dept Request			
100-53100-52210	Electricity-Street Lighting/DPW Bldg	11,855	19,743	42,000	42,000	24,667	24,667		DPW
100-53100-52220	Heat	0		4,000	4,000	10,667	10,667		2/3 allocation for new DPW; Estimated
100-53100-52230	Water	0		300	300	1,000	1,000		2/3 allocation for new DPW; Estimated
100-53100-52240	Sewer	0		500	500	1,667	1,667		2/3 allocation for new DPW; Estimated
100-53100-52260	Phone & Cell	708	503	6,800	6,800	4,534	4,534		2/3 allocation for new DPW; Estimated
100-53100-52310	Crack Filling	66,990	-	100,000	100,000	100,000	100,000		
100-53100-52400	Contracted Janitorial services & Supplies	0		6,000	6,000	12,000	12,000		2/3 allocation for new DPW; Estimated
100-53100-52410	Bldg Repairs & Maintenance	0		4,000	4,000	2,667	2,667		2/3 allocation for new DPW; Estimated
100-53100-52420	Grounds Maintenance	0		2,000	2,000	5,334	5,334		2/3 allocation for new DPW; Estimated - not sure who doing yet
100-53100-52430	Equip Repair & Maint	56,738	19,642	47,500	47,500	47,500	47,500		
100-53100-52450	Trunked Radio Operating Costs	420	445	500	500	585	585		
100-53100-52490	Excess Excavated Materials	1,468	162	2,000	2,000	2,000	2,000		
100-53100-52950	Public Fire Protection Charge	0		500	500	467	467		2/3 allocation for new DPW; Assumes \$12M value
100-53100-53210	Meetings & Conventions	70	70	3,500	3,500	3,500	3,500		
100-53100-53400	Operating Supplies	15,730	5,098	22,000	22,000	22,000	22,000		
100-53100-53410	Uniforms	6,011	3,255	6,000	6,000	6,600	6,600		Added 1 staff member
100-53100-53420	Fuel	30,575	19,937	22,000	22,000	30,000	30,000		Fuel price increase
100-53100-53480	Safety Equipment	2,825	2,003	4,750	4,750	5,100	5,100		Added 1 staff member
100-53100-53550	Maintain Preemption Devices	0	-	1,500	1,500	1,500	1,500		
100-53100-53710	Sand and Salt	187,065	134,874	225,000	225,000	225,000	225,000		
100-53100-53720	Road Signs and Markings	22,716	1,333	27,000	27,000	27,000	27,000		\$18k for markings; \$9k for signage
100-53100-53730	Road Repairs	107,361	3,849	100,000	100,000	100,000	100,000		
100-53100-53790	Other Roadway Supplies	1,188	875	2,400	2,400	2,400	2,400		Mailbox repairs
100-53100-53950	New Equipment	4,305	-	6,000	6,000	6,000	6,000		New DPW equipment
100-53100-55310	Equipment Rental	0	-	12,000	12,000	6,000	6,000		Possible emergency/storm damage response
100-53100-58100	Quiet Zone	0	-	-	-	-	-		Remove - This was moved to Capital Project Fund
	Total Highway Administration	1,281,199	601,723	1,471,953	1,471,953	1,576,262	1,576,262	7.09%	

Refuse Collection and Recycling

100-53635-51150	Part Time Wages	7,913	3,244	9,503	9,503	9,788	9,788		
100-53635-51300	Social Security	605	248	727	727	749	749		
100-53635-51370	Unemployment	1,261	(1,130)	-	-	-	-		
100-53620-52800	Garbage Collection	808,556	340,840	849,588	849,000	875,000	875,000		estimated increase 2.65%- will finalize with CC soon
100-53635-52900	Hauling Recyclables	55,218	15,709	60,000	60,000	60,000	60,000		
100-53635-53400	Operating Supplies	0	-	-	-	400	400		
	Total Garbage Collection and Recycling	873,553	358,911	919,818	919,230	945,937	945,937	2.91%	

Environmental Management

COVID 19

100-52500-53400	COVID 19 Virus	138	-	-	10,000	-	-	0.00%	
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Lake Management

100-53640-52990	Contracted Services-Lake Mgmt	198,000	203,500	203,500	203,500	254,375	254,375	25.00%	Per email from Tom, 20-25% increase
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Animal & Deer Control

100-54150-52990	HAWS Contracted Services	6,699	6,699	6,699	6,699	6,699	6,699	0.00%	
100-5xxxxx-xxxxx	Deer Control Management	0	-	-	-	-	-		per scott, breakout in 2023
100-54160-52990	Deer Roadway Pickup	20,349	3,070	13,000	16,000	21,000	21,000		Increase in per deer rate charged
	Total Animal Control	27,048	9,769	19,699	22,699	27,699	27,699	22.03%	

Forestry Program

100-56110-52980	Training	0	-	1,400	2,400	2,800	2,800		2 sessions for Parks, Highway, & Utility
100-56110-53410	Tree Removal	17,875	6,450	9,000	9,000	18,000	18,000		50/50 Parks/Highway (2022 highway only), contract only
100-56110-53420	Tree Replanting	775	-	5,000	5,000	5,000	5,000		50/50 Parks/Highway
100-56110-52990	Contracted Services - Tree Inventory	500	44,708	49,000	25,000	-	-		Inventory completed in 2022
100-56110-53430	Tree Disease Treatment	5,768	-	-	-	6,500	6,500		Parks? Highway does not treat trees
	Total Forestry Program	24,918	51,158	64,400	41,400	32,300	32,300		
	Total Environmental	250,104	264,427	287,599	277,599	314,374	314,374	13.25%	

Culture & Recreation

Boat Ramp & Fireworks

100-55460-52460	Launch - Maintenance	342	-	-	10,000	10,000	10,000		Inspection in 2022-waiting for results
100-55460-53400	Launch - Operating Supplies	289	469	469	600	600	600		
	Total Boat Ramp	631	469	469	10,600	10,600	10,600	0.00%	

**CITY OF PEWAUKEE
2023 BUDGET
GENERAL FUND EXPENDITURES**

		2021 Actual	2022						COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget	2023 Dept Request	2023 Budget	% Change	
Fireworks									
100-55470-53400	Fireworks	10,000	-	10,000	10,000	10,000	10,000	0.00%	

Joint Library

100-55110-53400	Operating Supplies	834,875	490,345	840,591	840,591	874,538	874,538		
	Total Joint Library	834,875	490,345	840,591	840,591	874,538	874,538	4.04%	

Parks

100-55200-51100	Wages	181,361	94,806	207,364	207,364	227,032	227,032		
100-55200-51150	Part Time Wages	58,861	24,542	95,479	95,479	98,343	98,343		3% increase
100-55200-51280	Overtime	7,187	1,783	5,400	5,400	5,400	5,400		
100-55200-51290	Wages Charged To/From Other Depts.	(560)	23	(6,500)	(6,500)	(4,000)	(4,000)		\$4k from Hwy-\$8k grass cutting
100-55200-51300	Social Security	19,116	8,896	23,579	23,579	25,303	25,303		
100-55200-51310	Health Insurance	44,021	23,942	96,452	96,452	62,503	62,503		
100-55200-51320	Dental Insurance	1,938	1,043	4,157	4,157	2,534	2,534		
100-55200-51330	Optical Insurance	313	176	637	637	424	424		
100-55200-51340	Life Insurance	248	157	513	513	513	513		
100-55200-51350	Disability Insurance	362	230	727	727	727	727		
100-55200-51360	Pension	12,974	6,292	13,839	13,839	17,780	17,780		
100-55200-51370	Unemployment	845	(7,467)	(7,467)	-	500	500		
100-55200-51410	Commissioners Fees	1,000	200	1,200	1,200	1,200	1,200		
100-55200-51950	Benefits Charged To/From Other Depts	(18)	(48)	-	-	-	-		
100-55200-52100	Attorney	5,023	3,698	3,700	500	500	500		
100-55200-52110	Engineering	-	-	500	500	500	500		
100-55200-2130	Accounting Assistance	500	-	500	500	500	500		
100-55200-52210	Electricity	33,069	14,944	30,000	25,000	30,000	30,000		Electricity prices have increased
100-55200-52220	Heat	6,640	4,611	10,000	10,000	10,000	10,000		
100-55200-52230	Water	5,724	1,084	9,000	11,000	11,000	11,000		
100-55200-52240	Sewer	4,704	1,927	3,800	3,500	4,000	4,000		
100-55200-52260	Phones & Cell	6,474	1,429	5,500	6,140	8,000	8,000		Parks internet service for security systems, removed landline @ shop, reduced internet fee @ shop
100-55200-52410	Building Repairs & Maintenance	36,224	11,768	35,400	35,400	36,000	36,000		
100-55200-52420	Grounds Maintenance	59,074	24,870	59,000	59,000	60,000	60,000		
100-55200-52430	Equipment Repairs & Maintenance	4,897	2,274	6,000	6,000	7,000	7,000		Extending equipment lifespan
100-55200-52440	Vehicle Repairs & Maintenance	4,679	303	5,000	5,000	5,000	5,000		
100-55200-52950	Public Fire Protection Charge	1,399	414	1,500	1,500	1,500	1,500		
100-55200-52980	Training	525	80	1,000	1,000	1,000	1,000		
100-55200-53400	Operating Supplies	1,393	1,138	2,500	2,500	3,000	3,000		2 computers replaced
100-55200-53410	Uniforms	1,433	805	1,500	1,500	1,500	1,500		
100-55200-53420	Fuel	17,603	13,883	28,000	20,000	25,000	25,000		Fuel expenses have increased
100-55200-53480	Safety Equipment	2,487	984	2,800	2,800	2,800	2,800		
100-55200-53900	Equipment Purchased With Donatio	26,148	11,578	11,578	-	-	-		
100-55200-53950	New Equipment	23,270	661	20,950	20,950	21,500	21,500		
100-55200-55310	Equipment Rental	576	-	3,000	3,000	3,000	3,000		
100-55200-57430	Vandalism	747	-	2,000	2,000	2,000	2,000		
100-55200-59999	Non-Shared Supplies		675			-			
	Total Parks	570,237	251,701	678,608	660,637	672,059	672,059	1.73%	

Recreation Programs

100-55300-51100	Wages	157,053	69,531	157,201	157,201	168,683	168,683		
100-55300-51210	Leaders Wages	198,978	22,100	230,000	200,100	234,000	234,000		Increased wages to stay competitive, offset by revenue
100-55300-51280	Overtime	17	-	250	250	250	250		
100-55300-51290	Wages Charged To/From Other Depts.	22,960	12,619	25,238	25,238	23,109	23,109		Tsoris 50%
100-55300-51300	Social Security	26,049	6,685	27,352	27,352	34,360	34,360		
100-55300-51310	Health Insurance	18,915	23,942	54,255	54,255	62,270	62,270		Tsoris new in 2023
100-55300-51320	Dental Insurance	1,898	1,043	2,265	2,265	2,872	2,872		
100-55300-51330	Optical Insurance	198	105	351	351	286	286		
100-55300-51340	Life Insurance	351	212	362	362	362	362		
100-55300-51350	Disability Insurance	547	330	564	564	564	564		
100-55300-51360	Pension	10,636	4,709	10,218	10,218	9,374	9,374		
100-55300-51950	Benefits Charged To/From Other Depts	3,576	1,929	3,857	3,857	19,903	19,903		Tsoris 50%; taking insurance in 2022
100-55300-52190	Contracted Services	44,673	22,321	38,000	33,200	48,000	48,000		Added program volume, offset by revenue
100-55300-52260	Phone & Cell	4,206	1,482	4,000	4,000	4,000	4,000		
100-55300-52480	Software Maintenance	1,698	1,698	1,698	1,800	2,900	2,900		Cloud-based, no longer providing updates to current
100-55300-52900	Credit Card Service Fees & Exp	10,256	10,649	12,000	11,000	14,000	14,000		Adding park rentals payable on CC's

**CITY OF PEWAUKEE
2023 BUDGET
GENERAL FUND EXPENDITURES**

		2021 Actual	2022				2023 Budget	% Change	COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget	2023 Dept Request			
100-55300-52980	Training	2,356	558	1,700	1,500	2,500	2,500		Processing work permits, P/T staff CPR certs
100-55300-53110	Postage	110	2,680	8,000	1,000	8,000	8,000		Shifted postage from activity guide here
100-55300-53120	Program Printing	24,765	6,972	18,000	24,100	18,000	18,000		Print/Design only, removed postage
100-55300-53210	Meetings and Conventions	1,635	1,479	3,500	4,000	4,000	4,000		
100-55300-53300	Mileage	1,013	130	2,000	1,500	5,000	5,000		FT Staff were not taking mileage previously
100-55300-53400	Operating Supplies	1,678	2,151	4,500	4,500	4,500	4,500		
100-55300-53410	Uniforms	6,959	4,526	6,800	6,500	7,000	7,000		Shirt price increases
100-55300-53430	Program Expenses/Equipment	32,789	15,614	34,500	34,500	36,000	36,000		SS Bussing increases
100-55300-53450	WPRA Tickets	2,721	-	2,250	2,250	2,500	2,500		Small revenue generator thru discount tix sales
100-55300-53460	Field Trips	18,020	3,784	18,000	18,000	19,000	19,000		Bussing increases
100-55300-53470	Notices and Publications	27	39	500	500	500	500		
100-55300-53970	Community Sponsored Program	0	-	-	-	-	-		
100-55300-55110	Workmen's Comp Ins	27,184	12,838	24,948	24,948	25,284	25,284		
100-55300-55120	Property & Liability Ins	13,328	8,646	10,300	11,445	12,500	12,500		15% placeholder
	Shared Recreation Programs	634,596	238,772	702,609	666,756	769,717	769,717	15.44%	
	Total Parks & Recreation	1,204,833	490,473	1,381,217	1,327,393	1,441,776	1,441,776	8.62%	

Planning & Community Development

100-56300-51100	Wages	105,946	48,097	108,742	108,742	113,091	113,091		
100-56300-51150	Part-time Wages	-	13,545	45,000	45,000	46,725	46,725		
100-56300-51290	Wages Charged To/From Other Depts.	(22,200)	(11,435)	(22,869)	(22,869)	(23,630)	(23,630)		Nick 50% to bldg, Hurd 50%
100-56300-51300	Social Security	7,911	3,682	11,762	11,762	12,225	12,225		
100-56300-51310	Health Insurance	25,141	16,017	32,066	32,066	31,135	31,135		
100-56300-51320	Dental Insurance	1,247	693	1,504	1,504	1,436	1,436		
100-56300-51330	Optical Insurance	193	107	213	213	213	213		
100-56300-51340	Life Insurance	232	139	239	239	239	239		
100-56300-51350	Disability Insurance	333	195	343	343	343	343		
100-56300-51360	Pension	7,387	4,115	7,068	7,068	7,690	7,690		
100-56300-51410	Commissioner's Fees	780	140	1,000	1,000	1,000	1,000		
100-56300-51950	Benefits Charged To/From Other Depts	(3,344)	(1,692)	(3,385)	(3,385)	(3,560)	(3,560)		
100-56300-52100	Attorney Fees	9,630	1,363	3,000	7,000	7,000	7,000		
100-56300-52980	Training	-	1,360	3,000	3,000	3,000	3,000		
100-56300-53200	Dues, Memberships & Subscriptions	0	47	500	600	600	600		
100-56300-53210	Meetings & Conventions	125	88	1,500	2,000	2,000	2,000		
100-56300-53400	Operating Supplies	689	178	350	1,000	1,000	1,000		
100-56300-53470	Notices & Publications	2,743	3,670	7,000	5,000	7,000	7,000		
	Total Planning	136,813	80,309	197,033	200,283	207,507	207,507	3.61%	

Total General Fund	16,094,938	7,975,316	17,350,627	17,622,629	18,538,150	18,538,150	5.20%
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CITY OF PEWAUKEE
2023 BUDGET
CAPITAL PROJECT FUND - ROAD PROJECTS

		2021 Actual	2022			2023 Budget	Comments
			6 Month Actual	Year End Forecast	2022 Budget		
Revenues and Other Sources							
420-00000-41110	General Tax Levy	-	-	-	-	-	
420-00000-43534	Grants	22,516	-	-	-	-	
420-00000-48100	Interest Investments	-	-	-	-	-	
420-00000-49110	Proceeds of Long-Term Debt	2,080,000	-	11,005,000	12,260,000	-	
420-00000-49120	Bond Premium	9,655	-	-	-	-	
420-00000-49230	Transfer From Debt Service Fund	150,000	-	-	-	-	
420-49222-50000	Transfer from Impact Fees	-	-	-	-	-	
420-49210-50000	Transfer from General Fund	-	-	-	-	-	
420-492100-0000	Transfer from General Fund-Committed	-	-	-	-	-	
Total Revenue and Other Sources		2,262,171	-	11,005,000	12,260,000	-	

Expenditures and Other Uses

420-57XXX-58210	Street Reconstruction	1,846,868	214,832	5,654,000	9,044,000	4,755,000	
420-56000-58200	Street Paving Maintenance	205	-	100,000	100,000	100,000	
420-57332-58200	Traffic Signal Pre-emption	-	-	-	-	-	
	Quiet Zone	-	-	15,000	-	35,000	studies
420-58200-56990	Debt Issue Costs	31,688	-	52,789	210,000	-	
	Total Expenditures	1,878,761	214,832	5,821,789	9,354,000	4,890,000	

Change in Fund Balance	383,410	(214,832)	5,183,211	2,906,000	(4,890,000)
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Fund Balance:

Beginning of Period	3,517	386,927	386,927	(344,484)	5,570,138
End of Period	386,927	172,095	5,570,138	2,561,516	680,138

FB per GL	386,929	172,096	2,561,516
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2023 PROJECTS		Project	Budgeted	%	Assessable		
		<u>Costs</u>	<u>Costs</u>	<u>Assessable</u>	<u>Cost</u>	<u>City Borrowing</u>	<u>Tax levy</u>
420-57420-58210	Duplainville (Tracks to Weyer) (construc	-	-	30%	-	0	0
420-57553-58210	Joseph Road	390,000		100%	390,000	390,000	(390,000)
420-57407-58210	Shady Lane & Shady Nook	500,000		10%	50,000	500,000	(50,000)
420-57552-58210	Spice Creek/Meadowbrook Farms Ph.2	-		20%	-	-	0
420-57419-58210	Busse Road Bridge Replacement	450,000		0%	-	450,000	0
420-57426-58210	Lexington/Takoma (design)	950,000		20%	190,000	150,000	610,000
420-57418-58210	Duplainville Bridge Repl.	-		0%	-	-	0
420-57430-58210	Lindsay/Redford Intersection Improvem	175,000		0%	-	150,000	25,000
420-57555-58210	Kopmeier Road	400,000		20%	80,000	-	320,000
420-57556-58210	Spice Creek/Meadowbrook Farms Ph.3	900,000		20%	180,000	900,000	(180,000)
420-57557-58210	Spice Creek/Meadowbrook Farms Ph 4	40,000		20%	8,000	40,000	(8,000)
420-57558-58210	Watertown (design)	100,000		10%	10,000	0	0
420-57559-58210	Rolling Ridge (design)	100,000		10%	10,000	100,000	0
420-57560-58210	Sherwood Forest/Busse (design)	100,000		10%	10,000	100,000	0
420-57561-58210	Apple Tree/Pear Tree	650,000		20%	130,000	650,000	(130,000)
	TOTALS	4,755,000			1,058,000	3,430,000	197,000

2023 BUDGET
SPECIAL REVENUE - STORM WATER MANAGEMENT

		2021 Actual	2022			2023 Budget	COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget		
Revenues and Other Sources							
230-00000-44307	Permits	250	-	-	200	200	
230-00000-46160	Administrative Charges	5,009	989	2,500	2,500	5,000	
230-00000-46187	Outside Engineering Fees Reimburs	155,058	38,336	50,000	50,000	50,000	
230-00000-46189	Inhouse Engineering Fees Reimburs	56,035	11,324	20,000	20,000	20,000	
230-00000-46324	Storm Water Management Fee	1,650,354	1,664,292	1,664,292	1,650,354	1,650,000	
230-00000-46325	Credits and Rebates	(36,162)	(36,162)	(36,162)	(45,000)	(37,000)	
230-00000-46328	Credit Application Fee	-	-	-	-	-	
230-00000-48100	Interest on Investments	-	-	-	2,000	-	
230-00000-48120	Interest on Accounts Receivable	387	142	400	400	1,400	
230-00000-48900	Miscellaneous	34,590	-	-	1,000	-	
230-00000-49110	Proceeds of Long-term Debt	-	-	6,975,000	3,150,000	-	
230-00000-49120	Bond Premium	-	-	-	-	-	
230-00000-49210	Transfer from General Fund	17,568	19,152	19,152	19,152	64,652	2021 sweeper sold 45k, move to stormwat
230-00000-49280	Transfer from Cemetery Fund	420	420	420	420	420	
Total Revenue and Other Sources		1,883,509	1,698,493	8,695,602	4,851,026	1,754,672	
ADMINISTRATION							
WAGES & BENEFITS							
230-53650-51290	Wages Charged To/From Other Dep	95,504	54,490	108,980	99,078	92,224	Hiltunen 40%, Geis 20%,Leightner 33%,Wirtz 90%,Wagner 25%,Faber
230-53650-51295	Wages Charged From Highway	12,250	2,280	10,000	13,000	13,000	
230-53650-51900	Hwy Benefits Charged Out	3,002	560	4,500	5,850	5,800	
230-53650-51950	Benefits Charged To/From Other De	37,924	21,310	42,620	39,742	30,205	
TOTAL		148,680	78,640	166,100	157,670	141,229	
GENERAL							
230-53650-52100	Attorney	964	634	1,000	5,000	2,500	
230-53650-52130	Audit and Accounting Expenses	8,271	-	8,000	8,000	8,500	Actg \$5000, Audit \$3,500
230-53650-52190	Outside Engineering	156,850	30,951	75,000	60,000	60,000	
	Electricity-Street Lighting/DPW Bldg	-	-	-	-	12,334	1/3 allocation for new DPW; Estimated \$30
	Heat	-	-	-	-	5,334	1/3 allocation for new DPW; Estimated
	Water	-	-	-	-	500	1/3 allocation for new DPW; Estimated
	Sewer	-	-	-	-	834	1/3 allocation for new DPW; Estimated
230-53650-52260	Phone & Cell	1,126	276	1,200	800	1,050	\$250 added for Matt IPAD
	Contracted Janitorial services & Sup	-	-	-	-	8,000	1/3 allocation for new DPW; Estimated
	Bldg Repairs & Maintenance	-	-	-	-	1,334	1/3 allocation for new DPW; Estimated
	Grounds Maintenance	-	-	-	-	2,667	1/3 allocation for new DPW; Estimated - nc
230-53650-52430	Equipment Repair & Maintenance	25,239	4,190	15,000	15,000	15,000	
230-53650-52440	Vehicle Repair & Maintenance	-	1,749	2,000	2,000	2,000	
230-53650-52480	Computer/Program Maintenance	6,967	3,410	8,500	6,000	6,000	
230-53650-52980	Training & Seminars	424	417	2,500	4,200	4,200	
230-53650-53110	Postage	13	827	1,600	500	1,600	
230-53650-53200	Dues, Memberships & Subscriptions	440	565	700	600	800	

2023 BUDGET
SPECIAL REVENUE - STORM WATER MANAGEMENT

	2021 Actual	2022			2023 Budget	COMMENTS
		6 Month Actual	Year End Forecast	2022 Budget		
Public Fire Protection Charge	-	-	-	-	234	1/3 allocation for new DPW; Assumes
230-53650-53210 Meetings & Conventions	-	1,281	3,000	600	1,500	
230-53650-53300 Mileage	166	149	500	500	500	
230-53650-53400 Operating Supplies	8,877	3,660	7,000	8,800	9,000	
230-53650-53410 Uniforms & Protective Equipment	735	543	1,500	1,500	1,750	
230-53650-53420 Fuel	6,484	3,884	10,000	6,000	7,500	
230-53650-53950 New Equipment	1,861	-	3,000	3,000	3,000	update walk behind saw
230-53650-55110 Worker's Compensation	4,661	1,683	6,500	6,500	6,500	
230-53650-55120 Property & Liability Insurance	4,321	3,714	4,650	5,000	5,200	
230-53650-55310 Equipment Rental	-	-	2,500	2,500	2,500	
TOTAL	227,399	57,933	154,150	136,500	170,337	
STORM SEWER MAINTENANCE						
230-53651-51290 Wages Charged From Other Depart	25,036	14,638	29,276	25,976	30,720	
230-53651-51295 Wages Charged From Highway	-	-	5,000	2,000	2,000	
230-53651-51900 Hwy Benefits Charged Out	-	-	2,250	900	900	
230-53651-51950 Benefits Charged To/From Other De	10,484	6,032	12,064	10,983	11,691	
230-53651-52201 Digger's Hotline	22,739	10,161	23,000	20,000	25,000	
230-53651-52400 Televising	4,324	-	20,000	40,000	40,000	
230-53651-53510 Storm Sewer Maintenance	-	-	25,000	50,000	50,000	
230-53651-53520 As Builts & Mapping	-	-	5,000	5,000	5,000	
230-53651-53530 Curb and Gutter Repair	460	-	2,000	2,000	140,000	Westwood, Ridgeview, Lindenwood, Rose
TOTAL	63,043	30,831	123,590	156,859	305,311	
DITCH & CULVERT MAINTENANCE						
230-53652-51290 Wages Charged To/From Other Dep	19,860	11,394	22,788	20,588	23,883	
230-53652-51295 Wages Charged From Highway	85,065	22,313	45,000	100,000	100,000	
230-53652-51900 Hwy Benefits Charged Out	36,236	9,625	20,250	45,000	45,000	
230-53652-51950 Benefits Charged To/From Other De	8,440	4,730	9,460	8,837	9,308	
230-53652-53510 Culvert Replacement	63,252	2,173	60,000	100,000	100,000	
230-53652-53520 Ditch Maintenance	7,092	400	15,000	18,000	18,000	
230-53652-53530 Brush Removal	-	-	1,500	1,500	5,000	Contract brush grubbing for
TOTAL	219,945	50,635	173,998	293,925	301,191	
STREET SWEEPING						
230-53654-51295 Wages Charged From Highway	15,620	7,911	15,000	13,000	15,000	
230-53654-51900 Hwy Benefits Charged Out	5,509	2,410	6,750	5,850	6,750	
230-53654-53510 Sediment Diposal/Sweeping	2,356	34	3,500	4,000	4,000	
TOTAL	23,485	10,355	25,250	22,850	25,750	
CATCH BASIN CLEANING & MAINTENANCE						
230-53655-51295 Wages Charged From Highway	12,402	15,298	45,000	20,000	2,000	
230-53655-51900 Hwy Benefits Charged Out	5,021	6,165	20,250	9,000	9,050	
230-53655-53510 Catch Basin Cleaning/Maintenance/	3,044	6,049	15,000	15,000	30,000	
TOTAL	20,467	27,512	80,250	44,000	41,050	
PERMIT COMPLIANCE						

2023 BUDGET
SPECIAL REVENUE - STORM WATER MANAGEMENT

		2021 Actual	2022			2023 Budget	COMMENTS
			6 Month Actual	Year End Forecast	2022 Budget		
230-53656-51290	Wages Charged To/From Other Dep	52,156	30,382	60,764	54,163	63,793	
230-53656-51950	Benefits Charged To/From Other De	20,992	12,087	24,174	21,968	23,424	
230-53656-52150	Maintenance Agreement-TSS Comp	-	-	1,000	3,000		In SWMP Update for 2023
230-53656-53510	Pond Inspections/Field Inventory	1,600	-	3,000	5,000	5,000	
230-53656-53520	Yard Maintenance	-	-	2,000	10,000	10,000	Clean up yard after move to new building
230-53656-53540	Information & Education	2,931	-	3,000	3,000	3,000	
230-53656-53550	Permit Fees	2,000	2,000	2,000	2,200	2,200	
TOTAL		79,679	44,469	95,938	99,331	107,417	
PROJECTS							
230-57301-58210	Hill 'n Dale Subdivision	461,690	35,047	70,000	550,000	1,420,000	Flood
230-57305-58210	Emerald Acres/Green Road	2,827	-	-	-	-	Project completed
230-57320-58210	Public Works Yard Bio-Infiltration	-	-	-	25,000	-	Water Quality
230-57322-58210	Tacoma Storm Sewer	-	-	50,000	50,000	475,000	Road project
230-57329-58210	Lexington Drive Ditch Enclosure	-	-	34,000	50,000	-	Flood-Design
230-57330-58210	Woodside Drive Ditch Enclosure	-	-	5,000	15,000	15,000	Maintenance-coordinate with road project
230-57333-58210	Shady Lane/Shady Nook	-	-	30,000	250,000	250,000	Road-delay from 2022
230-57334-58210	Hillside Grove Storm Sewer	-	-	5,000	10,000	10,000	Maintenance-Wetland Mapping
230-57335-58210	TMDL Reduction Projects	-	-	-	2,500	2,500	Water Quality
230-57338-58210	Storm Inlets & Catch Basins	732,797	(17,580)	-	75,000	75,000	Maintenance
230-57340-58210	City Storm Water Study	7,260	-	5,000	350,000	410,000	Operations/Study
230-57347-58210	Duplainville Bridge (50R/50S)	3,071	13,646	150,000	150,000	10,000	Replacement 100,000 design '19 350,000
230-57348-58210	Busse Rd. Bridge Culvert Repl. (50F	28,279	8,960	20,000	350,000	450,000	
230-57351-58210	Roundys Park II	191,308	-	20,000	20,000	10,000	Maintenance-Road; retainage
230-57354-58210	Valley Brook Sub. Ditch enclosure	1,803	-	50,000	350,000	350,000	Replace Failed Ditch Enclosure Pipe
230-57355-58210	Yench Road Culvert Replacement	-	-	88,000	400,000	450,000	permit for culvert replacement on Coco
230-57357-58210	Facilities Plan (Storm portion)	-	-	-	10,000	10,000	Study
230-57358-58210	Foxwood/Kathrine Court	50,776	22,158	350,000	500,000	10,000	Ponding - retainage
230-57359-58210	Joseph Rd Reconstruction	28,099	-	100,000	275,000	275,000	Road - delayed from 2021
230-57360-58210	Meadowbrook Farms Ph 1	112,361	-	10,000	10,000	-	Road - retainage
230-57361-58210	Duplainville Road	-	-	1,200,000	1,000,000	20,000	Road reconstruction project - retainage
230-57367-58200	Wagner Park Pond Dredge/Rehab	-	-	45,000	45,000	350,000	Construction 2023
230-57368-58200	Kopmeier Road	-	-	-	250,000	-	Replace sanitary sewer so add
230-57369-58200	Lasko Drainage Issue	-	-	50,000	150,000	-	Per PWC, add as project in 2022 to
230-57370-58210	Springdale Drainage Easement	-	964	12,300	-	150,000	Design/easement acquisition
230-57366-58210	Oak/Peninsula	115,070	-	10,000	10,000	-	Retainage - closeout in 2022
230-57552-58210	Spice Creek/Meadowbrook #2	4,596	-	590,000	-	10,000	Retainage
XXX-XXXXX-58210	Spice Creek/Meadowbrook #3	-	-	-	-	300,000	road
	Spice Creek/Meadowbrook #4	-	-	-	-	10,000	design
	Rolling Ridge Ph 1	-	-	-	-	30,000	design
	Sherwood Forest	-	-	-	-	30,000	design
	Apple Tree/Pear Tree	-	-	-	-	300,000	road
	Stoneridge Pond Outlet Replaceme	-	-	-	-	75,000	replace pond culvert outlet per agreement

2023 BUDGET
SPECIAL REVENUE - STORM WATER MANAGEMENT

	2021 Actual	2022			2023 Budget	COMMENTS
		6 Month Actual	Year End Forecast	2022 Budget		
Springdale Drainage Easement Ph 2	-	-	-	-	20,000	survey/design for ph 2
Watertown Road	-	-	-	-	30,000	design
CAPITAL EXPENDITURES						
TOTAL	1,739,937	63,195	2,894,300	4,897,500	5,547,500	
230-53650-58100 Capital Equipment Expenditures	353,427	-	370,000	350,000	17,500	
OTHER EXPENDITURES						
230-58200-56980 Debt Issue Discount	-	-	-	-	-	
230-58200-56990 Debt Issue Costs	-	-	33,458	-	-	
230-59210-59000 Transfer to Debt Service Fund	198,652	22,826	200,652	200,652	746,302	principal 395k, int 351,302
TOTAL	198,652	22,826	234,110	200,652	746,302	
TOTAL EXPENDITURES	3,074,714	386,396	4,317,686	6,359,287	7,403,587	
Change in Fund Balance	(1,191,205)	1,312,097	4,377,916	(1,508,261)	(5,648,915)	
Fund Balance:						
Beginning of Year	2,725,289	1,534,084	1,534,084	1,621,165	5,912,000	
End of Year	1,534,084	2,846,181	5,912,000	112,904	263,085	

CITY OF PEWAUKEE
2023 BUDGET
CAPITAL PROJECTS FUND - BIKE & PEDESTRIAN

2021 Actual	2022		2022 Budget	2023 Budget
	6 Month Actual	Year End Forecast		

Revenues

440-00000-49222	Transfer from Impact Fees	84,000	64,000	64,000	64,000	64,000
440-00000-49210	Transfer from General Fund	-	-	-	-	-
440-00000-49110	Proceeds of Long-Term Debt	-	-	1,240,000	960,000	-
Total Revenues		84,000	64,000	1,304,000	1,024,000	64,000

Projects

440-53550-53430	Maintenance of Trails	7,500	-	10,000	10,000	10,000
440-53550-58220	Fieldhack	-	-	75,000	150,000	474,000
440-53550-58230	Northview Road Sidewalk	28,948	173	110,000	200,000	10,000
440-53550-58240	Duplainville Road	-	-	500,000	450,000	10,000
440-53550-58250	Lindsay Road Trail	45,401	69,728	75,000	325,000	-
440-53550-58260	Pedestrian Crossing@STH 164 & Ridge	-	-	-	-	60,000
440-53550-58270	Pedestrian Crossing@Nettesheim Park	-	-	-	-	15,000
440-53550-58280	Pedestrian Crossing @Crestview & Princeton	-	-	-	-	15,000
440-58200-56990	Debt Issue Costs	-	-	5,948	-	-

Total Expenditures and Other Uses	81,849	69,901	775,948	1,135,000	594,000
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Change in Fund Balance	2,151	(5,901)	528,052	(111,000)	(530,000)
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Fund Balance:

Beginning of Period	-	2,151	2,151	111,000	530,203
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End of Period	2,151	(3,750)	530,203	-	203
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CITY OF PEWAUKEE
2023 BUDGET
CAPITAL PROJECTS - DPW BUILDING

		2021 Actual	2022			2023 Budget
			6 Month Actual	Year End Forecast	Budget	
Revenues						
480-00000-49110	Proceeds of Long Term Debt	5,650,000	-	10,090,000	10,175,000	
480-00000-49120	Long Term Debt Premium	26,225				
480-00000-49210	Transfer from General Fund	-	-	-	-	-
Total Revenues		5,676,225	-	10,090,000	10,175,000	-
480-57700-58100	DPW Building	1,606,261	4,160,354	10,003,768	7,000,000	
480-57700-58300	Land	2,741,793	345,490			
480-58200-56990	Debt Issue Costs	86,076	-	86,232	175,000	
Total Expenditures and Other Uses		4,434,130	4,505,844	10,090,000	7,175,000	-
Change in Fund Balance		1,242,095	(4,505,844)	-	3,000,000	-
Fund Balance:						
Beginning of Period		-	-	1,242,095	594,593	1,242,095
End of Period		1,242,095	(4,505,844)	1,242,095	3,594,593	1,242,095

**CITY OF PEWAUKEE
WATER UTILITY
2023 OPERATING BUDGET SUMMARY**

	2021 Actual	2022			2023 Budget
		6 Month Actual	Year End Forecast	2022 Budget	
Operating Revenues	2,642,950	1,230,573	2,761,714	2,653,200	2,794,086
Operating Expenses					
Wages Not Charged to Projects	224,836	133,584	290,900	241,073	363,942
Fringe Benefits	120,929	86,918	222,567	249,852	238,194
Source of Supply Expenses	61,231	4,156	97,350	106,275	131,175
Pumping Expenses	259,612	116,173	299,500	349,750	366,850
Water Treatment Expenses	161,253	78,418	174,000	168,500	195,000
Transmission & Distribution	148,722	44,931	205,400	283,800	348,750
Consultants & Studies	33,069	11,840	75,000	35,000	20,000
Shared Transportation & Maintenance	48,459	21,010	55,260	54,365	63,000
Shared Administrative Expenses	157,621	118,855	164,044	195,960	187,886
PSC Remainder Tax	2,675	-	2,700	2,500	2,700
Property Tax Equivalent	550,886	-	535,000	620,000	560,000
Total Operating Expenses	1,769,293	615,885	2,121,721	2,307,075	2,477,497
Operating Profit before Depreciation	873,657	614,688	639,993	346,125	316,589
Depreciation Expense	1,274,764	662,500	1,325,000	1,325,000	135,150
Net (Loss) from Operations	(401,107)	(47,812)	(685,007)	(978,875)	181,439
Non-Operating Revenue					
Interest on Investments/AR	3,185	76	2,075	2,050	2,575
Long Term Debt Premium	11,649	-	-	11,649	-
Interest on Special Assessments	3,580	-	3,500	4,300	3,500
Water Construction	2,110,715	197,207	297,000	395,000	395,000
Deferred/Contemplated Sp Assmt Payoffs	-	130,403	175,000	-	75,000
Gain/Loss on Fixed Asset Disposal	12,000	1,722	2,000	5,000	10,000
Total Non-Operating Revenues	2,141,129	329,408	479,575	417,999	486,075
Non-Operating Expenses					
Interest on Long Term Debt and Debt Exp	241,193	78,114	276,577	309,112	237,934
Net Profit (Loss)	1,498,829	203,482	(482,009)	(869,988)	429,580

**CITY OF PEWAUKEE
WATER UTILITY
2023 OPERATING BUDGET**

		2021 Actual	2021			2023 Budget
			6 Month Actual	Year End Forecast	2022 Budget	
Operating Revenues						
600-00432-46241	Private Fire Protection	75,739	38,065	76,128	76,000	77,500
600-00461-46450	Metered Sales-Residential	1,189,803	506,835	1,175,000	1,150,000	1,200,000
600-00461-46451	Metered Sales-Industrial	110,779	48,545	112,000	112,000	112,000
600-00461-46452	Metered Sales-Commercial	460,877	175,121	470,000	517,000	475,000
600-00461-46453	Metered Sales-Public	10,366	4,159	6,000	5,200	6,500
600-00461-46454	Metered Sales-Multi Family	205,120	97,670	208,000	208,000	208,000
600-00463-46242	Public Fire Protection	559,053	346,293	692,586	566,000	692,586
Total Operating Revenues		2,611,737	1,216,688	2,739,714	2,634,200	2,771,586

Other Revenues

600-00470-45111	Late Payment Penalty	9,465	4,494	8,000	8,000	8,500
600-00474-48901	Other Water Revenues	16,085	6,566	9,000	6,000	9,000
600-00474-46191	Other Revenue-Spec Assmt Ltr	5,663	2,825	5,000	5,000	5,000
Total Other Revenues		31,213	13,885	22,000	19,000	22,500

Total Revenues

2,642,950	1,230,573	2,761,714	2,653,200	2,794,086
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Expenses

Wages Not Charged to Projects

600-00600-51100	Wages	20,760	15,334	23,500	23,500	23,700
600-00620-51100	Wages	47,954	27,888	55,000	51,700	54,600
600-00630-51100	Wages	9,712	6,551	13,900	15,780	11,055
600-00640-51100	Wages	19,720	12,325	32,300	26,000	22,450
600-00902-51220	Meter Reading Wages	4,289	3,501	5,650	5,650	5,000
600-00920-51200	Salaries - Administrative	93,489	42,134	121,550	95,000	176,319
600-00920-51220	Internal Engineering Wages	28,912	25,851	39,000	23,443	70,818
Total Wages		224,836	133,584	290,900	241,073	363,942

Fringe Benefits

600-00408-51300	Fica Expense	26,898	13,101	30,120	30,120	30,120
600-00926-51310	Benefits - Health Insurance	43,519	32,381	65,000	79,285	71,500
600-00926-51320	Benefits - Dental Insurance	3,110	2,026	5,347	5,347	5,882
600-00926-51330	Benefits - Optical Insurance	487	256	697	697	766
600-00926-51360	Benefits - Pension	24,263	11,760	25,593	25,593	27,385

**CITY OF PEWAUKEE
WATER UTILITY
2023 OPERATING BUDGET**

		2021 Actual	2021			2023 Budget
			6 Month Actual	Year End Forecast	2022 Budget	
600-00926-51340	Benefits - Life Insurance	804	511	921	921	1,013
600-00926-51350	Benefits - Disability Insurance	1,218	778	1,394	1,394	1,533
600-00926-51390	Vac/Sick Liability Expense	39,012	13,578	58,500	71,500	65,000
600-00926-51950	Benefits - Charged To/From Other Depts	13,748	12,527	18,745	18,745	18,745
600-00926-51361	Pension Expenses GASB 68	(32,130)	-	16,250	16,250	16,250
Total Fringe Benefits		120,929	86,918	222,567	249,852	238,194

Plant Operation & Maintenance

Source of Supply Expenses

600-00600-53400	Source of Supply- Repairs	40,019	-	75,000	75,000	100,000
600-00601-53200	Purchased Water	-	-	-	300	300
600-00602-53400	Operating Supplies & Expenses	137	-	350	850	750
600-00602-52310	Building and Grounds	20,950	4,031	22,000	30,000	30,000
600-00603-52200	Water Withdrawal Fee - DNR	125	125	-	125	125
Total Source of Supply Expenses		61,231	4,156	97,350	106,275	131,175

Pumping Expenses

600-00622-52210	Power Purchased/Pumping	236,574	100,755	248,000	248,000	260,000
600-00623-53400	Operating Supplies & Expense	239	274	400	400	400
600-00623-52310	Building and Grounds	3,879	1,016	10,000	11,000	15,000
600-00623-52200	Utilities	5,658	5,295	6,100	5,350	6,450
600-00625-52400	Repairs-Pumping Equipment	13,262	8,833	35,000	85,000	85,000
Total Pumping Expenses		259,612	116,173	299,500	349,750	366,850

Water Treatment Expenses

600-00631-53200	Chemicals	83,335	37,025	90,000	90,000	94,500
600-00631-52210	Radium Treatment	44,333	22,877	47,000	46,000	49,500
600-00632-53400	Operating Supplies & Expenses	965	35	1,000	1,000	1,000
600-00632-52310	Water Testing	8,607	4,015	10,000	15,000	15,000
600-00635-52400	Repairs and Maintenance	24,013	14,466	26,000	16,500	35,000
Total Water Treatment Expenses		161,253	78,418	174,000	168,500	195,000

Transmission & Distribution

600-00641-53400	Operating Supplies and Expense	1,480	703	5,000	3,500	1,750
600-00641-53320	Meter Supplies	997	-	800	800	1,000

**CITY OF PEWAUKEE
WATER UTILITY
2023 OPERATING BUDGET**

	2021 Actual	2021			2023 Budget
		6 Month Actual	Year End Forecast	2022 Budget	
600-00641-52381 Cross Connection Inspection	12,191	7,026	14,100	15,000	15,000
600-00650-52400 Repairs - Reservr & Standpipes	6,874	1,546	8,000	40,000	40,000
600-00651-52400 Repairs - Transmission Lines	52,527	3,509	100,000	80,000	150,000
600-00651-52410 Repairs - Leak Detection	-	-	2,000	2,000	2,000
600-00652-52400 Repairs - Maintenance of Services	20,422	10,917	35,000	35,000	40,000
600-00653-52400 Repairs - Meters	21,642	11,378	14,000	20,000	21,000
600-00654-52400 Repairs - Hydrants	32,589	9,762	25,000	85,000	75,000
600-00655-52400 Repairs - Miscellaneous	-	90	1,500	2,500	3,000
Total Transmission & Distribution	148,722	44,931	205,400	283,800	348,750

Consultants & Studies

600-00923-52399 Water Facilities Plan	33,069	11,840	75,000	35,000	20,000
Total Consultants & Studies	33,069	11,840	75,000	35,000	20,000

Shared Transportation and Maintenance Expenses

600-00933-53340 Transporation Expense - Vehicle Fuel	7,670	5,786	10,000	5,500	10,000
600-00933-53370 Transportation Expense - Vehicle Insurance	2,149	-	2,410	2,365	3,250
600-00933-52400 Transportation Expense - Repair & Maintenan	7,100	2,460	6,500	6,500	7,750
600-00950-52100 Scada/Telemetry	8,189	1,940	8,750	12,500	11,000
600-00950-52200 Safety	566	557	1,600	2,000	2,000
600-00950-52440 Diggers Hotline	22,785	10,267	26,000	25,000	28,500
600-00950-52445 GIS Software Maintenance	-	-	-	500	500
Total Shared Transportation and Maintenance	48,459	21,010	55,260	54,365	63,000

Shared Administrative Expenses

600-00901-52200 Meter Reading Expenses	7,824	2,106	4,000	4,000	4,250
600-00903-53300 Billing	20,550	4,638	20,000	20,000	20,000
600-00904-57420 Water Utility Uncollectible	43	(217)	100	25	100
600-00906-53300 Conservation/Public Relations	-	-	500	1,000	10,000
600-00921-53100 Office Supplies & Expenses	2,770	1,325	2,500	2,500	2,750
600-00921-52301 Office Equipement Maintenance	2,483	684	3,250	6,000	3,250
600-00921-53305 Books & Periodicals	-	-	-	50	50
600-00921-53306 Postage	319	69	250	375	375
600-00921-53307 Notices & Publications	132	-	150	300	300
600-00921-52330 Telephone	3,191	1,200	3,250	3,500	3,500

**CITY OF PEWAUKEE
WATER UTILITY
2023 OPERATING BUDGET**

		2021 Actual	2021			2023 Budget
			6 Month Actual	Year End Forecast	2022 Budget	
600-00921-52331	Answering Service	416	165	500	500	500
600-00921-53300	Mileage	251	218	350	350	375
600-00921-53210	Meals & Incidentals	60	18	175	250	250
600-00923-52380	OPS - Engineer	-	-	1,000	4,250	4,250
600-00923-52100	OPS - Attorney	145	-	300	2,500	2,500
600-00923-52120	OPS - Auditor/Accountant	38,559	24,110	37,500	37,500	37,500
600-00923-52160	General Management	40,000	40,000	40,000	40,000	40,000
600-00924-55120	Insurance - Property & Liability	12,553	14,515	15,000	14,000	16,500
600-00924-55110	Insurance - Workers Compensation	4,865	5,599	6,369	7,760	8,536
600-00924-55121	Insurance - Boiler & Machinery	-	-	1,200	1,200	-
600-00928-52381	Regulatory & Commission Expense	992	57	5,000	5,000	8,000
600-00928-52382	PSC Water RCA Study	-	-	-	20,000	-
600-00930-53200	Utility Memberships & Continuing Education	2,085	2,601	2,500	4,250	4,250
600-00930-55391	Rent	18,000	18,000	18,000	18,000	18,000
600-00930-53399	Miscellaneous General Expense	2,383	3,767	2,150	2,650	2,650
Total Shared Administrative Expenses		157,621	118,855	164,044	195,960	187,886
600-00408-55200	PSC Remainder Tax	2,675	-	2,700	2,500	2,700
600-00408-55300	Property Tax Equivalent	550,886	-	535,000	620,000	560,000
Total Operating Expenses		1,769,293	615,885	2,121,721	2,307,075	2,477,497
Operating Profit (Loss) before Depreciation		873,657	614,688	639,993	346,125	316,589
600-00403-55000	Depreciation Exp.	1,274,764	662,500	1,325,000	1,325,000	135,150
Net Operating Profit (Loss) - Water		(401,107)	(47,812)	(685,007)	(978,875)	181,439
Non-Operating Revenue						
600-00419-48100	Interest Income	3,118	15	2,000	2,000	2,500
600-00419-48102	Interest/Special Assmts.	3,580		3,500	4,300	3,500
600-00429-49120	Long Term Debt Premium	11,649			11,649	
600-00432-46161	Accounts Receivable Finance Charges	67	61	75	50	75
600-00464-46313	Water Construction	2,110,715	197,207	297,000	395,000	395,000
600-00464-46320	Deferred/Contemplated Sp Assmt Payoffs		130,403	175,000		75,000
600-00475-48300	Gain/Loss on Fixed Asset Disposal	12,000	1,722	2,000	5,000	10,000

**CITY OF PEWAUKEE
WATER UTILITY
2023 OPERATING BUDGET**

	2021 Actual	2021			2023 Budget
		6 Month Actual	Year End Forecast	2022 Budget	
Total Non-Operating Revenues	2,141,129	329,408	479,575	417,999	486,075

Non-Operating Expenses

600-00407-55100 Amort Property Loss	-	-			-
600-00427-56100 Interest/Long Term Debt	163,081	78,114	156,000	156,000	145,434
600-00428-56200 Bond Issue Costs	-	-	42,465	75,000	50,000
600-00430-55400 Amort/Debt Expense Still River	78,112	-	78,112	78,112	42,500
Total Non-Operating Expenses	241,193	78,114	276,577	309,112	237,934
Net Profit (Loss) - Water	1,498,829	203,482	(482,009)	(869,988)	429,580

**CITY OF PEWAUKEE
SEWER UTILITY
2023 OPERATING BUDGET SUMMARY**

	2021 Actual	2021			2022 Budget
		6 Month Actual	Year End Forecast	2021 Budget	
Operating Revenues	4,088,889	2,062,146	4,118,915	4,134,648	4,148,200
Operating Expenses					
Wages	179,740	100,539	189,700	182,944	255,405
Fringe Benefits	71,427	52,588	119,843	134,535	128,259
Plant Operation & Maintenance	2,791,259	474,379	2,429,250	2,442,730	2,790,810
Consultants & Studies	6,201	110,600	171,001	92,500	140,500
Shared Transportation & Maint	48,423	21,196	55,260	54,365	63,000
Shared Administrative Expense	138,056	107,795	159,144	170,960	179,986
Total Operating Expenses	3,235,106	867,097	3,124,198	3,078,034	3,557,960
Operating Profit before Depreciation	853,783	1,195,049	994,717	1,056,614	590,240
Depreciation Expense	782,665	400,000	800,000	800,000	800,000
Net Profit (Loss) from Operation	71,118	795,049	194,717	256,614	(209,760)
Non-Operating Revenue					
Interest on Investments/AR	10,638	8,179	15,700	10,050	15,050
Interest on Special Assessmen	17,730	45	17,000	20,000	16,500
Sewer Service Connection Fee	2,984,657	283,336	233,573	419,973	407,500
Deferred Special Assmt Payoff	-	20,017	25,000	-	25,000
Other Non-Operating Revenue	12,000	-	2,000	5,000	10,000
Total Non-Operating Revenue	3,025,025	311,577	293,273	455,023	474,050
Non-Operating Expenses					
Interest on Long Term Debt an	32,062	20,733	27,014	27,500	179,291
Bond Discount					
Amortization of Premium	(2,514)	-	-	-	-
Net Profit (Loss) - Sewer	3,064,081	1,085,893	460,976	684,137	84,999

**CITY OF PEWAUKEE
SEWER UTILITY
2023 OPERATING BUDGET**

2021 Actual	2022			2023 Budget
	6 Month Actual	Year End Forecast	2022 Budget	

Sewer

Revenues

Operating Revenues - Sewer

650-01621-46410	Residential Revenue Sewer	2,516,438	1,271,023	2,545,000	2,481,000	2,573,200
650-01621-46411	Industrial Revenue - Sewer	184,532	98,695	185,000	180,510	185,000
650-01621-46412	Commerical Revenue - Sewer	887,742	444,461	889,000	967,173	889,000
650-01621-46413	Public Revenue - Sewer	9,353	4,676	9,365	9,365	9,950
650-01621-46414	Multi Family Revenue - Sewer	470,113	232,726	470,000	476,000	470,000
Total Operating Revenues		4,068,178	2,051,581	4,098,365	4,114,048	4,127,150

Other Revenues - Sewer

650-01631-45112	Late Payment Penalty - Sewer	15,048	7,737	15,500	15,500	16,000
650-01635-48902	Other Sewer Revenues	-	3	50	100	50
650-01635-46191	Other Revenue - Special Assessment Letters	5,663	2,825	5,000	5,000	5,000
Total Other Revenues		20,711	10,565	20,550	20,600	21,050

Total Revenues

4,088,889	2,062,146	4,118,915	4,134,648	4,148,200
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Expenses

Wages

650-01820-51100	Wages	57,339	32,553	66,200	64,501	65,300
650-00920-51200	Salaries - Administrative	93,489	42,135	93,500	95,000	135,630
650-00920-51220	Internal Engineering Wages	28,912	25,851	30,000	23,443	54,475
Total Wages		179,740	100,539	189,700	182,944	255,405

Fringe Benefits

650-01820-51300	Fica Expense	14,483	7,054	16,219	16,219	16,219
650-00926-51310	Benefits - Health Insurance	23,429	17,436	35,000	42,692	38,500
650-00926-51320	Benefits - Dental Insurance	1,674	1,091	2,879	2,879	3,167
650-00926-51330	Benefits - Optical Insurance	262	138	375	375	413
650-00926-51360	Benefits - Pension	13,065	6,332	13,781	13,781	14,746

**CITY OF PEWAUKEE
SEWER UTILITY
2023 OPERATING BUDGET**

	2021 Actual	2022			2023 Budget
		6 Month Actual	Year End Forecast	2022 Budget	
650-00926-51340 Benefits - Life Insurance	433	275	496	496	546
650-00926-51350 Benefits - Disability Insurance	656	419	750	750	825
650-00926-51390 Vac/Sick Liability Expense	21,007	7,316	31,500	38,500	35,000
650-00926-51950 Benefits - Charged To/From Other Depts	13,748	12,527	10,093	10,093	10,093
650-00926-51361 Pension Expense GASB 68	(17,330)		8,750	8,750	8,750
Total Fringe Benefits	71,427	52,588	119,843	134,535	128,259

Plant Operation & Maintenance

650-01821-52200 Power/Electricity	45,215	15,827	45,000	45,000	47,250
650-01821-52210 Power/Natural Gas	1,536	1,005	2,300	2,200	2,310
650-01821-53215 Power/Other Fuel	817	-	600	300	750
650-01827-53400 Supplies and Expenses	1,593	1,074	5,000	2,800	4,300
650-01827-52340 Sewer Service Charge - Brookfield	1,612,344	142,901	1,080,000	1,080,130	1,200,000
650-01827-52341 Sewer Service Charge - LPSD	510,480	132,938	531,750	526,000	548,000
650-01827-52342 Sewer Service Charge - Village of Pewaukee	117,588	19,612	120,000	136,000	136,000
650-01827-52343 Sewer Service Charge - SD #4	3,371	1,234	5,100	8,300	6,200
650-01827-52344 Sewer Service Charge - WCC	252,823	141,798	300,000	292,000	316,000
650-01831-52400 Maintenance of Collection System	178,522	6,535	210,000	200,000	320,000
650-01831-52410 Maintenance SCS Sewer Cleaning	44,246		85,000	85,000	135,000
650-01831-52420 Maintenance/SCS - Flowmeter	4,560	2,560	12,000	10,000	15,000
650-01831-52430 Maintenance/SCS - Control Panel	279	1,099	3,500	5,000	5,000
650-01832-52400 Maintenance of Pumping Equipment	4,316	5,405	9,000	20,000	20,000
650-01834-52400 Maintenance of General Plant Structure	13,569	2,391	20,000	30,000	35,000
Total Plant Operation & Maintenance	2,791,259	474,379	2,429,250	2,442,730	2,790,810

Consultants & Studies

650-01850-52100 OPS - Sewer Studies	6,011	110,600	165,000	10,000	125,000
650-01850-52100 Sewer Rate Study	-			3,500	
650-01850-52100 Sewer Facility System Plan/Study	-		1	65,000	
650-01850-52100 Fox River Water Pollution Control Center Capa	-			1,000	

**CITY OF PEWAUKEE
SEWER UTILITY
2023 OPERATING BUDGET**

	2021 Actual	2022			2023 Budget
		6 Month Actual	Year End Forecast	2022 Budget	
650-01852-52380 OPS - Engineer - Sewer	190	-	5,000	5,000	7,500
650-01852-52382 OPS - Attorney - Sewer	-		1,000	5,500	5,500
650-01852-52383 OPS - Auditor/Accountant - Sewer	-	-		2,500	2,500
Total Consultants & Studies	6,201	110,600	171,001	92,500	140,500

Shared Transportation and Maintenance Expenses

650-00933-53340 Transportation Expense - Vehicle Fuel	7,670	5,786	10,000	5,500	10,000
650-00933-55370 Transportation Expense - Vehicle Insurance	2,150	-	2,410	2,365	3,250
650-00933-52400 Transportation Expense - Repair & Maintenance	7,073	2,465	6,500	6,500	7,750
650-00950-52100 Scada/Telemetry	8,206	2,231	8,750	12,500	11,000
650-00950-52200 Safety	592	557	1,600	2,000	2,000
650-00950-52440 Diggers Hotline	22,732	10,157	26,000	25,000	28,500
650-00950-52445 GIS Software Maintenance	-		-	500	500
Total Shared Transportation and Maintenance Expenses	48,423	21,196	55,260	54,365	63,000

Shared Administrative Expenses

650-00901-52200 Meter Reading Expenses	-	-	4,000	4,000	4,250
650-00903-53300 Billing	18,350	4,638	20,000	20,000	20,000
650-00904-46419 Sewer Utility Uncollectible	529	72	200	25	200
650-00906-53300 Conservation/Public Relations	-	374	500	1,000	10,000
650-00921-53100 Office Supplies & Expenses	2,641	1,325	2,500	2,500	2,750
650-00921-52301 Office Equipment Maintenance	2,483	684	3,250	6,000	3,250
650-00921-52303 Bank Service Charges		74			
650-00921-53305 Books & Periodicals	-		-	50	50
650-00921-53306 Postage	23	69	250	375	375
650-00921-53307 Notices & Publications	215	-	150	300	300
650-00921-52330 Telephone	3,273	1,200	3,250	3,500	3,500
650-00921-52331 Answering Service	416	165	500	500	500
650-00921-53300 Mileage	217	218	350	350	375
650-00921-53210 Meals & Incidentals	60	18	175	250	250

**CITY OF PEWAUKEE
SEWER UTILITY
2023 OPERATING BUDGET**

		2021 Actual	2022			2023 Budget
			6 Month Actual	Year End Forecast	2022 Budget	
650-00923-52380	OPS - Engineer	-	-	1,000	4,250	4,250
650-00923-52100	OPS - Attorney	160	-	300	2,500	2,500
650-00923-52120	OPS - Auditor/Accountant	32,351	19,690	37,500	37,500	37,500
650-00923-52160	General Management	40,000	40,000	40,000	40,000	40,000
650-00924-55120	Insurance - Property & Liability	12,554	14,513	15,000	14,000	16,500
650-00924-55110	Insurance - Workers Compensation	4,865	5,599	6,369	7,760	8,536
650-00924-55121	Insurance - Boiler & Machinery	-		1,200	1,200	-
650-00930-53200	Uitlity Memberships & Continuing Education	986	1,156	2,500	4,250	4,250
650-00930-55391	Rent	18,000	18,000	18,000	18,000	18,000
650-00930-53399	Miscellaneous General Expense	933	-	2,150	2,650	2,650
Total Shared Administrative Expenses		138,056	107,795	159,144	170,960	179,986
Total Operating Expenses		3,235,106	867,097	3,124,198	3,078,034	3,557,960
Operating Profit (Loss) before Depreciation		853,783	1,195,049	994,717	1,056,614	590,240
650-01403-55410	Depreciation Exp. - Sewer	782,665	400,000	800,000	800,000	800,000
Net Operating Profit (Loss) - Sewer		71,118	795,049	194,717	256,614	(209,760)
Non-Operating Revenue						
650-01623-46314	Sewer Construction	2,590,492	119,631	220,000	220,000	165,000
650-01623-46320	Deferred Special Assmt Payoffs		20,017	25,000		25,000
650-01622-46315	ICA-Bluemound Road	18,205	3,835	13,573	13,573	6,600
650-01622-46316	ICA - Green Road	-			25,600	16,300
650-01622-46317	ICA - West Side	1,200	-	-	-	3,200
650-01622-46318	ICA Capitol Drive North	374,760	159,870		160,800	216,400
650-01660-48100	Interest Income	10,638	7,498	15,000	10,000	15,000
650-01660-48102	Interest/Special Assmts.	17,730	45	17,000	20,000	16,500
650-01660-46161	Accounts Receivable Finance Charges	-	681	700	50	50

**CITY OF PEWAUKEE
SEWER UTILITY
2023 OPERATING BUDGET**

	2021 Actual	2022			2023 Budget
		6 Month Actual	Year End Forecast	2022 Budget	
650-01660-48300 Gain or Loss on Sale of Assets	12,000	-	2,000	5,000	10,000
650-01660-48900 Other Revenues	-			-	-
Total Non-Operating Revenues	3,025,025	311,577	293,273	455,023	474,050

Non-Operating Expenses

650-01880-56100 Interest/Long Term Debt	34,576	20,733		27,500	179,291
650-01900-56981 Bond Discount			27,014		
650-01690-55400 Amortization of Premium	(2,514)				
Total Non-Operating Expenses	32,062	20,733	27,014	27,500	179,291
Net Profit (Loss) - Sewer	3,064,081	1,085,893	460,976	684,137	84,999

CITY OF PEWAUKEE
 Water/Sewer Utilities
 Administration and Shared Expenses
 2023 OPERATING BUDGET

2021 Actual				2023 Budget
	6 Month Actual	Year End Forecast	2022 Budget	

EXPENSES

600-000933-3400	Transporation Expense - Vehicle Fuel	15,340	11,572	20,000	11,000	20,000	
600-000933-3700	Transportation Expense - Vehicle Insur	4,299	-	4,820	4,730	6,500	shared sewer jetter
600-000933-4000	Transportation Expense - Repair & Mai	14,173	4,925	13,000	13,000	15,500	
600-000950-1000	Scada/Telemetry	16,395	4,171	17,500	25,000	22,000	
600-000950-2000	Safety	1,158	1,114	3,200	4,000	4,000	
600-000950-4400	Diggers Hotline	45,517	20,424	52,000	50,000	57,000	
600-000950-4450	GIS Software Maintenance	-	-		1,000	1,000	

Total Combined Plant Operation & Maintenance	96,882	42,206	110,520	108,730	126,000	
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600-000408-1000	Fica Expense	41,381	20,155	46,339	46,339	46,339	
600-000901-2000	Meter Reading Expenses	7,824	2,106	8,000	8,000	8,500	Steve Dauster
600-000903-3000	Billing	38,900	9,276	40,000	40,000	40,000	
600-000904-1000	Water Utility Uncollectible	43	(217)	100	25	100	all water
650-000904-1000	Sewer Utility Uncollectible	529	72	200	25	200	all sewer
600-000906-3000	Conservation/Public Relations	-	374	1,000	2,000	20,000	Hire a Public Relations firm
600-000920-1000	Salaries - Administrative	186,978	84,269	187,000	190,000	271,260	
600-000920-2000	Internal Engineering Wages	57,824	51,702	60,000	46,886	108,950	
600-000921-3000	Office Supplies & Expenses	5,411	2,650	5,000	5,000	5,500	
600-000921-3010	Office Equipement Maintenance	4,966	1,368	6,500	12,000	6,500	
600-00921-52303	Bank Service Charges	-	74		-	100	Jane - should this be all sewer since water has no money?
600-000921-3050	Books & Periodicals	-	-		100	100	
600-000921-3060	Postage	342	138	500	750	750	meter change letters
600-000921-3070	Notices & Publications	347	-	300	600	600	
600-000921-3300	Telephone	6,464	2,400	6,500	7,000	7,000	
600-000921-3310	Answering Service	832	330	1,000	1,000	1,000	

600-000921-3400	Mileage	468	436	700	700	750	
600-000921-3500	Meals & Incidentals	120	36	350	500	500	
600-000923-3800	OPS - Engineer	-	-	2,000	8,500	8,500	
600-000923-3820	OPS - Attorney	305	-	600	5,000	5,000	
600-000923-3830	OPS - Auditor/Accountant	70,910	43,800	75,000	75,000	75,000	
600-000923-3850	General Management	80,000	80,000	80,000	80,000	80,000	
600-000924-3700	Insurance - Property & Liability	25,107	29,028	30,000	28,000	33,000	
600-000924-3710	Insurance - Workers Compensation	9,730	11,198	12,738	15,520	17,072	10%
600-000924-3730	Insurance - Boiler & Machinery	-	-	2,400	2,400		
600-000926-1500	Benefits - Health Insurance	66,948	49,817	100,000	121,977	110,000	
600-000926-1510	Benefits - Dental Insurance	4,784	3,117	8,226	8,226	9,049	
600-000926-1520	Benefits - Optical Insurance	749	394	1,072	1,072	1,179	
600-000926-1530	Benefits - Pension	37,328	18,092	39,374	39,374	42,130	7%
600-000926-1540	Benefits - Life Insurance	1,237	786	1,417	1,417	1,559	
600-000926-1560	Benefits - Disability Insurance	1,874	1,197	2,144	2,144	2,358	
600-000926-1570	Vac/Sick Liability Expense	60,019	20,894	90,000	110,000	100,000	
600-000926-1580	Benefits - Charged To/From Other Dep	27,496	25,054	28,838	28,838	28,838	
600-000926-1590	Pension GASB 68	(49,460)	-	25,000	25,000	25,000	Paul Frantz
600-000928-3810	Regulatory & Commission Expense	992	57	5,000	5,000	8,000	all water-2023 water rate case
600-000928-3820	PSC Water RCA Study	-	-	-	20,000	-	
600-000930-1000	Uitlity Memberships & Continuing Educ	3,071	3,757	5,000	8,500	8,500	
600-000930-3910	Rent	36,000	36,000	36,000	36,000	36,000	
600-000930-3990	Miscellaneous General Expense	3,316	3,767	4,300	5,300	5,300	
Total Combined Operating Expenses		732,835	502,127	912,598	988,193	1,114,634	
Total Combined Expenses		829,717	544,333	1,023,118	1,096,923	1,240,634	

Water	449,410	294,768	602,421	618,620	736,217
Sewer	380,307	249,565	457,747	478,303	561,350
Nonoperating expenditures	-	-	-	-	-
	829,717	544,333	1,060,168	1,096,923	1,297,567
Proof	-	-	(37,050)	-	(56,933)

% for benefit calculation

Water

Sewer

65%

35%

CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 7.2.

DATE: September 22, 2022

DEPARTMENT: Public Works

PROVIDED BY: Magdelene Wagner

SUBJECT:

Discussion and possible action regarding the upcoming changes to the Recycling Intergovernmental Agreement and the Recycling Dividend.

BACKGROUND:

Staff has been participating in a Municipal Recycling Fund Workgroup for about a year discussing the current Intergovernmental Agreement (IGA) for municipal recycling.

Since 2001, the City has had an IGA with Waukesha County to operate a recycling facility with several other communities. Waukesha County has an IGA with Milwaukee County and operates a joint recycling center together. This Materials Recovery Facility (MRF) has been operating since 2014. Until 2018, the MRF was very successful in producing excess revenue from its commodities. In 2018, the commodity prices for many of the recycled material dropped significantly. As such, the dividends the County has been paying to the communities were suspended. The County then began a study of its MRF operations and the future sustainability of the MRF. The Municipal Recycling Fund Workgroup summarizes the results of their study and the results of the workgroup to find tune how to make the MRF sustainable.

With the changes to the operation of the MRF, the IGA needs to be updated. The County drafted a new IGA for communities to review and approve moving forward.

FINANCIAL IMPACT:

As long as the MRF fund continues to operate above \$3.5 Million, the Communities will receive dividends. These dividends would lag 1 year to ensure accurate numbers are used in all budgets.

If the MRF fund is between \$3.5 and \$3.1 Million, dividends will be considered depending on what expenses are anticipated in the next year or two.

If the MRF fund is below \$3.1 Million, payments from the Municipalities to the County may be required.

RECOMMENDED MOTION:

Public Works Committee recommend approval of the IGA to the Common Council.

ATTACHMENTS:

Description

FINAL REPORT

MUNICIPAL RECYCLING FUND GROUP

EXECUTIVE SUMMARY

In 1990, 25 partner municipalities adopted resolutions to identify the County as the ‘Responsible Unit’ to implement an effective recycling program as defined under the authority of Chapter 287 of Wisconsin Statutes. This was done as the initial step in the development of a comprehensive recycling program where participating municipalities would benefit from efficiencies gained through collaboration.

Beginning in 2001, Waukesha County was able to provide additional program revenues back to participating communities. The dividend payments consisted of a base dividend as well as a performance-based incentive. The dividend amounts increased as additional funds were available. In 2014 Intergovernmental Agreements with participating communities expanded the program to new communities and also incorporated additional payments to defray the costs of leasing carts and transporting material to the new Waukesha County City of Milwaukee Joint Materials Recovery Facility (MRF). This was done to not only share revenues associated with the program, but also to spend down the amount of funds held in reserve.

Due to the unprecedented market upsets caused by international actions in 2018, the program revenues were less than program costs. After several years the MRF fund could no longer sustain ongoing dividends. These totaled approximately \$1M annually and were not tied to actual program revenues.

Over the course of 2021 and into early 2022, County and municipal representatives partnered through a workgroup to develop a new dividend structure. The workgroup engaged with national consultants to better understand the regional and national recycling landscape and then developed recommendations on payment thresholds and how the dividend would be shared. The goal was to make a sustainable dividend program based on a sustainable business model that lessens the impact of market changes while providing new incentives for partnering, educating, and providing clean tons to the program.

WORKGROUP GOAL

By May 2022, develop a sustainable business model for the County’s recycling fund that lessens the impact of market highs and lows to be included in the 2023 Budget.

WORKGROUP MEMBERS

Tom Grisa (*City of Brookfield*)
Tom Hafner (*City of Delafield*)
Dave De Angelis (*Village of Elm Grove*)
Josh Radomski (*City of New Berlin*)
Ald. Joseph Stribl (*City of New Berlin*)
Mark Frye (*City of Oconomowoc*)
Maggie Wagner (*City of Pewaukee*)
Karen Schuh (*Village of Vernon*)
Dustin Nolan (*City of Waukesha*)
Brandon Bledsoe (*Village of Waukesha*)

Beth Gerbing (*Village of Waukesha*)
Supervisor Bill Mitchell (*Waukesha County*)
Dale Shaver (*Waukesha County*)
Alan Barrows (*Waukesha County*)
Steve Trimborn (*Waukesha County*)
Analiese Smith (*Waukesha County*)
Abbie Liedtke (*Waukesha County*)
Kendra Oldfield-Roberson (*Waukesha County*)
Demetra Christopoulos (*Waukesha County*)
Sarah Spaeth (*Waukesha County*)

TIMELINE

TASK	DATE
Charter Development & Kick-off Meeting	Jan '21
Municipal kick-off communication	Feb '21
Benchmark other fee structures including Municipal SMEs and WC Staff	Feb '21
Municipal SME Meeting to review benchmark data	March '21
Budget deep dive	March '21
Recommendations on budget opportunities and realignments if needed	March '21
Create budget tracking file	March '21
Decide on plan components & baseline metrics	March '21
Municipal communication on benchmark research and plan components	March '21
Municipal communication on fee structures – 1 st meeting	April '21
Develop 3 - 4 fee structures	December '21
2 nd Community Workgroup Meeting with feedback	December '21
MRF Fund Policy	January '22
3 rd Community Workgroup Meeting with feedback	January '22
All Community Update at Annual Meeting	January '22
Draft final recommendations	February '22

WORKGROUP ACTIVITIES

The workgroup met four times throughout the project to review various options and provide feedback on program design. The first meeting included a presentation to provide industry information on both a regional and national level. This information confirmed that the current recycling program is successful, especially compared to tipping fees and program costs

experienced by other programs. The remaining meetings the workgroup had wide-ranging discussions on a variety of topics including program revenue streams, program goals and success metrics, historical program costs, basing funding on tonnages vs. household numbers, disposal challenges, and the importance of education and providing high quality recycling tons without additional residue. These conversations served as the basis for the recommendations included in this report.

KEY RECOMMENDATIONS

GENERAL DIVIDEND STRUCTURE

- Programmatic financial decisions (i.e. amount of annual dividend) will be based on audited financial results. A timeline further outlining this process is included as Appendix A.
- Dividends to the participating municipalities will be incorporated into the County's budget when the fund is above \$3.5 M.
- Dividends to the participating municipalities will be considered based on future projections when the fund is below \$3.5 M but above \$3.1 M.
- Payments from the participating municipalities will be considered to support programmatic costs when the fund is below \$3.1 M. If the financial recovery is presumed to be short term, payments may be waived.
- Additional funds may be sought (i.e. through grants or other funding sources) to fund efficiency infrastructure improvements.
- In lieu of creating a separate fund for upgrades to the Joint Materials Recovery Facility beyond the current Intergovernmental Agreement with the City of Milwaukee (through 2030), the Recycling Fund may borrow funds from the County with a structured repayment plan.
- The County will provide bi-monthly financial updates to municipal partners.
- The workgroup may reconvene from time-to-time to update programmatic recommendations.

DIVIDEND PAYMENT COMPONENTS

- The final dividend formula will be shared with municipal partners when the budget is submitted.
- 50% of the dividend will be based on the historical 5-year average of program costs by community.
- 35% of the dividend will be based on total household count for the community.
- 7.5% of the dividend will be based on additional recycling services offered with a list to be updated from time-to-time that targets key materials for a municipality's residents and all County residents.
- 7.5% of the dividend will be based on educational collaboration with the county in regard to maintaining an updated website or linking to the County's website, partnering with the County to provide residential education, and participating in the County's Hauler Recycling App program.

FUTURE CONSIDERATIONS

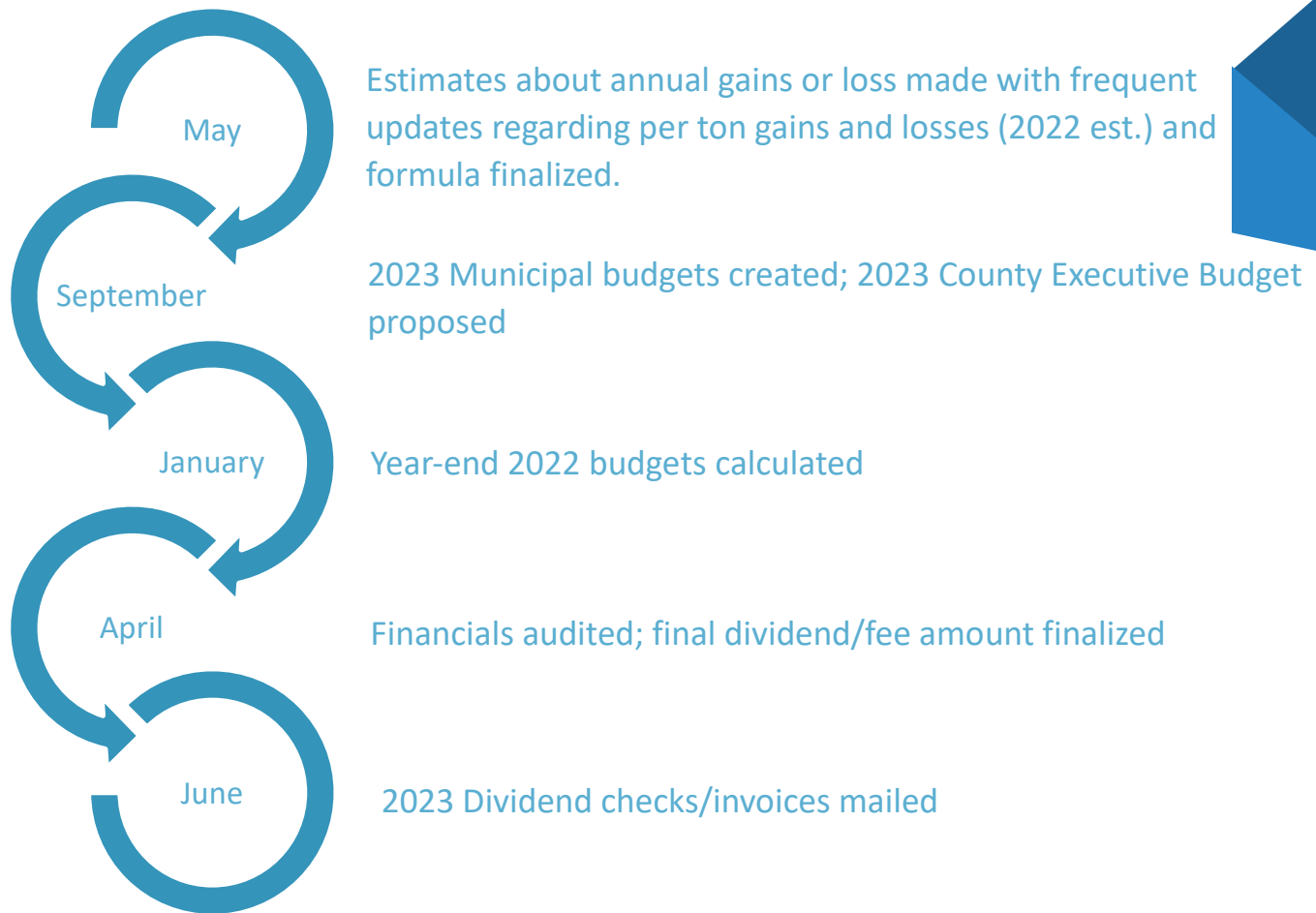
- Reassess the necessary fund balance to maintain program sustainability, as needed.
- Consider a cushion for dividend payment or fee collection for years that fall just above and just below the dividend payment threshold
- Consider future opportunities for strategic implementation of efficiency infrastructure improvements

NEXT STEPS

- Share plan with the Waukesha County Cooperative Council
- Develop Intergovernmental Agreements
- Incorporate into the 2023 County Budget

By May 2022, develop a new dividend program for the County's recycling fund that includes a dividend payment when possible and a fee structure when needed to support a sustainable MRF Fund to be included in the 2023 Budget.

APPENDIX A



INTERGOVERNMENTAL AGREEMENT BETWEEN THE [MUNICIPALITY OF] AND WAUKESHA COUNTY

Regarding the Municipal Recycling Dividend Program

THIS INTERGOVERNMENTAL AGREEMENT (“Agreement”) is between the [MUNICIPALITY OF] (“Municipality”) and Waukesha County – Department of Parks and Land Use (“County”) a body corporate and politic. The [municipality of] a [municipal corporation (“City” or “Village”) / quasi-municipal corporation “Town”] and County may be referred to individually or collectively in the Agreement as the “Party” or “Parties” respectively.

RECITALS

WHEREAS, since 1990, the County has served as a “Responsible Unit” (“RU”) for recycling under Chapter 287 Wisconsin Statutes for twenty-five (25) participating communities through a Resolution, including the Municipality;

WHEREAS, the public/private partnership at the County-owned Material Recovery Facility (“MRF”) in Waukesha has allowed the County to provide participating communities over \$12 million in tax relief (“dividend payments”) and numerous services at no cost, such as recyclable processing, public education programs, household recyclable containers, special event containers and regional recyclable drop-off boxes;

WHEREAS, between 2007 and 2012, a series of independent and joint studies were completed by both the County and the City of Milwaukee (“City”) to determine the best future path for recyclable processing to adapt to the industry trend of single sort collection and processing systems;

WHEREAS, in 2014, after completing a competitive joint request for proposal (RFP) process, the County and City executed an intergovernmental agreement and concurrent contracts with a private company to design, build and operate a Joint City/County MRF in Milwaukee (“Joint MRF”), which began processing single sort recyclables for both communities in March 2015;

WHEREAS, in 2021, the County and participating communities convened a Recycling Dividend Workgroup to discuss financial support for municipal recycling costs; and

WHEREAS, in accordance with the final recommendations of the Recycling Dividend Workgroup, a formulaic approach will be utilized in determining when dividend payments may be made to participating communities as financial support for municipal recycling costs, and when tipping fees may be charged to participating communities in order to maintain an appropriate MRF ~~fund~~Fund Working Capital balance.

NOW THEREFORE, in consideration of these premises, the County, serving as the RU, and the Municipality, as a participating community, hereby agree as follows:

SECTION 1

SERVICES BY THE MUNICIPALITY

- a. Delivery of Recyclables to Joint MRF. The Municipality shall, through its solid waste collection contract, require: 1) all recyclables to be hauled directly to the Joint MRF located at 1401 W. Mount Vernon Ave, Milwaukee in accordance with Waukesha County Code of Ordinances; and 2) the Municipality's solid waste collector ("SWC") to coordinate with the City and the Joint MRF operator the delivery of recyclables to the Joint MRF at times that maximize efficiencies at the scale and tip floor and minimize traffic back-ups. In the event the Joint MRF is unable to accept recyclables, the Municipality will direct the SWC to deliver recyclable materials to an alternate location for a designated time, as directed by the County, at no additional cost to the Municipality through a contract between the County and the Municipality's SWC.
- b. Record Keeping and Reporting. The Municipality shall keep records and, through an Internet-based County reporting system, provide annual data required to complete DNR Recycling Grant application and annual reports in accordance with the Waukesha County Code of Ordinances. Additionally, the Municipality shall, through their solid waste collection contract, require their SWC to keep records, provide the necessary data and reports to the County, maintain compliance with applicable state or local codes, program rules, and to comply with the requirement for delivery of recyclables to the Joint MRF. This includes, but is not limited to, providing up-to-date information on haul routes, collection days, and contamination.
- c. Collection Contracts. The Municipality shall provide the County a current copy of their solid waste collection contract including any future amendments or contracts.
- d. Solid Waste Collection Contract Compliance Requirements. The Municipality shall attach and incorporate the attached Exhibit B into the terms of their solid waste collection contract, which describes the Municipality's solid waste and recycling hauler requirements contained in this Agreement.
- e. Responsible Contact. Municipality will designate an individual to serve as the Responsible Contact to receive recycling updates from the County and participate in the Recycling Dividend Workgroup as further defined in this Agreement.

SECTION 2

SERVICES BY THE COUNTY

- a. Educational Program Services. The County will provide educational program services in accordance with the requirements of an "effective recycling program" under Chapter NR 544 Wisconsin Administrative Code.

- b. Effective Recycling Program. The County will provide compliance assurance as required of an “effective recycling program” under Chapter NR 544 Wisconsin Administrative Code.
- c. Recycling Updates. The County will provide recycling updates, including but not limited to current contamination rates and current material sale rates. These updates shall be provided to the Municipality’s Responsible Contact every two months.
- d. Annual Planning and Implementation Meeting. The County will host an annual program planning and implementation meeting to provide a comprehensive program update to the Municipality.
- e. Components and Calculations. The County will annually provide a list of included components and a calculation for the additional recycling services and education partnership portions of the dividend ~~when it provides the initial dividend estimation.~~
- f. Recycling Dividend Workgroup. The Recycling Dividend Workgroup is composed of volunteer Responsible Contacts from participating communities. The County shall meet with the Recycling Dividend Workgroup as needed and will take into consideration any recommendations of the Recycling Dividend Workgroup on program elements.

SECTION 3

PAYMENTS AND FEES

- a. Dividend Payments. Commencing in ~~2023~~2022, County will calculate dividend payments to Municipality ~~if (1) for inclusion in the following budget if~~ as of December 31st of the preceding year in which the dividend payment is to be ~~made, calculated, (1)~~ the MRF Fund’s Working Capital is above the cap set by the County and as further defined in Exhibit A, Section 1 and (2) the recycling program’s audited financial statements show a positive cash flow at the close of the Waukesha County fiscal year as ~~listed~~verified in the County’s Annual Comprehensive Financial Report.
 - ~~a.i.~~ Working Capital is defined as the current assets minus the current liabilities, exclusive of the following: 1) Funds specifically reserved for equipment repairs or upgrades; 2) Grant funds received in excess of the state’s basic recycling grant; and 3) The recycling consolidation grant to Responsible Units. ~~Positive cash flow is defined as the positive net change in Working Capital from the previous year.~~
 - ii. Positive cash flow is defined as the positive net change in Working Capital from the previous year.
- b. Tipping Fees. Tipping fees shall be charged to the Municipality ~~to if (1)~~ as of December 31st of the preceding year in which the tipping fee is ~~contemplated to be charged~~calculated, the MRF Fund ~~balance~~Working Capital is below the floor set by the County and as further defined in Exhibit A, Section 1. Municipality shall pay any tipping fees in accordance with the terms of this Agreement.

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- c. Calculation of Dividend Payments and Tipping Fees. Any dividend payments or tipping fees shall be determined by County in accordance with Exhibit A, which is hereby incorporated into the terms of this Agreement.
- d. Timing of Payments and Fees. County will provide status updates regarding estimated dividend payments or tipping fees throughout the auditing and budgeting ~~and auditing~~ process. A final invoice if applicable will be issued by ~~June 30~~March 1 and final payments shall be made by ~~July 31~~April 1 in the year following the year in which the fee or payment was calculated. Illustration: Audited financials of 2021 are released May 1, 2022. These results are used to determine if there is a dividend payment or tipping fee and the total amount. Staff will calculate each year participating community's dividend payment or tipping fee, communicate that to the Municipality, and incorporate it into the budget for the following year. By March 30, 2023 an invoice will be provided (if necessary) and payment will be made by April 1, 2023.

SECTION 4

MISCELLANEOUS

- a. Authority and Responsibilities. Nothing in this Agreement forfeits any RU rights and responsibilities of the County, or any other Municipality or County's rights or responsibilities under state or local laws. The County remains responsible for implementing a recycling education program for residents of the Municipality and for complying with other requirements of an "effective recycling program" under Chapter NR 544 Wisconsin Administrative Code.
- b. Responsible Contacts. Upon execution of this Agreement, the County, and the Municipality each shall designate in writing a primary person as a Responsible Contact to be responsible for carrying out the activities described in this Agreement.
- c. Review and Amendments. All changes to the main body of this Agreement shall be mutually agreed upon between the Parties and shall be in writing and designated as written amendments to this Agreement. The County has the authority to change the MRF Fund Working Capital cap and floor balances identified in Exhibit A upon providing twelve months' advance written notice of any changes to the Municipality.
- d. Effective Date and Term. Upon execution by both parties, this Agreement shall become effective on January 1, 2023, and shall remain in effect until January 1, 2030, unless otherwise terminated in writing by either party upon a one (1) year written notice to the other party. Termination of this Agreement does not alter the County's status as the Responsible Unit or the Municipality's responsibilities as a participating community in the Responsible Unit.

e. Severability. If any clause, provision or section of this Agreement be declared invalid by any Court of competent jurisdiction, the invalidity of such clause, provision, or section shall not affect any of the remaining provisions of this Agreement.

f. Notices. Any and all notices regarding termination of this Agreement shall be in writing and deemed served upon depositing same with the United States postal Services as "Certified Mail, Return Receipt Requested",

Addressed to the Municipality at:

XXXX

and to the County at:

XXXXXX

g. Binding Agreement. This Agreement is binding upon the parties hereto and their respective successors and assigns.

WAUKESHA COUNTY:

By: _____ Date: _____

Dale R. Shaver, Director - Department of Parks and Land Use

MUNICIPALITY

By: _____ Date: _____

Name

Attest: _____

Name, Clerk

|

|

6

EXHIBIT A

Dividend Payment and Tipping Fee Formula

SECTION 1

MRF FUND WORKING CAPITAL

The County will set the MRF ~~fund~~Fund Working Capital cap and floor balances to be utilized in determining when a dividend payment or tipping fee will be issued. The County has identified the following minimum balances, excluding grant issued funds ~~or~~and segregated funds for equipment repair and maintenance and efficiency improvement, to be utilized in determining when a dividend payment or tipping fee will be issued:

~~MRF fund cap~~Cap \$3,500,000.00

~~MRF fund floor~~Floor \$3,100,000.00

The County has the authority to change the MRF ~~fund~~Fund Working Capital cap and floor balances upon providing twelve months' advance written notice of any changes to the Municipality. Any changes to these balances will be based upon several factors including but not limited to market conditions, net commodity revenue, the analysis and recommendations of a third-party vendor and input from local subject matter experts.

SECTION 2

DIVIDEND CALCULATION

Dividend payments will be determined when (1) the MRF ~~working capital~~Fund Working Capital is above the cap identified in Section 1, and (2) the recycling program's audited financial statements of the preceding year show a positive cash flow as defined in Section 3(a) of the Agreement. The Dividend payment calculation will be determined by the County based on County's audited financial statements. This amount shall be divided between the participating communities in the Responsible Unit. The formula utilized by County to determine a Municipality's dividend payment will ~~take into account~~be based on the following considerations:

- 50% of the dividend will be based upon the proportion of the 5-year average of total eligible costs the Municipality paid for eligible recycling expenses.
- 35% of the dividend will be based upon the number of eligible households in a participating community as a proportion of the total number of eligible households in the program. Eligible households, as defined under Wisconsin Administrative Code NR Chapter 544.04(4), will be identified by the Municipality's January hauling invoice from the SWC or, if not available, according to the County's GIS system. A multiplier of ~~1—6, 1.2, 1.4, 1.6, 1.8, or 2~~ will also be incorporated based on the distance the Municipality is located from the Joint MRF with 1 being the nearest and ~~6~~2 being the furthest in proximity to the Joint MRF.
- 7.5% of the dividend will be based upon additional recycling services Municipality provides for its residents or all County residents for a minimum of 12 months. In order to qualify,

Municipality must provide evidence of said services that is satisfactory to the County. A list of qualifying services and the corresponding scores will be provided on an annual basis to the participating communities. The number of services provided and whether the services are provided to all County residents or the participating community's residents will earn the Municipality a score of 0, 0.5, 2, or 3. A numerical assignment of 3 represents the highest number of services provided.

- 7.5% of the dividend will be allocated based on education and outreach partnership opportunities in which a Municipality collaborates with the County. A list of qualifying opportunities and the corresponding scores will be provided on an annual basis to the participating communities. The number of services provided and whether the services are provided to all County residents or the municipalities' residents will earn Municipality a score of 0, 1, 2, or 3, with 3 being the highest number of qualifying opportunities.

Illustration: Municipality "Y" has a 5-year average of total eligible recycling costs of \$500,000 and the 5-year average of the total eligible recycling costs for all participating communities is \$7,000,000. Municipality "Y" has 4,760 eligible households and the total number of eligible households for all participating communities is 200,000. Municipality "Y" is located ~~4.5~~3.8 miles away from the Joint MRF, earning a multiplier of 2 for its eligible household points. Municipality "Y" also provided additional services for all County residents earning an additional recycling services score of '2' and partnered on education and outreach with the County, earning an education and partnership score of '3'. The total number of additional service points for all participating communities is 14.5 and the total number for education and outreach partnership points is 20. In this illustration, the total dividend available to be divided is \$100,000. Accordingly, Municipality "Y" will receive the following: 1) 7.14% or \$3,570 for its 5-year average of total eligible recycling costs in proportion to the total eligible recycling costs for all participating communities; 2) 4.76% or \$1,666 for its eligible households in proportion to the total number of eligible households in all participating communities after factoring in the multiplier for proximity to the Joint MRF; 3) 13.79% or \$1,034 for additional recycling services; and 4) 15% or \$1,125 for education and outreach partnership opportunities. Therefore, Municipality "Y" total ~~divided~~dividend payment, after taking into account all of the aforementioned considerations, would amount to \$7,395.

SECTION 3

TIPPING FEE CALCULATION

Tipping Fees will be charged to the Municipality and Municipality agrees to pay same when (1) the MRF Fund ~~balance~~Working Capital is below the floor identified in Section 1. The tipping fee calculation will be determined by the County based on the County's audited financial statements. This amount shall be divided between the participating communities in the Responsible Unit according to the following formula:

$$\text{Fee} = \text{EH} * [(\text{F}-\text{B}) / \text{TH}]$$

Whereas:

- EH = Number of eligible households in a municipality, as defined under Wisconsin Administrative Code NR Chapter 544.04(4), which will be identified by the Municipality's January hauling invoice from the SWC or, if not available, according to the County's GIS system
- F=MRF ~~fund~~Fund Working Capital floor
- B=Balance of the MRF Fund Working Capital as defined by Section 3(a) of the Agreement and Exhibit A, Sec. 1
- TH = Total eligible households from all participating communities in the County's RU, as defined under Wisconsin Administrative Code NR Chapter 544.04(4), which will be identified by the municipalities' January invoices from the SWCs or, if not available, according to the County's GIS system.

EXHIBIT B

Collection Contract Compliance Items Related to Waukesha County's Municipal Recycling Dividend Program

The Contractor shall comply with the provisions below, which are required to maintain eligibility for payments from Waukesha County ("County") through an intergovernmental agreement (IGA) with [insert Municipality name] or Local Unit of Government ("LUG"). In case of conflict with other provisions of this Contract, this Exhibit shall prevail.

A. Recycling Container Provisions

1. Recycling Container Standards. All recycling containers shall be for single sort recycling and shall meet County standards for in-mold educational labeling, identifying recyclable and non-recyclable/hazardous materials. All containers shall have a 10-year warranty.
2. Distribution and Use of Recycling Containers. Contractor shall, by the dates specified in this Contract, distribute recycling containers to each household/unit served under this Contract. Contractor shall ensure these containers are only used for recycling. Contractor shall notify any non-complying household/unit at the time non-compliance is observed, and shall track and report a summary of non-compliance to the LUG monthly.
3. Distribution of Educational Materials. Contractor shall attach educational materials to the top of each recycling container upon delivery of the containers, as noted above. The educational materials will be provided to the Contractor by the County at no cost to the Contractor.
4. Contractor Report on Containers. Contractor shall provide the County an annual (calendar year) report by March 1 each year on the number and size(s) of recycling containers used within the LUG, including the number of households/units.

B. Direct Haul Provisions

1. Direct Haul. Contractor shall deliver all recyclable materials collected under this Contract to the Joint MRF at 1401 W. Mount Vernon Ave., Milwaukee, WI.
2. Delivery Protocol. Contractor shall coordinate delivery times with the City of Milwaukee and the Joint MRF operator (i.e., Republic Services) to maximize efficiencies at the truck scale and tip floor and minimize traffic back-ups. For all recyclable deliveries to the Joint MRF, Contractor shall comply with the County Protocol, which is subject to periodic updates to meet the stated intent.
3. Record Keeping and Reports. Contractor shall keep records and provide all requested data and reports to the County as needed to administer the IGA and maintain compliance with applicable state or local codes, program rules, and the protocol for delivery of recyclables to the Joint MRF. This includes, but is not limited to, providing up-to-date information on haul routes, collection days and times, and vehicles used to collect recyclables.
4. Alternate Processing. In the event the Joint MRF is unable to accept recyclables the Contractor shall deliver recyclable materials to an alternate location for a designated time, as directed by the County. [Note: Any additional transportation and processing costs will be covered by separate contract with the County or the Joint MRF operator.]

CITY OF PEWAUKEE
PUBLIC WORKS COMMITTEE AGENDA ITEM 8.1.

DATE: September 22, 2022

DEPARTMENT: PW - Streets

PROVIDED BY: Magdelene Wagner

SUBJECT:

Discussion and possible action regarding an update and a tour of the new DPW Building.

BACKGROUND:

The Public Works Garage Facility is moving along nicely. The floors are poured and sealed with the exception of the truck wash bay. The electrical, plumbing, and mechanical are 90% complete in the building. Windows are starting to be installed and insulation will be started soon. Drywalling will be following shortly. Curb and gutter have been installed and paving will occur the first week of October. We are looking at possible occupancy to be late October or early November.

Committee member Kreiter requested a tour of the new DPW Building. We would be happy to give a tour of the building once we get a little further along with the interior and it is safe to do so. It is our plan to have a Community Open House for the new garage as well. This will likely be in the Spring.

FINANCIAL IMPACT:

RECOMMENDED MOTION: